

# Introduction

## Spatial research from an interdisciplinary perspective

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For the first time ever, this handbook offers a comprehensive overview of the qualitative and visual methods used in interdisciplinary spatial research. In the wake of the paradigm shift referred to as the *spatial turn* (Läpple 1991; Löw 1998), the social sciences have begun to focus more on the concept of space. The argument that the social cannot be conceived without taking space into account (Löw/Knoblauch 2017, 2020) is based on the observation that societies have been experiencing dramatic transformations in their social and spatial structure since the 1960s. This sweeping restructuring can be attributed to the rise of transnational economic systems, geopolitical upheavals, the development and spread of digital communication technologies, and the increase in the global circulation of people and goods. The prominence of spatial complexities demonstrates the need for a methodological toolkit to assess the complexity of these phenomena empirically (Baur et al. 2014).

We believe that it is only possible to overcome this challenge with an interdisciplinary approach. Only by combining different stocks of knowledge and methods is it possible to develop a methodological toolkit that allows for a comprehensive empirical analysis of the current dynamic transformation of spaces. Therefore, the need for an appropriate set of methods arose from our own endeavor to satisfy the ambitious empirical research agenda of our Collaborative Research Centre 1265 *Re-Figuration of Spaces*. However, combining different methodologies required close collaboration and collective reflection. Our Collaborative Research Centre comprises disciplines with a highly advanced repertoire of methods, such as geography and sociology, as well as urban planning, architecture, and visual arts. Although the latter disciplines can fall back on an extensive arsenal for the analysis and design of spaces, they have only recently started to discuss relevant methods and methodologies. These differences could have easily resulted in an imbalance. However, because the Collaborative Research Centre explicitly intends for the researchers involved to cooperate with one another, we saw this disparity as an opportunity to learn from each other and grow together.

In the social science disciplines, there is a clear need for focused reflection on the use of tools intended specifically to investigate spaces. The central work on methods in

empirical social research by Baur and Blasius (*Handbuch Methoden der empirischen Sozialforschung*), for example, can only serve as a first step in this reflective process. Therefore, in this handbook we strive not only to illustrate how interviews can be operationalized, for example, but also how interviews can be used as a tool to explore spaces and which challenges should be taken into consideration when doing so. Accordingly, all papers in this publication explicitly address space-related issues, while at the same time providing practical guidelines on how to apply their approaches. The how-to character of our handbook sets it apart from the few other handbooks that deal with space-related qualitative social research (in English literature see DeLyser et al. 2009; Silva et al. 2015; MacCallum et al. 2019; Giseke et al. 2020; Schafer/Borer 2023; in German literature see Glasze/Mattiscek 2009; Rothfuß/Dörfler 2013; Wintzer 2018), all of which focus more on the issues and theory than on the tools and techniques.

Two other aspects distinguish us from the existing literature. Firstly, the scope of the selected methods is particularly wide since we have integrated tools from design and practice-based disciplines. Secondly, this resulted in a focus on visual methods, which we believe are especially insightful and promising for spatial research and which we therefore address in more detail. Compiling this toolbox of methods represents an important product of our interdisciplinary collaboration. With this in mind, we would like this handbook to be accessible to a wide group of readers: as a guide to understanding and learning how to use methods, testing them in your own projects, and developing them further.

## Handbook structure and contents

We have designed this handbook so that it can be read from any disciplinary, and non-disciplinary, perspective. The first chapter on exploring space is dedicated to the theoretical and overarching methodological aspects of qualitative spatial research and a discussion of basic spatial theories. We arranged the subsequent chapters into different approaches to exploring space: conversing and storytelling, observing and experiencing, drawing and visualizing, reading and reflecting. This structure allows us to mix the different disciplinary approaches within the chapters. Moreover, we are able to cast off the conventional handbook structure—data collection, analysis, and presentation of results—which did not prove practical, especially for the purpose of reflecting on methods such as mapping: Collecting, analyzing, and presenting overlap with one another repeatedly in this context. By and large, this proved to be the right approach as many of the papers combine the data collection and analysis processes in their respective methodology and examine their interdependence. Many authors also integrate the preparation and presentation of results. In this case, graphical elements are by no means just a way to show the results, but rather many papers illustrate how they can also serve as collection and analysis tools. During the editing process, we discovered that the distinction between “established” and “new” methods is only helpful to a certain extent. It became apparent that all methods can readily be developed further, especially if they are used in an interdisciplinary research process and adapted accordingly.

