

CREATING COMPARATIVE MOMENTS

AN EXPERIMENTAL METHODOLOGY

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Advancing research methods to engage with today's diverse and complex urban worlds is the key to comparative inquiry. Working across different case studies confronts us with particular challenges that invite us to revisit and rethink conventional methods and procedures of research (see e.g. Robinson 2011a; Ren and Luger 2015; Lancione and McFarlane 2016). Moreover, theoretical interventions such as planetary urbanisation (Brenner and Schmid 2011, 2015; Schmid 2018) and the critique of methodological cityism (Angelo and Wachsmuth 2015; Angelo 2017) as well as post-colonial propositions (Robinson 2006, 2011b) call for methodological innovations for analysing urbanisation, as is explained in detail in Chapter 2. This emphasises that appropriate methods are needed not only to inform a theoretical understanding of urbanisation processes but also to include perspectives that are different from those already established within academia. As many critics have noted, these are still dominated by Euro-American approaches and understandings (e.g. Kenway and Fahey 2009; Myers 2014; Leitner and Sheppard 2016).

As a result we had to adapt and also develop a whole range of new methods that would allow us to adopt a decentred, process oriented, open-ended comparison of urbanisation processes. This chapter explains the comparative methodology of our project, drawing on a complementary set of

ethnographic, cartographic and historiographic methods suited to an experimental, transdisciplinary and collaborative study of urbanisation.

A whole range of different comparative tactics have emerged in recent years that increasingly draw on experimental approaches. Only a few studies, however, offer discussions on the methodological design and operationalisation of comparative research (e.g. Gough 2012; Becker et al. 2013; Simon et al. 2020; Wood 2020; Brill 2022). Even more urgently needed is a broad discussion on the theoretical implications of different methodologies. This chapter seeks to contribute to these recent debates on experimental approaches in the field of urban studies by presenting the specific methodology that we developed over the course of this research project. It addresses in particular the way of analysing the spatialities of urbanising territories and urbanisation processes. In our project, we analyse urbanisation empirically as a dynamic, ever-changing process, and we understand an urban territory as socially produced. Methodological approaches do not simply emerge automatically from theoretical assumptions; rather, methods and methodology have to be adapted and reinvented to address these theoretical assumptions. If urban theory is to be revised, it is imperative, as Jennifer Robinson (2006, 2016, 2022b) puts it, to develop experimental and creative methodologies and rationales for comparative analysis. Therefore, we had to develop an approach in which both methodology and theory address these intertwined issues. As discussed in Chapter 2, we applied a transductive procedure in which methodology and theory are dialectically related, and thereby mutually influence and alter each other (see Streule 2018, 2020). If, as we conceive it to be, urban theory is dynamic and decentred, it is imperative to develop experimental and creative methodologies (see Robinson 2006, 2016, 2022). This also applies to the nitty-gritty of doing comparative research and the methods employed in such research processes. It is thus necessary to reflect on the development of new and inventive methods that enable us to draw different urban contexts into analytical conversation with each other and to problematise dominant assumptions and parochial imaginaries on urbanisation, in order to simultaneously revise and rebuild urban theory.

In the following pages I go through our research process step by step, discuss our complementary set of ethnographic, cartographic and historiographic methods, and explain three consecutive comparative moments that are crucial not only for the analysis of each case study but for the generation of new concepts of urbanisation. The final section reflects on how crafting new methods of both data collection and analysis shapes the generation of concepts and vice versa, and discusses possible implications of this for urban

studies. It concludes with an invitation to a broad methodological discussion and its theoretical consequences by emphasising the interconnectiveness between developing new methods and the generation of comparative concepts in urban studies.

A COMPARATIVE METHODOLOGY

Our approach is based on a collective, transdisciplinary and transductive research process by applying an experimental methodology that combines a wide variety of sources and procedures. It emanates from collaborative work, where the members of our team brought their disciplinary backgrounds and empirical research experiences from geography, sociology, anthropology and architecture into a shared methodological framework. At the same time, this approach had to allow the comparisons to inform their own research. This transductive approach demands an inversion of the conventional procedure: the comparison does not start once the field research is completed, it starts right at the beginning of the research. This demands a systematic and iterative comparative process to be employed during the entire research.

