



Cultural mapping as a co-creation strategy to transform - models for intergenerational appropriation of Logar do Falcão

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Abstract.

This paper aims to frame and analyze the importance of design tools to integrate the collective projections of the community and enhance their appropriation of a specific place of the healthy corridor that URBiNAT H2020 project is developing in the city of Porto (Portugal): a vacant ruin of an old farm located on the parish of Campanhã - Logar do Falcão.

The urban project that will change this place is still in progress, but it is already possible to identify its importance to the physical and social transformation of the intervention area. This research will analyze several moments of interaction with citizens that took place in the last three years in three stages of the co-creation process.

During these moments of field (and digital) work URBiNAT's cultural mapping NBS was used as a methodology to plan the described techniques and to collect, record, analyze, synthesize and test all the information that was gathered or created. Through an active participation, this process puts to test innovative methodologies, along with cultural mapping framework, by getting constant feedback from their users.

In this sense, the article intends to demonstrate that architectural design processes, which include cultural mapping approaches, give relevance for the intergenerational verification of the desired transformation and that participatory tools can use these approaches to trigger placemaking and appropriation.

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1 Introduction

We are living under a critical and symbolic moment, stressed by the COVID19 pandemic and the increasingly evident climatic changes. In architectural and urban planning research, this scenario seems to be creating a productive generation of thoughts, theories and practices on how we can contribute as a discipline and how we should act as professionals. The concept of participation in urban design processes with an emphasis on more precise, evolutive and adequate design mechanisms are at the core of a transformative process and practice [1].

In this article we intend to describe and analyze how URBiNAT co-creation methodology was based on cultural mapping framework, where citizens addressed cultural and social challenges to support the understanding of their territory.

This methodology was framed in four open and flexible stages: co-diagnostic to identify the uses and need; co-design to propose ideas and develop solutions; co-implementation to activate actions and build products; and co-monitoring to evaluate the process and monitoring the effects of NBS[2]. And cultural mapping was presented on these stages as part of the planning process, helping to capture, mediate and facilitate citizens aspirations and design contributions[3].

Using Logar do Falcão farm and its possible appropriation has a place to organize a social and solidarity market the aim of the following text was to verify how this methodology allowed the urban plan team to map facilities, organizations, stories, heritage values and aspirations, which helped to understand the cultural resources, networks, links and patterns of usage that were then integrated as reasons and inspirations for the plan of its transformation [4].

2 Co-diagnostic: mapping feelings, needs and dreams in Logar do Falcão

Logar do Falcão was a farm in the east side of the city of Porto, located in an area dominated by agriculture activity, although the core of Campanhã district, Corujeira square, is 500 meters west. The farm was implemented in a slope that was stabilized with several platforms built with stone walls (see Fig. 1). The main house has a threshing floor to

dry the corn and several cattle corrals for animals. On the top of the walls, small columns show that a vineyard existed there.



Fig. 1. Aerial photograph of Logar do Falcão and Cerco do Porto neighborhood, 1960s. Source: Porto city council archive.

The 1955 urban plan took the decision of implementing social housing neighborhoods in the peripheral ring of Porto, namely in Campanhã (see Fig.2). In 1960-1970 the landscape was transformed with the heavy construction of modern social housing neighborhoods for people that came from the countryside. These mass-housing complexes were planned for big plots without infrastructure to be integrated in the urban fabric. In between these housing complexes, huge areas were left with or without agriculture activity. Logar do Falcão kept its activity until 1980-1990 but the municipality bought it and became abandoned, a common, although people continue to use it to connect between Falcão and Cerco do Porto neighborhoods or for illicit activities.

