#### **URBAN AND LANDSCAPE PERSPECTIVES**



Dietrich Henckel · Susanne Thomaier Benjamin Könecke · Roberto Zedda Stefano Stabilini (Eds.)

# Space – Time Design of the Public City



#### Urban and Landscape Perspectives

#### Volume 15

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#### Aims and Scope

Urban and Landscape Perspectives is a series which aims at nurturing theoretic reflection on the city and the territory and working out and applying methods and techniques for improving our physical and social landscapes.

The main issue in the series is developed around the projectual dimension, with the objective of visualising both the city and the territory from a particular viewpoint, which singles out the territorial dimension as the city's space of communication and negotiation.

The series will face emerging problems that characterise the dynamics of city development, like the new, fresh relations between urban societies and physical space, the right to the city, urban equity, the project for the physical city as a means to reveal *civitas*, signs of new social cohesiveness, the sense of contemporary public space and the sustainability of urban development.

Concerned with advancing theories on the city, the series resolves to welcome articles that feature a pluralism of disciplinary contributions studying formal and informal practices on the project for the city and seeking conceptual and operative categories capable of understanding and facing the problems inherent in the profound transformations of contemporary urban landscapes.

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# Space–Time Design of the Public City



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ISBN 978-94-007-6424-8 ISBN 978-94-007-6425-5 (eBook) DOI 10.1007/978-94-007-6425-5 Springer Dordrecht Heidelberg New York London

Library of Congress Control Number: 2013942261

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Cover image: "Six Public Clocks in Canary Wharf", photo by Ricarda Pätzold

Printed on acid-free paper

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#### **Preface**

La città del futuro, nella quale già viviamo, è una città del tempo. È il tempo – non più lo spazio – il medium dell'innovazione più radicale dei modi di vita, dei processi economici globalizzati, delle tecnologie di relazione e d'incontro, dell'utilizzo dei territori. Occupata da abitanti definitivamente temporanei, la città del tempo è una forma cangiante strutturata dai flussi materiali e immateriali degli spostamenti e degli scambi e da molteplici scale spaziali. (Bonfiglioli 2011, p. 343)

Two new phenomena drive the transformation of the contemporary city: the emergence of globalization and the technological revolution.

In the 1970s and 1980s in Europe, the Tayloristic order of industrial production was disrupted. This led towards what many authors call the Information Society (Castells 1996), a social system, whose economic counterpart is Knowledge Economy, where the creation, distribution and handling of information are in the centre of the cultural and economic activity and where wealth and development are created through the use of knowledge. The development of IT technologies created new statutes of space and time, the periurban distribution of populations increased along with the use of private transport means, new uses of daily time arose in relation with new lifestyles and different urban situations were formed, characterized by the diffusion of settlements, marking the transformation of the industrial city and its shape. In the same period, the trend towards more and more dispersed and fragmented forms of settlement became evident.

The contemporary city in western countries has become a city with no limits (endless city – Burdett and Sudjic 2007); it has lost its traditional shape due to its vanishing boundary, once well marked by its circle of walls: a physical but also juridical limit that distinguished the city from the countryside. The traditional

<sup>&</sup>lt;sup>1</sup>The city of the future, in which we live now, is a city of time. This time – no longer space – has most radically innovated our ways of life, globalized economic processes, methods of meeting and relational technologies and our use of the territories. Permanently occupied by temporary inhabitants, the city is a shifting form of time, structured by material and immaterial flows of trips, exchanges and multiple spatial scales (Bonfiglioli 2011).

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city is still the centre of a dispersed urbanization. But this dispersed urbanization is a configuration of indefinite shape which is hard to grasp and to define. Some authors call this spatial configuration a city of flows. Presently we have a new spatial configuration, which is shaped by new uses and new calendars of the citizens. This last condition has been defined, attempting a synthetical description, with terms such as the 'place of discontinuity, of heterogeneity, of fragmentation and uninterrupted transformation' (Léveillé 1993), 'diffuse city' (Indovina 1990), hypercity (Corboz 1995), but also 'city networks, urban systems, third generation metropolises' (Dupuy 1995; Roncayolo 1990; Martinotti 1993). More than others, the definition of the 'ville à la carte' (Chalas 1997) suggests on the one hand that the city can be assembled differently by each citizen, by choosing a combination of opportunities dispersed over a territory, and on the other hand that we inhabit the city by choosing and varying our routes according to different needs and calendars. Today, innovative proposals that are relevant for the design of this city emerge, such as 'ville malleable' (flexible or resilient city): the idea of a sustainable city that can be *shaped* without being *broken* (Gwiazdzinski 2007).

With Information Society, the use of time and urban rhythms changes but also the forms of inhabiting urban space, which creates new disparities based on the access to knowledge and to the services available in the urban environment. The spatial and temporal accessibility of services is a central issue for the development of contemporary urban environments: It relates to themes such as social cohesion, democratic use of the city, local welfare, quality of life of citizens, urban quality and urban sustainability. By focusing on the supply and accessibility of services, one challenges the equitable and sustainable development of contemporary urban systems.

We address this topic starting from the notion of the inhabited city, the physical city including the citizens who inhabit it, in the path of the innovation produced during the last 20 years in Europe: the space-time approach to urban policies, urban design and planning.

The key features of the space-time approach include the following assumptions:

- Adopting individual life practices as the scientific point of observation gives new
  value to the daily scale of urban life as a measure of quality of life and integrates
  the private sphere of family life with the public sphere of work (Edensor 2010).
- Focusing methods and instruments on the development of *capabilities* (Sen 1985)
   empowers public bodies in the objective of enhancing the capabilities of weak categories, including the ability of self-organization.
- The notion of proximity to services is not reduced to a spatial criterion of contiguity, but it takes into account the relation among individual time, working hours and the opening hours and Web accessibility.
- The urban/architectural and temporal qualities of supply and accessibility of services are taken as leading factors and measures of urban quality, quality of life and social cohesion.

In the mid of the 1980s, in Italy, the women of 'double presence' (work and family care), or 'double yes' women (Diotima 1987; Balbo 1991), had new

demands regarding accessibility and inhabiting the city. The public project for urban transformation that subsequently followed is known in Europe as Urban Times. This innovation movement was characterized by new ways, sensitive to time, to address the problem of planning and design in a city that, building on the experience and culture of women, is a city for all. International cases and projects demonstrate how gender approaches and more general approaches, based on the acknowledgement of diversity, are particularly apt instruments for promoting an active citizenship, inclusive of communities, hospitable cities and urban quality.

Universities and cities of several European countries (e.g. Italy, France, Germany, the Netherlands, Finland, Spain) have for at least 15 years studied and implemented urban policies and projects with a participative approach and with methodologies striving to hold together the physical and temporal features of a place. The themes of conciliation of private time and working time, accessibility and quality of services and public spaces, awareness of age and gender, etc. are already well acknowledged in this international debate. Thematic networks of academies and territories have been often supported by the EU. Materials, products and experiences are rich and well connected to the territories and disciplines.

#### The Authors

The collection of essays shows the richness and the multiplicity of research themes of the ENCiTi network (European Network City Time). The subjects find a common theoretical ground and common objectives in the attention to the practices of use of time and space by the inhabitants of the contemporary city.

ENCiTi is an international network of researchers and professionals with interdisciplinary competences and various backgrounds, who are strongly connected to their respective territorial contexts. They share the interest to construct a common toolkit of theoretical and instrumental references that could take charge in such debate and animate the city administrations to employ action research in their own territories.