With this comparative project, then, we started from a well-defined theoretical base understanding urbanisation as a multidimensional process (see Chapter 1) and combined this with an empirically grounded procedure using an inventive qualitative methodology. This implied both that we engage empirically with concrete places and solicit the everyday knowledge of people who are mostly under-represented in dominant urban theories, and that we engage theoretically with often neglected bodies of work proposing concepts of urbanisation that differ from that offered in the anglophone canon. The aim of this project was less to find new phenomena or trace possible connections between different places, but to use the tool of comparison to detect and conceptualise new concepts of urbanisation that might relate in various ways with each other. This conceptualisation required a great deal of flexibility, and therefore we kept our definitions of the urbanisation processes as open as possible. This open approach also deeply influenced the methodology and the methods we applied. As a methodological principle, the urban processes to be compared and the criteria of comparison were not pre-given, and we sought to avoid relying on any kind of predefined concepts. The new concepts of urbanisation had to emerge during the iterative research process itself, in tandem with the progress of our conceptual development during each step of data collection and analysis. This methodology is very similar to iterative strategies of grounded theory (Charmaz 2014)—yet, unlike in grounded theory, we did not follow an inductive approach that rejects a priori theoretical assumptions. Rather, in our procedure we developed and applied a transductive research procedure, simultaneously collecting and analysing data and invoking iterative strategies of going back and forth between empirical research and conceptual work. The emerging concepts were the result of long and

intense debates during team workshops, which included the entire research team and occasionally also external colleagues.

These workshops constituted the very core of our methodological procedure and were indispensable for developing our comparative concepts. We organised a total of 12 workshops of one to two weeks each, involving the entire research team. We shared and intensively discussed fieldwork data and established the common ground of our project based on our specific multidimensional understanding of urbanisation that guided our research. The workshops, taking place either in Singapore or Zurich, were crucial for bringing the results of each study into a comparative perspective with the other cases. This truly collective process of building concepts and urban theory, based on discussion and feedback sessions between individual research and team workshops, is one of the unique strengths of this project.

The first step of our comparative empirical research was to define the perimeters of our case studies. Our processual understanding of urbanisation required a definition of the units of analysis that differed from extant approaches. In our research, the geographical frame of analysis of each case study had to be left open to include the large region extending into the interface of concentrated and extended urbanisation. This geographical framing was not taken as an indicator of the limits of the urban region, however, but rather as the practical extent of the area under analysis.

After this first approximation, the concrete boundaries of the research units were defined during the multi-sited research process itself, based on the results of the qualitative interviews at each site and through newly developed mapping procedures. I expand on these methods below. For now, it is important to emphasise that the units of analysis are always constructed. The perimeter drawn in studying urbanisation is not a neutral tool and not a given space, but a theoretically and empirically relational urban territory, drawing on everyday experience as a site of knowing and knowledge production (Streule 2020: 427–428; see also Chapter 2). With this conceptualisation, the unit of analysis itself was transformed into a research object; eschewing the areas delineated by administrative boundaries, and defining them through local, regional and global processes. At the same time, our multi-sited, dynamic and relational understanding of the research units also opened up possibilities for comparative urban research across the different case studies.

HOW TO RESEARCH THE SPATIALITIES OF URBANISING TERRITORIES?

As our project aimed to be a qualitative study of contemporary urbanisation processes and spatial transformations on a metropolitan scale, we were confronted with the challenge of how to actually do this. As we did not find adequate tools among the conventional social sciences methods, we developed a novel methodology that allowed for a dynamic analysis of patterns and pathways of urbanisation, as situated in concrete contexts. Our set of methods is composed of iterative rounds of field research comprising various forms of field trips and interviews with inhabitants, exploratory mapping sessions with local experts for the outlining of the patterns of urbanisation, a regressive-progressive method for the historical analysis of the pathways of urbanisation and a comprehensive consideration of a broad local scholarship.

