Renovation of an urban plaza and users’ satisfaction:
a case study of a downtown plaza in Guarapari (ES, Brazil)

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Guarapari, a tourist town of 105,116 inhabitants on the coast of Espirito Santo, Brazil, is facing several urban interventions aiming at improving the quality of its public spaces, the image of the town and the quality of life of its inhabitants and tourists. Several projects are under way and one of them, the renovation of an urban plaza located in downtown, was opened to the public December 2006. A study was conducted to examine the whole process of renovation of this plaza. The issues investigated concern the users’ expectations, perceptions and satisfaction with the new plaza; the perceived effects of the implemented design on their use of the plaza; and their participation on the design and construction phases. Observations and open-ended interviews were conducted in several days and at different times of the day. Interviews involved conversations with users and passers-by of various ages; with tourists, residents, and business owners of the plaza’ surroundings. Results show that, although the plaza continues to be heavily used, the design concept developed and implemented could have been more effective if public consultation had occurred before or during the design phase; specific groups present high levels of dissatisfaction with its program, materials, planting and some of the design features.

Keywords: plaza, urban public space, Guarapari, renovation.
Introduction

Squares and plazas have always been important elements of urban life. Once a place that congregated economic, political and cultural activities, as in the Greek agora, squares have evolved, and so have their uses and forms. In the 19th century, with the rise of the industrial city, rapid urban growth, and new transports and communication technologies, the very nature of urban life and consequently of public spaces changed drastically.

In recent years, in face of the deterioration of city life, public spaces have started to be approached as an important element of urban form upon which the municipality can act to achieve social, ecological, and economic sustainability of cities.

Public spaces are considered to play many important roles. First, public spaces are “expected to act as an infrastructure to social life” (Madanipour 1999, 884). Second, by providing places for people to get in contact with nature in their daily routine plazas contribute to the overall psychological and physical health of city dwellers (Kaplan e Kaplan 1989; Del Rio 1990; Chiesura, 2004; Ward e Thompson, 2002; Romero, 2001; Kuo et al, 1998; Coley et al, 1997; Martins, 1996; Spirn, 1984). In a fast pace lifestyle, urban squares have become a place where to go to get away from the stress of contemporary life, and to be close to nature. They are also important leisure places. In fact, urban public spaces are being considered more important than ever to city dwellers, as families are getting smaller, the working hours are shorter and the number of retired people is growing (Gehl in Cooper Marcus 1989). Contact with nature provided by open spaces also provides educational opportunities for city dwellers (Chiesura, 2004). In addition, open public spaces have an important environmental role. Vegetated squares and plazas contribute to the overall green coverage and to stormwater management and natural drainage, allowing the creation of green urban corridors, and reducing the heat island effects.

According to Madanipour (1999) this re-enchantment with the possibilities of urban public spaces fits well with the change of economic base from industries to the service sector. In this way, the recent promotion of public spaces, of which the cities of Berlin and Barcelona are good examples, can work as a means of marketing localities for the new tourism industry.

In the State of Espirito Santo, many municipalities, conscious about the importance of the quality of public urban space not only to tourism development but also to the quality of life of its inhabitants, are undertaking programs of urban requalification, usually as a result of Local Agenda 21 guidelines. For instance, the municipality of the city of Vitoria, capital of the state, is undertaking a series of actions aiming at improving its public spaces. Recent examples are the development of an online database of all city squares and plazas (Botechia and Jorge, 2007) and the funding of research projects such as the Urban Green Corridors (Penteado et al, 2006).

Similarly, Guarapari, a tourist town of 105.116 inhabitants on the coast of Espirito Santo, Brazil, is facing several urban interventions aiming at improving the quality of its public spaces, the image of the town and the quality of life of its inhabitants and tourists. Several projects are under way and one of them, the renovation of an urban plaza located in downtown, was opened to the public on December 2006.

It is important to check how effective the projects have been in achieving their objectives, which should be to contribute to the social and ecological sustainability of Guarapari, besides the economic marketing of town, and in this way, affect the overall quality of life.