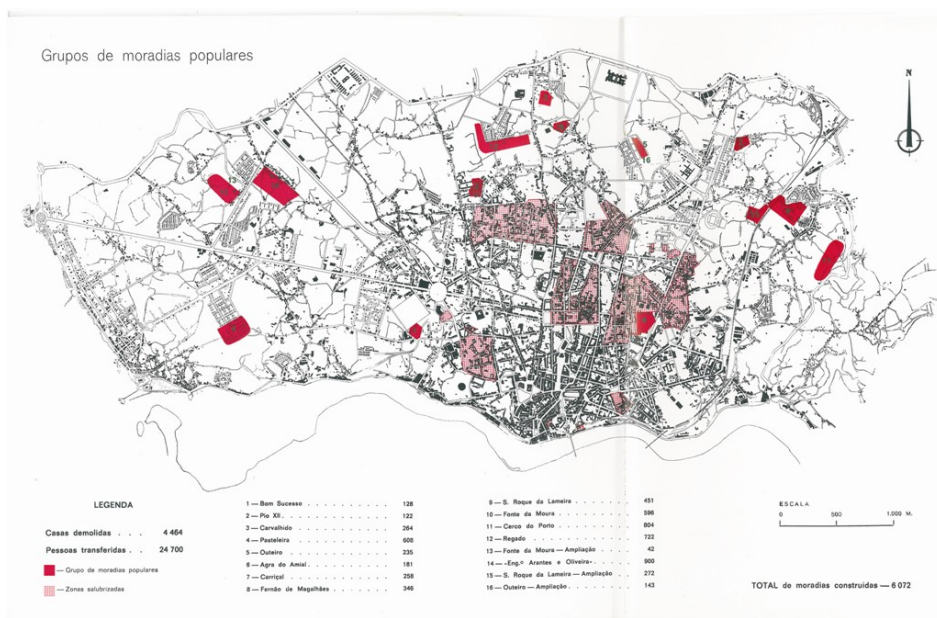


Fig. 2. Urban Plan of Porto (*Plano de Melhoramentos*), 1955-1966. Source: Porto city council archive.

URBiNAT project understood that this place could be an opportunity to co-create a healthy corridor that connects two areas of the city and activates a public space for social interaction. During the local diagnostic activities, local citizens confirmed these opportunities and highlighted the need to transform this area. In this sense, it became important to develop a methodology that could collect the memories, identify the needs and explore the expectations of the local community in order to develop a proposal that could dialogue with the local culture.

Under the framework of cultural mapping methodology, citizens and stakeholders were invited to participate in the process of creating together solutions for their challenges, in dialogue with the municipality and academia, as formal partners of URBiNAT [5]. The first step mapped the local participatory culture, to identify who was interested in participating and how the participatory process could take advantage of what was already there, as a resource, in the community. Kick-off activities were planned in primary schools and in public space to present the project and collect data on the needs and expectations for the terri-

tory. By engaging different actors in mapping, walkthrough and photovoice activities, the group understood the importance of Logar do Falcão as the core of a future inclusive public space. Firstly, an informal network of pathways was identified in the green fields and analyzed through walkthrough, interviews in loco and territorial and behavioral mapping. Secondly, needs were identified through walkthrough and photovoice to take advantage of the local characteristics of the old house and its surroundings, namely traditional sports activities, cultural events with local artists, promotion of healthy food, and giving value to local producers.

The co-diagnostic activated the living lab in Campanhã with an effective engagement of local citizens and institutions in co-creation of solutions to address concrete challenges and needs of their territory. At this stage, the participatory process became more and more bottom-up, and citizens started to take decisions [6].

3 Co-design: mapping ideas and proposals both material and immaterial for the intervention area

After the co-diagnostic phase, the workshops continued to be organized in conjunction with other moments of close participation, but now using design and modeling tools to enhance and inform the dialogue established during the co-diagnostic stage.

To confirm the quantitative and qualitative research conducted in the previous stage and the key moments of participation, co-design activities establish a collaborative process to transform all the data and mapping ideas of nature-based solutions. At this stage, the living lab became also an action-oriented space with physical presence, located in a room provided by a local secondary school at the center of the intervention area, making the participatory process more accessible to everyone that wants to be included.

This process was very rich but also quite complex. The differences between organizations and people involved in the process, including partners and municipality departments, were very pronounced. Two of the main questions that divided opinions were: how can we interpret the participatory methodology of co-design and how should we use it? Choosing between the critical distance of a researcher or a technician and the critical proximity that one may use to co-create with citizens [7].

“The difference between being taken by surprise, the mistrust that it can create, and a cherished project is to arrive and not break down the door, knock and ask if we can come in.”[8]

To gather and motivate the inhabitants and local associations, a dialogue was established that enabled listening to the citizens and understanding their challenges as part of the territory and space they inhabit. This was not only to identify individual or collective desires or needs but also to think and develop possibilities of transformation.

During this process, involving again the local schools in this dialogue was very important in order to engage all the people in the neighborhood, including children’s opinions, hopes and visions. They were included in the creative process of design and decision-making through several school activities, contributing with their individual creativity to common debates and collectively achieving transformation ideas for the urban space and school facilities [9].

This intense process of participation created a great diversity of proposals, ideas, challenges and dreams for the area, which were systematized into four categories and worked together by academic and institutional partners for development - public space and environment; education and nature; sports and culture; social and solidarity economy (see Fig. 3). All proposals covered a wide range of themes and initiatives, and the cultural realms gained similar importance as the territorial [10].

