

Arteria – A Regional Cultural Mapping Project in Portugal

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Abstract: This paper discusses the relation between cultural mapping and participatory community cultural mapping, proposing the integration of a mobile device application (app) in the cultural mapping process of the Arteria project. This application aims to expand the notion of cultural appropriation by exploring how citizens can make crucial contributions to the cultural mapping process. This technology will evolve from and improve Arteria's digital platform/website by boosting the processes of collection and registration of tangible and intangible cultural assets and the dissemination of registered cultural assets. The app will also enhance the connection among socio-cultural actors and improve the quality of community involvement in the cultural, social, and political dynamics of this cultural mapping project. To justify the need for such a tool, an overview of the project's intent, objectives, and activities is presented, as well as its philosophy of intervention in local communities.

Keywords: Arteria, community involvement, cultural mapping, cultural technology, mobile app

Résumé : Cet article discute de l'introduction d'une application mobile dans le processus de cartographie culturelle du projet Arteria et met en évidence les liens entre planification culturelle et participation. L'application mobile vise à approfondir le sens de l'appropriation culturelle en explorant en quoi la participation citoyenne peut enrichir les processus de cartographie culturelle. La participation en ligne permettra d'enrichir les données et la plateforme d'Arteria en y ajoutant des références aux propriétés tangibles et intangibles de la culture urbaine. Cet article discute en quoi cette application mobile permettra d'enrichir les liens entre les acteurs socio-culturels et en quoi elle permettra également d'ajouter à la qualité de la participation et de l'implication citoyenne en tenant compte des dynamiques politiques de ces formes de planification.

Mots clé : Arteria, participation de la communauté, cartographie culturelle, technologie culturelle, application mobile

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Introduction

Diverse and emerging approaches to mapping cultures and communities in a regional and national context contextualize the Arteria project and link it to what is happening in the field at the international level. At its core, the project is informed by a definition of cultural mapping put forward by Clark, Sutherland & Young (1995):

Cultural mapping involves a community identifying and documenting local cultural resources. Through this research cultural elements are recorded – the tangibles like galleries, craft industries, distinctive landmarks, local events and industries, as well as the intangibles like memories, personal histories, attitudes and values. After researching the elements that make a community unique, cultural mapping involves initiating a range of community activities or projects, to record, conserve and use these elements. The most fundamental goal of cultural mapping is to help communities recognize, celebrate, and support cultural diversity for economic, social and regional development. (p. 1).

Following this, we argue that the mapping process is a symbolic interpretation of space: It is the process through which we can create the object, and how that object is created. In metaphysical terms, mapping concepts transcend the existence of a map, which may not exist in paper but may be present in the interpretation. Furthermore, the mapping process understands space through questioning and not necessarily through cartography. Cosgrove (1999) clarifies that the mapping process is not only a mathematical method of measuring space, but also a political, psychological, social, and economic understanding of a certain space. The map may be ephemeral when the main issue that it addresses goes beyond geographical limitations (cf. Saper & Duxbury 2015).

Cultural mapping, as an emergent multidisciplinary field, reflects the spatial turn taken in many related areas of research, including cultural and artistic studies, architecture and urban design, geography, sociology, and cultural policy and planning. Traditional approaches to cultural mapping emphasize the centrality of community engagement, and the process of mapping often reveals many unexpected resources and builds new cross-community connections. In 2014, the international conference, “Mapping Culture: Communities, Sites and Stories,” organized by the Centre for Social Studies at the University of Coimbra, brought together some of the main investigators and practitioners of both traditional and innovative approaches to the theme. Researchers such as Nancy Duxbury (Duxbury, Garrett-Petts & MacLennan 2015), Sue Stewart (2007), Cristina Ortega Nuere (2010), and M. Sharon Jeannotte (2015) have been studying links between the map and possible techniques of community involvement. Internationally, cultural mapping has come to be closely associated with professional cultural planning practices, but its recent adoption within a variety of disciplinary areas means that ‘traditional’ approaches are being re-thought and expanded, with cultural mapping practices adopting new methodologies, perspectives, and objectives as they evolve (Duxbury et al. 2015).

In the evolution of this field, theoretical and analytical work has been complemented by experimental perspectives. Some of the most innovative of these experiments are currently being conducted in Japan, the Philippines, and northern European countries. For example, the studies of

Davisi Boontharm explore the importance of subjectivity in capturing and representing the quality of urban life and how artistic practice can be related to cultural mapping (e.g., Radović & Boontharm 2014). In this case, innovation is connected with an artistic approach to cultural mapping as a way to know urban space. The ways in which urban space is ‘captured’ may be understood as a new model that links cultural mapping and artistic intervention, with performance as a way of promoting interdisciplinary application and practice (Wang et al. 2013).