## Exploring space

The first chapter on *exploring space* presents the theoretical and overarching methodological aspects of qualitative spatial research, taking into account basic methodological considerations that are relevant for every research project. The chapter begins with two papers illustrating positions in distinct social theories when conducting spatial research. In the form of a dialogue, sociologist Martina Löw talks to two of the editors, spatial planner Anna Juliane Heinrich and sociologist Séverine Marguin, about the relationship between spatial theory, social theory, and research methods. The three shed light on how research design, research questions, and underlying theoretical assumptions (both spatial and social) are interconnected and influence one another. A paper by anthropologists Ignacio Fariás and Julio Paulos addressing the question of space in actor-network theory (ANT) follows. After describing the periods of development of ANT (pre-ANT, post-ANT, near-ANT), the authors use an original approach to demonstrate the implicit yet close relationship between ANT and space, thus illustrating the potential of the ANT method for spatial research. Afterward, several papers address overarching methodological topics: First, spatial planner Sandra Huning describes the role of queer/feminist perspectives in qualitative spatial research. Her paper is a call for self-reflection on how researchers can deal with gender bias, presenting accurate and helpful examples from her own work. Second, artist and design theorist Anke Haarmann asks from an epistemological point of view what qualifies certain practices in dealing with space as aesthetic research techniques and how these specific methods can be developed as a reflective methodology. She illustrates her proposition with two artistic projects, the radio ballet of the performance group LIGNA and the land art project of the Argentinian artistic-political environmental organization Ala Plástica, to show the potential of artistic research for spatial research. Two papers by sociologists Nina Baur and Gabriela Christmann follow, related to the development of the research design: They start by focusing on comparative cultural studies and show which specific opportunities and difficulties are associated with them. Next, they address how to select cases and discuss (spatial) challenges that should be considered in the process. The first chapter closes with a paper by spatial planner Anna Juliane Heinrich on the integration of visual and text-based data. The author analyzes the connection between visual and verbal data in various research contexts, which she uses as a basis to discuss different methodological approaches to data integration.

## Conversing and storytelling

The second chapter of this handbook is devoted to interview methods, which can be used to gain insight into space by means of *conversing and storytelling*. In the first paper, sociologists Maria Norkus and Gunter Weidenhaus discuss the use of biographical-narrative interviews. The authors illustrate how the method can be especially effective when applied to the analysis of spatial knowledge. Urban scholar Sarah Klepp and urban designer Felix Bentlin offer an alternative approach to the biographical method with a visual dimension, which is particularly well suited for the analysis of learning and spatial experiences. They show how it is possible to evoke the socialization of the interviewee aptly by

using a timeline in the interview situation. Sociologist Cornelia Thierbach focuses on the guided interview method, reflecting on the fundamental structure of the guidelines. She presents the challenges of talking about space and letting others talk about space that are associated with the (purely verbal) interview technique. The last paper in this chapter introduces an elicitation technique for interviews, which can be seen as a solution for this difficulty: Together with anthropologist Carolin Genz, geographers Janina Dobrusskin, Ilse Helbrecht, and Anthony Miro Born present photo-interviewing as a means of studying spatial knowledge. They demonstrate how the photo-elicitation method can make it possible to analyze spatial imagination.

