

Design for territorial development in emerging economies: Brazilian experiences of research and teaching

Design para o desenvolvimento territorial em economias emergentes: experiência brasileira de pesquisa e ensino

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Abstract

Design contributions to territorial development are being recognized more and more. Various theoretical and applied studies, mostly conducted in the European ambit, have permitted discipline specialization in the elaboration of territorial designs. The present article aims at evaluating the territorial design knowledge and knowhow system that is being constructed in Brazil. Therefore, we will present the results of the study of three Brazilian experiences. This investigation shows difficulties and opportunities that are inherent to the Brazilian context, characterized by social and economical dynamics that are rapidly changing. The main result of the study is a set of challenges that the Brazilian scientific community has to face in order to improve the territorial design in Brazil and contribute to the international debate with original elements.

Key words: territorial design, territorial development, emerging economies, research, teaching.

Resumo

A contribuição do design para o desenvolvimento territorial tem sido cada vez mais reconhecida. Diversos estudos teóricos e aplicados, conduzidos principalmente em âmbito europeu, permitiram especializar a disciplina na elaboração de projetos territoriais. O presente artigo visa avaliar o sistema de conhecimentos e competências de design territorial que está sendo construído especificamente no Brasil. Para tanto, apresentaremos os resultados do estudo de três experiências brasileiras. Esse estudo releva dificuldades e oportunidades que são intrínsecos ao contexto brasileiro, caracterizado por dinâmicas sociais e econômicas em rápida evolução. O principal resultado deste estudo é um conjunto de desafios que a comunidade científica brasileira deve enfrentar para aprimorar o design territorial no Brasil e para contribuir com elementos originais no debate internacional.

Palavras-chave: design territorial, desenvolvimento territorial, economias emergentes, pesquisa, ensino.

Introduction

Globalization has been highlighting the central importance of territories and the investigation and elaboration of their development models. In the last two decades, territorial development has become an object of great interest for several actors: institutions that govern them,

stakeholders, organizations that act in them and their inhabitants.

In the current market globalization process, territories are seen as “enemy territories” that need to take a stand, trying to build and keep strong and differentiated markets. If small towns already suffered with the migratory process, which occurred in the middle of the

twentieth century, missing out in terms of economy and population for the big cities, today the migratory problem is of planetary scale. Territories in different parts of the world try to differentiate themselves to strengthen their markets and guarantee economic, social and environmental sustainability.

From this context, this article deals with the contribution of design to territorial development in emerging economies, specifically focusing on the case of Brazil as the study ambit. By presenting the experiences that the Brazilian scientific community of design has been carrying out in the territorial range, this article aims at assessing the knowledge and competence system that is being built in this context. The purpose of this investigation is to depict and prospect the main challenges of design for territorial development, or synthetically, of territorial design.

The article begins with a theoretical review of the concept of territorial identity that is fundamental for all the studied projects. The perspective adopted in this analysis takes into consideration that the different components of the national identity mosaic are essential to implement territorial design in Brazil. It also should be taken into consideration that this mosaic evolves relatively fast if compared, for instance, with the European one. The Brazilian identity system, in fact, is less stratified and is subject to the strong socioeconomic tension that inevitably crosses an emergent economy.

The article continues specifically moving into the territorial development sphere, highlighting the bases for a contribution of design to the valorization of territories. In the second session, a review about researches conducted in Europe and which are determinant for territorial design will be presented, until it gets to the work that is being developed in the Brazilian ambit.

Successively, the research will be introduced, supplying methodological indications about the study of the considered experiences, and consequently three cases will be presented. In the discussion of these three cases, the challenges for territorial design that were prospected are pointed out. As a result of this investigation, central questions related to territorial design, which can be explored in the future.

The identity of territories as the main lever to their valorization

The concept of territorial identity has increasingly inserted itself as an object of reflection in many disciplines, especially those related to applied social sciences (such as economy, design and architecture), human sciences (geography and history) and agricultural sciences. The challenge of approaching the territorial identity in the range of analysis is related to the myriad of dimensions associated with identity and territory, characterizing them as polysemous concepts. With the purpose of narrowing down and offering evidence of the approach of this work, the following authors are quoted: Barjolle *et al.*, 1988; Berque 1990; Appadurai 1990; Dematteis *et al.*, 2000; Magnaghi 2000; Santos 2000; Fagnoni *et al.*, 2004; Castells 2002.

