# INTRODUCTION

Cities are intrinsically connected with mapmaking. For as long as cities have been established, humans have been finding ways to register their morphology and location, annotating elements as physical landmarks or urban life events. Throughout history, from the pre-historic rock engravings of the first settlements, to the intricate printings of the Renaissance and the current hyperreal digital visualisations, city maps have been produced as repositories of human knowledge and mapmaking has become an authoritative tool to understand, plan and design new cities and new urban lifestyles.

The latest chapter of this long history started sometime between the 1910s-1920s, when some artists removed maps from the usual repositories, such as scholarly books and atlases, and playfully started to experiment with them as art subjects. This was a humble beginning for what would follow; yet it was a remarkable event, even more so because in the preceding nineteenth century cartography was instituted as the major discipline of all things related to maps and mapmaking. Cities then, reaching increasing levels of densification and sub-urbanisation, were mapped under the rules of accurate surveying methods. This map production was strongly associated with another new discipline of the time: city planning. Fast-forward to the 1960s, considerable debate, followed by critical practices, was directed to the dogmas of both disciplines of cartography and planning, through the emergence of movements such as ‘counter- cartography’ and ‘New Urbanism’. Artists, again, were ahead of their peers, and had been experimenting with interactive urban mappings as early as the mid-1950s through the situationist dérives and psychogeography.

This book reflects upon this ‘last chapter’ to discuss how the legacies of over a century of art maps have intruded on the realms of urban cartography and city planning. A point of depart is that the possibilities for alternative knowledges of the city are enhanced in artistic practices, not diminished. I will argue that there is a fundamental epistemological shift in including such alternative knowledges into city planning, which is much related to intuitive and humanistic approaches. Beyond measuring and quantifying the city from an abstract viewpoint, where places are coded and categorise, artists have the capacity to insinuate themselves through particularities of the urban space, relieved of the burden to commit with precise and realistic representations. That is what I am refereeing to as ‘cartographies from the ground’: maps that tell hidden stories, that register unaccounted moments, that pursue concrete, either real or imagined, viewpoints of the daily life in cities.

Another consideration in this book is to understand maps as artefacts embedded within human culture, while manifestations of ideologies, social interactions, and power relations. Examining contemporary art maps and artists’ practices in the urban context is to investigate the politics of space, environmental sustainability, new technologies, communities and many other approaches to urban living and urban design that are part of current debates on how to see, perceive and understand cities. And much of what is seen, perceived, and understood of cities is now mediated by digital technologies of mapmaking.

The advent of mobile technologies in the late 1990s and particularly web mapping in the early 2000s, gave rise to a new relationship between users and maps. At the inception of the Internet digital maps were already available, by platforms such as Mapquest, but at this early beginning they were static and looked like old fashion atlases, showing one map frame at once. Things changed dramatically when Google Maps went live in 2005, providing a platform that was fully interactive in terms of scalable searches and navigation. Since then, with similar applications being developed, web mapping turned into a constant feature in the daily lives of people in all continents of the world, thanks to the expansion of satellite devices in orbit. Taken for granted and trusted beyond doubt, mapping computing technologies became pervasive, without being further interrogated by their users. Having houses, workplaces, schools, pharmacies, or bus stops located instantaneously in pocket digital devices is now an ordinary, matter-of-fact feature, and little thought is given to how they ‘appear’ in the maps, how map applications are created and designed, and above all, by whom. This invasive and ubiquitous phenomenon has been transforming our interaction with the urban space and in main cities all over the world geographical information can be consumed continuously everywhere in range of a broadband or mobile data coverage. Navigating the urban space using a smartphone and mapping software was made seamless and smooth by ever more sophisticated, user-friendly web applications.