In the strategy plan created from a micro-scale perspective, it is possible to understand the importance of the places next the ancient vacant farm Logar do Falcão for the cohesion of the entire territory and the possibilities it could promote for a healthy corridor in these areas, namely yoga activities on outside green fields; cultural activities in the threshing floor, as the stage of an open-air amphitheater and solidarity market in the farm house courtyard.

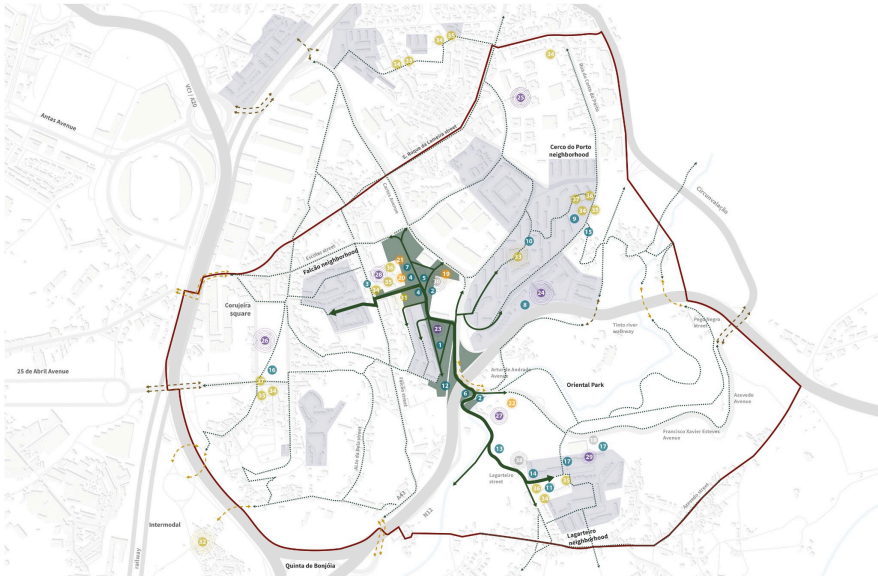


Fig. 3. Healthy corridor connectivity - study area + new NBS, 2020. Source: URBiNAT D4.2

As shown on Fig. 3, some of the Nature-Based Solutions (NBS) proposed by citizens are not located on the plots and the territory to be intervened, and some acquire immaterial dimensions. Some NBS were also proposed to be developed in synergy with other projects already in motion, such as those occurring in other neighborhoods, school initiatives, and municipal initiatives.

To gather a more qualitative approach and imagine the impact of the new NBS, we mapped all the spatially significant places and networks in the study area of economic, territorial, educational and cultural realms. We then crossed this information with the territorial impact that the new NBS, currently under creation, may trigger (see Fig. 4).



Fig. 4. Miro software participatory collages, 2020. Source: URBiNAT

Currently, the existing terrains are more or less abandoned, but the use on the informal paths is noticeable. The strategy for the project is to recover an area of approximately 40000 m² and activate these plots through initiatives from the inhabitants that emerged during an exercise of intense public engagement.

The recovery proposal for the old house of Logar do Falcão takes into account the existent features such as walls, paths, agriculture terraces, and ancient trees, but improves their organization, slopes, and sidewalks to make them accessible, clear and visible as possible. The aim is to address the existing urban logic while also solving identified challenges.

During the co-design phase, when mapping the different aims, needs and possible transformations, we worked on different types of systematization, such as tables or plans. These needs and NBS ideas were integrated in the urban plan proposal and presented to citizens for validation and further development. To communicate possible futures for the places that everybody was thinking of, participants created some synthetic images with the support of architecture students that included inhabitants' suggestions and combined different ideas, as shown on Fig. 4, which depicts the demolition and occupation of the old ruin as a social and solidarity market.