Objectives

This study was conducted to examine the whole process of renovation of this plaza. The issues investigated concern the users’ expectations, perceptions and satisfaction with the new plaza; the perceived effects of the implemented design on their use of the plaza; and their participation on the design and construction phases. These issues are examined in two ways: by reviewing the literature on urban plazas and by reporting on interviews and observations.
Context

Guarapari is a tourist town on the coast of Espirito Santo, Brazil. It is located 51 km south of Vitoria, the state capital. In 1991 the municipality has become part of the metropolitan region of Vitoria (CETURBGV 2007) (see Fig. 01).

Figure 01 – Map of the state of Espirito Santo with the municipality of Guarapari painted in red. Source: [http://commons.wikimedia.org/wiki/Image:EspiritoSanto_Micro_Guarapari.svg](http://commons.wikimedia.org/wiki/Image:EspiritoSanto_Micro_Guarapari.svg)

Guarapari has its origins in the late 1560s with Jesuit priest José de Anchieta. The place was originally inhabited by native Indians and had a huge population of Guara, an Indian denomination for a reddish heron. Their presence in the region and the trap the Indians used to catch these animals – pari – formed the name of the town (Vargas and Alvarez, 2006).

The town started to be nationally known for its monazite sand in the 1930s when a physician doctor discovered the medicinal effects of the sand’s radioactivity. Its presence has granted the town the nickname of Health Town.

Until the 1950s Guarapari was a calm town whose main economic activities were fishery and sand extraction; today it is tourism and fishery. According to the 2005 Census, Guarapari is a town of 105,116 inhabitants (IJSN, 2007). During summer time, its population grows substantially.

In the last 20 years Guarapari has had an uncontrolled urban growth and its tourism has declined (Vargas and Alvarez, 2007). As a result, in 2005 a joint effort between the state – through SEPES, the Especial Projects State Secretariat – and the municipality with participation of civil associations, launched the Program for Tourist Renovation of Downtown Guarapari. The program aims to recover the image of the town and improve tourism by improving the quality of its public spaces, and by an educational campaign to inform the residents about the importance of tourism for its economic development. According to the governor of the State, the program’s success relies on getting the participation of various stakeholders, including the population. Several projects are under way and among them, the
renovation of the Plaza Irineu Vicente, located in downtown. Its model and perspective was presented to stakeholders during the 5th Meeting of the Management Group responsible for the Program, in May 18th, 2006. (Governo do Estado do Espírito Santo, 2007a) (see Fig. 03).

Plaza Irineu Vicente

The plaza is located in the downtown area, surrounded by commerce and banks (Fig. 02). It is close to the Castanheiras beach and near the first church of town. It was heavily used before the renovation, and continues this way after the renovation. It has a few trees and flower beds, but it is mostly paved. The plaza is famous among the residents for the traditional seresta, an outdoor-type of ball-dance meeting held every Friday night.

According to the Program Coordinator, Maria José Senna Martins de Almeida, the project for the plaza included new gardens and places for leisure and social interaction. (Governo do Estado do Espírito Santo, 2007b). The renovated plaza was opened to the public December 2006.
Theoretical Background on the Design of Urban Plazas

Phenomenological, anthropological, and sociological approaches began to be applied to design practices in the 1960s, to counter the modernist functionalist approach, opening up the boundaries of the design disciplines to other disciplines such as anthropology, sociology, philosophy and geography. Unfortunately, each approach tends to emphasize only one aspect of place, that is, either physical features, interaction, or meanings\(^1\) (Leach, 1997). Attempts to merge psychological, cultural and sociological approaches to place started in the 1980s and further flourished during the 1990s (Harvey, 1993; Thrift, 1996).

In the discipline of geography, Agnew, among others, argued that “… local social worlds of place (locale) cannot be understood apart from the objective macro-order of location and the subjective territorial identity of sense of place” (Agnew, 1993:263). The discipline of Geography, with its varied areas of enquiry, exemplifies the problems faced by most studies of place. Agnew asserts that the classic problem geographers have in trying to understand place is that each of the three elements is the focus at one and the same time, and ‘rarely have been brought together’: “…economic geographers have tended to emphasize location; cultural geographers have been centrally concerned with sense of place; and a few humanistic geographers have concerned themselves with locale” (Agnew, 1993:263).