## Observing and experiencing

The third section of this handbook takes a look at methodological approaches and methods used to generate knowledge by means of *observing and experiencing*. Anthropologist Carolin Genz introduces the topic together with cultural anthropologist and architect Aylin Yildirim Tschoepe by explaining the methodology behind the ethnographic exploration of spaces and spatial practices. They discuss participant observation as a key method of ethnographic spatial research. Sociologists Hubert Knoblauch and René Tuma focus on the spatial dimension of videographic investigations. They present the basic methods and methodologies underlying the videography of space and reflect on how subjective, embodied spatial knowledge can be made relevant in the analysis and interpretation. Sociologist Michael Wetzels elaborates on the concept of focused ethnography with a special emphasis on space as a category. He explains how to employ this method based on his research into localized collective affectivity. Sociologist Eric Lettkemann illustrates how spatial practices can at times be difficult to observe in spatial research if processes of spatial constitution are largely shaped by mobile, georeferenced digital information—above all when using certain apps on smartphones. With Webnography 2.0, he has developed a procedure to combine methods, which can then be used to study hybrid spaces. Urban designer Zuzana Tabačková examines the atmospheric quality of spaces and their exploration. She provides a comprehensive overview of methods and tools for site visits and presents possibilities for documentation in the field and for the final synthesis of findings.

## Drawing and visualizing

The fourth chapter concentrates on producing knowledge by means of *drawing and visualizing*. Urban planner and urban designer Angela Million discusses the application of mental maps and narrative maps. In combination with guided interviews, these are particularly suited for investigating subjective spatial knowledge, spatial perceptions, and attributions of relevance at a low level. It is clear that both the data collection settings and the analysis methods entail challenges, but they also provide a great deal of flexibility and prospects for further development. Urban designer Felix Bentlin describes the urban layer analysis: a tool used in design and planning disciplines to analyze spatial principles

of organization in the city. Here, he emphasizes the importance of making it easy, even for non-planners, to understand the key design principles of graphically reducing the potential objects of investigation and organizing them into layers. As if to build on the urban layer analysis, planning sociologist Emily Kelling and architects Dagmar Pelger and Jörg Stollmann write about the multiscale mapping method. During the mapping process, the lifestyles that constitute and that are constituted by urban spaces are included in the analysis of those spaces. Similar to mental mapping, this method is complemented by stories and is characterized by spheres of activity being depicted collectively on various scales, thus revealing their interdependencies. Geographers Julia Fülling and Elmar Kulke, together with sociologist Linda Hering, also discuss the mapping method in their paper, but they add the elements of mapping and photo-documentation in accordance with a mixed-method design. Placing symbolic and aesthetic properties (photo-documentation) within a spatial and structural context (mapping makes it possible to draw conclusions about the spatial constitution that could not be obtained using a pure text-based approach. In her paper on image-based techniques in artistic research artist Stefanie Bürkle sheds light on the intuitive and process-oriented approach to knowledge production in the fine arts. Using criteria and examples from her own artistic research practice, she explains the value of ambiguity and unpredictability in this approach and describes how to manage these challenges. Sociologist Séverine Marguin and architects Jörg Stollmann and Dagmar Pelger contribute to the discourse on mixed-method research with their paper on mapping as joint spatial display. In connection with the concept of joint displays, which serve to integrate and synthesize heterogeneous data by visual means using a chart, they illustrate how mapping itself can achieve this integration and describe which methodological steps have to be considered for this purpose.

## Reading and reflecting

The final chapter is dedicated to *reading and reflecting* as methodologies and methods for exploring space. First, sociologist Jannis Hergesell highlights the particular requirements associated with taking into account historicity and temporality in spatial research. He discusses the duration, progression, and periodization of processes as key dimensions of a process-oriented methodology in spatial research and clarifies how they can be used to analyze specific objects of investigation. Afterward, urban researcher Ignacio Castillo Ulloa and sociologist Jona Schwerer present a protocol for carrying out a qualitative meta-analysis. Step by step, they explain how even large volumes of material can be synthesized to investigate new space-related issues. The two sociologists Vivien Sommer and Kamil Bembnista introduce another synthesis method: the multimodal discourse analysis. Their concept can be used to analyze discursive practices; instead of restricting themselves to (written) language, they develop an innovative approach to integrating different types of media, such as images or artifacts. The publication closes with a paper by communication scientists Daniela Stoltenberg, Barbara Pfetsch, and Annie Waldherr on the geolocalization of digital data. They provide an overview of the different methods used for automatic geocoding and propose potential applications

for mixed-method research. As examples, the authors use two of their own research strategies for the spatial localization of *Twitter* networks.