Digital cartography associated with communication technologies significantly changed the way maps are produced and consumed, and not surprisingly attracted a great interest from artists in maps and mappings. John Noble Wilford, defining what he called a ‘new geography’, considers that digital technologies have induced a revolution in map production and consumption that is the equivalent of that observed in the Renaissance, when new printing processes enabled the popularization of maps and map collections[[1]](#footnote-1). Contributing to this ‘map revolution’ is the democratization of Geographic Information Systems (GIS) and open-source software, allowing non-trained and non-experts users to create customised maps, either using open institutional databases or self-gathered data. Almost at the same time that Google launched their version of online mapping, initiatives as Open Street Map, a collaborative, crowd sourcing project, were on the way to overturn the rules of ‘official’ cartography, creating the first free, community editable, geographic database of street networks. In their edited book of 2006 ‘Else/where: Mapping New Cartographies of Networks and Territories’, architecture critics Janet Abrams and Peter Hall, envisioning the potential of new technologies to unleash more creative ways of mapmaking, point out that, freed from the responsibility of accurately representing the territory, professional and amateur cartographers can provide visual representations that are more akin to other disciplines, including architecture and urban design[[2]](#footnote-2).

However, it must be considered that perceptions of urban spaces are increasingly being influenced by geolocation services that provide narrowed selections of places that can be observed and experienced in a city. The amount and density of commercial enterprises and services, for instance, can subtly guide users to perceived more vibrant and dynamic neighbourhoods, while lack of information can denote areas ‘empty’ of interest. Likewise, nuanced contradictions that are part of any city are ignored, reducing the visual and informational ‘noise' and making maps, supposedly, more legible. Cities are evocative spaces, as they are the bearers of memory of human settlement. ‘A house that has been experienced is not an inert box. Inhabited space transcends geometrical space’, Gaston Bachelard wrote in *The Poetics of Space*[[3]](#footnote-3). Applying that to the urban space is to say that a city transcends its physical form, as a space inhabited, experienced and marked with the pass of generations of dwellers. What is left in the landscape that can be observed at any moment is the memory of those experiences. Conversely, the urban landscape is imagined and planned, or mapped, prior to its existence: in this case, maps are conduits to urban futures.

There is undoubtedly a general enthusiasm surrounding maps and mapping nowadays, along with concerns, criticisms, and activisms. The arrival of new digital technologies has not been a hindrance to the variety and extension of artistic expressions observed in the past three decades, and artists are engaging with maps and mappings through performance, psychogeography and locative media, producing site-specific and virtual artworks, and being critical of traditional cartography and its methods of representing space. The contemporary ways that art maps and artistic practices can be used to understand and relate to cities is a central object of discussion of this book and, within this premise, artworks are approached as creative responses to the perception of the urban environment. Rather than debating intrinsic aesthetic qualities of artworks I am considering them as translations, or modes of interpretation of cities. In looking at art maps and artistic mapmaking, considering both artefacts and associated process, I seek to investigate alternative cartographies of urban spaces that go beyond the production of maps and plans intended to perform specific tasks of information, navigation, planning or design. This also implies to discuss what kind of knowledge artworks can produce and communicate, what meanings art maps convey and how artistic mapmaking can constitute a method for interpreting urban spaces.

Definitions of maps and mappings often fall under the ‘art’ and ‘science’ binary, unfolding into systems of knowledge that consider ‘alternative’ and ‘conventional’ cartographies, depending on ‘qualitative’ and ‘quantitative’ methodological approaches. Those have parallels with the definitions of what a city is and what constitutes an urban environment: there are interpretations linked to the idea of a city as a complex mechanism to be efficiently operated, and others more akin to humanistic views of social and cultural complexity. Both cartography and urban design are commonly understood as subjects that combine art *and* science, without specifying further what concepts make these categories separated realms of knowledge. In a simplistic definition using pair of opposites, art is knowledge that is ‘invented’, while scientific knowledge is ‘discovered’, a polarity constructed along the twentieth century as an ‘economy of the binary’[[4]](#footnote-4). Under this perspective ‘art map’ is either a contradictory category, or an inventive appropriation of the science of cartography. Such approaches are not very helpful when analysing artistic mapping practices, especially in the contemporary world.

