Pere IV, the citizen’s axis.  
From industrial axis to urban lab

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ABSTRACT
This paper exposes the particular case of the transformation of a historical industrial axis of the city of Barcelona, Pere IV into an urban lab, where to test and prototype new ways of building the city. The process, currently in progress, began with the demand of a necessary intervention on the street made by a group of neighbors through their association. This fact opened up a wide range of innovative opportunities about city management and urban transformation approaches, reconsidering the main role of the citizenship, taking the empty spaces as urban resources and technology as transforming tools. In particular we focus on the potential of locative media to contribute in connecting local communities. The aim of this paper is to share the achievements of the process, the tools employed and the considerations about them. Moreover, we want to discuss the potential of influencing municipal agendas, taking into account the maturity level of the society and the possibilities offered by digital communications tools.

1. Introduction
Pere IV, the diagonal axis that articulates the industrial heritage of the district of Poblenou and challenges the Barcelona’s grid of Cerdà, has witnessed diverse several urban transformations that contribute to the progress of the city of Barcelona. But at the same time has seen how its interstitial sections have been forgotten. Now it is the moment to act transversally involving citizenship, local administration and private sector.

The neighbours of Pere IV have organized themselves around a citizen table that coordinates, together with technical profiles, the dynamazing of the axis. The street is looking after a project of reurbanization that the administration has postponed several times, but the neighbours report that the physical conversion, which is needed, is not enough to acquire the real change, that should go through a renovated way of managing the city, which must tend to collaborative policies, cooperative alliances, open data access and recovery of the empty spaces as urban commons.

The process started to transform the area around Pere IV is a reaction to the current situation, where the urban growth cannot be anymore a strategy of the local administration to finance themselves and the fact that the society today has become an interlocutor mature enough to take corresponsability in the city management achieving a higher democratic level of living together. Moreover, the opportunity today, provided by technology, to share with others information and any kind of data increases the capacity of the society of acting collectively. Therefore, the level of empowerment of the citizenship is high enough to demand a transformation of the public policies, about city management, as well as a reinterpretation of the roles of the different agents, who not only inhabit the city, but build it daily.
Most of our needs have a spatial answer, so they could be solved if we could have some space to temporary develop activity, we need to take the commitment to build it up. There are plenty of empty spaces, blocked for different reasons: urban planning, economic causes, heritages motives or current law unfulfilment. Moreover technology gives us today the chance of being data generators and collectors, in order to know more about the state of the empty spaces in our cities. A virtual platform, which lets us combine the spatial needs that the society has with the offer of empty spaces, would empower the citizens enough to affect in the urban policies agenda.

2. Theoretical framework and context

2.1. Unused spaces as urban resources

The consideration of empty spaces has been tackled from very different perspectives such as architecture, geography, anthropology or art. The architect Ignasi Solà Morales (1995) developed the idea of terrain vague defining it so: “Apparently forgotten places where past memories predominate over present, lacking of interactions. They are obsolete spaces, strange, out of the loop of the productive structures”. From an anthropologic perspective Kociatkiewicz & Kostera (1999) designated empty spaces as “places without sense. They don’t have to be physically isolated with fences or barriers. They aren’t forbidden spaces, but places empty and inaccessible due to their invisibility. (…) The vacancy can’t be erased; it can only be ignored, expelled from the borders of the reality perceived, invisibilised and carefully forgotten. If something is insignificant, it is imperceptible” Marc Augé (1993) worked on the idea of non-places, and expressed that the places, the full ones, are defined by their social uses, and not by the constructions they present. In this sense, the empty spaces are not considered as places, due to the fact that their uses are vague or even absent.

The previous authors define the empty spaces starting from concepts linked to perception, insignificance and absence. Moreover they consider the temporal variable, when they make allusion to memory, obsolescence or oversight. The vacant spaces become a kind of urban palimpsest, that during a lot of time have been considered mistakes during planning process, “whites in the cartographies” (Vasset, 2007) that had been left over after structuring the spaces that where categorically important. (Bauman, 1999)

Every form of vacancy can be referred to as “unused spaces”, including more than empty lots of land. Unused space is nearly always space that has been shaped for a particular use, but is now, temporally, waiting for a new. The change of use of spaces is not an immediate process. In between two active moments, the space remains empty, and sometimes the vacancy state is perpetuated. Therefore, each crisis, and change in the productive system, causes a new situation that the city has to face in relation to vacant spaces that, as said before, report about the city, its economic state and its history.