Contemporary artists like Guy Debord and Richard Long have returned again and again to the walking motif and its relation with territorial cultural mapping. Debord tracked the urban flows of Paris; Long trampled a path in the grass and snapped a picture of the result (Roelstraete 2010), originating a new relationship and engagement of the artist with his surroundings. Mapping is a way for us to locate ourselves in the world physically, culturally, and psychologically: for example, Debord produced maps like collages that traced the ‘psycho geography’ of Paris. Today, the convergence of global networks, online databases, and new tools for location-based mapping coincides with a resurgence of interest in walking as an art form. In *Walking and Mapping*, Karen O’Rourke (2013) explores a series of walking/mapping projects by contemporary artists. Some chart “emotional GPS,” some use GPS for creating “datascares,” and others use their legs to do “speculative mapping.” These are just some examples of the ways that cultural mapping can generate and encourage artistic intervention and public participation in cultural mapping.

Other innovative approaches are concerned with the challenge of developing research techniques and instruments that can sustain cooperative working methodologies (Lundberg, Hjorth & Smaland 2011) or exploring how digital technologies can be used to serve communities concerned with cultural mapping (Kahila & Kytä 2009, see also Nummi & Tzoulas in this issue). In addition, the use of digital technologies can be understood with regard to their connection to innovative local governance perspectives, giving relevance to the importance of arts and culture in processes of good governance and the transition to sustainability (O’Shea 2011). This approach to sustainability argues for the importance of community cultural knowledge in multiple contexts (civil society, public institutions, academia, and social movements) and describes how these contexts, when articulated, can create innovative proposals for cultural governance. Arteria is a network that includes a living laboratory for fostering this type of participatory governance experience through artistic projects and interventions. However, there are also challenges posed by such artistic practices and community involvement in various phases of the research process, from gathering and interpreting data to modes of presenting ‘findings’ to interest groups from different sectors. The goal of participatory cultural mapping is to involve the local public as well as specialists in the arts, research, public administration, and planning in different ways.

In sum, it is plausible to establish the connection between the terms software, culture, and mapping to create a conceptual symbiosis, which in practice creates a comprehensive tool for understanding space and place. To speak about cultural mapping is to think about the day-to-day reality of cultural relations between individuals with the possibility to question this reality. As a consequence, the graphic representation is not the focus but a tool in the representation of what is important: an improved understanding of the cultural context.

Arteria's contexts

Arteria aims to develop both artistic and academic initiatives in collaboration with a group of local agents (municipalities, universities, cultural agents, and art schools) located in the Centro region of Portugal. It is a collaboration involving a network of artistic, social, and academic partners in the development of urban projects of artistic intervention in ten cities and territories of the Centro region: Coimbra, Montemor-o-Velho, Aveiro, Leiria, Guarda, Castelo Branco, Belmonte, Viseu, Nazaré, and the Médio Tejo sub-region (including Tomar). These projects address local cultural concerns with concrete social impacts, but also create a regional dynamic that encourages closer cultural relations within the region and with national and international bodies.

The Arteria mapping project enables the development of a series of connections between people and their spaces. Ana Carla Fonseca Reis, in writing about creative cities, refers to the importance of these connections, both for the individual and for place (UNCTAD 2008). This connective process is central to the identity and essence of the city (Reis & Kageyama 2011). Bonnin (2011), speaking to the same theme, states that these connections “enable the inhabitants to conciliate with and appropriate the history of their own cities, rediscovering places in a different way” (p. 101).

One of the main elements of this project is the creation of a web-based tool, an online platform that enables a cultural mapping exercise at the regional level, including both a community-based ‘human’ approach to the use of participatory mapping technologies and a pooling of efforts, at both the institutional and individual levels. What is unique about this articulation between digital technologies and human-focused participatory approaches is that the artistic intervention projects happen in the different local communities, informed by the information compiled in the online platform and on local research by a multidisciplinary team of artists and social researchers. The goal is to encourage community transformation and socio-cultural planning by connecting the construction of an online platform to the establishment of engaged local communities.

The development of software occurs in this context. Through this programme, any social actor can participate in the cultural mapping process of his or her region. However, the creation of software that advances the cultural mapping process in communities, places, and regions presents both a theoretical and a practical challenge. The theoretical challenge involves reconciling the objectivity of such a technological instrument with the subjective character of the cultural mapping process. It is important to recognize that this software is not an end in itself, but mainly a means that will enable individuals to establish a new relation with their culture. The practical challenge involves the articulation of the software with the digital platform of Arteria, to contribute to the enhancement of the cultural mapping effort for the Centro region. The software to be developed must have a user-friendly interface that can guide the user through the mapping steps; allow for fast programme development (including the steps of specification, prototyping, development, testing, and implementation); and stick to a low development budget without loss of quality.

In order to respond to both the theoretical and practical challenges posed by digital technologies, it is necessary to view them in action. The use of digital tools in the process of cultural mapping is vital for comprehensive coverage and helpful in minimizing the cost of research, as demonstrated by Brazil’s National System of Information and Cultural Indicators (Sistema Nacional de Informações e Indicadores Culturais; SNIIC in its Portuguese initials). This

digital platform has been active since February 2013. Its purpose is to gather information about the Brazilian cultural environment. The SNIIC platform provides useful information both for the Ministry of Culture and for the society about culture in the country.