From the sociological point of view, as Castells emphasizes, all and any identity is built. According to the au-

thor, the main question would be "how, from what, why and to whom this construction happens" (2009, p. 23, authors' translation). This way, reinforces Castells, territorial identities would generate a feeling of belonging and a cultural identity dependant on the existence of participation in urban movements of sharing common interests.

Collective behaviors that are located in a territory and that distinguish themselves from others are also approached by Dematteis *et al.*:

The local system is not any part of a bigger system, for it has an identity that makes a distinction from the other systems. The subjects of the local system are aware of this identity and are capable of autonomous collective behavior [...]. The main function of a local system is not to produce goods and services, but to produce and reproduce itself. (2000, 88, authors' translation)

The social dimension of identity is evidenced by Magnaghi (2000, 148, authors' translation) when identity is defined as "a local, material and genetic code" and, still, as "a social product of territorialization" that "is constituted by the territorial patrimony of each place, economic, political, cultural and environmentally". According to this perspective, identity would be formed by buildings (monuments, infrastructure, cities, bridges, etc.), languages, myths and rites, religion and other elements that the author refers as "territorializing acts" of social and historical actors, stratified in a certain place, in which there is social and natural co-evolution.

Territorial approach refers to the concept of *terroir*, with origin in French, used to define a territory characterized by the interaction with man throughout the years, whose resources and products are strongly determined by soil, climate and cultural conditions. According to the French National Institute for Agricultural Research (INRA, 2002, authors' translation), the *terroir* can be considered as "a territorial being whose patrimonial values result from complex relations among cultural, social, ecological and economical elements that developed along time". This way, quoting Barjolle *et al.*, (1998, p. 10, authors' translation), a *terroir* consists of a complex geographic space, characterized by three perspectives: a territory with its climate and soil conditions; an environment of knowledge and practices; a group of local traditions and customs.

The notion of *terroir* is represented as an important counterpoint to the homogenization process represented by globalization. Indeed, the tension between cultural homogenization and heterogenization is pointed out by Appadurai (1990) as a central problem of the global interactions. The author shows that, nowadays, all localities would be "drawn" and, therefore, it would be necessary to identify the dynamics that orientate the daily productions of the locality, withdrawing a group of principles that can direct a strategy of sustainable design.

In this context, in which territories are obliged to prospect an external market as a way of reactivating their internal economy and of providing conditions of sustainability for internal markets in a relation of interdependence with the new emerging markets, Güell (1997, p. 48) calls the attention to some challenges: to the effect of

globalization that reaches cities regardless their scales; to the lack of instruments that reduce the social fracture; to the difficulty of small and medium sized towns with the development of information and communication technologies; to the lack of agility and readiness in the strategic management process.

Design for territorial development

From the considerations presented in the previous section, it is evident that “the territory does not exist in nature: it is a dynamic, stratified and complex success of successive civilization cycles; it is a complex system of relations between the resident communities (and their cultures) and the environment” (Magnaghi, 2000, p. 61, authors’ translation). In other words, our presence in a place, as well as the presence of people who came before us and people who will come afterwards, mark, evolve and develop it.

Therefore, it is understood that territorial development is a possibility that can be longed for and reached, and not a condition that distinguishes some territories from others. Consequently, the scientific interest related to the territorial theme, and specifically to territorial development, increases. In this arena, design makes its rich system of knowledge and project competences available. Design comes close, knowing that other areas have more tradition in the study and treatment of territorial matter, that to treat it, interdisciplinarity is needed and that its contribution is specialized: design provides the technology of project process for the development of the territory to be projected (Franzato, 2009).

These studies were applied in diverse research and project experiences, such as the one called “LEADER” (acronym of Liaison Entre Actions de Développement de l’Économie Rurale). Promoted by the European Union, it aimed at conceiving territorial development strategies especially towards rural territories regarding the challenge of globalization (Farrell, Thirion, 2001). Having involved many specialists from different areas and pertinent to different research centers in the whole Europe, the LEADER experience is a demonstration of the plurality of points of view necessary to proceed in the territorial development.

Many theoretical and applied researches were also conducted specifically in the design area. To our scopes, it is significant to quote the research ME.DESIGN, developed by a network of Italian universities whose objective was the study of the contribution of design for territorial development. This research focused specially on the strategic and methodological approaches of design to deal with the territorial realities in Southern Europe (confront Castelli *et al.*, 2005; Fagnoni, *et al.*, 2004).