An interesting approach to the question of map ‘categories’ was suggested by philosopher Edward Casey, who identified ‘four ways to map’[[5]](#footnote-5). In the first, *mapping of*, the aim is to capture the exact geographical features of a place, through the means of surveying, positioning, and scaling the territory in the context of the globe. The second, *mapping for*, relates to maps that are made for particular purposes, as for example to illustrate tourist guides, and do not have a commitment to cartographic accuracy. The third category *mapping within / in*, concerns the way one experiences a place, and the purpose is not to present it as an accurate account or a piece of information, but rather to communicate a feeling, and the viewer ‘is drawn *in* rather than encouraged to hover *above’*[[6]](#footnote-6). The final category, *mapping out*, relates to a type of mapping that extracts its matter from the land, one that is not only about ‘tracing out the mere outlines of objects in the landscape’ but that also follows ‘the lineaments of the earth, putting down its main marks, limning its first features’[[7]](#footnote-7).

On proposing this ‘taxonomy’ of mapping practices Casey was interested in building an argument for Land Art outlining progressive levels of embodiment with the landscape, from the detached ‘mapping of’ experience to the more intimate ‘mapping out’. It is not difficult to associate such approach with the binary science /art and the categories can be viewed as a spectrum from ‘scientific’ to ‘artistic’ ways of mapping. However, in analysing contemporary art mappings I would argue that the four categories can be found in artists’ practices, and what sets apart ‘artistic’ mapping from ‘scientific’ mapping is that artists do not aim to map places with geographical accuracy *only* (or not at all), but to experiment with accuracy, if it is the case, and moreover to express and communicate ideas other than cartographic precision. Mapping for artists is a tool, a metaphor, a trope to address and comment on place and space, visual representation, and art itself. Through experimenting and finding new interpretations in map form they are able to engage with the production of scientific knowledge in critical and creative ways.

The roots of what I call in this book contemporary art mapping can be traced back to the early twentieth century, as mentioned earlier, and the first experiments in this field were conducted by surrealists and dadaists. However, it was only in the mid-1950s, with the emergence of the Situationist International, that mapping acquired a new meaning, especially in the context of the urban environment, associated with psychogeography. That continued throughout the 1960s and 1970s, in art movements like Conceptual art and Land art. Concurrent with this period was the development of digital cartography, through GIS. These two apparently separated events – the changes in the arts and in informational science - would converge in new practices from the mid-1990s onwards, such as ‘radical cartography’ and ‘counter-mapping’, that merged the ‘four ways’ of mapping described by Casey.

All maps face the challenge of interpreting what is observed in the real world but unlike scientific traditions of mapping, expected to thoroughly represent the world ‘as it is’, art mapping has the potential to unveil what is seen across. And for that purpose, art maps are allowed to be partial, selective, and not all-encompassed, interpreting (not necessarily ‘representing’) the world ‘as it could be’, or ‘could have been’. Artists can let themselves be equally guided by intuition as well as deduction, to be open to the production of different kinds of knowledge other than based in accuracy and precision, which are qualities sought after in cartographic science. Art maps offer a double translation act: first from re-producing a reality, second on re-interpreting this reality, giving new meanings, obliterating, emphasising, retelling stories, creating new categories. While art maps do not bear the commitment of being functional tools, such as for navigation and wayfinding, they can operate as creative devices for experimentation.

It is intended in this book to present the diversity of theories, ontologies and epistemologies that surround maps and mapping practices, which are useful to discuss the realm of arts in context. Understanding the theoretical context will also allow us to discuss how artistic and scientific approaches to maps and mapping are not exactly opposites but dialectical partners, a question explored here in the study about art movements and in the artists interviewed for this project.