The partners involved in the publication of this book are actors and pioneers of the international debate regarding urban development and urban quality. The core competences and experiences of the network are the analyses of contemporary economic and social trends – especially the analyses of the relations between spatial and temporal development and planning, the definition of themes for the urban agenda, problems of sustainable development and urban quality, the development of time-oriented methodologies and consultancy in space-time planning-related projects. It also integrates the network of young scientists who wish to start and animate the international scientific debate. Their intention is to fuel research, and subsequently action on these topics, while calling into play innovative competences and points of view, such as that of women, without fear of contemporary international challenges and with a willingness to involve the European territories in future projects.

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#### The Structure of the Book

In the book, the authors' efforts are clustered into thematic sections, to reduce complexity and to create a more straightforward reading. It is a necessary simplification that allows us to highlight three different themes. The first one concerns the transformations of time and space in the contemporary city and the multiple practices of a diversity of inhabitants: different in their body, gender, age, social and economic conditions, stage of life, culture, etc. The second theme raises the issue of mobility and accessibility to services and spaces of the city. The third presents space-time planning while addressing the debate on the 'right to the city' and the evaluation of time-oriented policies and projects. Between the main parts, artistic interludes expound on the theme of time in relation to the city adding different perspectives on the topic.

But it is in the proposal (re-proposal) of innovative research topics and projects that the authors focus their attention: on the relationship between sustainable mobility, social justice and the right to the city; on planning urban services paying attention to the practices of use of the inhabitants; on the new calendars for work and use of time (e.g. at night, on Sundays) with the implications they have on the quality of life of individuals and families; on the functioning and organization of the city, its rhythms and its performance and on the methods of evaluation of those policies and space-time projects.

Part I, Rhythms and Diversity, offers different approaches to assessing the role of people and their calendar with respect to the physical space, construction and organization of the city.

Marco Mareggi's contribution uses the concept of the 'rhythm of the city' to propose the analysis of urban rhythms as an approach to better understand how cities are functioning and how rhythms can be used to enrich contemporary planning practices. Following the notion of Lefebvre's Rhythm analysis 'Everywhere where there is interaction between place, time and expenditure of energy, there is rhythm' (Lefebvre 2004, p. 15), Mareggi works with urban rhythms in an evocative manner, using musical terms such as 'harmonies and dissonances' and 'constant sounds and silences'.

Jean-Yves Boulin discusses the way the ongoing trend to work on Sundays has caused change within in the daily lives and rhythms of Sunday workers in comparison to all-day workers. In describing the development in France, he also shows the spatial differences and therefore sets out to recommend the local regulation of Sunday work by local time policies.

Another key factor that influences the rhythms of contemporary cities is the extension of activities into the night-time leading to a trend towards a 24-hour society. Economic and social night-time activities both need and cause artificial lighting. Merle Pottharst and Benjamin Könecke elaborate on the impacts of artificial light and the implications of the loss of the night on urban society. A taxonomy of relevant positive and negative effects of nocturnal artificial light

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reveals conflicts between the natural rhythms of animals and human beings and the rhythm of urban structures associated with the 24-hour society and their complex and dynamic interdependencies.

The fastening urban heartbeat of the night signals economic as well as cultural activities. Adam Eldridge and Marion Roberts explore the city at night as a place of economy, leisure and cultural practices and the role of socioeconomic and demographic developments in shaping these night-time activities of the city. They argue that the city at night is no longer a homogenous space-time that is just used by a limited group of people carrying out similar leisure activities. Rather their research shows how societal changes as well as new urban infrastructures and services have resulted in changed habits and time patterns, shaped by gender, age and class.

Luc Gwiazdzinski calls for a broader understanding of the temporalities of the youth that goes beyond their evening and night-time activities. He stresses that a spatio-temporal approach to youth can offer important insights about their daily rhythms and the way they adapt the urban realm. By outlining the diverse and multiple ties of teenagers to the urban territory and their specific temporalities, behaviours and needs, he transcends the typically biased images of teenagers. Gwiazdzinski's observations disclose 'plural and polychronic life modes' with manifold networks and scales that require a rethinking of contemporary urban design and planning practices.

Whereas the last two above-mentioned articles discuss human behavioural practices, the following essays evolve from this starting point to explain urban rhythms themselves. Gemma Vilà focuses on the question how the spatial configuration of a city influences people's life space and time use. An analysis of the Barcelona metropolitan area illustrates the relation between urban morphology, city accessibility, individual and collective time management. A comparison of the compact city model and the dispersed city reveals differences in service and infrastructure accessibility and mobility options. Thus, also the use of time and space and the degree of dependency differ greatly between the two city models, generating specific urban rhythms.

Part I is followed by the first artistic intermezzo, a time walk by the artists and researchers Albert Mayr and Antonella Radicchi: Time walk serves as an approach based on senses and observation to enrich the awareness of places and time. The artists urge our attention on the need to develop aesthetic instruments as a necessary component of space-time design.

Sociological literature and urbanism inspire the topics for Part II, Mobility and Accessibility of Spaces and Services: their temporal relationship; the opportunities that this view offers on the contemporary city, looking at the 'right to the city'; and the contradictions in the allocation and efficiency of city services.

It is the time, the efficiency of the city, the methods of investigating and comparing different cities and its value in terms of urban competitiveness and social justice which Dietrich Henckel and Susanne Thomaier contemplate, and accordingly propose, as an issue for project planners.

In terms of city planning and within the context of theoretical neodisciplinary time planning, Stefano Stabilini, Roberto Zedda and Lucia Zanettichini present the

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chronographic instruments, developed at Polytechnic of Milan, for time-oriented analyses of territorial planning and urban design. These rely on their time-oriented (action) research and their experience in implementing time planning project in Italian cities. This approach addresses the urban planning of the inhabited city, i.e. a physical space that has been built throughout history, characterized by a multitude of practices and calendars.

Regarding mobility, accessibility and social equity, Mario Boffi and Matteo Colleoni create a comparative and interdisciplinary empirical study of the metropolitan areas of Milan, Turin and Bologna. The objective of their study is to analyse the way urban residential areas are structured, looking at the influence, presence and availability of opportunities and how the proximity of residential areas to opportunities is combined with the resident's 'mobility capital', their mobility styles and how it influences their accessibility to urban assets and services.

In the following essay, Jenni Kuoppa questions the construction of meaning and identity of the places regarding mobility. She specifically addresses the issue of soft mobility as a way to achieve a given service or location and as a recovered value or investment in the sense of belonging to a place and the construction of the place itself. The paper presents the results of a study that analysed the reasons and problems encountered by the Helsinki inhabitants regarding their pedestrian mobility.

Similarly, the essay by Konrad Miciukiewicz and Geoff Vigar presents the notion that – from the point of view of the traveller – the time spent in motion and mobility constitutes a value itself. Using a language dear to planners and time-oriented architects, they focus on the issue of 'inhabiting' mobility, i.e. the temporary appropriation of the places of mobility by citizens with certain calendars, the quality of this life and the consequences in terms of social justice. This vantage point calls for a reorientation of mobility design: from a purely efficiency-focused transport to an understanding of mobility as a quality of the space system.

The second artistic intermezzo offers a different perspective on time and space by illustrating the artwork of Mark Formanek and Datenstrudel. Their standard time is an inspiring 24-hour artwork, demonstrating how time could be regarded as a building material, but it also reminds us of the meaning of kairos: the right time that gives sense to an action.