SNIIC is based on the concept of Open Register of Culture (Registro Aberto da Cultura, RAC). This means that any citizen can register cultural information on the web site. Brazil has approximately 204 million inhabitants and an area of 8.5 million square kilometers, making it mandatory for the State to resort to such ways of obtaining public information. By 2015, the platform had already registered 8,600 cultural agents and 3,766 cultural objects (Ministério da Cultura do Brasil 2015). However, the digital platform is stationary, based on desktop technology, and does not support mobile registering, which slows down the process as the agent must wait for access to a computer to register information.

In our proposed mobile application, we provide an example of how to link the tool to participatory cultural mapping, bringing the cultural mapping research process nearer to communities and their citizens. It is important, however, to highlight that adopting software as a tool of cultural mapping and management is a work in progress. To date, except for experience in Brazil and Arteria itself, there is little information about the results of software use in cultural mapping. Thus, this article investigates this subject, building upon theoretical work on cultural mapping and citizen engagement, the *social praxis* of Arteria, and the data we have gathered, to propose a theoretical but executable plan about how to converge IT and cultural mapping, and to hypothesize about possible results. By way of background, we will describe the origins and main concepts behind Arteria.

Arteria's narrative: Building a cultural mapping process in the Centro Region

The concept behind Arteria

Arteria is a cultural regional development project, artistically coordinated by the theatre company O Teatrão (www.oteatrao.com) and scientifically coordinated by the Centre for Social Studies at the University of Coimbra (www.ces.uc.pt). It is investigating the various ways in which artistic and cultural activity may contribute to citizenship, democracy, and urban sustainability. Arteria hypothesizes that a project of artistic creation can influence territorial cultural planning in the Centro region. Therefore, it opens a discussion about the ways in which cultural and the artistic practice can provide a new perspective on regional cultural development, highlighting cultural mapping (and its connections with artistic practice) as a means to redefine the map for the Centro region of Portugal.

The project began in June 2012 and is based on two main principles. The first is related to the need to reflect on the interconnectedness between local, artistic, and academic knowledge and on how the mapping process may open new perspectives about these connections. The second principle is to build understanding about how the region's cultural and artistic life influences territorial planning, bringing to the forefront issues of direct community intervention, relational proximity of citizens to their own territory, and artistic practice as a fundamental component of cultural regional development.

Arteria integrates artistic, cultural, civic, and academic dimensions, articulated through a 'common platform' that facilitates an holistic conception of the social and cultural issues of urban

space in the ten medium-sized partner cities of the Centro region (listed previously). The platform envisions the creation of a network of academic institutions (universities and polytechnic institutes), cultural and artistic organizations, artistic education institutions (schools and non-formal learning organizations), the municipalities of the ten cities involved, and their inter-municipal agencies. The project works as an initiative of academic and community extension, integrating different disciplines (performing arts, urbanism, citizenship, culture, arts, and community planning among others). This multidisciplinary integration permits the use of different tools of analysis, namely, diagnostics of social needs, monitoring of impacts, and identification of urban policies, as well as the mapping of cultural agents, institutions, and other intervention projects. This networking is intended to connect academic knowledge and community knowledge, creating local ‘Artistic Projects of Intervention’ (APIs) that generate cultural and artistic creation in collaboration with community arts education groups that serve different generations, social classes, and age groups. The cultural mapping of communities through a long-term platform will, it is hoped, promote closer connections between academic knowledge, community knowledge, and the knowledge that is created during the artistic process.

The challenge of building a network

The network brings to the discussion a concrete problem: the lack of interpersonal communication and individual participation associated with bureaucracy does not encourage the development of innovative change. Politicians in general are isolated from the rest of society, so change requires the direct intervention of individuals. These same individuals are the keepers of communities’ cultural memory (values, ideas, traditions), which differs from historical memory, which is more scientific and objective. Cultural memory is connected to individual gestures of remembering, including hidden conflicts, which can find expression in artistic works. It is from the need to highlight this cultural memory component and from the fact that the project is directly connected to the cultural and political objectives of the theatre company, O Teatrão, that this project was created. A direct connection between people and their territorial contexts is hypothesized as essential to generate change and to relate artistic practice with structural planning of the territory. Following from this hypothesis, Arteria considers cultural mapping a fundamental resource for the implementation of this process.

Arteria objectives

The main goal of the project is the creation of innovative methodologies of cultural mapping that promote the concepts of proximity, community participation, and artistic creation. This main goal is achieved through:

- 1) The creation of a platform for academic and community knowledge-sharing and for building different types of knowledge created by the partners (academic, municipal, cultural, educational);
- 2) The cultural mapping of agents, institutions, and community and academic projects, to enable a better and more efficient long-term strategy for urban cultural policies; and

- 3) Methodological experimentation with direct involvement of institutions and citizens in the definition of regional planning through cultural activities.