Onaran and Sancar (1998) argue that the counter reaction to modernism in design can be divided into three streams: place paradigm (Norberg-Schulz, 1980; Alexander et al, 1977 and Alexander, 1965); sustainability paradigm (McHarg, 1969); and participation paradigm (Forester, 1989; Friedman, 1987; Jacobs, 1961). Recent studies have tried to adopt a transdisciplinary approach (Caser, 2002), which is considered by many authors the only way to really deal successfully with the complexities of the urban form (Maruani e Amit-Cohen, 2007; Vanautgaerden, 2007; Opdam, 2006).

MacHarg (1999[1969]) was the first to propose a methodology of analysis that takes into consideration the natural processes. On the same line, landscape architects Lawrence Halprin and Anne Spirn are committed to express nature’s values on their designs (Cooper Marcus, 1989). Spirn (1984) describes the urban ecosystem and specifically how urban open spaces can contribute to the ecological sustainability of cities. Other authors, in the field of landscape ecology points to how vegetated open spaces can contribute to natural water drainage (Ferguson, 1998), for the creation of urban green corridors and to reduce the heat-island effect (Spirn, 1984). In Brazil there are examples of such initiatives at the municipal level. In Florianopolis (Pilotto e Afonso, 2004) and in Vitoria (Penteado et al, 2006) studies were developed to investigate the viability of implementing green corridors, with plazas and parks working as nodes in the green structure.

For authors in the field of human-environment relationships, the satisfaction of user’s necessities should be the measure of a good quality design (Del Rio, 1990; Appleyard and Jacobs, 1987; Lynch, 1981; Lerup, 1972 in Del Rio, 1990). For Moore (1977 in Del Rio 1990), a good project should attend three different types of users’ necessities: visual, functional, and behavioral.

There are studies on visual preference (Center for Livable Communities, 1995) and others that deal with the specific necessities of the elderly and the handicapped (Dorneles e Bins Ely, 2006). Other line of research studies the conduct of specific groups of people in certain spatial situations (Whyte, 1979), such as children in playgrounds (Cooper Marcus and Francis 1998), and women on public spaces (Mozingo, 1989).

These studies often suggest indications of how to design open spaces. An example is the book People and Places by Cooper Marcus and Francis (1998). In it is presented a list of recommendations for various types of urban spaces and its various parts: equipments, size, visual complexity, circulation and boundaries and limits. In the field of environmental

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\(^1\) Although human geographers, psychologists and phenomenologists employ different approaches to place, they all tend to identify similar ‘components’ of place. In doing so they arrive at quite similar ‘theoretical models of place’ (Gustafson 2001; Groat 1995; Sime 1986), usually comprised of a tripartite of elements: physical features, activities, and meanings.
psychology Kaplan et al (Kaplan et al 1998) present project guidelines to promote spaces that provide “prospect and refugee” places, considered an important characteristic of good quality open spaces.

In fact, more than a century ago, Sitte (1986) stated that the prerequisite for a successful public square was the close relationships between its center and the buildings around it, which should enclosure it, creating closed vistas from any point within the plaza. This notion of enclosure returned to urban design after years of Modernist design, with its privileged vast open spaces (Madanipour, 1999), a typology that abounds in Brasilia’s open spaces.

From the 1960s and on many authors have come to endorse Sitte on the requirement of buildings enclosing public places, among them Lynch (1960 and 1981), Cullen (1961), and Appleyard and Jacobs (1987) among others. For Lynch (1960), public spaces like squares are the nodes of cities, responsible for their imageability and consequently its good quality. For Appleyard and Jacobs (1987), public spaces should present itself as a “readable story” to all its citizens, and should offer livability, identity and opportunities to all groups (1987, 116).