The last part of the book, Time Urban Policies and Urban Planning Time, analyses the role of a space-time (neo)discipline and includes viewpoints and examples of time-oriented urban planning on the national and regional level. Especially the Italian projects are based on a national policy framework and aim at an integrated perspective to improve the quality of the territory and the quality of citizens' life. Moreover the section provides insights on the policies' relation to sustainability, how they regard the citizens' right to the city and the role and timing of the policies.

Jeroen van Schaick presents a comprehensive overview of the European debate on time-oriented projects and policies. He identifies the interdisciplinary matrix of research and discusses the claim of space-time design being a neodiscipline. Preface xi

Fermín Rodríguez Gutiérrez traces an interpretative approach to the construction of cities urging the reader to investigate the potential of a temporal approach in the context of social sustainability and the right to the city.

Marina Zambianchi presents the city of Bergamo's experience working with time-oriented urban planning, laying out the background gained by the municipal administration over 20 years of projects on time policies and practices. Describing Bergamo's approach, she provides a model for demonstrating the capability of integrating time and space into the urban planning.

In Italy, the time-oriented projects and policies are supported by a substantial set of legislation on national and regional levels. Raffaella Radoccia unfolds two cases of regional policy implementation in the mid-Adriatic Apulia and Abruzzo regions. She shows how the interdisciplinary nature of the temporal policies and time planning can be acquired by the legislature and how it strives to allow connections between specific laws that affect social cohesion, equal opportunities, the timing of the city and in general for the construction of a new welfare.

The final two articles concern the subject of evaluation. Giancarlo Vecchi faces a central theme of the diffusion of innovative policies: the problem of transferring experiences from one national, cultural or administrative context to another. Over the years, since the discussion and dissemination of administrating and projecting urban time policy in Europe began, problems in transferring the 'best practices' from one national context to another became clear. The author refers to this scientific debate and proposes a method to reorganize the innovative projects for the Court of Milan.

Finally Ulrich Mückenberger raises two basic questions for every public decision: Do urban time policies have a real impact on the quality of life? Which methods are appropriate to evaluate them? The contribution presents a methodology for evaluating projects and the results of case studies in Germany. These case studies show the necessity of win-win situations for successful projects and the potential to achieve them.

The concluding remarks by Dietrich Henckel, Benjamin Könecke and Susanne Thomaier offer a categorical grid for the analysis of the different articles in the book and their different approaches. It is obvious that space-time analysis requires multidisciplinary approaches and an integration of different perspectives and actors in planning and design. Despite a growing body of theoretical and methodological literature, empirical analyses and practical experiences in space-time planning and design, we are still at a rather infant state of knowledge. Here, a preliminary agenda for further research is presented.

Milan, Italy Milan, Italy Stefano Stabilini Roberto Zedda xii Preface

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# Part I Rhythms and Diversity

### Chapter 1 Urban Rhythms in the Contemporary City

Marco Mareggi

**Abstract** In order to describe, represent and plan the territory, some disciplines and some practices look at the city from the tower to the ground. Nowadays, it could be useful to try and change the point of view we use to design and plan towns and territories. We need to get closer to things and people, to describe the space-time life cycle of the different kinds of people who live in a territory. In order to obtain such change of perspective, I propose to analyse urban rhythms that offer a new sensitivity and some specific tools to understand contemporary cities and their peculiar problems. Such renewed sensitivity can enrich the patterns of social and urban analysis concerning planning tools and urban projects. This chapter proposes three reasons which support a new interest in the analysis of urban rhythms and examines the access key to represent territories and the rhythms of their uses (working hours and their morphological transformations, obliged and chosen time schedules, new life and consumption styles, urban populations, everyday life, widespread mobility patterns) and the elements of urban score, as an attempt. In conclusion, the chapter underlines the reasons why such renewed sensitivity can be considered an enrichment of urban descriptions: reading the urban score helps to pay attention to the lived landscape; proposes a new way to survey the needs and the desires which are different from the traditional urban, territorial and social analysis; and combines a vision from the top and a vision from inside the city.

**Keywords** Urban rhythms • Time schedules • Lifestyles • Mobility patterns • Everyday life • Space-time use

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#### 1.1 Enrich Your Gaze on the City

In order to describe, represent and plan the territory, some disciplines and some practices look at the city from a zenith vision, with a top-down approach, from the tower to the ground or through maps and satellite pictures. These images, however, do not seem to be tools adequate enough to understand the characteristics of urban settings; to record the rhythms, movements, flows and the perceptive sequences of places; and to describe the space-time life cycle of the different kinds of people who live in a metropolitan area (Boeri and Basilico 1997). Similarly, traditional statistics have shown a decline of big cities since the 1980s of the twentieth century, in contrast with the perception of the inhabitants who, day by day, could see towns filling up and getting congested, not the other way round (Martinotti 1993).

Nowadays, it could be useful to try and change the point of view we use to design and plan towns and territories. We need to get closer to things and people (Benvenuto 1989).

Generally, Italian urban time policies<sup>1</sup> – the action-research framework from where a lot of this chapter's arguments were drawn – put at the centre of public projects the city and its time, its people and their daily working and living patterns. These public policies underline, on the one hand, that it is possible to affect such immaterial and managing aspects (and that such effect is relevant) and, on the other, that they can contribute in fostering the idea that, in the knowledge society, several changes in the city and in daily life can be analysed from the point of view of time (Bonfiglioli 2004).

As for town planning too, a new interest is currently arising in the viewpoint of those who live in the town and for the ways and times of uses of a territory. As Patrizia Gabellini suggests, 'the ways of use represent the relationship among populations, places and times'. They represent 'how people use different urban spaces, diverse facilities, and how spaces are used by diverse metropolitan populations', without forgetting the priority of town planning given the strong relationship between physical characterisation and anthropic behaviours. In fact, 'space features (facilities and performances) condition practices (ways of use), but do not determine them', and 'the ways of use can have a repercussion on the facilities and their performances. There is always a gap among facilities, their performances and effective ways of use' (Gabellini 2008, 2010, pp. 17–19).

In this chapter I argue that staying closer to people and things (like starting from the uses of physical spaces where facilities and the related employment are

<sup>&</sup>lt;sup>1</sup>Urban time policies are public policies that intervene in the time schedules and time organisation regulating human relationships at the urban level. They are implemented by the Italian municipalities according to the national law 53/2000 about parental leaves and time management in the cities. In France, Germany and Holland, they are implemented by cities, territories and companies (Bonfiglioli 1994; Belloni 1997; Eberling and Henckel 1998; Mareggi 2000, 2002; Boulin and Mückenberger 1999; Mückenberger 2011; Dijst et al. 2002; Dommergues et al. 2002; Bonfiglioli and Mareggi 1997, 2004; Regione Lombardia 2010).

tested) means proposing a different look on the territory. Such unconventional point of view implies that both descriptions and public policies projects focus on, and then affect, the 'lived space', not the 'perceived' or the 'conceived' space (Soja 1996; Simeoforidis 2002). From this perspective, time becomes an instrument to understand the lived space and vice versa.

# 1.2 Three Reasons to Support the Analysis of Urban Rhythms

In order to obtain such change of perspective, I propose to analyse urban rhythms. I believe that the analysis of urban rhythms offers a new sensitivity and some specific tools to understand contemporary cities and their peculiar problems. Such renewed sensitivity can enrich the patterns of social and urban analysis, both in regard to planning tools and urban projects. This is the operational horizon, though. From a theoretical point of view, instead, three are the reasons, which support a new interest in the analysis of urban rhythms.

