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Abstract

This article results from the encounter and experience with the Social Cartography Methodology by Brazilian and Argentinean research groups, composed of architects, urban planners, and geographers in the Dunas neighborhood, within the periphery of Pelotas, in the Southernmost Brazil state of Rio Grande do Sul. The methodology of Social Cartography followed the weaving of the city, the interrelationships of the particular case of the Dunas neighborhood, line-by-line, in the sewing of the daily life, desires, problems, solutions, and public authorities’ actions. The text seeks to raise issues related to the Social Cartography method, such as organization, analysis, and forms of applications. It also points to emancipatory and communitarian aspects involved in this process. We propose that Social Cartography can help to weave the city, undoing the dichotomy between center and periphery while new social spaces are produced from intervention research.

Keywords: Social cartography; Intervention research; Emancipation

1 Introduction

This article is a product of many encounters. Encounters of researchers from the Architecture and Urbanism School (FAUrb) and the Post-Graduation Program in Architecture and Urbanism² (PROGRAU/Federal University of Pelotas/UFPel/Brazil) with friends from the Patagonia Research Institute in Geography³ (IGEOPAT/ National Patagonia University in San Juan
We question: how is it possible, from this experience, to weave methodological reflections of approximation between a community in the city outskirts and a research institution? In which ways are the city center and periphery related?

We seek to use Social Cartography as a weaving to undo the centre-periphery dichotomy, by sewing up daily life, desires, problems, solutions and public authorities' actions. We seek to understand the city through the construction of lines articulated between content and expression, machinic and collective assemblages, no longer opposed but interrelated and inseparable. (Deleuze & Guatarri, 1997)

As a result of work meetings, we consider these contributions as a small contribution, which can be refined and improved from new experiences, both ours and for colleagues who wish to approach social cartography as a method of research and social intervention.

2 The profile of Pelotas and Dunas

The city of Pelotas (Fig.1) is located in Southern Brazil, in the state of Rio Grande do Sul, on the banks of the São Gonçalo Channel, which connects the lagoons Dos Patos and Mirim. It has a population of approximately 350,000 inhabitants and is 259 km far from Porto Alegre (the state's capital) and 560 km from Montevideo (Uruguay's capital). Pelotas, as most middle-sized cities in Latin America, produces a periphery which is segregated and needy – as a result of the State's public policies and planning –, supported by social inequality. The urban edge is not excluded from urban planning, but this critical and segregated insertion strengthens the Capital.

Dunas neighborhood (Fig. 2) is a typical periphery of a middle-sized Brazilian city. We use the word periphery from Nabil Bonduki and Raquel Rolnik (1979) writings, who state that peripheries are city territories with differential low-income, which makes the concept more precise and also attaches, more concretely and objectively, the occupation of the urban land and social stratification. Periphery, then, assumes a concept that goes beyond the geographical meaning of being in the margin, but a social concept of being excluded.

Dunas neighborhood origins go back to 1986, through a local action by the City Hall which appointed a 60-hectares area for implementing townhouses projects. Today, more than 20 thousand people live there. It is close to other outskirts neighborhoods like Areal and Bom Jesus. The name Dunas comes contradictorily from its "walled" vicinity to an upper-class social club with the same name (Mereb, 2011 & Soares Junior, 2011).
3 Social cartography as a method of encounters

From the perspective of Human and Social Sciences, Cartography was born from the dialogue between Michel Foucault and Gilles Deleuze, with its genesis in the Nietzschean tradition. The method's outline derives from Foucault's already known perspectives of an archaeology of knowledge, the genealogy of power and ethics. Both authors keep a very close relationship with the Geography field – using words like territory, field, latitude, longitude, landscape, displacement, etc. - , always towards a collective production. The term refers to the idea of a map, which characterizes the land statically and extensively. It contrasts with quantitative topology, that is, it is available for registering the monitoring of transformations, the capture of intensities that happens on the covered ground, and for the implication of the perceiver subject in the cartographed world. (Fonseca and Kirst, 2003). For Gilles Deleuze, in his book Foucault, "If there are many functions and even diagrammatic matters, it is because every diagram is a spatiotemporal multiplicity. But it is also because there are as many diagrams as there are social fields in History." (1988, p. 44, our translation). How are the cartographic possibilities of the meeting plotted?