FIELD RESEARCH

In a series of field trips that included long-term ethnographic studies as well as short field visits on various occasions, each researcher moved through the urban territory on foot, by public transport or private vehicle, documenting qualitative data by taking pictures and jotting down notes in a research diary. Moreover, walking had to be adjusted to the specific ways of moving on the streets in each case study, where questions of who can move where, how and when are key (for a fuller discussion drawing on the example of walking in Mexico City, see Streule 2017). These exploratory walks of participative observations were continuously complemented by tours guided by experts through specific urban areas and different techniques of qualitative interviews (with users and producers of space and with inhabitants, activists, artists, policy-makers, project developers and so on). Furthermore, a review of local literature, as well as archival research and consultations of local media, were used to help contextualise the findings.

The variation in field research methods described here is partly due to the interdisciplinary background of the team, but also mirrors the individual positionality of each researcher and their different levels of experience and knowledge of the field. The research design of the project did not seek uniformity or even a preset methodological frame for qualitative research and it did not try to impose a specific approach to all the case studies. Rather, the methods we applied followed systematic yet flexible guidelines for collecting and analysing qualitative data during field research.

This inventive approach to methods was particularly useful in studying a great variety of ever-changing urbanisation processes taking place on a large scale and in different contexts. Our methodological employment of multi-sited research strategies was particularly useful here. As George E Marcus (1995) suggests, multi-sitedness is a necessary tool for working ethnographically, but beyond that, it is also required to define new, complex and surprising fields of research. This is particularly true of multi-scalar and multi-sited research used to analyse large and heterogeneous urban territories. To render mobile ethnography operational as a research tool, we drew on a range of transdisciplinary techniques that are part of the well-established ethnographic toolbox. However, it became evident that conventional and more orthodox applied ethnographic methods entail serious limitations and shortcomings (Streule 2020: 428, 2023). One example of the limitations of traditional approaches is their exclusive focus on single administrative units such as neighbourhoods. It was thus necessary to adapt conventional ethnographic methods to suit the research question.

While the concrete field work varied, as explained above, all researchers in this project interviewed a wide spectrum of people based on a theoretical sample of very different inhabitants and experts on everyday life focusing on many different spatial practices, perceptions, interpretations and evaluations of the urban. From this dynamic perspective, analysing, understanding and describing the specifics of the social field is necessary only insofar as it contributes to an adequate comprehension of the production of territory (see also Nadai and Maeder 2009: 246). This includes identifying the main actors that produce a specific urban configuration as well as the lines of conflicts and alliances that emerge in this process, along with identifying power relations between and among different groups of interest (see also Schwarz and Streule 2016, 2022).

By employing an unusual perspective on a metropolitan scale, the multi-sited approach to mobile ethnography that I describe here offered a way to define and map urban configurations based on grounded qualitative empirical data. Notably, neither the metropolitan scale of analysis nor the local scale of the field site was a fixed entity predefined by local administrative boundaries, such as municipalities or neighbourhood units. Instead, scales and field sites were key concerns of our studies and were defined eventually through the ethnographic research itself. This iterative research process constantly produced (spatial) knowledge through a mobile ethnography, which then needed to be analysed in light of the dialectical production of territory by both the researcher and the researched themselves (Streule 2020: 427). The focus of this mobile ethnography was thus

not the description of a specific place or city, but the question of how and why certain urbanisation processes are dominant in specific urban configurations, how they can be explained and how they shape urban territories (see also Welz 1998: 183). The sampling method of these studies aimed at theory construction (well-known as theoretical sampling as used in grounded theory), not representativeness.