Despite being determinant scientific milestones, these researches have been developed in developed

countries along time from their background to the application in their countries.

In these emerging countries, however, the question of territorial development should be inserted in another system of issues and opportunities. In these countries, consequently, design should develop its own construct of theories and practices that can enable to improve its contributions in the special ambit of this system.

Especially in Brazil, due to its wealth in terms of cultural diversity and biological resources, the debate about the valorization of the territory is crucial. The necessity to develop strategies to protect and value the plural knowledge and the natural resources, looking for transformation and renovation alternatives, represents a great responsibility and constitutes a challenge for researchers and professionals (Krucken, 2009). In this context, it is a great challenge to channelize (acknowledge and latent) strengths present in the territory and support a proactive behavior versus the collaboration and integration of local interests, in a way that the innovations are accomplished and bring collective benefits. In this sense, the local products can also be considered cultural manifestations, strongly related to the territory and the community that produced them. They involve, therefore, material, immaterial, tangible and intangible goals that comprehend the cultural patrimony.

It is opportune to point out two documents that represent normative frameworks for the development of the territory through its identity expressions, and an indispensable reference for the operations of territorial design. The first one is the Convention for the Safeguarding of the Intangible Cultural Heritage of the United Nations Educational, Scientific and Cultural Organization (Unesco, 2003), that constituted the basis for the development of the Brazilian legislation associated with the theme. According to this convention, are part of the cultural patrimony: the specific ways to create and make (the findings and the genuine processes in science, arts and technology), the referential construction and exemplars of the Brazilian tradition – immovable and movable goods¹ –, the immaterial creations (literature, music), the expressions and ways of living (languages, customs), places gifted with expressive value for history, archeology, paleontology and science, as well as landscapes and areas of environmental protection of fauna and flora.

Another important document is the “Plano Nacional de Promoção das Cadeias de Produtos da Sociobiodiversidade”² (Brasil, 2008), developed from an innovative initiative conducted by diverse Brazilian ministries, with the participation of representatives of the producing communities and the scientific academy. This reference is especially meaningful for the mega-biodiverse countries, as highlighted in the approach proposed by Krucken (2009), due to the centrality of the biodiversity resources for the economical development and the cultural identities in these contexts.

¹ Under the form of material goods, patrimony is divided in two basic groups:

- Immovable goods such as: houses, churches, public buildings and buildings singly and in their set, to guarantee their visibility and fruition. In this roll are included the historical nuclei, the urban and landscape sets, areas of environmental protection, important milestones as references to social life;
- Movable goods that comprehend works of art, handicrafts, furniture and utilitarian objects.

² By “products of sociobiodiversity” it is understood “goods and services (final products, raw material or benefits) generated from resources of biodiversity, addressed to the formation of productive chains of interest of the traditional people and communities and of familiar agriculturists, which promote the maintenance and valorization of their practices and knowledge, and ensure the deriving rights, generating income and promoting the improvement of their life quality and the environment where they live” (Brasil, 2008).

Research Method

The research starts from a set of territorial design experiences developed from the collaboration between researchers of Brazilian universities and institutions. We chose this academic approach because we intend to evaluate the construction process of an organic system of knowledge and competences in territorial design and its transfer to future professionals.

We performed a multiple case study, considering theoretical and applied researches, technical works, didactic activities and other academic experiences conducted between 2005 and 2011, especially in the southern and southeastern Brazilian regions. All the projects directly involved at least one of the authors of this article.

The different nature of the projects was considered inherent to the territorial ambit that enables multiple project approaches and strategies of activity conduction. With the goal of prospecting the challenges of territorial design in Brazil, we did not try to compare characteristics of the diverse cases, but to relate common problems and opportunities that characterize the performance in this emerging country.

The cases were written by the same authors involved in the experiences, following a specific script. After writing the cases, they were first analyzed by the authors separately, with their own system of references, and then in collaboration. The discussion of the cases is based on the triangulation of the various positions in face of the results.

Academic experiences of territorial design in Brazil

To elaborate this article, three experiences were selected: the applied researches "Biodiversity resources in the Atlantic forest" and "Carlos Barbosa 2030 Agenda", and the theoretical research "Cenários para o Vale dos Vinhedos". All of these experiences had consistent project activities involving didactic or research activities in Design courses.