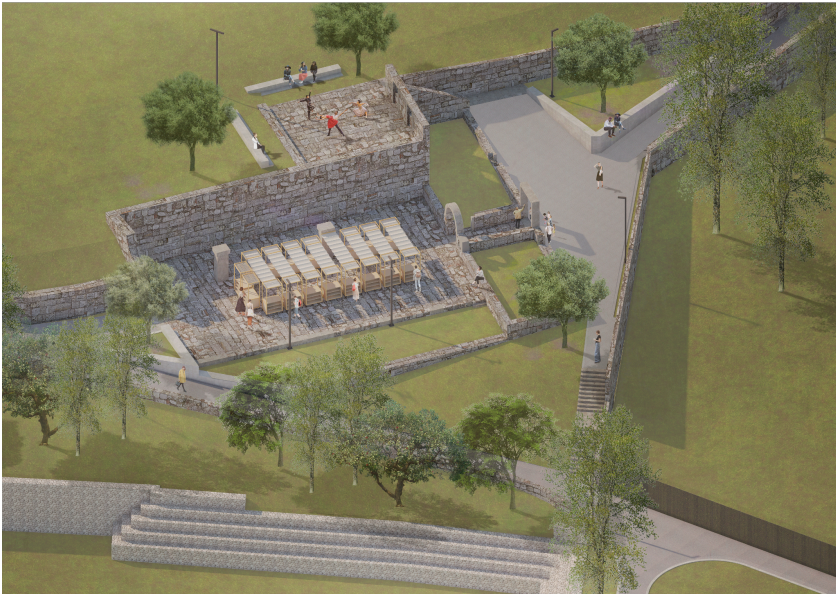


Fig. 5. Aerial view o Logar do Falcão transformation. Source: URBiNAT (Vitório Leite).

Due to factors such as mobility, visibility, and safety, the general strategy developed a semi-archaeological process, in order to create a new public space, by removing part of the ruins, reuse the stones to create platforms and reshape the terrain to explore nature-based solutions. This new place would have shaded areas and playful zones, using the ruins as well as places to sit and clear, comfortable paths (see Fig. 5).

The discussion surrounding this plan was not made without conflict, as some residents wanted to preserve the building as a cultural facility for the community - an artistic hangar. However, this was not feasible due to project scope on nature-based solutions, budgetary constraints and political beliefs. Instead, the design incorporated other proposals from participants, such as a place for the social and solidarity market and an auditorium from the modeled terrain for collective activities.

Through some surgical operations of terrain modelling and the careful partial removal of the top of the existing construction, the intervention aims to transform the abandoned agriculture complex into a new public space. The project uses the spatial qualities of the ancient construction, defined by walls, stairs and paths, to create a space that contributes to the area's mobility and also provides a place of social interaction.

4 Co-Implementation: mapping pilot interventions to activate the healthy corridor and sense of belonging

After various (digital) sessions with locals due to COVID restrictions, all the input collected called for a moment of detailed analysis and synthesis. Therefore, during this phase, the project was mainly carried out within a studio environment, leaving the community aside. This was not an intentional act, rather a formal constraint typical of such procedure. This rupture compelled the reintroduction of users in the project, so to keep them engaged in the making of place. A co-governance structure was developed by creating working groups to co-develop the proposals with monthly meetings and a working commission to share implementation challenges and take collective decisions with the presence of political representatives and municipal responsibilities.

To test proposals made by citizens, an experiment was organized by the referred working groups in November 2021 with tactic actions to check their feasibility and to assess its impact in the community,

namely: walks with yoga; walks to collect garbage and produce an artistic performance; traditional games in the public space; social market named Campmarket, among others. This experiment demonstrated the opportunity to activate a healthy corridor in this territory and created a sense of belonging to the project, moving from planning to concrete actions.

Campmarket has been organized by a group of associations since October 2021 to solve the need of creating a space to share or sell, with fair price, products produced in Campanhã and also an opportunity to know more about bio/ecological practices related with healthy food and traditional craft. The group agreed to implement the market in Logar do Falcão, but meanwhile it is being tested in other two places: Lagartixa Park, an association placed close to Rio Tinto pathway (November 2021 to October 2022), and Corujeira Square, in collaboration with Soutelo association (November 2022 until today). The market is organized every month as a way of testing different formats and engaging several local and non-local producers. The need for a better infrastructure - place, tables, toilets, accessibility, etc - is being discussed among participants.

Under the pretext of a new design for market stalls, another round of interaction between specialists, the local URBiNAT team, and users took place. This activity proved to be an essential reconnecting point at this new stage of the participatory process. Traders and buyers, visitors, were invited to (re) think of new usages and purposes of space. This exercise yearned to expand its focus also outside the market realm, its events/agenda. Playing with different actors, equipment is necessary for a sense of continuous belonging and perception of new conditions. The new stalls should be easily accessible, functionally sustainable – as flexible and as clear as the proposed space suggests. The activity was then promoted during an edition of Campmarket (April 2022), getting directly in touch with potential users. It was conducted in 3 phases of interaction, each linked to a different tool and scale of discussion: explain, explore, and exclude. In other words: present the new plan for the area, based on the ideas collected so far; imagine distinct scenarios and consequences for the proposal; select important features for side furniture, dismissing irrelevant examples/qualities (see Fig. 6).