EXPLORATORY MAPPING SESSIONS WITH LOCAL EXPERTS

Mapping is a widely used tool of transdisciplinary and critical urban research, and is of interest not only in geography or architecture but also in the framework of artistic and activist research projects (see e.g. Wildner and Tamayo 2004). Numerous publications on the possibilities and limits of mapping show that the process of map-making is not neutral (e.g. Wood 1992; Crampton 2010). This is true for established georeferenced cartography as well as for qualitative mapping (see Sletto 2009). Maps are powerful instruments: they direct our gaze to certain questions and bring selected phenomena to light, while others remain hidden. Maps always contain a selection and hierarchisation of certain data sets and narratives. However, reflecting on these inherent properties of maps also opens up the possibility of contributing to alternative representations of the urban, as numerous counter-mapping projects vividly demonstrate (e.g. *kollektiv orantotango+* 2018). In our project we designed and developed a specific method of exploratory qualitative mapping to identify different urban configurations in a situation of scarcity of data. Originally developed in a research project on the urban development of Havana, the method is based on several exploratory mapping sessions with focus groups of architects and urban planners (Peña Díaz and Schmid 2007; Schmid 2014). We employed this method in our comparative project by using the maps resulting from these sessions as guidelines to conduct further interviews, to share emerging analyses and interpretations with other experts and to request their feedback. The experts included geographers, anthropologists, urban planners, architects and urban activists who were knowledgeable about the particular case study area.

In the first step, the exploratory mapping sessions served to discuss and visually represent various areas of the urban territory in terms of their specific socioeconomic and morphological characteristics and functions, ongoing transformations and the lived experiences of their residents. Thus, the map on the table around which those discussions took place was both a concrete support for the discussions but also an instrument that enabled us to synthesise complex relationships. The group sat around a basic map of the urban

territory (preferably a topographic map for the sake of legibility, but also an aerial view), with tracing paper, coloured pens and a sound recorder. The mapping session, also possible with a small round of several people, usually started with questions that were intentionally open to interpretation and further discussion. A second step of this method of qualitative mapping was added to cope with the difficult question of representation within the colonial tradition of cartography. The researchers once more invited local scholars to discuss the preliminary results of the previous mapping sessions and to comment on the emerging maps. Through these constant feedback loops we established a sort of dialogical re-reading of the multilayered map to refine the cartographic representation of urbanisation stage by stage (see also Streule and Wildner 2022).

The collaborative drafting of these emerging maps together with local experts was a necessary step in knowledge production and can be understood as a process for the gradual analysis of the urban territories, which became more and more precise over the course of the research, and also to find blind spots in the qualitative data in the process. This two-step mapping procedure not only helped to identify key characteristics of the urban territory framed as patterns of urbanisation, but also to reflect critically on knowledge production. Additionally, the maps were complemented by using mixed data from a variety of sources including field research findings, original archival sources and census data, if available. These multiple layers of information were integrated through triangulation to produce a map that showed areas where certain urbanisation processes were dominant. Triangulation here means using several methods, mixed data and multiple researchers in different case studies to extend data and interpretations. This is not to simply confirm other results or to use other methods to study the same phenomenon, as Uwe Flick (2019: 121) points out, but to make research and results more credible and fruitful. The result of this step was what we called a thesis map. It shows different urban configurations for each case study, as I explain in more detail below.

REGRESSIVE-PROGRESSIVE METHOD FOR A HISTORICAL ANALYSIS

After this first phase of empirical research, we employed a historical perspective. At this point, the temporal dimension became the organising principle of the analysis, with the aim of understanding important turning points in the pathway of urbanisation and their aggregate impacts on the urban configurations identified. How can such a complex process as the social production of space be studied both empirically and via a historical perspective? The built environment, or surface, is one possible starting point for reconstructing a spatialised

historical narrative (see also Abu-Lughod, 1999). Following the regressive-progressive method introduced by Henri Lefebvre (2003 [1953]), the analysis descended into the past to identify defining moments of a specific urbanisation process and ascended again by reconstructing the decisive lines of historical development and elaborating on a periodisation which illuminates the respective constellations of dominant power and fields of conflict. Using this regressive-progressive method, we could grasp the urban as a dynamic multi-temporal process.