The practical achievement of these objectives is done via collaborative cultural mapping and the use of digital technologies as a tool of direct interaction, mapping, and cultural mobilization. The focus is on the enhancement of intangible and tangible cultural heritage, including cultural physical resources, performances, stories, songs, rites, and landscapes, among others. The intention is to determine whether the participatory involvement of citizens in cultural mapping processes can bring innovative thinking to processes of local and national governance, catalyzing connections among the socio-cultural actors involved in the different communities. Arteria explores a bottom-up approach to governance, as opposed to a top-down one, which imposes mainstream and institutionalized methods that may prevent participatory approaches to governance to emerge (Seyfang & Smith 2007).

The development of a mobile device application allows the project to extend the cultural appropriation process to the individual and to institutions. In this case, *appropriation* means to take advantage of the technical possibilities offered by the mobile app to include citizens socially and culturally in the cultural mapping process. The mobile device also improves Arteria's web platform, which will be connected to the application, facilitating the research and registry of cultural assets and providing a tool that strengthens the relationship between the individual and the culture of his or her own community, thereby improving strategies of good governance and cultural sustainability through inclusive participation.

Collection of data on material culture

The initial data-collection activity featured the compilation of data on tangible cultural and heritage resources of the different communities involved, and the placement of this data on a web-platform where the cultural profile of each city could be presented and information made available to be shared. This work focused on the mapping of spaces and locales of cultural, artistic, and traditional value. This mapping effort was done through direct contact with local citizens and local institutions, privileging personal contact and participatory involvement. Official contacts were also made with local, national, and international organizations that have gathered a significant amount of information about the cultural map of their own territories. We learned that a great deal of information is not shared and is unknown to the average citizen. Therefore, the platform became a means of sharing and communicating this information.

An important issue that arose was the complexity of selecting and collecting tangible cultural assets on cultural maps. What are the assets to be mapped? How does their selection occur? How can different points of view be mediated and fairly represented in the final selection and definition of the mapped elements? In the first phase of the project, different strategies were used to select what could be mapped and which entities were to be contacted for this purpose. Local and regional culture-related institutions, such as local municipalities, the regional cultural agency, universities, polytechnic institutes, and local cultural agents, were contacted to share their own directories, lists, and other mapping resources. In addition, community leaders, identified during the pilot phase of the project, answered a set of questions in order to complement the information already shared by

these institutions. After this general mapping process (which included both a personalized and an institutionalized approach), the information was uploaded and shared through the digital platform of the project (www.ces.uc.pt/projectos/arteria7).

The sustainability of the platform and its continual updating is an important feature of this project. An ongoing issue is how to put the platform at the service of the community in general so that information serves the needs of local and national communities, and not just the academic needs of researchers. The mobile application is one possible means to link citizens more closely to the cultural mapping process.



Figure 1. Arteria's homepage

The Question Campaign process

In the second phase of the project, a more specific cultural mapping process took place, where an instrument for participatory involvement in the future of communities was tested – the Question Campaign Methodology. The Question Campaign Methodology (QCM) was developed by Cesar McDowell for the organization Engage the Power (engagethepower.org), based in the United States. The adaptation of QCM to the specific context of the Centro region of Portugal was tested through the development of a ‘Question Campaign’ movement that included cultural agents, academia, schools, and municipalities to identify tangible and intangible cultural resources in the different Arteria partner cities. The Campaign focused on a participatory cultural mapping process in the different cities, including an exhaustive approach to the co-creation of cultural/artistic intervention projects for the region.

Question Campaigns typically include discussions of several themes related to social justice, economy, knowledge sharing, human rights, and economy. The specific questions under the Arteria Question Campaign project were integrated within the theme of ‘The Emerging Global Community’, where questions about culture, communication, interconnection, and collaboration

were some of the areas of interest of Arteria community members. From the beginning of this process, we noticed a more informal and less bureaucratic relationship among the partners.

The Question Campaign methodology, apart from the process of resource identification, enabled a process of dialogue with local partners, focusing on their cultural problems and needs and on the creation of questions that highlighted the relation between the problems and the way they can be overcome. We learned that this process had to focus on community knowledge and leadership, identifying the main questions that could lead the mapping process, challenging citizens to develop dissemination strategies for their own questions, creating opportunities between communities to connect with each other, and opening opportunities for them to engage in discussion on how to address the main questions. We also learned that it is challenging for communities to be asked for their points of view and that most citizens and institutions have very low self-esteem and do not believe in the transformative character of their own opinions.

The major themes that emerged from the Question Campaign should be noted. Of a couple of dozen ‘questions’ formulated by participants, five themes were commonly expressed, caught the participants’ attention, and became the topics of lively group discussion. They were: networks and collaboration; attracting new audiences (e.g., university students); working with schools; audience attendance, involvement, and participation; and cultural policy. From these themes and their articulation emerged proposals for artistic/cultural intervention projects in the different cities.

Knowledge mobilization in the Arteria project

Exhibition at the Centre for Social Studies

An exhibition of the results of the Question Campaign was installed at the Centre for Social Studies during the international “Mapping Culture” conference, which took place 28-30 May 2014, as a way to disseminate the initial outputs of the campaign and to involve more participants from the different communities. The process of documentation, question gathering, and image gathering was done in collaboration with the different partners in the different cities, with the technical support of the University of Coimbra’s Department of Architecture (see Figures 2 and 3).