After all, the next decade the massive scale of vacancy means the usual spatial task will be inverted from “program seeks building” to “building seeks program” (Rietveld & Rietveld, 2014) Thus, unused spaces are considered as resources that can respond to the demand of social movements, and innovative initiatives, which are able to build up new opportunities for the society. Quoting Signorelli (1999) “In the urban condition, the control of a resource is a source of power” makes us understand that the capacity of managing these vacant spaces would involve an empowerment process.

In this sense, fostering and facilitating temporal uses is the strategy in order to foster the self-management of the city taking vacant spaces as resources. Besides being in-between solutions further to various deadlocks and crisis, temporary uses can also stimulate the economy (i.e giving free spaces to people in the hope that they can develop a profitable business and thus expand and pay taxes) or renew the urban environment (Andres, 2013)
This paper expects to go in depth into the possibilities brought by the vacant spaces in the current urban context, exposing the specific case of Pere IV, in Barcelona. Therefore, the empty space is seen as an opportunity to test new ways of managing the city.

2.2. Unsustainability of urban growth
The way the local policies have been understood and the role played by the urban growing developments, in Spain, have left a territory full of infraused infrastructures, abandoned lots, obsolete factories, vacant premises, that have become today inherent of our urban landscape. The city has been taken not as the place to do business, but as the place from which do business, giving answer to the demand by supplying massively spaces to the real state sector, without taking in account the public interest, and the demanding social needs. Urban planning was converted into a tool in the service of private economic interests. It gave to the capital the opportunity to dispose of the products created and built, following in this way, the spatial logic of neoliberalisation (Franquesa, 2007) and the postfordist model, in the urban field.

The welfare of the society has turned from being a global request to become a personal and communal demand, appealed from the daily life and the proximity spaces. It is necessary that urbanism transcends its urbanistic perspective, localist and institutionalist, and acquires an urban attitude (Subirats & Montaner, 2012). The city of today has been disappointed with the tendency of urbanism of betraying the principles and the purposes that it should have supported. The current moment reclaims an urbanism able to prevent from degradation, guarantee housing, struggle against segregation, provide services, generate employment, and create opportunities (Nel-lo, 2001)

2.3 Arts and Telecommunications
From the seventies of the 20th century several artists and art collectives have worked with telecommunication systems. Depending on the period they have been using the data transmission and reception through telephone lines, radio waves, satellite or internet. This fact has made possible a real time connection between people geographically disperse and has made possible for example thematic dance, installations based on telepresence or online collaborative pieces. These projects as Giannetti said, are expanding the spaces of the art and for the art and dilating its temporary dimension. These breaks with the idea of art focused on the object and transform the televisive media into a meta-art media allowing its spatial temporary ubiquity. (Giannetti, 2002, p. 110)

In 1988 Kit Galloway and Sherrie Rabinowitz founded the 'Electronic Cafe International' in the frame of Los Angeles Olympic Games. The first experience took place in a Santa Monica cafe in California. They activated an interdisciplinar community conformed by artists, technics, designers and neighbours. Their objective was to organize meetings where telepresence has a fundamental role: interactive dramaturgies, metadesign environments telephone operas or teleconcerts. Electronic cafes proliferated in Europe, Asia, South America or Australia keeping them in permanent connection between themselves. During a period of ten years this experience has been an interconnected work space that changed the course of the collaborative arts with telecommunications.

Karlis Kalnins begins to use the term Locative Media in 2003 in the Art and Communication Festival of Riga. (Wilken, 2012, p. 243). He used this expression as a category to designate the processes, prototypes and applications that are based on the interaction of the screen interface with the here and now of the urban space. In Actuality both parts, interface and space, melt in a hybrid space: one is the extension of the other one. This intermediate space of computerized interaction is crossed by information layers. The particularity is that these systems are often asking our location to give us access to applications and sites and our actions and movements become an almacenable field into private databases.
There is a practices corpus around locative media, whose novelty is not the conceptual approximation, but in the media used to develop these projects. (Manovich. 2006, p. 225) Following André Lemos we can find some projects’ lines that use the informative mobile technologies. (Lemos. 2008) The first group is called ‘Electronic urban annotations’, these projects bring in new forms of writing the urban space with mobile devices, giving for example the applications ‘Yellow Arrow2’ or ‘Sonic City3’.