First of all, the word rhythm is related to music and, more specifically, to the relationship between sounds and their length. The latter was related, in the classical vision, to a harmonious and ordered universe, whereas 'today ... it tends to consider that rhythm represents a mixture of contradictory elements: quantity and quality, structure and subjectivity, repetition and difference. In modern music, in particular, rhythm is no longer considered an orderly repetition but a disorderly element able to establish its own order' (Hervouët 2005, p. 464 cited in Gasparini 2009, p. 92). Thus, rhythm, considered as an element of dynamic stability, allows us to discover concordances, dissonances and conflicts among different phenomena. In this way it can reveal hidden rules (which have not been studied yet) for the comprehension of some functional and symbolic components of contemporary cities.

The second reason is based on Henry Lefebvre's idea (Lefebvre 2004): rhythms – investigated from a philosophical point of view, as a mode and as a tool of analysis and not as new objects – are an original way to get closer to familiar phenomena, more a (re)orientation than a method. Rhythm analysis is an attitude. It is not analytic in any positivistic sense of the term. For Lefebvre, it falls on the side of impressionism rather than systematic data collecting. Hence, sensitivity to rhythms, translated into the framework of an urban and territorial description operation, offers new and more adequate patterns for contemporary times for which we now look for comprehension tools.

The third reason is proposed by the geographers Ash Amin and Nigel Thrift. They think that the rhythm is one of the key metaphors which can re-analyse the urban dimension in everyday life. 'The study of urban rhythms is becoming important in contemporary urbanism' (Amin and Thrift 2002, p. 17). In fact, daily rhythms are one of three central metaphors of this new urbanism of everyday life, together with transitivity (that grasps the city as a place of intermingling and

improvisation, resulting from its porosity to the movement as well as varied spatial influences that are situated in the tradition of *flânerie*) and with the footprint effects (that, in their turn, help to see the link between the city and the past and other places, through its analysis as palimpsests and myriads of other human/nonhuman trails of mobility which cross it). According to sociologist and philosopher Henri Lefebvre, rhythm is defined as 'localised time' and 'temporalised place' (Lefebvre 1996). Everyday urban practices are fundamental both for their recurrent phenomenological patterns and for their extraordinary variety and vitality. Starting from practices means 'grasping a phenomenology that cannot be known through theory or cognition alone' (Amin and Thrift 2002, p. 9). The authors, on the one side, recognise that 'the rhythms of the city are the coordinates along which inhabitants and visitors frame and order their urban experience' (ibidem, p. 17) and invite to highlight neglected temporalities (night and domestic lives); on the other side, they stress the lack of tools: 'there are no clear methods for rhythm analysis, only other metaphors' (ibidem, p. 19). By highlighting three mistakes of traditional research, they contribute to go a step forward and to know 'everyday city by grounding it in an understanding of the structured and unstructured regularities of urban life' (ibidem, p. 26). Personally I think that such mistakes contain the very suggestions and ideas which can be very important to overcome them. First of all, city's rhythms are not free to roam where they will and cities also provide the machinery through which rhythms formally and informally are directed; so, everyday urbanism 'needs to be seen as an institutionalized practice, a systematized network' (ibidem, p. 26). Moreover, everyday urbanism is not defined only by human bodies but also by technologies and trans-human and inorganic life. Last but not least, the city is not only a place of proximate links, of localised flows and contact networks, but it is becoming more and more a site of local-global connectivity and stretched networks. 'New urbanism needs to note also the everydayness of spatially stretched and distant connections' (ibidem, p. 27).

The knowledge and information the two experts of Northern cities provide take into consideration several elements to describe urban rhythms: the importance of this theme for contemporary cities, the inadequacy of traditional tools for its analysis and interpretation, some information about its phenomenological characterisation (to be considered in accordance with systematic and institutionalised mechanisms and procedures), a tension towards a new Humanism (more focused on human bodies) and towards technological networks, a transcalar projection of cities.

#### 1.3 Access Keys

In order to represent territories and the rhythms of their uses, starting from the located activities and social practices which characterise the places of contemporary towns, I think it is important to propose some access keys which are only partially original (Mareggi 2011).



**Fig. 1.1** Shifting working (*grey*) and residing (*black*) densities, according to time of hour and day, Wigger City, Switzerland (Oswald and Baccini 2003)

First of all, let's consider the *working hours and their morphological transformations*. The analysis of working hours and of the relationships established with life times is not usually part of traditional architectural and urban studies.

For this reason it is essential to study institutionalised working hours and their characteristic rhythms which have an impact on the city's life. After the standardisation of production systems (Fordist organisational model), changes led to a diversification of working hours. Nowadays it is not possible to combine them in a single picture containing time and work, work and work and time and not work (Chiesi 1989; Gershuny 1993). The morphology (duration and distribution) of working hours are always more and more varied: they change day after day, week after week and even year after year. Part-time jobs, new shifts, services on demand, personalisation, flexibility and liberalisation (Piazza et al. 1999; Sestito 2002; Accornero 2006) are very common nowadays: one fifth of the Italian population does not have fixed daily hours (Istat 2007). This variety determines changes in spatial geographies (Fig. 1.1).

These hours and institutionalised calendars have a real performative capacity on individual lives, and *they play a role in the construction of the urban structure*. They produce and regulate the main flows of urban mobility (some people decide not to

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use the car in town at the rush hour or choose to desynchronize their return from holidays when big factories open after Summer closure), of services' functionality (a teachers' strike forces people to reorganise their children's day) and of the frequencies and ways of using the town in favour of end users (thanks to Sunday workers of restaurants or museums, people who usually work during the week can enjoy a Sunday's visit to a museum or a Sunday's lunch in a restaurant).

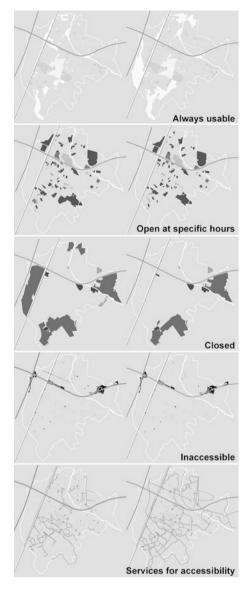
A second access key is represented by the *obliged and chosen time schedules*: constraint and duty characterise the first time schedule, a variety of choices typify the second ones. Many recognise that the central role is played by working hours in the social and personal lives of every person (Szalai 1972; Zerubavel 1981), both in the case of fixed hours typical of industrial and bureaucratic productions and in the cases of a deeper diversification of the non-standard working hours. Working hours are fixed times and they influence people's agenda. They play a fundamental role for social integration and for the definition of identities, even collective ones. They represent an obligation for people and for the town. This characteristic is typical of other social times. I think that the expression 'obliged time schedules' should also be extended to mobility times and to some times of social and family lives which are connected, for instance, to schools' hours. If we consider them as 'obliged time schedules', we give them a structural character. It means that we believe they can organise parts of the town and their operational structures: 'obliged time schedules' can be considered as urban structures.