The Cultural Mapping Seminar Workshop: Process and methodology

In parallel with the Arteria exhibition, partners from the Arteria network gathered during the “Mapping Culture” conference, where the first Arteria workshop took place, to which all partners from the network were invited. The agenda was jointly prepared by Ceasar McDowell, Sue Stewart, Claudia Pato Carvalho, and José Carlos Mota with the goal of starting the discussion and designing the projects for the different cities partnering in Arteria. For the workshop, we received an enthusiastic and committed group of people, numbering approximately 20, from six principal communities (Coimbra, Viseu, Leiria, Aveiro, Guarda, and Castelo Branco), as well as some representation from the regional cultural agency. The workshop also hosted a couple of observers as well as drop-ins from the conference who joined in the discussions.



Figure 2. Question Campaign Arteria – exhibition at Centre for Social Studies (CES), Coimbra, Portugal, May 2014



Figure 3. GRETUA – Theater Group from Aveiro. Question Campaign Arteria – exhibition at CES, May 2014

The methodology used during the Arteria workshop was based on the following steps (see also Figures 4 to 7):

1. *Understand themes from the Question Campaign process:* Based on the Question Campaign process, a group analysis and presentation of the different methodologies took place.
2. *City Team project:* According to each identified theme, each group (including social and cultural agents from each city) structured the basis for a community project and presented the proposed framework to the entire group.
3. *Community prototyping:* After reviewing the proposed frameworks, each group received contributions from the overall group, where experiences, points of view, and reflections were shared.
4. *City Team network design and complete project plans:* After getting overall feedback from the workshop participants, the city teams focused on concretely designing the different phases of the project.

It was gratifying to see quite a number of the workshop participants at the morning sessions for the international conference (held in parallel), making the connection between community knowledge and academic knowledge very concrete. Built into the workshop process was an activity called ‘The Listening Post’, which gave participants an opportunity to convey the ideas and observations they had gathered at keynotes and plenaries to the workshop group. The plenaries provided a good introduction to the cultural mapping process, as well as some inspiring examples of potential applications.

The workshop gave the participants a series of exercises and tasks to be carried out with guidance and oversight. Under Caesar McDowell’s direction, a very precise agenda and timeline was set out, and participants managed to maintain both with few deviations. The tasks led up to and included the outline of a cultural mapping project for each group, based on their insights and experience as to content. Each group also considered the structure and strategies for the entire regional network. The participants required little motivation and relatively little specific guidance on the best strategic approach to relate their specific issues to the territorial needs of their own city.

All of the groups that attended came away with the outline of a plan involving mapping techniques. In three cases (Coimbra, Viseu, and Aveiro), the plan involved producing a form of physical, electronic, and/or multidisciplinary ‘map’. The representatives of two of the communities (Guarda and Castelo Branco), put their heads together to plan an Australian-style historical representation for each of their respective towns, one that would be identity- and event-based and would involve the participation of city residents. The sixth group (Leiria) was unable to commit fully to a process owing to a lack of resources, in particular person-power. Their project was to establish a local arts council and therefore involved some fundamental political action. Some other participants commented that the ruling politics would be very hard to negotiate in that particular community. The proposed electronic maps (Viseu and Aveiro) were intended to focus on the arts and culture community itself, in order to assist it in identifying and sharing its own resources.

It should be kept in mind that the goal of the workshop was dual, involving both the individual communities and their own projects, as well as the communities and their relationship to the Arteria network and to one another within the network. The goal of producing a plan for a community project was intended to be secondary to that of consolidating the network. Its purpose was to provide an exercise in mapping in order to transmit the principles and process, and of course to allow participants to benefit more fully from the unique learning opportunity provided by the conference itself.

The level of enthusiasm to carry out the plans was very high. However, it is hard to say whether the planning was viewed as an academic exercise or whether there was, with some exceptions, a real determination to carry out the proposed project. In both exceptional cases, those of Viseu and Coímbra, there appeared to be sufficient resources and interest to complete at least the initial ‘map’. The challenge would be to see this level of interest sustained and to keep partners motivated during both the organization of the plan and the project implementation. In the case of Aveiro and a collaboration with Viseu, an enthusiastic and savvy representative could lead to the completion of another resource map, in electronic form, in both cities. On the subject of sustainability over time, Castelo Branco and Guarda proposed identity- and event-based projects. Their projects are very ambitious and would require deployment of many resources, but the cities were represented only by single individuals. However, one of those individuals is involved with both the local cultural authorities and a local arts organization, and the two representatives formed an apparently strong bond through discussion of their projects, which bodes well for mutual support.

To some extent, the workshop functioned as a sort of ‘cultural mapping’ of the network members who were present. Perceived advantages of the workshop for the network were to allow the participants to get to know one another and the other communities, including being exposed to the ‘questions’ or issues raised by other communities and discovering how they intersect with their own. In a significant and definitive step taken on Day 1, common themes or concerns identified in the Question Campaign were discussed. This aspect of the workshop elicited a great deal of participant interaction that will contribute directly to consolidating the network and establishing its objectives. Workshop participants experienced a planning process using cultural mapping methods. Having examined their respective resources and the means and methods required to carry out their own project, the participants will be better prepared to extrapolate to the network’s structure and strategy and to perceive opportunities for collaboration.

