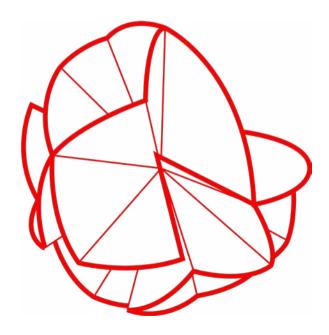




Disrupting Geographies in the Design World

Proceedings of the 8th International Forum of Design as a Process

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From Wayfinding to Placefinding Orientation and Alterity in Urban Spaces

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Abstract

In the semiotic theory, the city is considered as a text, a weaving made of practices, ideas, discourses. This leads to questions about the dialectic between identity and alterity, which is often left aside by the design theories, that mainly focus on identity. What we call 'identity of a place' is its ability to synthetize the diversities that populate it. This paper presents some reflections based on the following scientific hypothesis: the in-depth study of orientation systems can also lead to the definition of the character of an urban space. Orientation systems should be thought not only to help people finding their destination, but also to build the user's mental image of that place, making it recognizable and identifiable. The first objective of the research is to question both the environmental complexity and the cultural multiplicity of a place. To reach this objective, the adopted methodology has been the observation and analysis of an urban area in Rome, Ostiense.

Keywords

Wayfinding Urban space Semiotic Alterity Cultures

Introduction

For the purpose of this research, we decided to take into account wayfinding systems as a possible tool to communicate the plurality of a place.

Globalization and migration flows are increasingly putting the identity of our cities to the test. It is an identity that, however defended and cared for, constantly enters into relation with various forms of alterity: those of people coming from other countries, those of the homeless, those of the younger generations who enter into dialectical conflict with the older ones, those of tourists and temporary visitors, and others. These alterities do not always or necessarily remain in a state of strangeness in the new places where they find themselves. Often, they integrate, albeit with difficulty, other times they experience conflicts, especially out of xenophobia, but triggering processes of social reorganization. Cultures of origin bring new values and new perspectives, which, even when they are not well received, pose questions and generate curiosity.

This means that design – in particular communication and service design – must increasingly think of itself as *design in alterity*: a practice of design and the production of ideas acting within an increasingly complex cultural plurality. Which not only cannot be ignored but can become the very purpose of design (cf. Zingale, 2022).

Explicit orientation systems are indeed called upon to consider the variety of supra-linguistic and supra-cultural languages and communication customs. But there may also be environmental communication elements that influence orientation, such as the colouring of buildings, paving, shop signs, and buildings that take on the function of landmarks. One must then consider the various sign traces that the inhabitants of a city leave behind, such as graffiti, improvised signage, commemorative plaques, and temporary or permanent affixes (Marrone & Pezzini, 2006; Marrone, 2009). This *implicit wayfinding* also fully affects the tensions between the identity of places and the otherness of the subjects who inhabit or visit them.

Wayfinding and Placefinding

This goes beyond the definition of wayfinding system as a set of signs helpful to reach a destination and mainly related to a graphical dimension, to move towards a more comprehensive understanding of the terms as a spatial problem solving activity, embracing a series of different disciplines, from psychology to architecture, from semiotic to design (Arthur & Passini, 1992; Passini, 1996; Golledge, 1999; Berger, 2005; Mollerup, 2005). *To orientate oneself* does not mean only *to find the way*, but also to feel a sense of belonging to the place, to feel it as familiar and not as a stranger. Orientation systems, in other words, should be thought not only to help people finding the right way to their destination but also to help them in understanding in which way the surrounding environment is built, being part of the imageability of a place (Lynch, 1960), and in our case of an urban public place.

In other words, orientation concerns not only the physical and spatial dimension, but also the ability to read and interpret the urban environment and the artefacts that, explicitly or implicitly, play a communicative role. *To orientate*, in this sense, means moving from the unfamiliar to the familiar, from doubt to certainty, from the opaque to the sharp. In other words, and adopting a slogan from Ugo La Pietra (2019), to orient oneself means to feel at home everywhere. It is thus a question of placing the user in a situation of cognitive and psychological well-being, which can be achieved if perceptive well-being (which concerns sensory enjoyment) and semiotic well-being (which concerns interpretation and comprehension) are offered first.