Besides, Social Cartography acts as a collective, horizontal and participative construction method. This particularity that at first seems to respond to the current fashion of intervention and research methods brings back the oldest methods of building maps: the collective modes. Such modes exercise their force especially in two points: first, it considers banal the knowledge of space (Santos, 1996), and the territory as plural, in a way that those who participate in the "work" of the map possesses different knowledge about "the place". On the other hand, they consider the result of such mapping as collective and horizontal, so the making of the map must be the product of exchange and debate. Such process implies a shared task, with a consistent exchange of ideas, discussion about actions, objects and conflicts and finally, consensus. This is essential, as the traditional map lacks such passage because it is legitimized according to those who built it from technical knowledge – be it academic, governmental or military.

It is thus necessary to rescue the importance of the "power of cartography". Those who possess information about the location of objects have the tools to command them. In this way, working with cartography, including the construction of maps per se, allows us not to separate the lived from the building of real data, and, on the other hand, in the sense of the organization, to locate this data on the map to read it, which we could call an incomplete photograph of the land. In the case of Social Cartography, this photography is a collectivized film. Since it is dynamic, it will always be incomplete, even when it is finished. There is no end: the map is a dynamic portrait. Maps not only represent the territory and produce it, fulfilling the function of familiarizing the subject with the surroundings; maps also naturalize the order of the relationships allowed with space, playing an ideological role. As Montoya Arango (2007) states, to recognize the map as a social message implies, in a way, in a work of rhetorical decomposition and cartographic metaphors, and in another way, in moving away from positivist thinking to join social theory, disrespecting principles of neutrality and objectivity that have coated scientific thinking so far.

By getting away from neutrality and objectivity, the social cartography's map is the product of community and subjectivization processes. This way, doubly decentred in individual and group agents, those processes imply in the functioning of expression machines which can have an extra-personal (anthropological systems) or an infra-humane (body, perception, affection systems) nature. (Guattari & Rolnik, 1999) The social cartography map is a festive map, apparently chaotic because it is dynamic and alive; as opposed from the lonely maps by state-owned geographic institutes. That does not mean that one is more valuable than the other. It is a genesis difference that sets its limit. While a traditional map is born normalized, the social one comes from consensus. While work in the traditional one is vertical, in the social one, it is horizontal. Both, however, share the power of cartography.

Social Cartography is vaguely organized in its iconographic elements and internal design structure. Norm comes from a consensus among social cartographers, and its general goal is determined by the problem to be addressed. This goal can be a map about the neighborhood's conflicts, about the location of common resources, about environmental problems, water distribution in the community, etc. We stress that the construction norms of the map and its design results from a selective organization. It is hard to systematize the final result graphically, and because of that, the final work of the map is accompanied by an oral and sometimes written explanation. That makes the map itself an unfinished element, as it comes with an oral report that completes it. Map and explanation are only presented by those who built it, who made the text that references the problem addressed at first. Thus, the map obtained through Social Cartography is hard to systematize, in
opposition to modern digital systems of geographic information, which try to organize and order all the objects and data and then manage them. Therefore, management can happen in distant places, which implies a spatial command that is external and may create “derived spaces”, in the words of Max Sorre (1947). Undoubtedly, as Carballeda (2012) states, the territory, as a place for restraining social sceneries, may present itself heterogeneously, with different logics, comprehension and explaining modes for social problems, from actors who live in it themselves.

Intervention in the territory approximates to the notion of micro-social spaces and also to the intervention sceneries one. From that, it is possible to understand and explain the different expressions of social issues, covering different angles, perspectives, and views. For Orlandi: “In the Deleuzian conceptual reconstruction, encounter itself is thought of as a complex connection, a connection that admits heterogeneous lines” (2014, p. 10, our translation), searching for a Social Cartography of encounters.

4 Intervention methodology

The work group, formed by professors, undergraduate and graduate students from UFPel, considered it opportune to apply the following work tools in the neighborhood: 1) random visits in the neighborhood (on bike); 2) initial interview with a local social leader; 3) planning a pilot action to apply the Social Cartography method, according to the neighborhood’s social references; 4) locally publicizing the Social Cartography workshop among residents; 5) application of the pilot action and Social Cartography workshop at CDD (Dunas’ Development Committee); 6) feedback to the community.