This historical procedure presumed the researcher had an initial understanding of the context. The development of a spatialised historical narrative was thus based on the thesis map already established. As a synthesis of the preceding empirical research, it functioned as a starting point for the regressive-progressive analysis. The urban configurations thus became the points of reference for the historical reconstruction. The potential of this regressive-progressive procedure lies, as Fraya Frehse (2001: 172) points out, in the resulting systematisation of an extremely heterogeneous historical corpus of sources. For this focused data collection and analysis, we used secondary literature and original archival sources such as historical maps and photographs to identify key moments in the reconstruction of the material production of space, territorial regulation and people's everyday lived experiences. A critical methodological reflection of this approach involves an active understanding of history that enables us to situate the ideas, experiences and practices of spatiality and historicity in their material, political and social contexts. This analysis provided important insights into how urbanisation processes inscribe themselves into the terrain. The periodisation of the production of space showed that different, at times relatively stable, political, economic and social arrangements dominate urbanisation in each case study.

Based on the assumption that different urbanisation processes shape an urban territory simultaneously, each researcher conceptualised and discussed the main urbanisation paradigms that are fundamental for understanding urban transformation processes in their respective case studies. Their historical analysis clarified the temporality of spatial processes and contributed to the differentiation of current transformation processes. Delineating the findings of the historical analyses and reading them through the lens of the thesis maps provided the basis for the identification of urbanisation processes. They also enabled detailed and wide-ranging accounts of each urban territory. The analyses of the urbanisation paradigms and the urban configurations thus constitute important results of our research project in their own rights. They are presented in detail in Part II of this book.

THE COMPARATIVE ANALYSIS OF URBANISATION PROCESSES

The main steps of our comparative procedure can be analytically structured by three consecutive comparative moments: firstly, identifying different urban configurations for each case study, secondly defining urbanisation processes across cases in comparative team workshops and thirdly, generating concepts through collective writing. This comparative procedure included a constant collaborative engagement with all the case studies, whereby each researcher contributed their expertise and growing knowledge of one specific case. In this procedure, we did not use the other cases simply to contrast it with our own research. Instead, we learned from each other to read our own cases through the other case studies. The regularly organised team workshops bringing together the team members were crucial for this exchange and for mutual learning. Furthermore, these workshops became the key for creating comparative moments, where first contours of new concepts emerged. To consolidate and define these concepts, the final phase of the project was dedicated to a collective writing process that was vital for generating and defining our concepts. Finalising these papers with up to eight co-authors was probably one of the most difficult tasks of the project, as the following brief reflection also shows.

FIRST COMPARATIVE MOMENT: IDENTIFYING DIFFERENT URBAN CONFIGURATIONS IN EACH CASE STUDY

A first step of our comparative procedure was to produce a thesis map for each case study. This map synthesises the qualitative data and the narrative elements drawn from observational fieldwork, the exploratory mapping sessions and the historical regressive-progressive analysis. Mapping allows for a highly interrelated and simultaneous analysis of this mixed data. Each researcher—in interaction with the entire research team—produced a thesis map for one of the eight case studies. The map displays different urban configurations, simply marked with different colours for each case study. In this first phase of comparison we used colours, not names, to indicate the different urban configurations because the naming process itself constitutes an analytical step.

The elaboration of the thesis map corresponds to the first comparative moment of the project—that is, to identify and describe urbanisation processes for each case study. To achieve this goal, different

parts within the same urban territory have to be related and compared with each other and mapped as distinct urban configurations. In this process, the researcher specifies the resulting urban configurations, identifies their characteristics and prepares short descriptions of each of them. In this way, the different urban configurations are geographically and historically situated and, finally, named: they ideally bear names in the local language as they are empirically grounded. It is important to note that different languages were used in both data collection and analysis including Turkish, Japanese, Cantonese, Mandarin, French, Mexican Spanish, English and the various Indigenous languages spoken in the case-study areas.