Considering urban art maps as translations of cities I intend to investigate map theories elaborated from the 1990s onwards, such as the claim for the agency of mapping[[8]](#footnote-8), the performative character of maps and mapping[[9]](#footnote-9) and the possibilities of deep mapping[[10]](#footnote-10), relating them to urban theories and more specifically to the conceptual triad developed in Henri Lefebvre’s work *The Production of Space*, first published in 1974[[11]](#footnote-11). Lefebvre sought a conception of the urban space beyond the binary of the space ‘perceived’ and the space ‘known’ with his proposition of the ‘lived’ space, that of human practice and experimentation. Likewise, I argue here that art maps offer the opportunity to analyse space beyond the dialectics of ‘seeing’ and ‘registering’ (or representing) the world to ‘translating’ it, communicating not one reality (that of a map that is an accurate version, or mimetic version of that world seen) but multiple realities (that of the performative character to the map).

Cities were a central subject in Lefebvre’s inquiries and the use of his theoretical framework[[12]](#footnote-12) is useful for establishing connections between contemporary art practices of mapping and urban spaces. Lefebvre also engaged with the politics of urban space, being a collaborator as well as a mentor for the Situationist International (SI), a group of artists and intellectuals formed in Paris in the 1950s that explored maps and techniques of mapping as tools to challenge traditional perceptions of urban spaces. His scholarship is frequently related to the emergence of critical urban theories in the late 1960s, which had contributions from leftist or radical urban thinkers[[13]](#footnote-13).

The mapping artworks analysed in this book as a sample of the contemporary art map practices were all produced around the mid-1990s and after. They emphasise experimentation alongside experience, meaning defiance of cartographic codes and commitment to different ways of mapping. This does not mean that contemporary artists are taking a totally new approach, but it represents a step further into exploring mapping practices as means to visualise, to interpret, and to critique urban spaces. Nonetheless, one must question how much of these ‘urban spaces’ depicted in the art maps are representative of cities around the world, and of urban cultures that shape spaces in a variety of landscapes.

Researching for this book it soon became clear that most of references, in the theoretical framework and artistic examples, were from British and American sources, with the few exceptions of French philosophers and Japanese artists. The literature reviewed is overwhelmingly anglophone, and I am also aware of the striking preponderance of Anglo-American male authors. This is related to ways that knowledge propagated in the fields of geography and city planning, as well as in visual arts practices, in the twentieth century. Firstly, language counts – and English became the lingua franca after WW II in politics, media outlets, technology, academic circles and in the artworld. Secondly, intellectual and artistic networks are manifested in physical spaces, and geographical proximity matters. Cities are privileged spaces for nurturing such networks, concentrating research and development, attracting academic workforce, and providing spaces for socialisation. Capital cities and other major urban centres located in Europe and the United States offered the best opportunities for such ‘intellectual friction’ and social interaction in the first half of the twentieth century.

Since the 1960s this scenario started to change, at the time of the emergence of conceptual art and critical theories that addressed the impact of dominant cultures and identities, and such change is accelerated in the twenty-first century. The de-colonisation of history and geographical knowledge is an ongoing process that is bringing significant consequences to scholarship. In relation to maps, as more non-Western, non-Eurocentric histories are researched and disseminated, this process opens out to a fascinating opportunity for scholars and artists alike to explore a much wider world, in its spatial and temporal dimensions.

Despite a long history of representations of cities in maps, and the relationships that can be envisage between art maps and cities in the contemporary world, there little research on how artists intervene in the realm of urban cartography. Investigate the most obvious connection between them seemed to me a good starting point, focusing on graphic forms of mappings produced by visual artists. The reason for that is twofold: on the one hand the immense variety of mapping methods that I encountered during my research was overwhelming, and it would not be useful to exhaustively examine them, as it was not intended to produce a compendium of art practices. On the other hand, graphic maps are the most likely used in city planning, and the correspondence of one practice with another allowed me to discuss how traditional cartographies can benefit from artistic mappings, but also to point out that much of experiment and innovation in mapping found in avant-garde urban and architectural design throughout the twentieth century and beyond, are predominantly based on visual media.