Wayfinding systems are also helpful in building the user's mental image of a place, making those places recognizable and identifiable, in a process that we can define as *placefinding* more than wayfinding. It is in fact a place, that is, the physical and architectural space that has somehow become inhabitable, that we seek; a place that enables the harmony between ego-centered space (my space, the immediate object of my interpretation) and social space (our space, the space as we all tend to interpret it). Therefore, considering the process of re-appropriation of urban public places by the citizens (Manzini, 2021), and by any other kind of users, the involvement of wavfinding systems as information systems about the place. as *placefinding*, can have a role in expressing the cultural multiplicity of an urban space and in making it more livable. To go deeper in this direction, we decided to start by focusing on a specific urban place in which to operate. The first step of this path is to understand the chosen place in all its diversities to then try to find a way to highlight the existing plurality trough wayfinding systems.)

Methodology

In this paper we mainly focus on the analysis of an urban place, approaching it from the semiotic perspective of the textuality and considering it as an interweaving of practices, ideas, discourses (Volli, 2008). In order to analyze the chosen urban area we decided to use a qualitative approach (Creswell, 2013) and in particular an ethnosemiotic methodology, which links the ethnographic methods of observation with the semiotics tools, capable of playing an important function in understanding the observed phenomenon and building its structure (Accardo, Liborio, Marsciani, 2015; Donatiello & Mazzarino, 2017; Lancioni & Marsciani, 2007) with the aim of gaining awareness about the relationships between the actors and the objects involved, in their own context with an eye at the possible design implications (Galofaro, 2020).

The phases of the research

For the purpose of this research, the work has been divided mainly in two phases: the work off site and the work on the field.

Off-site analysis

The off-site work starts with the identification of the place to be studied to then proceed with a desk-research analysis helpful to

better understand the area from outside, both from a structural and a cultural perspective. To start understanding the cultural background of the area some of the aspects to be studied from outside are: the history of the place, in terms of urbanizations and development of its population; the narratives that each site produces over time; the perception from the media (Gamba & Cattacin, 2021). To study its physical structure, we decide to rely on Lynch's five elements of the city (Lynch, 1960). Paths, nodes, edges, areas and landmarks can give us a first structural overview. Their identification starts by analyzing the plan view, to then verify them through our point of view, as observers walking around that city, and trough the point of view of the people living that space (Stevens, 2006). This leads us to the next step: the work on the field.

Work on the field

Once some understandings of the place are gained through the off-site analysis, the work on the field can start. It can be divided mainly in two steps, comprising of different actions. The first step is a systematic site inspection (Lynch, 1960), in which the observation is the core part. To observe is the way to better understand not only the physical structure of the place but also the interaction of the people with it, from a phenomenological perspective. The aim of this step is to describe the meaning for individuals of their lived experiences with the surrounding environment (Creswell, 2013). To do so, the second step of this phase is also necessary: the involvement of the people. Since wayfinding is something with which everyone deals in their life (Zingale, 2012), the people involved should be a wider expression of the population that they represent: people living in that place since a long time, people who just moved there, people who go there just to work. This is the participative part of the process in which people are not seen as users with defined problems to be solved but more as active participants in the design process able to bring competences and knowledges to the process (Manzini & Staszowski, 2013) and to give voice to the complexity and cultural multiplicity of the area (Pezzini, 2008; Tani, 2008). All the activities carried on in the different steps will be used to build a consistent understanding of the place from the knowledges gained both through the site inspections and through the interactions with the people. The result would be a detailed description, both textual and visual, useful to interpret the results obtained in the previous phases (Gray, 2004) and to address the overarching objectives of the research.

First understandings: Ostiense area in Rome

To the purpose of this research, two different areas will be studied, to have a broader and more accurate result, but, in this paper, we will deepen just one of them. We first defined that the area of interest had to be: part of a metropolitan area, but not necessarily identified as a neighborhood; subject to cultural, architectural or economical changes trough the last years; populated by different groups of people, in terms of age, sex and cultural background. We first identified the two metropolitan areas of Rome and Milan, being the two main cities in Italy, to then narrow down to a smaller area for each city. It is difficult to define the boundaries within which to operate, but for purposes of the research it was necessary to circumscribe the area of action according to the way of living and perceiving the place (Donatiello, 2017). Through a framework of characteristic, the area around the first kilometers of Via Ostiense in Rome has been chosen Fig. 1.

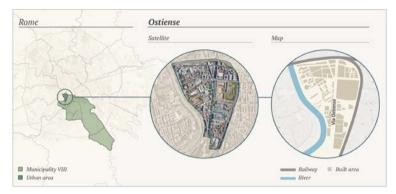


Fig. 1

The localization of the chosen area, Ostiense, on the map of Rome, its aerial view from Google map and its schematization. Credits: Daniela D'Avanzo and Google Maps.