In this way, the thesis maps were deployed as heuristic tools and integral parts of the research process. Despite its clear benefits, this type of visualisation had obvious limits. The presence of boundaries—no matter how gradual they are—gave the impression of abrupt transitions and homogeneous territories, whereas the regions under study are often highly heterogeneous and bear the legacy of multiple layers of urbanisation processes. To address these shortcomings, written texts to accompany the maps were important. Whereas the maps represent patterns of urbanisation, we used text to represent the pathways of urbanisation. We could thus indicate emergent urbanisation processes and, at the same time, potential concepts. For the readability of the maps, we also worked together with a team of cartographers and graphic designers who helped us to draw these thesis maps.

SECOND COMPARATIVE MOMENT: IDENTIFYING URBANISATION PROCESSES ACROSS CASE STUDIES

Having identified the urban configurations in each of our case studies, the most challenging and rewarding step of the research began, in which the collective dimension of the research and the transductive approach again became crucial for generating specific emerging concepts of urbanisation processes from the different urban configurations that we put in conversation with each other. This analytical step corresponds to the second comparative moment of the research—that is, to identify urbanisation processes across the case studies. This second comparative moment enabled us to conceptualise new urbanisation processes, and thus theorisation drawing on our previously developed analysis and description of the urban configurations of each case study. The goal of this second step was to construct concepts which struck a delicate balance between generality and specificity so as to enable meaningful comparisons between singularities.

For this purpose, we grouped urban configurations across the different cases that displayed commonalities in their patterns and pathways, their

multidimensional characteristics and dynamics and that especially shared a common problematic. In intense discussions during our team workshops, we considered the various urban situations we had encountered during our field research. The conceptualisation of popular urbanisation serves as a good example of our comparative procedure (see also Chapter 12). Based on observational field research, we noticed that we were describing very similar dynamics in certain areas of Mexico City, Lagos, Istanbul and Kolkata. We had realised early on in the comparative team workshops that these dynamics took place, at least initially, in low-income neighbourhoods, and were characterised by the people who produce urban space, strong political organisation and incremental processes of construction, which in some cases led to a consolidation of the neighbourhoods. In the workshops we outlined the concept and developed the contours of this specific urbanisation process. We note that this collective process of presenting initial empirical data, learning from other case studies and finally considering the relevance of existing and established terms like ‘slum’, ‘auto-construction’ or ‘urban informality’ shaped both our conceptualisation of popular urbanisation and the analysis of each case study.

Just as in this example, other concepts were developed in several rounds of discussion across the different case studies. Thus, multiple iterations were necessary to test the adequacy of the concepts, to readjust their conceptual borders and to find coherent definitions that delineate the process. Through this transductive procedure of collective conceptual experimentation and validation in the field, we were able to finalise some of the concepts while keeping on hold or discarding others. We finally identified and conceptualised a total of 10 new comparative urbanisation processes.

THIRD COMPARATIVE MOMENT: COLLECTIVE WRITING AND GENERATING CONCEPTS

This collective and comparative procedure resulted in a range of proposals for new concepts. The co-authored papers are examples of the collaborative way in which we worked during this project. After engaging in an intense writing process, we published several articles introducing five of these concepts: popular urbanisation (Streule et al. 2020), plotting urbanism (Karaman et al. 2020), mass housing urbanisation (Kockelkorn et al. 2022), the incorporation of urban differences (Hanakata et al. 2022) and bypass urbanism (Sawyer et al. 2021). These texts are all reprinted in Part III of this volume. One additional process, multilayered patchwork urbanisation, is also presented here, while two processes are briefly discussed in Chapter 4: laminar urbanisation and post-proletarian urbanisation.

A necessary step in the definition of these urbanisation processes—and what could be framed as a third comparative moment—is to put them in the context of current scholarly debates, discussing and differentiating them in relation to extant concepts. By rigorously following this path in the final phase of the conceptualisation, we ensured that our methodology was consistent with our open approach and also with the suggestion by grounded theorists that a literature review should be conducted after developing an independent analysis (Charmaz 2014). We thus took part in the collective writing process with the goal of relating the emerging concepts to extant concepts, and of defining our concepts more precisely and offering them for further examination. The organisation and writing process of each paper—exceeding by far the project duration's end, including more than four researchers located in different parts of the world who were at the time working on various new projects—was, not surprisingly, very challenging. After numerous delays, many missed deadlines and an unusually lengthy review processes it is to the credit of each and every team member and their patience, commitment and perseverance, that all these papers have been published, contributing to a decentred vocabulary of urbanisation.