4.1 A bike trip

The experience of traveling by bike is transcendental for urban research. We can think that there are several dimensions of the city that can be ridden. Different urbes emerge from the bus, the car, the bike or on foot. Different smells, contacts, and exchanges happen when one travels by various means. During the trip, we recalled the words by Careri (2014) in Walkscapes, ten years later, when he says that in Latin America, walking around means to face many fears: fear of the city, fear of public spaces, fear of breaking the rules, fear of taking ownership of the space.

As a critical methodological act, the bike ride allowed us “another approach”, as a rupture, from the city and then from Pelotas. Undoubtedly, “the trip” is a part of the interaction between the emotional, the personal and the intellectual. For Hammersley e Atkinson (1994), the personal reaction is transformed by different reflexive analysis of public personal knowledge. The trip, in the sense of a passage, is also an element of “being there”, remarked in ethnographic techniques. Fear, anxiety, shame, attraction, love seduction – stated Guber (2001) – fit into a category that is systematically denied by social research.

The route connecting the University/FAUrb to Dunas has about 6 kilometers. The distance is long enough to experience the inequalities prevailing in any middle-sized city in Latin America. It is enough to overlap residential and industrial uses, almost empty streets and avenues filled with cars. A school, a dirt road, and a small door. A neighbor indicates the Dunas’ Development Committee (CDD), where we meet Ms. Maria.

4.2 Going through the neighborhood

The initial interview with Maria brought us enthusiasm to keep on getting to know the neighborhood and explore its territories. Two days after we interviewed a teacher from the primary school that is in front of CDD. (Figs. 3 and 4) Having passed through the grid door that separates the school from Dunas’ main street, a new territory seemed to open up, in which the dynamics between teachers and children created an air of protection. The teacher who received us showed some suspicion. That confirms the relevance of limits, not only subjective or discursive ones but of dematerialization of physical territorial regulation or simple
observation. Why is it worth to geographers and architects to work in territories revealed by powerful military satellites, if not to get into the depths of the subjects’ territorial constructions, into their divisions and conventions?

The trip around the neighborhood was then a permanent bond between the sensation of fear, the intention, and the body. Maria suggested walking around with us. “– I walk until there, where the square is, but I don’t go beyond because it is dangerous over there”. (Maria, 2014, our translation). In Brazil, to mention danger is a permanent warning given to those who walk around. For Ramiro Segura, regarding fear, there is a topology that goes, in general, from intimacy and safety of the private space at home to the general anonymous unsafety of the city’s public space (Segura, 2006).

The segmentation of the public space, with fearful and dangerous places, territorializes the fears, usually in the city margins. While we walked by Ulysses Guimarães Avenue towards the “back” of the neighbourhood, Maria greeted the neighbours and told us about the first occupation, about the mediation process and some of the infrastructure conflicts that still exist nowadays. We got to the geographic centre of the neighbourhood. Divisions get started and got deeper. – Until here we walked, but further on I do not go with you, I prefer not to go into this part of the neighbourhood, because it is dangerous and there are many people who I do not know. I believe you shouldn’t go there alone. (Maria, 2014, our translation). Maria’s words indicated that a frontier was traced. We went back to CDD. Dunas was no longer a rectangle in the map.

4.4 Workshop project

When carrying out a Social Cartography workshop, we emphasize two tools: the device and the itinerary.

The device is the methodological ensemble for the whole process, from the beginning of the planning to the final presentation of the maps created. This way, the device includes planning the initial interviews and their type; the random interviews and their type; the observations and walks around in the work area; the systematization of the demands and the elaboration of a working program for these requests.

The itinerary is a sequence of cartographable and referenceable aspects in a scenic order which can be systematized. That can be seen as a “referentiality”, which collaborates as a guide for the construction of the text-map and its reading. The itinerary is the symbolic code which will allow us to design a Social Cartography. At the same time, the itinerary makes the goals, the addresses, and all that one wishes to exchange with social cartographers. The work of planning the route, which is, as we mentioned, within the intervention research device, often comes from consensus with local references, which is debated, tested and assessed both in the lab and in the organization that makes it. In this case, itinerary came from a consensus from two opportunities with CDD members and their references. Thus, the key points of the intervention of the reference’s interests interact with the interests and goals which motivated the work in this territory.

The event of projecting the itinerary is transcendental for at least five reasons: a) the clarity of interpretation that allows the creation maps and their future legibility; b) the interaction between the academics and the social group; c) the negotiation of interests between these groups; d) the clarity of the agents’ goals and intentions; and e) the creation of agreements for privacy, publicity and so on.