Participants therefore went away primed for further exploration of the network’s potential to assist them and of the kinds of resources they can bring to it. There were already two instances of inter-community collaboration, and a great deal of momentum was built up over the three days of the workshop. It will be a challenge to maintain it and to keep the various issues (themes) fresh in the minds of the participants. Another challenge will be to update potential network members who were not able to attend on the results of the workshop, especially the issues that were discussed, some of the ideas and concepts from the larger conference that were remarked upon, and common problems that were identified. Another element to be communicated is the resource ‘identity’ of the various communities established during the cultural mapping exercise.

One thing that might have been done differently was to have provided, at the outset, a brief introduction to the network itself and to general principles of cultural mapping. The methods and means of mapping were covered in workshop instructions and in the guide sheet and worksheets, and the larger historical and political aspects were alluded to in the keynotes and plenaries. Nonetheless, it might have been useful to the workshop participants to have these principles clearly expressed in a more formal way as they started their process.

Arteria workshops in the Centro Region

Subsequent to the Cultural Mapping Seminar Workshop, the starting point for the Artistic Intervention Projects was established through a series of project workshops that took place in each of the cities and territories involved in the project. These workshops enabled the partners to develop a more focused and mature proposal for each city. First, the partners discussed problems and needs relating to the cultural development of their own cities and territories and, secondly, they gathered information and had group discussions to aggregate needs and problems. Following from this first phase of the work, a second phase created questions to address the most prominent issues. After the collection of a series of questions, related stories, experiences, and concrete examples were shared, followed by the design, discussion, and structuring of a project prototype. The final structure of the proposed project for each city/territory is based on a specific project framework that provides the main guidelines for the project proposal, identifying problems/needs, target group(s), starting point, relevant partners, transformations, mechanisms, risks, and success criteria. Figures 8 and 9 present photos from two of the group meetings, which took place in the different cities and created the final structure of the proposed project for each city.



Figure 8. Workshop Aveiro, November 2014



Figure 9. Workshop Aveiro, March 2015

After a final overview of the projects proposed for each city, the remaining objective was to extend the mapping process to involve community participation. The mobile application is an essential component to fulfill this objective

Towards a mobile application

If the Arteria web-platform created the first overview of the cultural profile of the region, it did not provide a tool to facilitate community involvement and participation in the cultural mapping process itself. To accomplish the objectives proposed above, and to strengthen connections within the partner communities, we intend to enhance Arteria's platform by developing a mobile device application that links to and improves its website. With the development of a mobile platform and the improvement of the website we expect to reduce the research time taken to register a cultural asset; to increase the quantity of cultural assets registered; to improve access to those cultural assets through more effective dissemination; and to promote discussions about new functionalities and projects with the users. The cultural mapping process would be enhanced by the use of technology in two major ways: first, to connect the population in a more efficient way, allowing residents to pre-register cultural assets at any time without any methodological and scientific expertise; and second, to speed up the cultural mapping process, once the research team has screened the data produced.

Currently Arteria's web platform can interactively show all the cultural assets that were registered throughout the program. It uses Google Maps to display the registered information, and each registered item contains basic information like name, type of organization/space/equipment/event, address, main contact information, website, image, and a brief description of each registered item. Each item is also categorized according to its classification as cultural agent, cultural space, equipment, or event (see Figures 10 and 11).

This tool allows the user to filter the data by city and by the kind of facility he/she wants to visualize. However, the web platform development requires the researchers to go to each locality several times to collect and verify the data, which elevates the cost of the mapping and slows the mapping process. By creating a mobile app, we plan to change this situation, decentralizing the mapping model and improving individuals' engagement in their cultural environment. By spreading the cultural methodology among smart-phones we plan to create a 'pre-mapping' platform to allow citizens to register cultural assets and researchers to validate the data sent.