These experiences are quite diverse among them and deal with very different territorial objects. They were not chosen to evidence contrasts among them, but because they offered a lot of stimuli for debate. Through these experiences, it was possible to prospect diverse challenges of territorial design in Brazil. The three cases are summarized subsequently, from the oldest one to the most recent.

Biodiversity resources in the Atlantic Forest (various locations during 2008 and 2009)

This research was conducted during the years 2008 and 2009, and it involved activities with the communities of locations in the Atlantic Forest, by means of collabora-

tion of the researches Lia Krucken with the German Technological Cooperation Agency (Deutschen Gesellschaft für Internationale Zusammenarbeit, GIZ). It is opportune to emphasize that this research was conducted as a transversal activity in the ambit of a governmental project³ developed by Rede Juçara, supported by the Environmental Ministry. In a subsequent phase, some activities related to the identification of the contributions of design for the valorization of resources and territories were also developed with the support of the State University of Minas Gerais.

One of the greatest challenges of this project was the amplitude of the territory being analyzed, condition that may be considered as a common characteristic of some territorial projects in Brazil.

The Atlantic Forest is the second largest Brazilian forest in extension. It is considered as one of the overriding areas for biodiversity conservation due to its high biological endemism and to the great risk of destruction of its environment (Myers *et al.*, 2000). The growing awareness of loss risk of the natural and cultural patrimony of this territory has been encouraging project development to support the local production and the traditions of the communities, as well as the valorization of the territory itself.

The Rede Juçara is an articulation of organizations and producers who work with the sustainable use of the Juçara palm tree (*Euterpe edulis*) in the Atlantic Forest Biome. One of the focuses of this network is related to the promotion of products of the socio-biodiversity (through the development of productive chains of fruit and seed pulps), allied to the conservation of the species. These resources and their products aggregate a set of activities, social relations, stories and rites, and assume strategic value, strongly contributing to the economy of the regions where they are produced.

Some of the main actions that the designer can support and develop to valorize territories and products of biodiversity that originate from them are presented in Figure 1. This scheme was adopted as one of the references for the research.

Specifically in this research, the main focuses were to identify the products and their qualities and to conduct critical analysis of the identity and tradition elements associated (actions represented in the stages 1 and 5 of Figure 1). The activities were achieved through the conduction of workshops for representatives of the twelve communities.

The first workshop was presented in 2008 in *Quilombo do Campinho in Parati (RJ)* and one of the results was the collective elaboration of Figure 2, in which roles and associations related to this plant and territory⁴ are highlighted.

The development of strategies of valorization of this species and its products along with the producers, consumers and society in general is essential (action represented especially in phases 3, 4 and 6 of Figure 1). The analysis

³ The governmental project N. 023-PRMA was supported in 2008 by the Environmental Ministry in pilot project for the Protection of the Rainforests of Brazil. The project "Sustainable use of the Juçara palm tree as a strategy to preserve the Atlantic Forest" had as component the Instituto de Permacultura e Ecovilas da Mata Atlântica - IPEMA and coverage área constituted by Osório, Riozinho, Rolante, Maquiné, Terra de Areia, Torres, Morrinhos do Sul, Baixada Sul Fluminense, Paraty, Angra dos Reis, Vale do Ribeira, Sete Barras, Eldorado, Litoral Norte, Vale do Paraíba, Ubatuba, São Luiz do Paraitinga.

⁴ The planting of Juçara palm tree is related to environmental protection through the conservation of soil and feed of the fauna, production of water and pollution control. This palm tree is considered as a key species of the ecosystem and is in the food chain of tens of birds and mammals, as well as of the animals that feed on them. Threatened of extinction, it has been an easy prey of illegal heart of palm collectors who rob the heart of palm. Nowadays, the Juçara palm tree is considered an icon to promote the sustainable management of natural resources and generation of income allied to the preservation of the Atlantic Forest.



Figure 1. Examples of design actions can contribute to innovation applied to territory (source: Krucken, 2009).