The second group is called ‘Mapping and geo-location’, projects that add information to maps that represent communities, as Neighbornode4, Peuplade5, or that allow to signal and trace with a GPS device, as in the case of ‘SUR-VIVALL7’. The third group is the ‘Games for mobiles based in the location’, on-line games that use a mobile device with GPS in an urban space, like ‘Uncle Roy All Around You8’ or ‘Senhor da Guerra10’. The last group is called ‘Smart mobs’, political mobilizations-aesthetic coordinated with mobile devices to realise an action and propagate it quickly.

We are focused on the second group, ‘Mapping and geo-location’, and therefore we focus on projects that create P2P maps that represent communities. There are clear references to the project of Naomi Spellman, ‘34 North 118 West’, that invites people to listen to the industrial Los Angeles through an application for tablet by navigating on marked maps. In the same way ‘[murmur] (hear you are)’ of the CFC Media Lab of Toronto shows the histories of the city inhabitants, that are showed by exposed telephones. In this line ‘Urban Tapestries (Public Authoring in the Wireless City)’ from Proboscis is an online platform for the construction of the collective memories of the space through its documentation. ‘Amsterdam Real Time’ form Esther Polak is an online interactive map in which they trace the routes of citizens that carry a gps over the course of two months.

‘Loca’ project by John Evans, Drew Hemment, Theo Humphries and Mike Raento encourages participants with low tech receptors to navigate through the semantic content of the space of the city by means of the broadcast of messages that are in points of his routes. Inside these ways of interaction between the physical and digital space we find ‘Vectorial Elevation, Relational Architecture #4’ by Raffael Lozano-Hemmer. This work consists in the interaction of the people in the online digital space that influences the physical space through the changes in a illuminated structure installed in the city of Mexico DF.

All these different projects have in common a reflection on the notion of space itself and it is relevant to see how to order the space, how to represent it or how to implicate to social agents of this space to promote the social interaction. This condition allows a connection between these projects and other contemporary art expressions as public interventions, social performances or other public space art projects. (San Cornelio, 2008)

For this analysis we focus on a relative new line on locative peer to peer that connects local communities with communication issues through opensource projects as online collaborative cartographies, participative archives or specific apps. It is important to underline the critical point of view with the origin of these technologies; the aim is to empower the communicative dynamics in low tech communities; and the contribution to the digital qualification of their members. It is the case of Megaphone, an Antoni Abad project or Ojovoz, an Eugenio Tiselli project. Both of this works split off a critical approach to locative media, going beyond the interaction between the person and the computer, and the interpersonal interaction through computers, mobile telephones and networks. (Parés, 2014, p. 21).

3. The transformation process of Pere IV

3.1. Context

Pere IV is an old industrial axis in the city of Barcelona. It crosses from the East to the West the Poblenou district, that during XVIII and XIX concentrated the spatial demand for the location of
factories out of the walls of the city of Barcelona, allowing proximity to the harbor, good connections to France (road and train) and access to water for the productive process, that acquired from Besós river, on the west border of Barcelona. The industrial origin of the district made of Poblenou a workers neighbourhood. A strong cooperative tradition and a high social commitment is the legacy that district inherited from its industrial past, and is today perceptible in the life of the district.

Poblenou has experienced various transformation projects, in order to rebuild the area in a context of urban deindustrialisation. The most important one, and with the biggest impact, is the 22@ Plan. It is a master plan, from the year 2000, with the aim of converting the industrial area into a district of activities based on knowledge and technology, preserving, in this sense, the productive conception of the district.