Fig. 6. Activity during the Campmarket. Abril, 2022. Source: URBiNAT (Inês Reis).

An editable banner placed at a transitional point of the stall row drew in visitors. The banner showed technical drawings of the future intervention, followed by collective working sheets. The latter were destined to be a cooperative solution for stalls, based on 4 main points of interest (storage, furniture, shelter and lab). Each seeks to form a map of intricate choices, combined with the help of annotations, sketches and stickers of concrete examples. An interactive 3D model (maquette) of Logar do Falcão accompanied closely the discussion, letting users arrange different configurations with different typologies of stalls and reflect on the various qualities of the space. At the end, in plain sight was a panel of contemplations and decisions from both parties.

The approach and tools used here are, after all, existing ‘regular’ architecture co-working means. For this case, however, they were carefully rethought to become more expressive and clearer, adaptable, and dynamic, to ease the flow of discussion. These means, the strategy, and the location of the activity were previously discussed with the participants. ‘Rehearsals’ of such exercises are key points in participatory, collective mechanisms. They are simultaneously a chance to test communication strategies, to sharpen project intentions. Accordingly, this reassessment played a crucial role in the outcome. Participants pointed out potential communication problems which are invisible to the lens of an architect. This behind-the-scenes work proves the type of cooperation specialists are looking for in general: not really a dialectic process, but ultimately a dialogic one, applied either in physical or social layers^[11]. This translates to a wish of finding a common ground of understanding, like one which raises awareness of different (appropriation) mindsets. This supplementary action stimulates sustainable dialogue, which throughout (and post) cooperation courses eases tension and future scenarios of conflict.

“(...) listening well, behaving tactfully, finding points of agreement and managing disagreement, or avoiding frustration in a difficult discussion. All these activities have a technical name: they are called ‘dialogic skills’[11].

Recently, we continued this dialogical process through a new activity in February 2023, where we continued to envision the occupation and usage of the new public spaces. Once again, we took advantage of the collective gathering and dynamic that the market has created, and organized a participatory meeting to hear and work with the sellers and organizers to improve its conditions.



Fig. 7. Activity during the Campmarket Fevereiro 2023. Source: URBiNAT (Vitório Leite).

After analyzing the data collected in the activity, the design team proposed a stall module to be discussed. Using real-scale drawings, we aimed to foster their understanding of the new possible stalls, which essentially consisted of a wood covered modular structure that can be easily transported and set up (see Fig. 7). The idea of this structure, collectively developed, is to improve the placemaking that the market is creating and also create a sense belonging to the community of sellers.

5 Conclusion: Cultural mapping as citizens' integration and appropriation

Table 1. Relations between the project stages, activities and the cultural mapping process.

| Project Stages | Activities and methodologies | Logar do Falcão cultural mapping process |
|----------------------|---|--|
| Co-diagnostic | <ul style="list-style-type: none"> . Walkthrough(s) with citizens (children and adults); . Workshops with adults and children; . individual interviews with adults. | <ul style="list-style-type: none"> . Mapping of existing cultural features on the study area (the existent ruin was highlighted as an important place). . Registration of ideas, stories, memories and feelings about Logar do Falcão. |
| Co-design | <ul style="list-style-type: none"> . Workshop with children and adults with a physical model of the study area; . Webinar with adults to draw solutions, using Miro software. | <ul style="list-style-type: none"> . Addition to the existent features of the new ideas – logar do falcão was integrated as na idea and a place. . Settlement of a relationspace of ideas, needs and opportunities for the place. |

Co-implementation

. Workshop, with a physical model, during a solidarity market that was proposed in a previous stage.

. Collective design of reasons and parameters for the area and its future occupation and appropriation.

. Collective preview of the transformation of the space.

. Preparation of possible future uses for the place.

. Experimentation of spatial organisations.

. Definition and characterization of possible temporary occupations.

The co-creation process developed in Logar do Falcão, Campanhã, to transform the abandoned old farm into an inclusive public space is not only working with the physical characteristics by proposing material solutions, but it also exploring the immaterial dimension of the place. Cultural mapping opened the opportunity to introduce this layer in the diagnostic and design process, helping the local community to rethink their social and cultural relations with this place (see table 1).

In fact, “Cultural mapping serves as a methodology and a process for collecting, recording, analyzing and synthesizing information in order to describe the cultural resources, networks, links and patterns of usage of a given community or group in a specific local” [5]. In this sense, these activities re-establish the sense of belonging of the local community with Logar do Falcão by co-creation together a common future for this place.

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