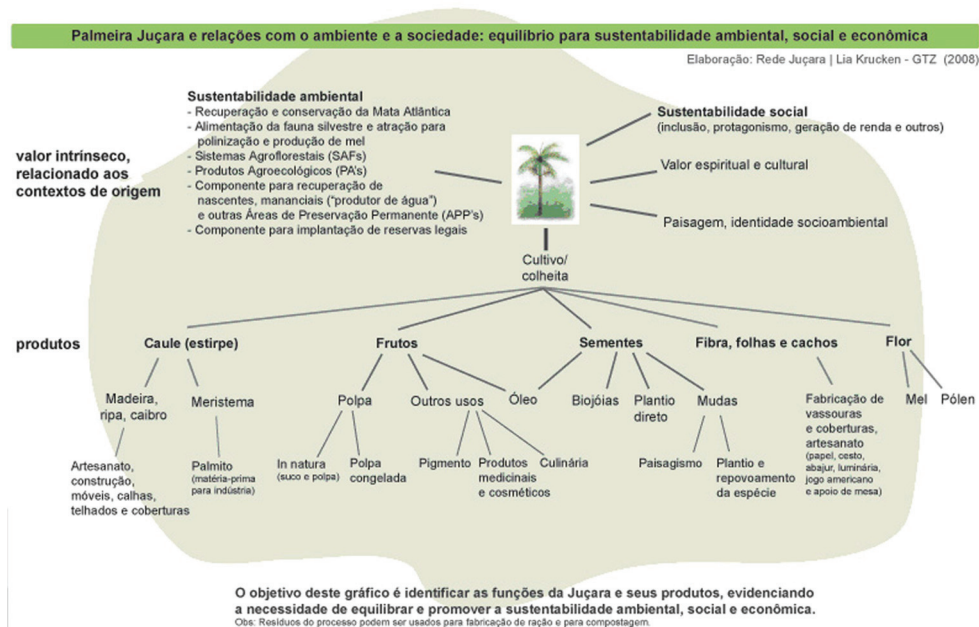


Figure 2. Relations of the Juçara palm tree with environment and society (source: Krucken, 2009).

conducted with the communities showed the possibility of working preferably with some products (fruit and seeds). In this sense, one of the activities done was the analysis of the value chain of the pulp of the Juçara palm tree and the identification of possible intermediation strategies.

Subsequently, a complementary research was conducted, focusing on the analysis of a) similar products and commercialization strategies, and b) communication of products of socio-biodiversity and derivatives of similar species, such as *açaí* fruit (Bahia, Krucken, 2010).

As synthesis, it is possible to highlight some of the main interventions of design in this phase of the project: a) the support to the development of collective representations (identification of elements associated to the Juçara palm tree, to the producing communities and to the territory of origin; map of the value chain of the pulp production) and b) the analysis of the strategies to make the product and the territory visible (identification of the identity elements associated with the natural and cultural patrimony of the territory, analysis of possibilities of

intermediation and communication, analysis of potential stakeholders in territorial projects).

Some general considerations about this initiative refer to the importance of: a) the protagonism⁵ of the inhabitant communities of the territory and their capacity of self-organization in search for solutions to valorize local resources and products, and this way, contribute to the preservation and valorization of the territory; b) the existence of support and fomenting lines for projects of this nature, which are characterized for being collaborative and collective. Indeed, one of the greatest challenges for the designer is the development of methods and instruments to interact in the development of solutions that approach products and territories simultaneously, in which stakeholders have multiple interests that need to be made compatible. Another important aspect refers to the kind of expected results from the conduction of territorial projects. Due to being very transversal and complex, the general evaluations of territorial projects are a challenge, as well as the identification of the specific results of design interventions (Celaschi, Krucken, 2010).

Scenarios for Vale dos Vinhedos (Bento Gonçalves, Rio Grande do Sul, from 2008 to 2010)

The theoretical research "Vale dos Vinhedos" was conducted from 2008 to 2010 at the Unisinos Design School, under the coordination of Professor Paulo Reyes, during his work in the Post graduation course in Design of this institution.

The Vale dos Vinhedos is located in Rio Grande do Sul, among the cities of Bento Gonçalves, Garibaldi e Monte Belo do Sul. It was the first region in Brazil to obtain the indication of origin for its fine wines.

The goal of the research was to think about the future of Vale dos Vinhedos, using the project methodology by scenarios developed in the design area. The project by scenarios consists in a methodology that deals with the uncertainty of the future environment and not with the evident predictability. Scenarios allow thinking about the future from the tensioning of diverse strategic resolutions. To Morin, from a pre-constituted view, the strategy enables "to predict certain number of scenarios for action, scenarios that shall be modified according to the information that will get tot He course of action and according to the chance events that will occur and disturb the action" (2005, p. 79).