## Outlook for future topics and requirements for further research

By introducing 19 different tools, this handbook provides an initial overview of the possibilities offered by a qualitative empirical analysis of spaces. During the first four years of our Collaborative Research Centre, we focused on an exploratory, qualitative approach. As such, the qualitative methods of spatial research were pushed to the forefront, which is why they define the focus of this handbook. However, we see a clear need for generalization in the future, with mixed-method approaches playing an increasingly important role in spatial research (Baur et al. 2014; Baur et al. 2017; Thierbach et al. 2020). Some of the papers presented here have already paved the way for this to happen by combining qualitative and quantitative approaches: Baur/Christmann on how to select cases, Fülling/Hering/Kulke with the supply mapping tool, Marguin/Pelger/Stollmann with their joint spatial display, Stoltenberg/Pfetsch/Waldherr with methods for geolocating digital data. Many papers illustrate the numerous possibilities offered by combining different methods. This aspect highlights the great potential for development, which should be addressed in future qualitative spatial research more than in the past. For example, how can different types of data be integrated productively? In addition to the qualitative/quantitative aspect, the mediality of data merits greater attention. Multi-modal approaches, such as the one demonstrated by Anna Juliane Heinrich in her paper on combining visual and verbal data, are very promising for spatial research.

Aside from the need to develop mixed-method approaches, it is also clear that most debates about intercultural comparison assume that *cultures* can be spatially defined in a relatively clear manner and that *space* itself is a unit that can be delimited. Even though space is being redefined, this also has consequences for intercultural comparisons. At the same time, postcolonial discourses play an increasingly important role. These aspects are being addressed from different disciplinary perspectives as a subject area in *Forum Qualitative Social Research* (FQS) (Baur et al. 2021).

The world of today clearly demonstrates how the relationship between science and society is dynamic and in a constant state of flux, allowing for “new forms of knowledge production” while also causing “participatory approaches to attract increased interest” (von Unger 2014: 6). Although this assertion pertains to applied qualitative social research, it is also promising for spatial research—especially when studying subjective views on conceptualizations of space. This also raises the question of how participatory research practices can become more meaningful for basic space-related research and to what extent combining methodologies from applied participatory research practice can enrich the design and planning disciplines. In particular, visual methodological approaches that supplement the possibilities of linguistic expression are suited for collective knowledge production, making it possible to study spaces collaboratively and even shape them, if necessary, in the spirit of participatory research practice. We see a great deal of potential in this regard.

The two lines of discussion mentioned above—postcolonialism and participatory research—place emphasis on the positionality and reflexivity of the researchers during the research process. The associated methodological challenges are presently being debated at length: for example, in the special issue *Positionality Reloaded. Debating the Dimensions of Reflexivity in the Relationship Between Science and Society* in the journal *Historical Social Research* (HSR) (Marguin et al. 2021). We would like to wrap up the introduction to our *Handbook of Qualitative and Visual Methods in Spatial Research* with some food for thought regarding (spatial) research: What is your motivation and what are your objectives when conducting (spatial) research? What is your background and what is your point of view, and how do they influence your (spatial) research? With whom would you like to collaborate to produce knowledge, and what type of knowledge would you like to produce (inter/multi/transdisciplinary)? And lastly: Who reads your (spatial) research, and how can and should your research contribute to society? There are no uniform or easy answers to these fundamental questions. Rather, they are intended to encourage researchers to self-reflect and develop their own position. Please use the papers compiled in this publication as inspiration for your reflection.

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