The trace of Pere IV challenges the grid planned by Ildefons Cerdà. The master plan purpose was to enlarge the structure of regular blocks over historic geometries, keeping some traces and different industrial heritage buildings. The strategy of the plan is to increase the edificability of the areas destined to buildings that locate knowledge and technologic activities. The strategy of increasing de the roof built in the area had the aim of attracting new business capable of transform the activities and uses of the district. Moreover the master plan is considered a huge infrastructure and TIC development, in which Pere IV played an important role, so it was planned to become an equipped axis, where the infrastructure passed through it.

The economic crisis and the management deadlocks, due to property issues or heritage preservations, made Pere IV a forgotten old industrial axis, full of empty spaces. More than the 40% of the premises and workshops at street level are nowadays empty. Plenty of industrial buildings and a lot surface is vacant, waiting for a new use.
On the other hand, different public facilities and cultural projects are landing in the area of Pere IV, giving to the area a cultural attractiveness that fosters dynamisation and increases the flow of people. For the last decades, artist collectives have inhabit the area, and the municipality build up two spaces in old industrial buildings under the name of "Fàbriques de creació". Other projects as the History Museum of the City rehabilitated an old industrial building to locate an exhibition space for industrial history of the city of Barcelona. The transfer of different university campus is a wager made by the municipality to reinforce the transformation of the district into a knowledge productive area. The latest project in Pere IV is the construction of the Smart City Campus, in an old industrial complex, property of the municipality and ceded to two big technologic businesses.

3.2. Origin of the opportunity

As it is said before, Poblenou counts with a strong organized and mature society capable to claim intervention of the administration where and when needed. In this context has started the transformation of Pere IV. The neighbours association and other social collectives claimed the transformation of an area that has been forgotten due to the successive projects developed in the nearby areas. Pere IV, the most important industrial axis of the city of Barcelona, is today an example of obsolescence. Its 3km of length pass through very different areas, but all of them share an image of deterioration that remains to a urban periphery more that to an structural axis of the city of Barcelona.

The demands were heard by the municipality that started a project of reurbanisation, in order to convert Pere IV into a civic axis. The project began with a one day participation process ruled by the administration. A lot of people took part in the process, but they didn’t get to an agreement of the proposal for the street. A core group, integrated by influencers of the neighborhood selected by the administration (presidents of associations) was summoned to work together so as to get an agreement. The beginning of the construction works has been delayed several times because of the lack of agreement, and loss of political interest. In the end, and due to the past municipal election in the city, all the political groups got engaged with the project and agreed to start it as soon as possible, finally regardless of who governs.

From this core group and more specifically, from the neighbors association of Poblenou, appeared the idea of going further in the transformation of the axis. The administration proposed a reurbanisation, a physical transformation that would give to the street a peaceful character. But they expressed the need of acting and affecting other aspects regarding the street. They considered that the transformation wouldn’t go only through the reurbanisation, but together with a dinamisation process, paying attention to cultural, social and economic activities. Because of this, they founded a citizens table, where different people discussed and started the transformation process of the axis.
The table is organized in different commissions: activities, urbanism and organization. The commissions are formed by people interested in the process and professionals who supervise the process, in the activities commission, there's an expert in participation and mediation and in urbanism commission, an architect. The most popular one is activities. They meet weekly to discuss, propose and organize activities in the street in order to communicate, make visible and involve more people in the transformation process. The number of attendees is variable, depending on the activities to organize. But there is a fixed group of 8 people. These people respond to different profiles: neighborhood association president, artists from an artist residence located in the Pere IV street, a mother attracted to the project from the parents association of her daughter's school (but not in representation of the association), the president of an association of Heritage conservation. Moreover, some neighbors as interested individuals (different ages, some employed others not) All these people were engaged in the table from the very first day. Since May of the year 2014 different artist collectives have appeared in the meetings, proposing activities and offering their art to communicate the process. There isn't any selection process. The meetings are open to everyone.

3.3. Proposal for the transformation of Pere IV

The citizen table has worked on the visibility of the process, with the aim of involving more people and entities in the table. They have organized several activities, such as historic tours, bike routes or an art festival.

The goal of the process would be to transform the area around Pere IV, now physically neglected and forgotten in our collective imaginary into an active and dynamic axis, where to test new ways of managing the city from the resources already built and with the mature and organized society that inhabits Poblenou.