The research talked to APROVALE, the association that administers this territory, created in 1995 from the union of six wineries, with the goal of reaching the indication of origin. In this process, the wineries invested a lot in mechanisms to improve the quality of the grapes, the wine and the infrastructure for wine tourism. The achievement of the indication of origin of Vale dos Vinhedos be-

came the guarantee of origin with quality. The title brings good advantages for viticulturists and viniculturists, and especially for consumers and visitors of Vale, who find a developing infrastructure of customer service, respect for nature and the tradition of colonial products, grapes and wine, fruit of the Italian tradition and culture.

From the data collection with users and local producers, resulted two axes that organize the scenarios. One, based on the "economic value of the territory", represented by its respective polarities "patrimony" and "speculation"; the other, based on the "cultural value of the territory", represented by its respective polarities "tradition" and "innovation".

The crossing of patrimony and tradition resulted in the scenario "familiar winery". This scenario represents the effective valorization of the territory by the local traditions with the effective stimulus of the government. The crossing of patrimony and innovation resulted in the scenario "technological winery". This scenario represents the insertion of technology and the knowledge of the local productive processes. The crossing of speculation and tradition resulted in the scenario "cultural devaluation". This scenario represents the effect of the high speculation in the local territory. The crossing of speculation and innovation resulted in the scenario "glamour". This scenario represents the advance of speculation investing in values out of the local tradition, changing the original territory. These scenarios are represented in Figure 3.

These scenarios should be read as an only process and not as antagonist situations. That said, we can think that if Vale dos Vinhedos received some kind of support that would benefit and stimulate the local culture, as value, two exits could be generated: the first, which keeps the colonist in his/her land and keeps the local tradition passing from father to son (familiar winery scenario); or, with the help of SEBRAE or universities, encouraging and forming new competences from the local values (technological winery scenario).

At the other end, we can think that if tradition is disregarded in relation to the high values of land investments, we can get to two complementary situations: the first, speculation corrupts local tradition overvaluing the land and transforming it into small farms for leisure or luxury condos for holidays (cultural devaluation scenario); in the second situation, speculation is invested in values that are totally unknown in the local tradition, producing contrary scenarios and realities without local recognition (glamour scenario).

The contribution of design is in two fronts: in the methodology that allowed the construction of these scenarios and in the constructions of derivatives that will feed the debate with the ones interested in the Vale dos Vinhedos.

Carlos Barbosa 2030 Agenda (Carlos Barbosa, Rio Grande do Sul, 2011)

The applied research "Agenda Carlos Barbosa 2030" was conducted in 2011 by the Unisinos Design School for the city hall of Carlos Barbosa (RS), under the guidance of

⁵ Other projects have been developed in an autonomous way by Rede Juçara and one of the main focuses has been the internal communication (with communities that live in the territory) and external one (with diverse public and society in general). The elaboration of a website as an interface of communication and contact, as well as the development of a dedicated magazine are examples of significant results reached by these communities in collaboration with their partners, such as the communication agency Coletivo Catarse.



Figure 3. Scenarios for the Vale dos Vinhedos (source: Reyes' research report, 2010).

Professors Fabrício Tarouco, Carlo Franzato, Fabio Parode and Leandra Saldanha.

Developed to aid the strategic planning of the city, this research's goal was the definition of development guidelines during the following ten years. Such guidelines should consider the current territorial context, the citizenship value system and its aspirations, besides the regional, national and global urban development tendencies. From the defined guidelines, the goals of the city for the next decade and the necessary actions to reach them were unfolded.

The researchers were divided in four teams, each focused in different territorial issues (infrastructure and services, sustainability, culture and demography). The teams worked in direct contact with the secretariats and other stakeholders about the considered issues.

The researches were interpreted during two project workshops along with students from the undergraduate, graduate and masters courses in Design. The first workshop focused on the exploration of the guidelines (well-being, culture, sustainability, technology and entrepreneurship) (Franzato *et al.*, 2011). The second workshop focused on the exploration of the goals and the relative actions (Tarouco *et al.*, 2011, p. 53-91). The network of goals (in green background) and actions (in gray background, with icons) was synthetically represented in Figure 4.