Off-site analysis: the history of the place

Via Ostiense, one of the most important streets in Rome, connects the city to the seaside of Ostia, from which it takes its name. According to the Rome Municipality, the chosen area is part of the VIII Municipality, administratively speaking, of the urban area 11A, urbanistically speaking and of the Ostiense district, toponymically speaking. The chosen area, shaped like an upside-down triangle, is well defined by structural edges that on the western side overlap with the river Tiber and on the other two sides overlap with the railway trails. For this reason, it also has some very strong access points, like bridges and underpasses.

Starting from an historical analysis the first thing that arise is its strong industrial vocation due to the establishment, in the first part of the last century, of several different industries and related activities such as: the river harbor, the general market, the electricity powerplant and the gas implant Fig. 2. All of them are still present on the territory but they are living a process of change of use. For instance, the old powerplant is now part of the Capitoline Museums known as Centrale Montemartini, a former military depot is now a housing squat with a strong street art intervention on it Fig. 3, old industrial buildings are now hosting a university. This process of ri-semantification of the places is one of the reasons that makes this area interesting for the purpose of this research, pointing out the stratification of different meanings for the same place trough time. These first understandings have been helpful to identify the main structural elements of the area on the map, such as paths, nodes and landmarks (Lynch, 1960) - the other two elements being already defined are not taken into consideration in this phase - to be then verified on-site.



Fig. 2 The gas implant (Gazometro) is one of the main landmarks of the Ostiense area. Credits: Daniela D'Avanzo.



Fig. 3

The street art intervention of the artist Blu on a housing squat in a former military depot, this building is another important landmark of the Ostiense area. Credits: Daniela D'Avanzo.

On-site analysis: site inspections and observation

The information collected off site was then used to explore the area on site, going in those places to observe, take notes and pictures. The first site inspections were left free and random, in order to have a broader overview on the area. This initial freedom of action left space to the rising of some questions mainly related to the proper way to conduct the observation and to the definition of the object of the observation itself. Through these questions the need of a systematization of the inspections became more evident. So, the first off-site understandings were helpful to start narrowing down the objects of the observation and to identify some thematical paths to be followed on site, such as: the construction materials used, pointing out both the historical industrial vocation and the contemporary modernity of the area Fig. 4; the street art, strongly present in the area with both spontaneous and planned interventions; the green areas, on the contrary very marginally present in the area; the wayfinding attempts Fig. 5, mostly left to institutional and bureaucratic practice, often self-referential and far away from the anthropological and semiotic complexity. All these thematical paths have been followed through new site inspections mainly conducted on foot, in different hours of the day and in different days of the week, with the aim of searching for traces on site and to record them by taking photos and notes. Through these more systematical site inspections some other questions arose, mainly related to the way in which all these elements were related to and perceived by the inhabitants and users of the area. For this reason, going around in the area, another unavoidable focus of observation were the people and their interaction with the space Fig. 6. In this case as well, the first contacts were random and spontaneous: observation from far away, pictures taken from distance and finally occasional small talks. As for the previous object of observation, a need for the systematization of the interactions with the people started to be more evident. This led to the definition of a set of questions to start collecting direct testimonies. The first interviews were aimed at understanding the way of living the area. whether as a frequent or occasional user, to then deepen the perception of the area itself through simple questions left open to initiate a wider conversation. The first interviews were conducted by choosing people who had been randomly met during the surveys and with whom casual contact had been made for different reasons related to the observed object. The answers pointed out very different ways of experiencing the area, from the old man who would like to have more services for elderly people, to the young workers who enjoy the way in which the neighborhood has evolved in the last years. All the testimonies were collected to start creating a picture of the situation, that because of the complexity it represents, has shown the need of further deepening with new interviews and inspections.







The contrast among the materials used for the constructions alongside the graffiti painted highlight both the industrial and contemporary mood of the area. Credits: Daniela D'Avanzo.

Fig. 5 Wayfinding attempts: one of the identification signs, part of the wayfinding sys-tem for the Outdoor Urban Art Festival 2011. Credits: Daniela D'Avanzo.



Fig. 6 Two different places of aggregation for young and old people - the university and one of the historical bars of the area - where it is easy to create connec-tions with different kind of

Further actions

This phase of the analysis became an iterative process: the first site inspections were useful to develop hypotheses about the place later verified or disproved by the people. In this perspective the further site inspections as well as the planned further interviews, will be helpful in order to have confirmation or to rephrase the first hypotheses and to set further actions in a process that will converge in a detailed descriptive analysis.

Conclusions

These first understandings started to create a picture of the area that step by step became more complex. The plurality of the place started to emerge, both from a structural perspective and from a cultural perspective, allowing new understandings of the place to emerge. The interpretation of the behaviors, of the actions and of the ways of being of the people, will lead to cultural and symbolic comprehension of their value both for the people and for the community (Lancioni & Marsciani, 2007).