The reasons mentioned above are part of a methodological process that is permanently discussed. A creative community discussion, which created, in this particular case, the itinerary scheme that we present next.

4.4.1. Objective

To cartograph Dunas, aiming to think about the neighborhood’s problems in the context of daily life, we proposed to trace solutions for those problems using elements existing in the geographic space.

4.4.2. Invited population

We were expecting to work with the population in general, neighbors and people interested in making a collective cartography of the community, together with this community.

4.4.3. Action

To draw using different colours (Table 1), in the same sheet, with varied themes, in groups.

<table>
<thead>
<tr>
<th>Part 1 (colour: black)</th>
<th>Things that happen in the neighborhood daily. (parties, street vendors, fights, help, events, everyday events)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 2 (colour: green)</td>
<td>Problems. What problems are there in the neighborhood?</td>
</tr>
<tr>
<td>Part 3 (colour: red)</td>
<td>Solution. How to solve the problems found?</td>
</tr>
<tr>
<td>Part 4 (colour: blue)</td>
<td>Let’s draw Dunas.</td>
</tr>
</tbody>
</table>

Tab. 1 - Moments of the map design. Source: the authors, 2014.

Two groups were formed (Figures 5 and 6) with approximately seven members each. To compose them, we used the “bread and cheese” technique, between one adult and one child. Once groups were formed, sheets of paper were placed on the floor. Black, green, red and blue pens were available for everyone to draw.
5 Obtained results

Social maps behave as an object-text that solidifies a collective consensual image, of each memory and interpretation put into scene facing a community situation. It is complex and cannot be separated from its production instance. The map, from this memory solidification and territorial information exchange, makes it easy to visualize the past and present dynamics, which speak about exchanges and interpellates the social cartographer with such exchanges and exposures.

5.1 Work dynamics

To work “on the floor” provides horizontality, at the same time as it causes another subjective sensation of the space. This situation invites the participant social cartographers to occupy a new space, which they usually haven't been using or experiencing since childhood. The blank map, the beginning and the discussion about “what will we do now?” showed up as an intrigue that is added to the new communitarian spatial situation, in which all the managers are similar. Immediately, the local references took a central place in the map's organization. The women reference-chiefs took the position of “explainers” of the theme and the “itinerary” interpretation. In the first situation, it was interesting to observe how children paid attention to their new situation of designers, sitting on the floor, and how they took part of this scenery and started to govern a space that is usual for them: the space of the game.

While the map was still blank, the references started to order a structure for the cartography, in an abstract way. Elements were discussed regarding their location, relation, and relevance. First, the CDD was drawn, and from there, there was the debate about the rest of the elements.

5.2 The bodies and the map

![Fig. 5 - First moments of the Social Cartography at Dunas District. Source: Edu Rocha, 2014.](image1)

![Fig. 6 - First moments of the Social Cartography at Dunas District. Source: Edu Rocha, 2014.](image2)
Starting from social psychology, Patricia Mercado (2002) tells us about social aspects that make its territory in the body, in the bodies, and find - not without contradictions - a way to maintain and reproduce its vitality.

According to their work motto, groups of cartographers must develop the drawing on the floor. (Figures 7 and 8) This requirement implies that all members work at the same height and in a space which "exposes" the totality of their body to the others. The work scene in which one usually is, where the torso and the head are uncovered and from the waist to the feet the body stays hidden in a static situation is modified. Now, the body is unattached from the ground, supported in multiple sectors, and to draw, each member must move or change their posture. There is resistance to putting oneself in a game situation without material support, like a chair, a table or a shelf. In Dunas, the local references, just like in other experiences, preferred to initially adopt the same body situation, squatting or standing up. The ground is horizontal, egalitarian and expositive. Thus, it is important to try the group to accept being in this place.

Communication between bodies and words becomes deeper as the map requires consensus and agreements. Bodies speak and words draw. A new text is composed among the observations, discussions and information exchange that build the map.

In what concerns the body and the word, the agency with Alberto Sava (2009) points to their formation as social subjects, based in a verbal language structure. There is no doubt that the body must be imperatively observed and approached in Social Cartography. There is no final text without the body and there is no complete mediation without the body.