Some authors investigate the importance of vegetation to promote social interaction in inner city spaces. In this line, Kuo et al (1998) examine how tree density and grass maintenance help increase preference and sense of safety and foster social interaction in inner city neighbourhoods by creating sociopetal spaces. Coley et al (1997) examines how the availability of nature in outdoor spaces promotes social interactions in social housing projects.

In a research that combines elements of sociology, environmental psychology and environment-behavior studies, Caser (2004; 2007) complements Bourdieu’s2 concept of objectified social capital3 to describe the different ways by which the built environment constraints or engender social interaction. The objective in developing this theoretical framework was to point to the various practices that different groups have in open spaces; of how the habitability and accessibility of urban open spaces depend upon not only physical barriers but also psychological and socially internalized barriers (habitus). Caser (2006) proposes a methodology for landscape architects to use in reading a landscape so to take into account the various social groups.

According to Hester (1989), as designers we (architects, landscape architects) need to become more attuned in expressing the social values of all, including nature, and with special attention to the values of those who cannot speak or are not empowered to do so, if what we want is to create more than superficial and merely decorative spaces. In his own words: “Landscape architecture is divided between serving the haves and the have-nots. For the lower social classes the landscape can provide a financial resource for place-appropriated economic development; the upper classes yearn to reconnect with the landscape and natural processes from which they are divorced” (Hester, 1989, 69).

In this way, Hester (1989) present a sounding argument for consulting the user so the spaces created become meaningful and in fact accessible to all. The Adams Group (Adams 2002) and Project for Public Spaces–PPS (Kent e Madden 2003) are examples of this practice. For them, the socialization should not be exclusively sought after through design

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2 Pierre Bourdieu, a French sociologist, presents a comprehensive theory capable of informing a critical design practice to transcend disciplinary boundaries in the study of place in the design disciplines (Gieryn 2002; Dovey 1999). Bourdieu’s theorization specifically seems relevant for linking these three dimensions of place - context, human activities, and meaning - through his concepts of habitus, field and capital and their links to habitat, a term Bourdieu uses to encompass both the social and physical spaces. For Bourdieu, physical space, constitutes a medium that helps visualize social structures and works as a medium to grasp “…the structuring structures which, remaining obscure to themselves, are revealed only in the objects they structure” (Bourdieu 1977:90).

3 Social capital, generally described as social networks that can be used for the owner’s benefit, has been used in recent years as a way to understand and deal with issues related to community sustainability. Bourdieu’s critical approach to social capital is an analytical tool (Berenholdt and Aarsæther 2002) that aims to work as an instrument to unravel power structures (Swartz 1997; Dovey 2002). In this way, Bourdieu’s social capital emerges as an important asset to a responsible and responsive design practice aware of the ideological implications of built form. Still, Bourdieu himself has not developed the concept of social capital as thoroughly as he did cultural and symbolic capital.
solutions but foremost be engendered through a participatory process of design (Kent e Madden 2003). In addition to PPS’s techniques there are other sources that deal with how to implement the participation of all in the design process (Center for the Livable Communities 1995). In this line, Scott et al (2000) explicitly relate sustainability of communities to their ability to accept the ‘other’:

We highlight the need to examine the multitude of competing voices in a particular locality if ‘sustainability’ is to be about anything other than maintaining the status quo and entrenching current patterns of inequality (2000:434).

Many authors have dealt with how to achieve better city quality of life by a good design of public places. Most have addressed specific aspects of place, while a few have tried, in recent years, to integrate disciplines in order to better respond to the complexities of public open space design. Ward Thompson (2002) insists on the role open spaces should play in the 21st century: “….serve both human needs and the broader ecological framework of urban open space structures” (2002, 59). In order to accommodate both the physical and psychological needs and the ecological requirements it is mandatory for designers of urban open spaces to equip themselves with tools from the disciplines, briefly described above.

Methodology

Primary data have been collected through semi-structured interviews and observations conducted on weekdays and weekends, in different hours of the day, and in different parts of the plaza, between January and April 2007. Interviews were conducted among visitors of the Irineu Vicente plaza, who were randomly selected. Business owners were also included. Children have not been included up to this point of research.