GENERATING CONCEPTS OF THE URBAN FROM SPECIFICITY

This chapter has demonstrated the usefulness of an experimental comparative methodology that may be mobilised not only for exploring variations on already defined concepts, but also to generate new concepts of urbanisation. It shows one possible way of theorising new concepts arising from the confrontation of different urban experiences and informed by various urban territories across the globe. Furthermore, our research experiences have shown that engaging in this kind of comparative experimental methodology requires the invention of a series of new tools, especially specific versions of field research, exploratory mapping and comparative team workshops. My focus on the comparative procedure clarifies the way that we adopted and adapted these existent methods to fit the situation of each case study and draw on empirical data to develop new concepts and analyse processes rather than urban forms. Moreover, in our aim to analyse those processes on a metropolitan scale from a comparative perspective, we based this experimental set of methods on a triangulation of quantitative and qualitative data, combining multi-sited ethnographic field research with a historical analysis and cartographic synthesis, thereby moving beyond the usual pre-given set of data. The chapter further introduced the transductive approach as a fundamental way of conducting data collection and analysis simultaneously in an iterative research process. In this way, our methodology emphasises theory construction rather than the description or application of extant concepts. Put differently, using this comparative procedure—systematised in three comparative moments as discussed above—involved making comparisons during each stage of the analysis to advance theory development. Mapping was a key tool of this procedure, as it allowed us to move analytically and imaginatively within and across different contexts and thus helped us to develop new concepts: first by describing urban configurations, then by defining urban processes. In this way, we used these maps as heuristic devices in a comparative procedure that challenges the arbitrary division between theory and research.

While the experimental methodology and inventive methods described in this chapter enabled us to identify and determine the patterns and pathways of urbanisation for large urban territories and the development of new comparative concepts, we now turn to the question: what contribution can this qualitative, transdisciplinary and collaborative methodological approach make to urban studies more broadly? A main concern of current

debates is of issues of generalisation and abstraction, as well as critical stances towards universalism in theory construction (e.g. Jazeel 2019; Asher 2019; see also Derickson 2015; Goonewardena 2018; Ruddick et al. 2018; Wilson and Jonas 2018; Angelo and Goh 2021). Moving far beyond the traditional methods of comparing phenomena in terms of their similarity or difference, or by contrasting and reading one case against another, the methodology presented here illustrates a way of actually thinking through elsewhere (Robinson 2016) and maintaining a balance between abstract theorising and concrete research. Obviously, generating new concepts with a wide reach involves a moment of generalisation, of moving beyond singularities. However, our goal was not to universalise concepts but to detect the bundling of characteristics, common underlying mechanisms, logics, regularities and common traits in the way urbanisation unfolds and proceeds, and thus produces similar outcomes. Conceptualising urbanisation processes through the experimental methodology presented here, we were able to identify a common problematic across different times and places and the various divides that separate them. The challenge was to develop a methodology that apprehends the general tendencies of urbanisation and at the same time addresses the specificities as they develop in each urban territory (Schmid 2015). Concepts that help to grasp the complexity of urbanisation processes need to both generalise among diverse processes and differentiate among them. We therefore did not search for overall similarities across different kinds of settlements, but used qualitative methods to identify specific urbanisation processes and to reveal their distinct logics. Instead of widening, we therefore narrowed down the scope of our concepts to identify systematic differences among various urbanisation processes. This implies a methodology that neither started with concrete individual case studies nor with generalised concepts, but applied a transductive strategy to maintain a dialectical relationship between theory and empirical research. This comparison and the concepts resulting from it are necessarily incomplete and partial, and form only one of many other possible starting points for the development of an enriched, enhanced and revisable urban vocabulary.