The expression 'chosen time schedules', too, was born out of the debate on the labour market (Échange et projets 1980). In the 1980s in Europe (in Sweden and France in particular), it was first proposed when, after the petrol-economic crisis, there was a revision of the Fordist model. This expression refers to living and working patterns with reduced or variable hours. The idea of 'humanising work' was introduced, and real individual freedom of choice on working hours and on the relationship between working hours and wages was proposed. People tried to regain possession of their time and to abolish time borders among areas of life which were artificially isolated (Balbo 2008). Even in this case, I suggest to recognise the value (not only individual) of the chosen time schedule and the meaning it has for towns. For a town, understanding which are the chosen time schedules means taking into consideration one of its characteristics and recognising the deep diversification of time offered to the citizens. This is a 'ville à la carte' (Gwiazdzinski 2002; Amendola 2004), where there is a wide range of choices where everybody can combine options according to his/her needs, where a person can choose places, services and times for life, work and leisure: an accessible, usable (Fig. 1.2),<sup>2</sup> healthy and attractive town.

The third access key relates to *new life and consumption styles* that draw on new geographies in the citizens' time-space organisation at different territorial levels. It is a new prospect, which takes into consideration the themes proposed, can analyse individual themes (which then become collective) and can define *new lifestyles*. For

<sup>&</sup>lt;sup>2</sup>Figures 1.2 and 1.5 are produced by L. Zanettichini.

Fig. 1.2 Usability and accessibility of open spaces. Description (*left*) and potentials after the implementation of the new Land Use Plan (*right*), Rozzano, Milan, Italy (Municipality of Rozzano 2011)



an efficient territorial description of rhythms, it is fundamental to understand the components and the localisation of collective and individual practices of chosen time, such as commerce, leisure activities' places, *movida* places (Fig. 1.3) or, for example, living in two different places, which involves different territories with different origins, different economic resources and different behaviours concerning the mobility of individuals (Pine and Gilmor 2000; Fossa et al. 2006; Lanzani and Granata 2006; Amendola 2007; Brunetta and Morandi 2009; Marra and Ruspini 2010; Usai 2011).

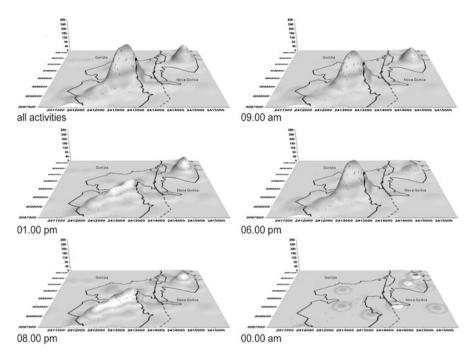


Fig. 1.3 Recreational and leisure urban activities. Different time dynamics of two cities: Gorizia and Nova Gorica. State border (*dashed grey line*) and urban areas (*black lines*) (Borruso et al. 2007)

According to the *new lifestyles*, individuals' daily practices overcome administrative and natural borders, and mobility is a constituent component of them. These activities happen in new places (i.e. shopping malls, airports) which host two relational behaviours apparently in contrast with one another: they are privileged places of public social relationships (Boeri et al. 1993) and, at the same time, they allow for individual autonomy (Desideri and Ilardi 1997). For some authors these places represent the fundamental rhythmic component of contemporary cities (which substitutes the production line), but I consider this simplification not persuasive. It is better, as a matter of fact, to recognise a 'polyrhythmia' (Lefebvre 2004; Pasqui 2008) in the empiric organisation of the urban sound spectrum.

The fourth access key concerns *urban populations*. There are different kinds of urban populations: permanent and temporary (Martinotti 1993; Nuvolati 2002), on the move or sedentary (Pucci 2008) and transient (Crosta 2007) and studied in relation with their practices of use (Pasqui 2008). 'Who lives in towns?' is an important theme of the scientific debate which, at the moment, is struggling to find a place in architectural and urban dissertations. Technical tools still consider the population as a collective and simple phenomenon. Yet, its analysis is very important for studying urban rhythms. The production of rhythms (cyclicity, sporadic nature,

Activities performed			Utilisation of resources and services by population		
Population	Living	Working	Consuming	Frequency	Completeness
Inhabitants	Yes	(Yes/No)	Yes	Daily	Entire range
Commuters	No	Yes	(Yes)	Working days	Medium
Daily and weekly city users	No	No	Yes	Frequent, working and nonworking days	High
Seasonal tourists	No	No	Yes	Rare, holidays	Medium/high
Businessmen/ businesswomen	No	Yes	Yes	Rather frequent, working days	Medium
Flâneurs	Temporary	(Yes/No)	Yes	Daily	Entire range
Immigrants	Temporary	(Yes/No)	Yes	Daily	Entire range

**Table 1.1** Resident and non-resident population, frequency and range of their activities (own elaboration on Nuvolati 2003)

absence) is mainly due to the practices of different populations. With their calendars of presence/absence, in fact, they make places alive and they use their services. The duration connotes their physical presence and their practices are characterised by disseminated mobility (Table 1.1).

A different tradition of thoughts and actions – daily-life sociology, gender studies (Saraceno 1983; Balbo 1991; Jedlowski and Leccardi 2003; Paolucci 2008) and female practices for the urban project (Macchi 2006; Bassanini 2008; Bianchi 2010) – pay more attention to people as living and social beings with their anthropological, cultural and characteristic uses, with a real body and specific needs. They are plural subjects who live the space in different ways, according to their age and their conditions of mobility (Kaufmann 2001).

The fifth access key concerns *everyday life*. In the 1980s, a lot of international social studies about everyday life were circulated. Everyday-life analysis is relevant because it represents lived temporality, the time of repetition (i.e. of habits and routines) that we usually do not take into consideration (Fig. 1.4).

If we consider everyday life as an urban rhythm, it will turn out to be one of the main sounds of the urban landscape (as a 'rhythmscape'). The 'female thought' underlines the methodological characteristics. Everyday life, in fact, is focused on concrete aspects, on the attention for the details, on proximity, on creativity, on transversal dimensions, and it always establishes a link with human bodies. However, there are three other groups of studies which, in the 1960s, gave birth to everyday-life sociology (Jedlowski and Leccardi 2003; Jedlowski 2005). The first could be Henri Lefebvre and Agnes Heller's Marxism: they thought the reproduction of the dominant social relationships is mainly related to everyday life. For them, everyday life constitutes the basis by which to recognise people's new needs. A second source picks up the thread of American phenomenological and interactionist sociology (Alfred Schutz, Erving Goffman, Harold Garfinkel, Peter Berger and Thomas Luckmann) which is mainly focused on the analysis of

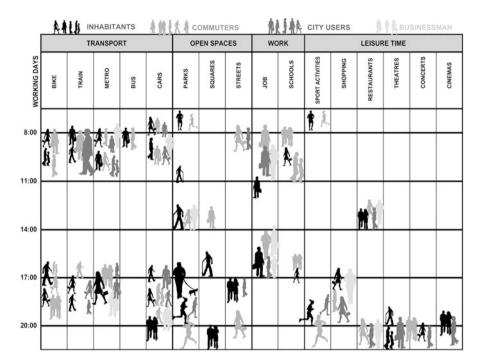


Fig. 1.4 Calendar of daily life in a lived historical centre in the Milan Urban Region (Dorovic et al. 2011)

behaviours as a daily routine taken for granted. Thanks to the analysis of daily life, these experts demonstrated the value, the complexity and the freedom of individuals in creating their normal life. Last but not least, Fernand Braudel and the *Annales* analyse the structures of material life. In addition, there are the works of some significant French authors: Michel Foucault, Pierre Bourdieu and, more recently, Michel De Certeau.