People approached were first informed about the research’s objective. The questions addressed a broad range of issues, including expectation about the renovation, participation in the process, comparison between uses in the old and the new plaza, the disliked features and the liked ones, perception of environmental features, etc.

The main interest driving the data analysis was to unfold people’s thoughts and perceptions in a qualitative way. The interviews were interrupted when the answers started repeating. In total 28 people were interviewed; 15 men and 13 women.

Results

The Irineu Jose Vicente plaza was opened to the public on December 21st 2006, for the summer vacation. The plaza is not completely finished to this time (May 2007). In January the plaza still did not have proper lighting fixtures. The playground was opened to the public only for the Easter holidays, in April 2007. It was only around that period that the lighting fixtures were installed, but their functioning was still intermittent. The relocation of the 2 newsstand to the center of the plaza has not happened because of complaints yielded by a group of residents.

The renovation has presented some good changes to the plaza: it was added more green areas (parking spots were reduced), in which were introduced one species that attract butterflies, and a playground. Elevated flower beds with contrasting colors from the floor are assets for the elderly and vision impaired.

Nonetheless, the renovation plan has faced complaints from residents, which resulted in some changes in the original plan. The observations yielded results on issues related to boundaries, user distribution and location, circulation patterns and lacking or problematic features.

Boundaries

It is a plaza that conveys the sense of enclosure so dear to Sitte (1845[1889]). It has a thriving commerce comprised of banks, drugstore, bakery, bars, and boutiques functioning during the day and evening, and a 13-storey residential building adjacent to the plaza (Fig. 04).
Figure 04 – Boundaries

Source: Karla Caser, Dorieli Fornacieri and Antonio Neves.
User distribution and location

The plaza appears to have 5 sectors with different uses: the sitting area under the trees, the benches in front of the residential building adjacent to the plaza, the playground, the benches facing the beach, and the central circulation corridor (Fig. 05). The concrete tables in the sitting area provide room for a variety of activities: read the newspaper, rest during lunch break or while running errands, but mostly by retired people to play games all day long, with an increase in use during the afternoon and early evening (Fig. 06). Game players tend to concentrate on the corner that has the concrete benches around it; the tables close to the benches of the residential building tend to be used for picnics organized by the building’s residents, and for consumers of a bar located on the ground floor of the building (users bring movable tables and chairs from the bar).

Circulation patterns

The plaza is heavily used as a route to the beach, and work as a circulation node for pedestrians in the downtown area. The main circulation patterns are described in Fig. 07. Some problems were noticed in two exits: the one facing the drugstore does not conform with the cross walk; and the exits on both sides of the residential building become too narrow for the amount of people on weekends, due to the proximity of benches, tables and phone booth (Fig. 08).

Lacking or problematic features

In April 2007 the plaza still did not have any garbage bins and lighting fixtures for the palm trees, and the lighting fixtures installed has not been working on a regular basis. Although measurements were not taken, it seems that the plaza is over illuminated even though all the light fixtures are not in place. This may cause impact on adjacent apartments and eventually on avifauna. In addition, there are problems related to functional standards: the swings do not keep a safe distance from the benches in the playground and there are conflicts between the phone booths and the flower beds (Fig. 08). The benches in the playground work as steps for small children to escape from the playground.

Moreover, there are problems related to needs of impaired people. First, all fixed tables and chairs do not provide room for wheelchair users to be accommodated. Second, the phone booths do not present tactile pavement. Another really disturbing problem was to find one toxic species (Nerium oleander) planted nearby the playground. ⁴

It was observed that flower beds were used as benches in various points of the plaza, which indicates the need for more benches in and around the plaza (Fig. 06 and 09). Flower beds could be designed in a way so they could be used as benches (Cooper Marcus and Francis 1998). The bicycle racks installed do not provide a safe lock for bicycles, which has caused cyclists to lock theirs to lamp posts (Fig. 08).

Informal vendors of coconut water and fruits were observed at the entrances/exits of the plaza (Fig. 09). Their presence in such strategic places brings conflicts to these already problematic areas. Informal vendors in public spaces are a reality in Brazil but they are hardly ever acknowledged in the design of open public spaces as they should be (Hester 1989).