Therefore, the vacant spaces, in any form and condition are taken as urban commons, in which temporary social and collective activities could be performed. The table bet on activities based on communal benefit and social economy. These activities not only can give an answer to a spatial need, or resolve the problems caused by vacancy, but also can test new initiatives,
visualize the work of entities that cannot afford a rent or even give the opportunity to transform the uses of the spaces dictated in the master plan.

Pere IV could become an urban laboratory where to experiment and experience new ways of managing the city, by recovering not only spaces but production systems or relation commitments. The approach of transformation should keep the image of industrial and productive axis, should not forget the cooperative capacity of the neighborhood and be able to empower the citizenship enough to take part in the management of the city and its spaces.

The huge amount of empty squared meters concentrated in the area of Pere IV, waiting for a use to accommodate, required a strategy where citizenship, administration, private sector redistribute their roles between users, landowners and facilitators. This approach on recovering empty spaces, regardless of their ownership, in order to give the opportunity to develop temporary activities, demands an involvement of the municipality, facilitating the process. The very first thrust of the process is irrefutably bottom-up, and it should keep its character. Consequently, the administration shouldn't take an impelling position, but an active role is required, in order to look for a global strategy of the process, along the area and the time.

Regarding the concept of smart city, and taking advantage of the coincidence and proximity of the smart city campus, the process of Pere IV have the opportunity to transcend the limits that technology marks, and develop a concept of smart city based on citizenship. Smart citizens are those who are able to manage their city, influence their municipal agendas and take part in the decisions concerning the city and the public spaces.

In order to map the gaps, produced by empty spaces, and open the information collected is used the tool offered by the project CitizenSqKm, which aims to explore and extend the potentials of a community owned and managed telecommunications network, increasing civic engagement and benefitting the citizens. This project gives the opportunity to link the process with other projects held in Poblenou and working with the same tool. The methodology used
combines conventional digital methods with more recent participatory and qualitative evaluation methods, such as Ethnografic Action Research and the Most Significant Change, methods currently being used to document the impact of information and communication technologies for transforming communities.

4. Locative media at local social processes

Contemporary telematic communication is georeferenced and the servers where these data are stored are managed, organised and disseminated by big transnational telecommunication corporations. The location is one of the omnipresent parameters in a social telecommunication context in constant information exchange, data transmission and reception and its corresponding metadata. The expansion of wireless networks, GPS systems and the use of smartphones have added in the first decade of the 21st century a fundamental element to reality: the real time massive geolocation of people and contents.

However the called MediaCity or Smartcity is distant from being an opportunity to involve in an equal way prosumers and technological corporations that monopolise the communication nodes. The principles of responsibility, sustainability and scale are distant from being fulfilled. The set of problems regarding the copyright, the technological break or the transfer of knowledge is the central axis of a line of projects in the intersection Art, science, technology and society.

From the contemporary creation field appear subversive expressions of this kind of cartographic panoptic that belongs to military investigation and is based on traceability devices and follow-up strategies. Currently there are relevant experiences concerning the use of locative P2P technologies to fulfill the needs of local communities. It is very relevant to explore the possibilities of new visualisation interfaces to access the georeferenced information in physical space, the possibility to create personalised and DIY communication networks to cowork in new forms to inhabit our urban and rural space.

4.1. Collaborative online platforms to reinforce social networks.

Looking for spaces of expression of the local and personal knowledge is a necessary task. It is urgent to give visibility to these communities, their networks, their communication protocols, and also their mutual affections and informal networks. It is necessary to pay attention to this way of subjectivation to which Guattari refers (Guattari, 2005). It is necessary to contribute to the empowerment strategy of these groups that should be able to have fully personal or collective access to distributed power and influence, and to employ that strength when engaging with other people, institutions or society.

One of the main situations of those groups is the lack of communication between the members of the same group and mainly with other agents, collectives or groups in the same place. There are exceptions, but mainly they have very little online presence and due to this reason they mainly use privative social networks and platforms. In a key moment of rethinking urban processes, Gentrification in Pere IV Street and in Poblenou neighbourhood we can find together real alternatives to the development encouraging modernity and think and develop this transmodernity of which Enrique Dussel talked about. (Dussel, 1999).
This could facilitate the construction of another agency (...), where the knowledge, production, circulation and distribution are extremely related to the context of the people, happening and interrogating and affirming the cultural experience. (Vila, W and Villa, and, 2010, p.61) This could be done by the activation of strategic devices, specifically made for each community, that contribute in reinforcing their communication processes. The main objective of these projects is to contribute to the realization of community sociopolitical cartographies that reconfigure problematized spatial-temporary contexts.