The research undertaken for this book was developed from both my long-established research interest in the urban landscape and more recent training and work experience in Geographic Information Systems. Although these subjects were pursued in quite different contexts of knowledge - the former in the humanities, following an academic background in architecture and planning; the later within the science and technology of spatial analysis and database management - they came together unexpectedly in a project combining visual arts, mapping and cities. The methodological approach taken in my research derives from this interdisciplinarity and the book is exploratory and interpretative in nature, which means that it does not intend to test hypotheses, or to strictly follow singular systems of thought, but rather to investigate the confluence of theories originating in different domains in a process of discovery of what creative artistic practices can bring into the understanding of urban spaces through mapping. Therefore, many disciplines are involved in this process of personal discovery, as the authors cited in this book will indicate, from urban geography, philosophy, visual arts, cartography, and urban sociology.

The research is supported by qualitative methods, through in-depth interviews with eight visual artists based in or working in the UK, investigating their techniques, concepts and personal experiences in mapping and mapmaking. Among these artists are the four authors of three maps produced for Liverpool, England, between 2005 and 2011, which constitutes our case study examining different artistic mapping practices in the same urban and historical context. It is important to highlight here that this book does not intend to engage in a fundamental critique of art maps but to examine how and why they are produced, thus justifying the adoption of interviewing as method.

The interviews were semi-structured; there were no pre-arranged questions, no time limits or other restrictions that could have prompted controlled responses. I asked the artists about their personal motivations for using cartography in their practices, their methods and techniques, their artistic references and their own world view in relation to space, politics, art and society. The interviews turned into informal conversations and sometimes run well over the allocated time. There was in effect an exchange of information and moreover ‘an interchange of views’, sharing knowledge over themes of mutual interest[[14]](#footnote-14). Talking with artists in this way also proved to be a useful method to grasp the amplitude of their discourses regarding their own practices, instead of approaching them with pre-conceived labels or categories on the attempt to reach a ‘common’ ground in our dialogue. As Tim Griffin, former editor-in-chief of the international contemporary art magazine *Artforum*, commented on his own interviewing experiences with artists,

An interview works best when it inspires in artist and interviewer a kind of mutual disequilibrium, an active and continuous revaluation of the circumstances in real time[[15]](#footnote-15)

The artists interviewed for the project are near contemporaries, from a generation in its majority born after 1970 who engaged with mapping in their professional careers in the noughties. Except for one all artists were based in Britain at the time of the interviews, which made it possible to have face-to-face encounters and to facilitate visiting artists’ studios, enriching the experience of the interview, giving an insight on the physical space where they create their artworks and allowing a deeper interaction between us, as they could talk about past and present projects while showing examples of their work, tools and techniques. Four artists with quite distinct practices were interviewed to offer a general view of the status of contemporary art mapping in Britain and from British artists: Matthew Picton, Ruth Levene, Layla Curtis and Christian Nold. Picton produces paper sculptures based in cartographic urban plans, usually focusing on a historic narrative. He was the only artist interviewed over the internet, as he lives and works in Oregon, US. Ruth Levene is based in Sheffield and her work involves performance, video installations, digital drawings and participatory events. Layla Curtis is based in London and produces collaged and hand drawn maps, besides working with video combined with digital platforms. Christian Nold, also based in London, is an artist and researcher who works in participatory models of mapping cities. The other four artists interviewed are authors of three maps for Liverpool: Ben Johnson, Stephen Walter, Inge Panneels and Jefrey Sarmiento. Johnson is a painter who produces large scale cityscapes and architectural spaces; he lives and works in London. Stephen Walter, also from London, is a printmaker and works on hand drawn maps and landscapes. Inge Panneels and Jeffrey Sarmiento are glass artists, and were based at the National Glass Centre, in Sunderland, at the time of the interview.