These first understandings will lead to a better comprehension of the plurality of the place through the deepening of the relationships between the people and the place itself, highlighting not just one common meaning of the place but several meanings according to the living experience of the people. Further actions will be then planned to position this diversity as a richness for the place itself and to understand in which way wayfinding systems, as *placefinding systems* and as a tool of design for alterity, can have a role in this process.

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References

Accardo, L., Liborio, E., & Marsciani, F. (2015). *Via Mascarella: declinazioni di uno spazio denso.* Esculapio.

Arthur, P., & Passini, R. (1992). *Wayfinding. People, Signs and Architecture.* McGraw-Hill.

Berger, C. M. (2005). Wayfinding. Designing and implementing Graphic Navigational System. Rotovision.

Creswell, J. W. (2013). Qualitative Inquiry and Research Design: Choosing among Five Approaches (3rd ed.). SAGE Publications.

Donatiello, P., & Mazzarino, G. (2017). *Tra «etno» e «semiotica». Affinità e divergenze ai margini di due discipline (Vol. 1).* Esculapio.

Donatiello, P. (2017). Osservabilità del senso ed etnosemiotica per la città: uno studio a partire da Bologna. [Dissertation thesis], Alma Mater Studiorum Università di Bologna.

Gamba, F., & Cattacin, S. (2021). Le quartier suspendu. Adret Pont-Rouge une projection entre cartographie et Facebook. E|C - *Rivista dell'Associazione Italiana Studi Semiotici*, XV n. 31 (settembre): 42-49. Galofaro, F. (2020). Ethnosemiotics and Design. A Contribution to a Symptomatology of Design. *Ocula* 21. DOI: 10.12977/ ocula2020-43.

Golledge, R. G. (1999). Human Cognitive Maps and Wayfinding. In Golledge, R. G. (ed.), Wayfinding Behaviour, Cognitive Mapping and other Spatial Processes, The John Hopkins University Press, 5-45.

Gray, D. B. (2004). *Doing Research in the Real World,* Sage Pubblications.

La Pietra, U. (2019). Ugo La Pietra. Abitare è essere ovunque a casa propria. Corraini.

Lancioni, T. & Marsciani, F. (2007). La pratica come testo: per una etnosemiotica del mondo quotidiano. In Marrone, G., Dusi, N., & Lo Feudo, G. (Eds.). (2007). *Narrazione ed esperienza Intorno a una semiotica della vita quotidiana*. Meltemi.

Lynch, K. A. (1960). *The Image of the City*. MIT Press.

Manzini, E. (2021). *Abitare la prossimità. Idee per la città dei 15 minuti*. Egea.

Manzini, E. & Staszowski, E. (2013). Public and Collaborative. Exploring the intersection of design, social innovation and public policy, DESIS Network.

Marrone, G. (2009). Dieci tesi per uno studio semiotico della città. Appunti, osservazioni, proposte. VS, 109-111, 11-46.

Marrone, G. & Pezzini, I. (2006). *Senso e metropoli. Per una semiotica posturbana*. Meltemi.

Mollerup, P. (2005). Wayshowing. A guide to environmental signage. Principles and Practices. Lars Müller Publishers.

Passini, R. (1996). Wayfinding design: logic, application and some thoughts on universality. *Design Studies, Volume 17, Issue 3.*

Pezzini, I. (2008). Nuovi spazi semiotici nella città. Due casi a Roma. In Leone, M., (Ed.), *La città come testo. Scritture e riscritture urbane, Lexia nuova serie.* Aracne.

Stevens, Q. (2006). The shape of urban experience: a reevaluation of Lynch's five elements. *Environment* and Planning B: Planning and Design 2006, Volume 33, 803-823 Tani, I. (2008). Formazioni e trasformazioni di spazi linguistici e sociali. Appunti sull'Esquilino. In Leone, M. (Ed.) La città come testo. Scritture e riscritture urbane, Lexia nuova serie. Aracne.

Volli, U. (2005). Per una semiotica della città. In Id. *Laboratorio di semiotica*. Laterza.

Zingale, S. (2012). Orientarsi tutti. II contributo della semiotica per un Wayfinding for All. In Steffan, I. T. (Ed.), Design for All. II Progetto per tutti. Metodi, strumenti, applicazioni (Parte prima). Maggioli.

Zingale, S. (Ed.). (2022). Design e alterità. Conoscere l'Altro, pensare il Possibile. FrancoAngeli. https://series.francoangeli. it/index.php/oa/catalog/ book/825