They are generating online participatory archives as diagnosis devices that show the multiplicity of visions at present time, either individual or collective, about the process of physical, social and political urban transformation as well as their problems and conflicts. It would be useful to utilize this diagnosis over the map to activate online and offline actions that affect public space.

An example of social locative media communication is Megafone.net, a project promoted since 2014 by Antoni Abad, a digital artist pioneer in the exploration of other social and communicative uses with mobile phone technology. Megafone is configured as an invitation to social groups that are dominant structures that marginalize the borders of society: people with functional dysfunction, illegal immigrants, political refugees, displaced communities, sex workers and professional sectors of motorcycle taxi drivers.

4.2. Online collaborative archives and cartographies

Constelaciones experience.

![Constelaciones](image)

Constelaciones is a theoretical-practical interdisciplinar community which ranges between expanded documentary practice, creative coding, audiovisual experimentation and digital artivism based in Hangar, in Poblenou neighbourhood. This collective is developing a webdocumentary project with the aim of connecting people with different technological profile and encouraging them to build a collective online archive to share the memories about the reconversion.

Constelaciones proposes a digital collaborative archive of the Pere IV elitization process for different agents and neighbors to document the change process and propose new strategies for
public space. It is an online platform where this documentation is showed on a navigable map that facilitates an online video tool for creating people common routes and detect confluences between them.

Through an app for mobile devices people will be able to watch documents on the same space where they were positioned, realize and document routes, establishing confluences between connected people. The process is accompanied by the activation of physical thematic routes for mapping neighbourhood resources and needs. Also Constelaciones encourages digital qualification labs to facilitate access to opensource technologies for people lacking of digital skills.

5. Hopes and possibilities

Unfortunately, the rigid planning processes of the 20th century have become so institutionalized that community stakeholders rarely have the chance to voice their own ideas and aspirations about the places they inhabit. Processes like the one run in Pere IV, and in the framework of placemaking, can break down these silos by showing planners, designers, and engineers the broad value of moving beyond the narrow focus of their own professions, disciplines, agendas. The expectations of the process in Pere IV are not only to succeed in achieving their goals, but also to become a scalable and replicable model.

Today we need urban proposals that abandon the industrial conception of urban planning in order to bet on the management of possibilities. According to that, the process of transformation of the area of Pere IV is planned to be developed taking in account the following aspects, and attempting not only to transform the area physically and socially, but also the roles in city management

- Rehabilitation, reappropriation and recycling of urban spaces as strategies more sustainable than building new structures.
- Prototyping action so as to test the response of them in a short time period.
- Temporariness, as a catalysing factor. Taking temporary interventions not only as tests, but as ephemeral or even movable activities, in order to let them to be adapted to new needs.
- Transcend ownership concept limits, standing up for the capacity of use.
- Bet on P2P logic, cooperativism and horizontal collaborations.
- Collective responsibility
- From Plan project to plan process
6. Conclusions

The city of today, the present city is a consolidated territory located in a moment of change. Using the significance of the adjective current given by Foucault (1999) so as to describe a process of transformation, of mutation, a constant movement of construction, the current urban context, should be read in key of repogramming and transformation. The analysis attributes and diagnosis parameters should tend to the interpretation and the action of the people and the places in the city, giving special consideration to time, inseparable from space.

It’s definitely good that vacant lots have a social use, even temporarily. It is civilised and smart that citizens contribute in improving their neighborhoods. But on the other hand, we have to be aware that it could be dangerous for municipalities to delegate the responsibility to care and create spaces to these citizen initiatives. The commitment of the administrations should be strong in this process of change. Our society needs an administration capable of playing the role of facilitator, in order to foster the autonomy of a citizenship mature enough to take de responsibility of their actions, and the conscious of their power.

References


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