Even if not originally from Britain (Inge Panneels is from Belgium, and Jefrey Sarmiento from the Philipines) or not based in Britain (Matthew Picton lives and works in the United States) all the artists interviewed were faced with a strong cartographic tradition that is much engrained in the British imagination and culture in producing their art maps. The United Kingdom, alongside France[[16]](#footnote-16), was one of the first countries in the world to employ a systematic territorial survey, using the technique of triangulation, leading to the creation of the Ordnance Survey (OS), Britain’s mapping agency, in 1791[[17]](#footnote-17). The OS was an enterprise founded in the spirit of the Enlightenment, in pursuit of creating ‘an accurate image of the natural world’[[18]](#footnote-18), and became an icon of national identity. This official, science-based cartography would also support the construction of a sense of power and domination exercised by the leading countries in the colonial expansion of the eighteenth and nineteenth centuries – France and Britain. Most of the artists interviewed have used in their practices OS cartographic products, on paper and digital formats, for geographical reference and as a base or graphic ‘background canvas’ onto which they overlay their own artwork. In some cases, they have also produced artworks by defacing or modifying information from OS maps, or manipulating geographical data, in an act of questioning the imperatives of cartographic rules and the institutionalised practices of mapping. Some artworks involve public participation; others are inspired by the public, as well as from local cultures and stories. They are often produced in a studio, supported by archival research and secondary data, but mapping artists rely on much field work, visiting sites, talking with people, experiencing the territory by themselves. Their art influences span from modernist and contemporary painters, to the situationists, land art and conceptual artists. Digital technologies are tools employed indirectly and the level of abstraction varies; some pieces appear more ‘mappy’ (borrowing a word from one interviewed artist) than others, meaning they resemble more traditional maps.

The case of Liverpool is relevant in this context because being a wealthy port city in the past it was extensively mapped and documented. After a period of sharp economic decline during the 1980s, with some dramatic social consequences, such job losses, riots, poverty and deprivation, a recovery process started to become more visible in the early 2000s with improvements in its business centre, cultural venues and public spaces. The city’s physical and social renaissance was encapsulated by a celebration of its history, culture and people in 2008 as European Capital of Culture, and to mark the occasion two art maps were commissioned: a cityscape painting (by Ben Johnson) and a glass sculpture (by Panneels and Sarmiento). These, alongside a hand drawing map (by Stephen Walter) was produced around the same time, constitute the three pieces that are examined as a case study.

The book is structured according to a concept of moving from the general to the particular, which is reflected in the order of chapters and the presentation of the interviews and case study. Thus, the following Chapter Two elaborates on a theoretical discussion based on three core concepts in this project, those of ‘translation’, ‘urban’ and ‘contemporary art’, seeking to identify a conceptual framework of ‘urban art map’ exploring related fields of knowledge within the cultural contexts of the language, the urban narratives, and the art world. Chapter Three ventures into epistemological perspectives of mapmaking, approaching the nature of seeing, representing, and performing. Firstly, by examining the dialectics of the views ‘from above’ and ‘from the ground’ in the urban context, through the works of phenomenological scholars and in the philosophical approach of the Western ‘visual paradigm’, and secondly by discussing modes of representation in cartographic traditions in relation to performance, agency and deep mapping. Chapter Four presents a historical (and chronological) perspective of the contemporary art map, from its foundations in the Surrealism and Dada art movements in the 1920s, to the situationists and conceptual artists of mid-twentieth century, to the counter-mappings of the early twenty-first century. The subsequent chapters Five and Six examine in more detail examples of contemporary art maps and mappings with emphasis on the urban theme, exploring the contents of the interviews and the case study. Chapter Five introduces the more recent production of contemporary artists in the past two decades, first presenting four interviews with British artists according to emergent themes and then analysing five artworks that explore the urban pattern. Chapter Six introduces Liverpool as case study through its cartographic history up to the twenty-first century, followed by a description of the events that led to the production of three art maps for the city between 2005 and 2011, and ending with the interviews of the artists involved in this process. Chapter Seven concludes the book, summarising the main discussions in the face of the theoretical framework adopted, and discussing the significance and limitations of the research project.