The main result of this experience was a report that included the researches, the description of the developed process, the guidelines and the action plans. (Tarouco *et al.*, 2011).

During the reflection about this experience, it became clear that the work was ordered by the city hall in a very special context: its administration had sensed the importance of thinking about the future strategically and in long term, but they did not have those specific competences.

In the research phases, it was given special relevance to specific aspects of the territorial capital of Carlos Barbosa. It was accentuated the difficulty of the local community to identify opportunities of economic and social growth supported in shared identity values (the city is of recent origin with Italian and German immigration in the second half of the 19th century, and has had municipal autonomy since 1959).

In the project phases, the designers were mainly inspired by more significant identity traces to detail the city's culture. After this was verified in the first workshop, the organizers of the second one started from the interpretation of the identity of Carlos Barbosa to get to the elaboration of an action plan and to the representation of these actions.

The visualizations elaborated in the project phases were useful to facilitate the intern dialogue to the work group with the interlocutors of the city hall. Anyhow, it was important to supply the dialogue with quantitative data. Despite having used an essentially qualitative strategy in this research, the quantitative analyses gave more confidence to the interlocutors.

After presenting the report, we can register that it was welcomed with interest by the city hall and interest bearers involved in the experience. At the same time, however, we still cannot evaluate its effectiveness. In this sense, there is the doubt that political turnover, surely natural in a democratic context, can become an obstacle for the use of the results of the research.

Discussion

From the analysis of the three presented cases, some challenges and opportunities in relation to the performance of the designer in territorial projects were raised and presented in the form of open questions.



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Figure 4. Network of guidelines and actions prospected in the research (Source: Tarouco *et al.*, 2011, 59).

They can be classified according to their nature, such as: technical (in relation to the approaches and intervention strategies) and contextual (in relation to infrastructure, local culture and politics and to the future vision of the territories). Besides that, the inherent challenges to the transversal ambit of territorial projects are highlighted, which can demand quite complex interactions with the diverse stakeholders during the project, amplifying the amount of time necessary for its accomplishment.

In relation to the technical challenges, the main questions resulting from the analysis were:

- How to promote the insertion of the design approach in the planning and territorial development dynamics?
- How can design make its competences available?
- Which would be the reading key for territorial design in Brazil? From which approach can past, present and future be considered in territorial design?
- How to evidence the results of investment in design in territorial projects?

In relation to contextual challenges, the following questions were raised:

- How to contribute to promote a strategic long-term view of the territory? How can we pass from the action in the present to the project of our future?
- How to transform the heritage of Brazilian participative politics in an efficient social technology?

- What are the peculiarities of the Brazilian system of interorganizational relations? What are the most appropriate governance models in the Brazilian context?
- How to contribute to develop a culture of preservation and valorization of the public space by part of the society? How to foment the use and sharing of common assets?
- How to promote the continuity of territorial projects along the political changes of governmental management?

These open questions constitute common challenges identified in the research and in the practice of territorial design. Advance opportunities are related to technical development by design, in terms of approaches, tools, interlocution and acting strategies; to the awareness of the importance of the territory as a public asset and as a natural and cultural patrimony; and to the development of synergy strategies between the specialists of different areas and the involved actors and institutions.

Final considerations

The cases presented here allowed a collection of challenges and opportunities in relation to the acting of the designer in territorial projects in Brazil. The diverse focuses adopted – valorization of the product chains, of the socio-biodiversity, projection of future scenarios and preparation of a municipal event planner – show a mul-

tiplicity of possibilities of acting of the designer and the tools that can be used in this project ambit. In this sense, it can be considered that there is a wide potential in terms of technical advances (in relation to the development of approaches and intervention strategies) and of the integrated management of the territory (improvement of infrastructure, awareness of the importance of public assets and the natural and cultural patrimony, strengthening of politics and of the future vision for the territory). A fundamental issue that the cases presented here show is the active participation of the community and the stakeholders in the development of projects. Therefore, it is highlighted the importance of promoting the interlocution between the different actors in the development of collaborative solutions that can generate social technologies applicable to the context of emerging economies.

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Errata: Design for territorial development in emerging economies: Brazilian experiences of research and teaching. In the title, the word 'brazilian' was written incorrectly whereas it should be 'Brazilian'. The university's name, contact address and e-mail of the author Paulo Belo Reyes were incorrect. The correct information is available on page 11.