The interviews reiterated and complemented the observations and yielded information on user’s preferences and participation. Twenty-eight (28) people were interviewed: 13 women and 15 men. All observed that they enjoy being at the plaza for a variety of reasons and to perform various activities: relax, play games, dance, eat, talk to and watch other people, and escape the indoor heat of small-size summer apartments. Most of the interviewees appreciate the municipality’s effort to accommodate the kids in the plaza and the new fixed tables (as a way to deal with the stealing of the old movable ones).

⁴ According to the Fiocruz website, all parts of the plant are toxic. Ingestion or contact with latex may cause burning in the mouth, salivation, nausea, vomit and heart disturbs that may lead to death. http://www.fiocruz.br/sinitox/espirradeira.htm
Figure 05 – Sectors
Source: Karla Caser, Dorieli Formacieri and Antonio Neves.
Figure 06 – Activities
Source: Karla Caser, Dorieli Fornacieri and Antonio Neves.
However, the elderly are extremely resentful about not being asked about their necessities: in the new plaza they see no room for their *seresta*, the dancing meeting on Friday nights. Actually, they initially thought the place reserved to the newsstand was for the band stand; they believe the plaza might get too crowded when the newsstand move into the inner square. In April some residents were preparing a petition to present to the municipality with their complaints and suggestions for the plaza.

In fact, it was the interference of local residents and regular users of the plaza that has changed parts of the design. The first change was related to the sector close to the building adjacent to the plaza. When the plaza was opened to the public the building’s residents and retail owners were surprised to find themselves isolated from the plaza: the benches and flower beds permitted no direct access from the stores and building entrance to the plaza. Another problem was the use of Gaudi-like mosaics on benches and flower beds. They were not properly installed and had caused injuries on users of benches; also they were perceived as a cheap material (in Brazil it is traditionally used and associated with low income residences) not appropriate for an urban plaza. In both cases the users have been successful in getting these problems fixed by contacting city officials and representatives (for a comparison see Fig. 02 and 07).

Another problem occurred also in January 2007: the drainage system presented problems and it had to be re-built. As a result, the plaza’s floor was then under construction again in the middle of the summer. Criticisms were leveled at the contractor because the plaza was still under construction four months after it was officially opened to the public; at the municipality, because it had no garbage bins and no regular lighting; at the designer for not considering the needs of all users. One interviewee criticized the specification of toxic plants.

Overall, these initial problems seemed to have created a strong discomfort among permanent and summer residents who use the plaza daily, which might have fueled their initiative to write a petition to the municipal government. Residents who do not use the plaza...
on a regular basis and tourists have expressed a more balanced opinion on likes and dislikes about the plaza.

Figure 08 – Problems
Source: Karla Caser, Dorieli Fornacieri and Antonio Neves.
Concluding Comments

Results show that, although the plaza continues to be heavily used, the design concept developed and implemented could have been more effective. Specific groups present high levels of dissatisfaction with its program, materials, planting and some of the design features.

Although the renovation presents improvements, such as the increase in the green area and the playground, the problems far outweigh the benefits. Problems occurred in the inventory and analysis phase: an incomplete analysis failed to account for the urban context of the plaza (in the perspective the 13-storey building does not exist), for the activities that were previously performed in the plaza (seresta), and for the variety of users’ groups that use the plaza on a daily basis (haves and have-nots).

Problems were also present in the final product: some of its equipments and fixtures fail to conform to basic technical standards (phone booths, swings, drainage), not to mention its planting. The lack of equipments, such as garbage bins, is also a problem for its users. In addition, the incompleteness of the construction causes discomfort and also presents safety risks to the users.

Furthermore, public participation has not occurred as it was supposed to happen, according to the objectives of the Program for Tourist Renovation of Downtown Guarapari. If public consultation had occurred in the analysis and during the design phase, the problems identified would surely be of less concern.

Overall, this case study shows that in Brazil there is a long distance between theory and the design praxis, and a long way for the design of urban plazas to effectively help the social, ecological and economic sustainability of cities.

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