Even in the sector of urban planning, everyday life can be considered a glass through which one can observe the city. At the end of the 1970s, everyday life, corporeity and temporal dimension were deeply connected to the autonomy of the individual who could find in diversity the key possibilities to represent himself/herself (Secchi 1999). In the 1990s, then, urban time policies and a cluster of urban studies focused on the privileged viewpoint of the 'sphere of the everyday, of common sense (referred to more as a common approach to things), of the ordinary' (Bianchetti 2003, pp. 26–28) in the construction, use and changing practices of a given territory. These researches aim at revealing, without prejudices, the territories of dispersion (with accurate descriptions) in order to detect new living phenomena and to highlight the territorial effects (e.g. Indovina 1990; Boeri et al. 1993; Munarin and Tosi 2001; Lanzani 2003; Indovina et al. 2005; Merlini 2009).

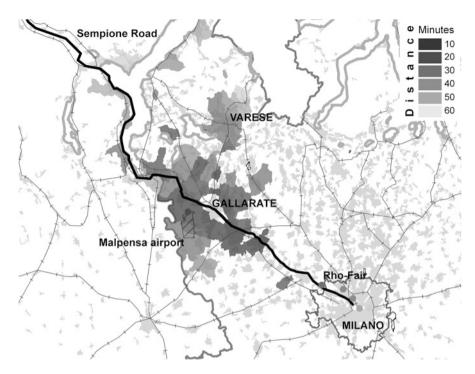


Fig. 1.5 Different accessibility times by public transport to Gallarate, Varese, Italy (Municipality of Gallarate 2011)

Finally, the last access key, already cited before, is connected to *widespread mobility patterns*, a transversal dimension of every social practice. The originality of this perspective is not related to a 'transportation point of view' based on traffic and on infrastructural characteristics (this theory has a strong disciplinary tradition). Rather, it starts from itinerant subjects, as some recent studies suggest. The variety of personal mobility programmes, the increasing individual time dedicated to this activity in towns compared to the other times of life, quality that demands to live the movement (Colleoni and Zajczyk 2003; Colleoni 2008; Balducci et al. 2008) and the fact that time (and not the distance) plays an always more important role all make of mobility a fundamental access key necessary for a territory's rhythms (Fig. 1.5).

Today mobility is considered, in the first place, a positive dimension. It is searched by individuals; it is not necessarily a cause of eradication, but it often gives birth to new patterns of sociality. Last but not least, its lack is a form of exclusion for some social groups (Urry 2000; Fedeli 2007).

It is possible to propose some *elements of urban rhythms' score*, as an attempt, on the part of the rhythmic and sound characteristics of the city and of the territory, to identify the places, the functions (musical instruments) or the producers (the musicians).

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#### 1.4 The Urban Score

It is evident that the time has passed when the churches and monasteries' bells marked the rhythms of European towns' life (Zerubavel 1981). The synchronism of Fordist industrial cities is now over or only marginal (Bonfiglioli 1990), and now it is always more interesting getting to know the beat of contemporary cities.

In the 1960s, Kevin Lynch (1977) was the first to introduce a temporal approach to the planning of spaces and to the survey of rhythms: 'What are the places active all night long? Which places are crowded only in the early morning or only during holidays?' (Lynch 1981, pp. 149–150). The author tried to answer these questions through some descriptions presenting the different characteristics of spaces in the different moments of the day (in Seattle, for instance). The author translated 'into a graph a general rhythm of use and aspects: places used 24 h a day, working places, holiday places or those which apparently show other changes in the regular cycles. This kind of representation can be useful to increase the use of public space or to concentrate some activities which take place at the same time. The analysis of the activities' cycles can detect inefficiencies, dissonances or conflicts in the temporal use of the space' (ibidem, p. 136). In other parts of his work, the author underlines 'the crowding and the changes in behaviour (probably deterioration) connected to the increasing density of population in a specific environment' (ibidem, p. 215). In this way, for example, the main commercial neighbourhood in Boston is characterised by a daily cyclical presence. It is characterised by a continuous and homogeneous use ('incessant area') or by night evacuation processes ('empty at night'). Other areas, on the contrary, are characterised by an invasion in the night hours ('active especially at night'); other areas are non-stop heterogeneous use areas ('shifting from day to night' or 'displacement') (ibidem, p. 192). The daily-based rhythmic organisation cited by Lynch, who pays attention to time characterisations, recognises time spans that are repeated during the typical day of the people who live in such places. In the first case he suggests the potential for architectural and urban planning; in the second case the rhythm is produced, detected and brought back by the temporal cyclic behaviours of presence in the areas determined by the individuals.

In the same years, sociologist George Gurvitch considered rhythm as an 'accentuation of duration and of breaks, a balance between continuity and discontinuity in time', which allows to have 'indications to lead the description of a group's particular movement in a global structure and in a concrete situation' (Gurvitch 1963, p. 53). 'In other words, rhythms are the products and not the cause of social times of a specific phenomenon and they must be studied in depth to describe and analyse the specific characteristics of society' (Colleoni 2004, p. 51).

On the contrary, we are more focused on the restitution of rhythm, considered as a product (and not as a cause) of social times. Rhythm is the result of changes; it is defined by several social practices. I want to focus on the urban landscapes, as spaces lived by men and women, products of an absent-minded lifestyle and of the government's intentional actions of urban times. In this spirit and from a

phenomenological point of view, studies on the time characteristics of cities indicate the elements of urban rhythms, which are the part of the score. Hereafter you can find an approximate list of them.

The 24-h open services, i.e. hospitals, police headquarters and frontiers, are a garrison of the territory; in the same way, telecommunication networks allow to get closer to the globalised city. These services are constant and they are always accessible and usable.

A special rhythm is the rhythm of the *times of people's daily life* and in particular of the *obliged time schedules*. Schools' calendars still define the schedule of a family and of cities, and working hours are no longer standard but flexible. However, mobility and transportation times, too, are often obliged time schedules, even if they are more varied. The mobility net (used mainly for individual car mobility) not only fragments the times of uses but also pulverises the territories where people live and pass through.

The *knots of the nets*, stations, airports, harbours, parking lots and the motorway tollbooths are fundamental points of new towns. They attract at the local level the kind of mobility coming from a transcalar net, and they are characterised by the multi-modality of means of transportation. Their opening and calendars are in some cases 24 h, in other cases systematic and more often not systematic and determined by several factors and reasons.

The *leisure and massive-shopping places* – multiplex, discos, amusement parks and commercial centres located within cities or on the knots of car mobility – seem to have a rhythm, cadenced by time far from work, which lives after sunset or during weekends; this time away from work is amplified during the day for some categories of people: the elderly and the unemployed. Recreational places are similar to tourist areas and to holidays homes: they are open during weekends and vacation time, with special seasonal calendars affected by the climate, the local social calendars and the no-working times of the former inhabitants (mainly annual) and the visitors.

The *Evening/Night-Time Economy* (ENTE) (Tiesdell and Slater 2006) presents the new idea of a bright and sometimes noisy *archipelago* city which, step by step, is able to colonise the darkness (Gwiazdzinski 2005). The places of this economy are localised in the historical centres, in the transformation areas or in the urbanised countryside. They create permanent districts cited in the tourist guides, or they are temporarily included in the urban areas, according to local or not local fashions. The *ENTE* invades the city during special events, like on museum nights or on the opening of commercial services in the city centres. This 'colonisation of the night' is a victory of social obligations over biological obligations in the social use of time, deriving from the lack of time available to everyone. For this reason, everybody tries to occupy the night-time with several activities typical of daily life (Melbin 1978).