Figure 10. Registered items shown on a map

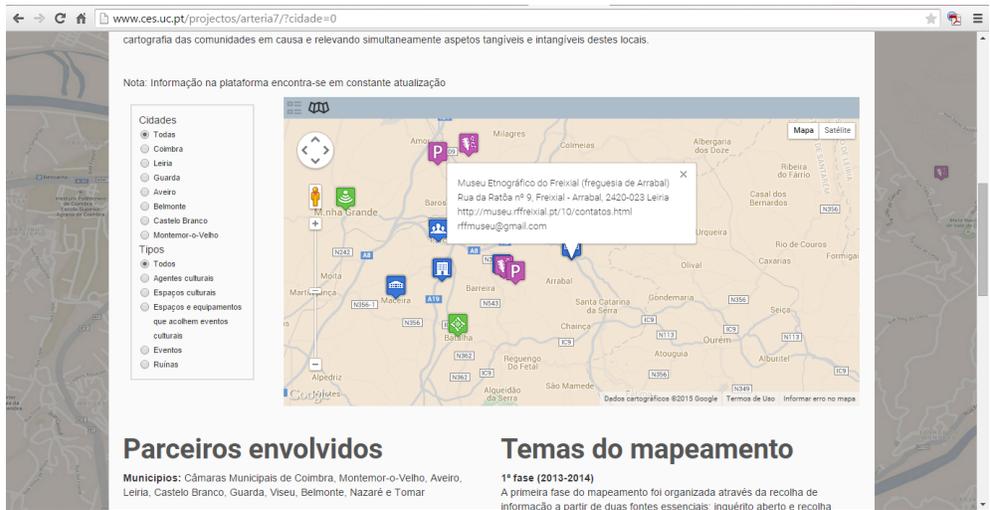


Figure 11. Detailed item, with name, address and website

There are several mobile applications that use the internal GPS of cell phones and the collaboration of users to register data and provide useful information. Foursquare is one of the most popular apps; it uses check-in options to receive valuable data about places and post them on a map for its users (see Figure 12).

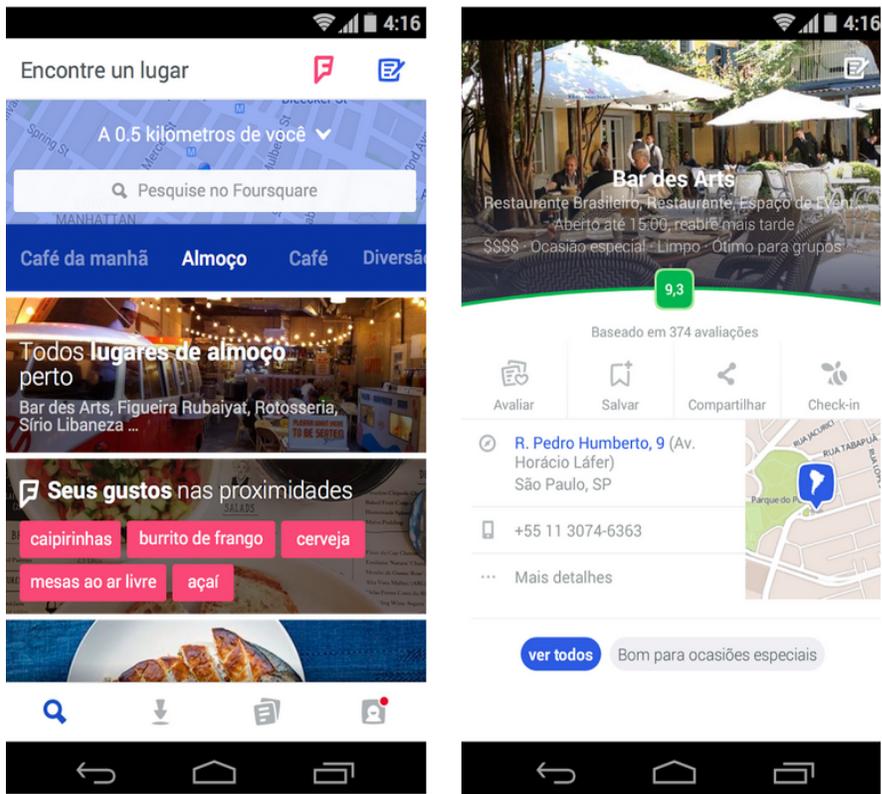


Figure 12. Screen samples of foursquare app. Source: Foursquare android app.

Another promising current application concerned with research on cultural mapping is ‘MAPPa – a collaborative tool for mapping the city’.¹ MAPPa is an IOS-based app that aims to facilitate the registration of cultural assets by individuals, who can create Facebook groups and integrate them with the app to promote a specific map. This app is an initiative that allows the user to actively map his/her surroundings, based on GPS location coupled with other user resources such as Facebook accounts and photos.

The Arteria project aims to develop and implement an app connected to a web platform that permits individual mapping activity within the context of the scientific approach proposed by the Arteria project, which involves a data screening process enabled by the web platform. The web-platform would be upgraded to receive the initial entries made by the app users, so that Arteria’s staff can review them according to cultural mapping methodology and concepts. Within this initial phase, the researchers can ask for additional complementary information, accept the registration (which would cause the software to automatically update the database and initiate the dissemination functions, such as informing the nearest users of that cultural asset), or reject the registration. In addition, to assess the software’s effectiveness and efficacy, we plan to use the following metrics: the app’s download rate; the average number of cultural assets registered; and the visitation rate to the registered cultural assets.

The application will be initially developed for Android Operational Systems.² It will contain registry, update, and dissemination functions as shown in Figure 13.

The *registry* functions will provide the necessary tools for the initial registry of a cultural asset by the app’s user. Arteria’s staff will define the necessary data for this initial registry. The app will guide the user step-by-step on how to execute an adequate entry, asking the user to take a photo, to insert the typology of the asset, its name, location, periodicity (in case of registries of traditional festivities or plays, for example), and so forth. Each cultural asset typology³ has unique data so the app must be able to accept this information from specific interactive forms.