1. Wilford, John Noble (2002). *The Mapmakers: The Story of the Great Pioneers in Cartography – From Antiquity to the Space Age*. Revised ed. London: Pimlico, pp. 409–425. [↑](#footnote-ref-1)
2. Abrams, Janet and Hall, Peter (eds.) (2006). *Else/where: Mapping New Cartographies of Networks and Territories.* Minneapolis: University of Minnesota Design Institute, p. 12. [↑](#footnote-ref-2)
3. Bachelard, Gaston (1969). *The Poetics of Space*. Trans. Maria Jolas.Boston: Beacon Press, p. 47. [↑](#footnote-ref-3)
4. Jones, Caroline A.; Galison, Peter (eds.) (1998). *Picturing Science, Producing Art*. New York: Routlegde, p.2. [↑](#footnote-ref-4)
5. Casey, Edward (2005). *Earth-Mapping: Artists Reshaping Landscape*. Minneapolis: University of Minnesota Press, pp. xx-xxi. [↑](#footnote-ref-5)
6. Casey, Edward. (2005). Op. cit., p. xxi. (in italic in the original). [↑](#footnote-ref-6)
7. Casey, Edward. (2005). Op. cit., p. xxi. [↑](#footnote-ref-7)
8. Corner, James (1999). The agency of mapping: speculation, critique and invention. In Cosgrove, Denis (ed.) *Mappings*. London: Reaktion, pp. 213-52. [↑](#footnote-ref-8)
9. Cosgrove, Denis and Martins, Luciana (2000). Millennial geographics. *Annals of the American Association of Geographers*. 90 (1) pp. 97–113; Crampton, Jeremy (2009). Cartography; performative, participatory, political. *Progress in Human Geography*, 33 (6), pp. 840-848. [↑](#footnote-ref-9)
10. Bodenhamer, David; Corrigan, John and Harris, Trevor (eds.) (2015). *Deep maps and spatial narratives*. Bloomington: Indiana University Press; Wood, Denis (2015) Mapping deeply. *Humanities*, 4(3), pp.304-318; Roberts, Les (2015) Deep mapping and spatial anthropology. *Humanities*, 4(3) (editorial). [↑](#footnote-ref-10)
11. This corresponds to the French edition; the first English translation only appeared in 1991. Lefebvre, Henri (1991). *The production of space*. Trans. Donald Nicholson-Smith. Oxford: Blackwell. [↑](#footnote-ref-11)
12. Sometimes referred as ‘spatial trialetics’. The term was not used by Lefebvre but proposed by American geographer Edward Soja, who further developed Lefebvres’s concepts. Soja, Edward W. (1996). *Thirdspace: journeys to Los Angeles and other real-and-imagined places.* Oxford: Blackwell. [↑](#footnote-ref-12)
13. Brenner, Neil (2009). What is critical urban theory? *City*, 13:2-3, pp. 198-207, p. 198. [↑](#footnote-ref-13)
14. Brinkman, Svend (2014). Unstructured and semi-structured interviewing. In Leavy, Patricia. *The Oxford handbook of qualitative research.* New York: Oxford University Press, p. 278. [↑](#footnote-ref-14)
15. Griffin, Tim and Anastas, Rhea (2005). Method acting: the artist-interviewer conversation (with response). *Art Journal*, vol. 64, n. 3, pp. 70-83. [↑](#footnote-ref-15)
16. The first thoroughly surveying, the ‘Principal Triangulation of Great Britain’, was undertaken between 1791-1853.The ‘Cassini Maps’, the first national maps of France, were produced between 1750-1815. [↑](#footnote-ref-16)
17. The creation of the OS has military roots, as its name indicates (“ordnance” is a synonym of “mounted guns” or “artillery”), emerging from a military operation to map the country after the Jacobite rising in 1745. The first printed map appeared in 1801 and the first series of maps in 1870. In 1995 OS launched its website and finished the digitalisation of its paper maps, making Britain the first country in the world to complete a programme of large-scale electronic mapping. (<https://www.ordnancesurvey.co.uk/about/overview/history.html>). Nevertheless, the most loved paper maps series are still being produced and in use, despite the pervasiveness of the digital map. [↑](#footnote-ref-17)
18. Hewitt, Rachel (2010). *Map of a nation: a biography of the Ordnance Survey*. London: Granta Books, p. 113. [↑](#footnote-ref-18)