The *events*, on the contrary, represent a less frequent rhythm, but they are getting more and more important in the urban organisation. They are *cyclical and recurring events*: markets, road maintenance works, religious processions, theatre and concert seasons and local and international fairs. Their rhythm is not frequent and can change, for example, during the week (the market) or according to seasons (the festivals). On the contrary, *big events* are *occasional but organised* (exhibitions,

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concerts, rave parties, Soccer World Championships, Expo, G8 Summit, Olympic Games, Jubilee, etc.). These events are considered, by scholars and the media, two extreme and ambivalent stereotypes; on one side, they are considered the cause of environmental and financial disasters; on the other, they represent an exceptional opportunity to enhance the territory and its cities from the territorial, economic and social points of view (Triennale di Milano 1995; Cremaschi and Piccinato 1998; Bobbio and Guala 2002; Imbesi 2004). Independently from their characteristics, these events, as peculiarly urban facts, have something to do with us because they are temporary use destinations and also because nowadays 'it is evident that a lot of recent urban projects supported by the local administrations are almost exclusively related to these kinds of events' (Gasparrini 2005, pp. 13–14). Big events (just like some serious emergencies) constitute an opportunity to implement ordinary and extraordinary infrastructural projects but also to speed up interventions and projects, which have been postponed year after year. An occasional rhythm becomes, in this way, a pattern for organising the spatial and temporal aspects of one place or of big parts of a territory. In addition, while in the past the historical city was characterised by centuries-old cyclic functions (Secchi 2005), nowadays these circumstantial occasions seem to have a relevant impact on the destiny of urban areas.

However, the number of *emergencies* is increasing. Let's take air pollution for instance: due to this issue some historical centres are, sometimes, obliged to redefine their mobility schemes. There are also some cataclysms (earthquakes, tsunamis, floods) which devastate big regions and which make it necessary to define organisational strategies and to find new temporary housing solutions, for some days or for some years. In these emergency situations, 'crisis units', but also sociology, urban planning and architecture, pay attention both to urban structures and to the definition of new housing solutions (Perriccioli 2005; Irace 2008).

Finally, there are the *long rhythms of big construction works* for the renewal of cities, buildings and abandoned areas. These parts of urbanised space can end up compromising citizens' daily life for months or even for years. They represent an urban area citizens cannot use during the works. On the contrary, in the past centuries, 'building sites ... were well integrated in the urban context and were an opportunity to convey knowledge and skills' (Venanzi 1998, p. 107).

Similarly urban landscapes, with their peculiarities, present a mixture of rhythms, a 'polyrhythmia', a *mixité* of uses and an urban 'temporal density' (Henckel et al. 2007).

From the analysis of this 'urban score', three questions arise.

The first question concerns the analysis of some tools' usefulness as they aim at enriching the technical set of urban planning culture; such tools must be sensitive to the new dimension of urban contexts and rhythms. Cities, especially Italian ones more than others, which have worked on urban time policies can propose useful tools for operative actions (the pictures contained in this chapter are an example of it). They constitute an analytic apparatus only partially specific and effective. Innovative proposals are combined with traditional research. In the best cases they underline time macro-phenomena generally forgotten by the public agenda and they

propose exact and interesting descriptions of the cities' patterns of use. Sometimes, they contribute to deepen the knowledge of the land use plans. These tools are probably a first answer to the lack of instruments for rhythm analysis as pointed out by Ash Amin and Nigel Thrift.

The second question relates to the fact that a glance on the landscape that is sensitive to urban rhythms will probably need to look for and consider its musicality; not only can a person hear the harmonies and the dissonances but also the 'constant sounds' and the 'silences' of possible desolate areas. Such an approach implies a new mindset in comparison with past traditions of surveying of needs and desires.

Last but not least, the musical landscape of a territory offered by the 'urban score' reminds us that those who work within the framework of time and hours (the experts of urban time policies, trade unions and the entrepreneurial associations) do not always take into consideration the possible impact on the material city and on the lived space. Likewise, this analysis underlines that those who plan the development policies or the material aspects of some places sometimes forget the rich structure created by time schedules and do not consider the 'musicality of cities'.

# 1.5 'Description of the Territories' and 'Description for the Project'

I admit that 'the temporal perspective remained a scientific niche in research within city planning while its importance continued to grow in the social sciences' (Henckel et al. 2007, p. 18). However, taking rhythms into consideration in the multilayered description of a city or of a territory and reading the 'urban score' help to pay attention to the lived landscape (places, inhabitants and rites) determined by the various social practices and contribute to see, and listen to, the music produced by the living patterns when they meet the original characteristics of the environment. Consequently, it proposes a new way to survey the needs and the desires (of people, lands and places) which is different from the traditional urban, territorial and social analysis, giving more importance to the space-time effects, i.e. to the lived space. Finally, it combines a vision from the top and a vision from inside the city, in order to understand how the context of life is lived by different subjects, without forgetting the variety of contemporary living schemes.

These three aspects combine methodological and content-related questions, without separating them: they propose a fertile dialogue among those academic disciplines which cannot be separated in the practical sphere; they introduce small differences from urban planning (and probably sociological) techniques, changing the point of view; they try to expand the debate about the role and the characteristics of analysis in urban planning practices, particularly as regards land use plans (in which analysis is usually monotonous, expensive and separated by decision making processes; this is what happened in the Territorial Timetable Plans, too).

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These three aspects share disseminated ideas about the value of hermeneutic circularity in a design process, which are not generally considered in urban planning and architectural studies. In fact, in a design process, different hypothesis of interpretation are discussed in relation to the context and to the temporary condition in which they take place.

This operation results in 'descriptions of territories' and 'descriptions for a project'. They cannot be separated. In fact 'describing means selecting according to some specific criteria which correspond to the reasons of the description ... [and] the description does not follow the change, but it helps to produce it' (Dematteis 1999, pp. 117–118) and to orient it towards specific directions. 'These ideas are nowadays completely accepted from the epistemological point of view' (ibidem), but they are sometimes forgotten in the daily practice, even if they are confirmed and reaffirmed in rhythm analysis.

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# Chapter 2 Working on Sunday: Regulations, Impacts and Perceptions of the Time Use Practices

Jean-Yves Boulin

Abstract During the last decades, most European countries have changed the regulation of Sunday's opening hours. The trend is clearly an extension of work during Sundays particularly in shops and cultural and leisure activities. But the rising Sunday's work in these fields call for an extension of working hours in other services: transportation, childcare, cleaning, etc. The issue of Sunday's work raises a strong debate between supporters and opponents. This contribution first shortly reviews the changes in Sunday's opening hours in different European countries. It then looks at different controversial sets of arguments and at current time use patterns comparing those working on Sundays and those not. The time use analysis is done in a gender perspective. Indeed, women tend to be more involved in activities that are subject to the debate (retail, cultural activities such as libraries). These data mainly come from surveys and analysis of different sets of data. Finally, the contribution gives some ideas concerning the way to regulate Sunday's opening hours and the possible impact on time uses and on representation of the Sunday in our culture. One of the results is that Sunday's regulation should be defined at the local level, in the frame of local time policies.