The *update* functions will be responsible for handling the extremely dynamic requirements of cultural activities. With these updating functions, the user will be able to enter any changes about the cultural activity/asset, such as a locale or schedule change, and the app will take care of updating it in its database (filtered through the verification process previously described).

The *dissemination* functions will promote ongoing activities. The app will be capable of showing cultural assets near the individual, send alerts when he/she approaches a cultural event, and even provide a list of cultural assets in a region. The users may also use the app to connect to specific cultural events and receive periodic news about them. We intend to analyze the viability of

¹ For further information about this app, visit: <https://itunes.apple.com/us/app/mappa-collaborative-tool-for/id578620293?mt=8>

² According to International Data Corporation, the Android Operational System is present in 84% of today’s smartphones (IDC 2015).

³ The Council of Europe (2012) has stipulated three major groups of Cultural Heritage: immovable cultural heritage assets; movable cultural heritage assets (objects); and spiritual cultural assets (elements). These categories will be used in designing the data structure for the app.

integrating the app with other dissemination applications, such as Google Now⁴, for example. These functions will also connect users who are directly involved in cultural activities, allowing them to exchange information and seek and offer various perspectives on the cultural maps of different types of communities.

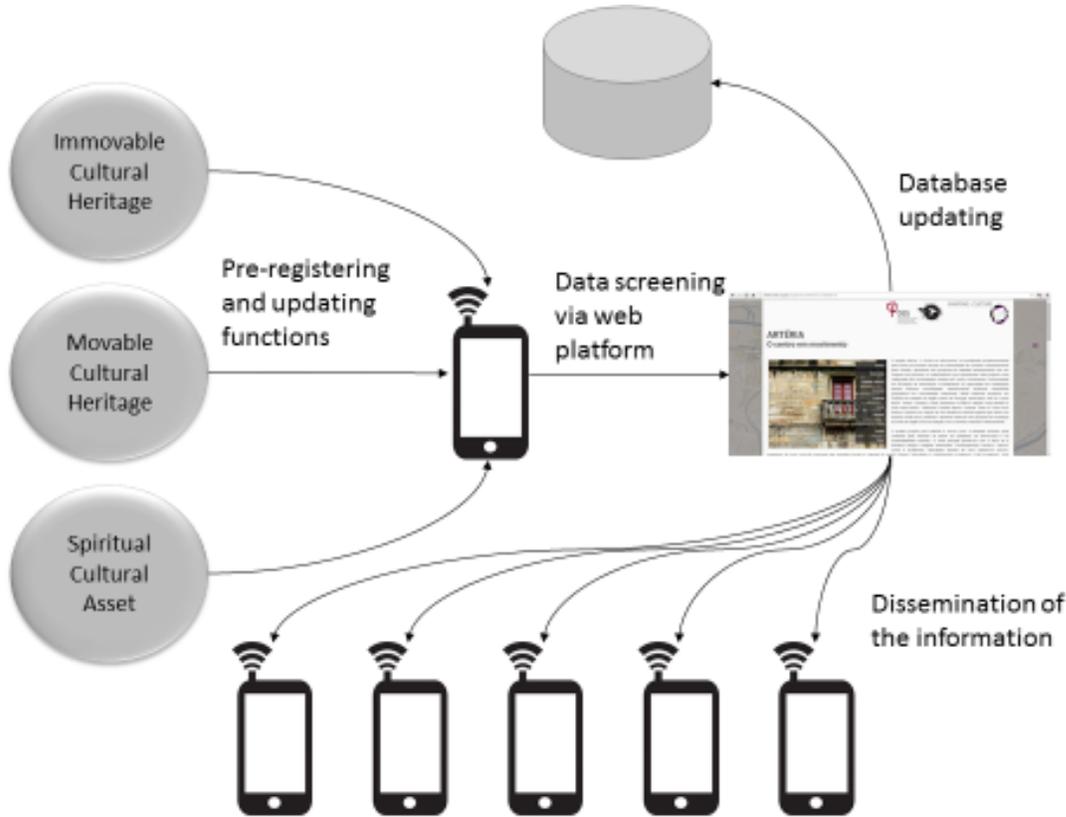


Figure 13. Technical scheme of data manipulation

Final remarks

This article reflects on how cultural mapping and the development of innovative methodologies of community participation, including digital accessory tools, could bring communities closer to the cultural mapping process. The guiding idea is the compelling need to establish a direct relation between territorial cultural development, artistic practice, and cultural mapping. For that purpose to be fulfilled, community residents/citizens in general, as well as academic institutions, artists, municipalities, and professional educators, need to work together within a space for democratic practice. Public sharing of tangible and intangible cultural resources can create a cultural dynamic

⁴ Google Now is a real-time information tool. This app stays constantly enabled, reading all the user information (localization, research made through its browser, e-mails, etc.) and tries to provide useful information according to the user's profile.

that can influence not only the cultural identity of the territory, but also provide the foundation for specific proposals for public and private investments and interventions.

The cultural mapping process described in this article enables the creation and sharing of knowledge in an innovative way. It establishes parameters for public management of local knowledge, bringing new relevance to participative community mapping. Its influence may well be a resource that offers a new perspective on local governance.

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