5.3. The maps

Building a map collectively implies a territorial information exchange process that is one of the richest elements of Social Cartography, and happens because of: a) territorial memory; b) the lived territory; and c) the argumented territory.
About territorial memory, the map behaves as an object that solidifies a collective and agreed upon image and each memory brought up in a community situation. The map starts from such solidification of memory and exchange of territorial information.

About the lived territory, the map is, in general, an exchange of experiences, sensations, judgments, locations, and relations brought for group discussion, incorporating "others'" views within the construction of a mapped scenario. The lived territory is at once the source of design and the consensus.

The argumented territory implies that each member applies individually a territory argument to be represented on the map. This argument is then put into the debate in the group and finally validated or not. Individual argumentation comes permanently into play.

The maps of Dunas (Figures. 9 and 10) started with the drawing of CDD as the epicentre. Dunas, as a neighborhood, organized itself as an apart location from Pelotas as a city. The neighborhood limits included both physical and tangent elements and symbolic ones, such as fear and identity.

The problems highlighted were the rare availability of spaces for shared use by the community and the violence in the existing community areas.

Paradoxically, both these issues implicate in a conflict between spaces for shared use and public spaces. The little availability of spaces for shared use by the community regards especially the inexistence of a square, of closed "leisure" areas and the delay of the city hall to achieve construction works.

Public and common spaces, both streets and squares, showed up as arguments to indicate limits marked by fear of circulating, abandonment of the infrastructure and separation of the urban rationality for Pelotas from the one for Dunas.
5.4. Map presentation and final discussion

The map presentation approached the themes discussed above. The problems with public spaces and violence marked the argument of a conflict territory. At the same time, in several moments, problems with no clear possible solutions came up. These issues go beyond us; they do not have only to do with the neighborhood but come from the country's politics, the city hall […] What can we do further? We often organized ourselves, but we feel like no one listens to us. (extract from the map presentation, our translation)

The mapped problems expanded the text into a discussion about territorial conflicts, the difficulty to call for collective works and a historical review of the participation processes in moments of greater lack of infrastructure when the population turns more participative.

The presentation and final discussion expanded themes and created openness to aspects that had not been thought as problems at first. For instance, the drawing of a murder in one of the maps resulted in a debate about common spaces for children – the offer of community workshops at the CDD and the participation of the school. The questions "must there be a map for children and another one for adults?" suggested a need to deepen the children's demand for shared spaces, which do not have to be necessarily physical.

6. Conclusions

Mapping as an emancipatory method poses the challenge of producing heterotopias. These places [the heterotopias] are different, opposite, and enunciate possible counter positions, emerging "a sort of simultaneous and mythical contestation of the space in which we live" (FOUCAULT, 2001, pg. 416, our translation).

Hence, forms of existence and subjectivities are deformed, in an exercise of freedom not as an abstraction, but as a concrete practice.

The cartographic strategy allows the escape from the decal, from the copy, from the reproduction, and from one's own repetition, making it possible to singularize, to produce oneself from new existence aesthetics. The case presented in this article allows advancing towards an organization of the most relevant aspects of both application and systematization of Social Cartography workshops. This way, we assert that such cartographic experiences raise beyond maps and account for a collective production process, reinforcing and integrating a cartography structure as an element – of power and Social Cartography.

In this sense, the analysis of the maps, which focus on territorial memory, lived territory and argumented territory, undoubtedly marks a new space of graphic representation. A graphic representation that does not decal topological configurations produced by the conformation of the land, but represents a complex scattering of mental configurations that emanate from a discussion and a consensus. (Figs.11 and 12)

Maybe it is the rhizome spirit that interconnects us, that takes us inevitably to new spaces and to fairer social spaces, collectively creating the new. Maps that are built this way are producers of intertextual subjectivities, provided by the crossings woven less by the extra-material and more by the corporeality, constituting new discourses and possibilities. This investment in the traverse presupposes proximities and detachments, in its weaving. Such incursions into the diversity of expression forms, from the periphery to the centre and vice-versa, result into transforming forces, in which the Social Cartography map comes up as a divided body, that comprises other bodies incompletely, creating new configurations.

Gilles Deleuze says that "the gestus is the development of attitudes in themselves and, in this quality, it makes a direct theatrical dramatization of bodies, usually quite discrete, independent of any role." (1990, p. 231, our translation)
Fig. 11 - Children and the maps. Source: Edu Rocha, 2014.

Fig. 12 - Advertisement poster for the workshop. Source: Edu Rocha, 2014.

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