**Keywords** Sunday • Retail • Regulation • Work patterns • Leisure • Time use • Europe • France

J.-Y. Boulin (⊠)

### 2.1 Introduction

In 1985, Eviatar Zerubavel wrote: 'We usually surround the 7-day work by an aura of inevitability' (Zerubavel 1985 cited in McCrossen 2005, p. 31). Although today the majority of employed people in the European Union still have a standard work schedule, there is an increasingly important quantity of people that have atypical work schedules. The peculiarity is that somebody is always working somewhere – regardless of whether it is evening, predawn, middle of the night, Saturday or Sunday. In France, the 2010 census showed that more than six million people (28 % of persons employed in 2010, a figure steadily increasing since the early 1980s) work more than one Sunday a month, of which about half do so on a regular basis. European data (Eurostat) indicate that in 2011, 13.6 % of the employees (EU-27 Nations) were typically working on Sundays. To better understand this development, we must look at the data for the EU-15 Nations for which the percentage was 14 % in 2011 compared to 11.1 % in 2002.

The increasing trend of working on Sundays is a sign of the 24/7 society whose inevitable prospect was announced by Zerubavel. The consequences of this trend are the main issue that will be developed in this chapter. Questions raised are numerous: Is there a trend rendering Sunday's work a commonplace? To put it in a nutshell, do Sunday's time uses tend to become similar to those observed during other weekdays (Zuzanek 2011)? Are there pieces of evidence of such changes? Are changes in Sunday's work regulation at the root of such an evolution? What impact does this have on the social perceptions and values given to Sunday? What is the time use behaviour of those working on Sunday compared to those who do not?

In the frame of this chapter, we will actually not try to answer all the questions raised. We will limit ourselves to what appear to us as the most essential issues currently on the agenda. First, we will assess the evolutions of Sunday's opening regulations in EU in the retail sector. Many changes have occurred in most of the EU countries since the mid-1990s and, for example, that question of shops' Sunday opening is subject to a recurrent debate in France since more than 20 years. In a second section, we will look at the evolutions in the social meanings of Sunday and of what people expect from that day in France. In a final part, through processing the data of the French time use survey (EET, *Enquête Emploi du Temps*), we will show the initial results of a work in progress, which aim to track the time uses of people working on Sundays, and how they differ from people who don't. This can be considered as a relevant indicator of changes in the behaviour over the entire week and on Sundays. Further in the conclusions, we propose some strains of thought and research ideas related to the rules for working on Sundays and particularly to the activities concerned.

<sup>&</sup>lt;sup>1</sup>These are the first provisional results of a research developed in collaboration with Laurent Lesnard (Researcher CNRS-Institut des Sciences Politiques and director of the CDSP – Centre de Données Socio-Politiques).

## 2.2 The Specificity of Sunday in Western Societies

Sunday is a 'marker', a time reference in Western societies for which it constitutes a 'setting for memory' (McCrossen 2005). Since 321 of our era, when Emperor Constantine decreed Sunday as the 'Lord's Day', the seventh day of the week took a notable place, especially for Christian societies. This specificity was maintained over centuries in spite of profound changes in societal regulations and practices. This specificity determined Sunday as a 'singular cultural fact' if we follow the definition given by Durkheim (1912, 2003). After 321, three major periods can be distinguished in France (as in other Western societies) that refer to the regulations and practices related to Sunday:

- In the beginning, Sunday was devoted to religious activities and therefore free from all material activities, work or retail. This said, even at that time, there were opportunities to market activities, crafts and entertainment (stimulated by mass attendance and social interactions around the churches) that religious powers had failed to eradicate (Beck 1997). The revolutionary voluntarism shift from the 7 days week to the 10 days week, named *Decadi* was not able to trivialise Sunday and has only be a parenthesis for some years (1793–1805).
- The Industrial Revolution was much more effective than the revolution of 1789 regarding thinning of Sunday as a day dedicated to the Lord and rest. In the course of the nineteenth century, work became an everyday activity, 7 days a week (the emperor Napoleon Bonaparte proclaimed that since the workers eat all day, then they must work all days of the week. Emperors definitely love to interfere in the daily life of individuals!). But even during this period, Sunday became the sanctuary of the rare moments composed of time for rest for the hardworking population and the rising bourgeoise (Cabantous 2001). Therefore, in response to the emergence of this 'bourgeois' Sunday, the highly skilled workers, known as 'sublimes', decided that 'Saint Monday' would be their rest day, differentiating and distancing themselves from bourgeois practices (Thompson 1963).
- In the late nineteenth and early twentieth centuries, department stores' employees working 15–17 h a day (and sleeping often on the job) were in alarmingly poor health. Because of this, the legislature passed the first legal regulation of labour on Sunday in 1906. From this date on, Sunday became the weekly day of rest for the workers in France (as was the standard throughout much of Europe by the end of the nineteenth century), although for evident reasons of society functioning, many exceptions were granted.

From this date onwards, for the majority of the population, Sunday became a day of rest, a time for family life, leisure, tourism, etc. With the loosening of social and cultural constraints (going to mass on Sunday, family lunch) and the rise of individualism together with family structure changes, Sunday also became a day characterised by a great diversity of practices and activities. What impresses us today is its polychronic character (Hall 1984). This latter specificity of Sunday

has been strengthened over the past two decades by the development of flexible working schedules which render undifferentiated moments devoted to work and those attributed to other activities, such as leisure, family commitments and social interaction.

This context has crystallised the debate on Sunday's shops' opening, not only in France, where this is a recurrent debate since the 1980s, but also in many other European countries. One striking point is that the arguments around Sunday's work are targeted on the opening of the retail sector whose employees represent only a portion of the people who work on Sundays, the other being employed in agriculture, industrial sectors and other services such as security, health, transport, culture and leisure.

It is noteworthy that the arguments opposed to working on Sundays have evolved over the centuries. Initially, the debate placed laymen and believers against one another, focusing on the choice to respect the biblical *Shabbat* or not. Nowadays the arguments are mostly of social, societal and economic nature. To illustrate, France has known during the last decade an increasing deregulation trend of the working schedules under the slogan 'work more to earn more'. In this line, the Sunday retail partisans support economic arguments (encourage employment creation, raise the purchase power through wage subsidies and lower prices for the growth of competition, etc.) and societal arguments (changes in lifestyles, essentials of urban life, etc.), whereas the opponents refer to the deterioration of working and living conditions of the employees involved: difficulties to synchronise family times (Lesnard 2009) and to reconcile working life and nonworking life (e.g. social and leisure life) and need to preserve common times to ensure social and cultural life, a role played by Sunday until now.

# 2.3 Strong Trend Towards Liberalisation of Business Hours in the EU

The European Working Time Directive of 1993 stipulated that workers have a weekly rest period of 24 h minimum and recommended that the day of rest be placed on Sundays. The Court of Justice of the European community annulled this recommendation in 1996 and the Commission, in the context of the 1993 directive revision process, stated that the Sunday rest day is an issue under the sovereignty of the member states. Part of the European Parliament pleads in favour of the return to Sunday as the rest day in EU. However, the draft revision of the 1993 directive from the Commission submitted to the social partners did not present the Sunday issue.

During 1990–2000, there was a broadening of constraints related to business hours and other commercial activities (e.g. banks) (Boulin 2010). Between most of the European countries and France, there is an essential difference over the regulation of business hours. In France, this is the working time of employees that

is regulated by the 1906 law which requires that Sunday is a weekly rest day for all. That said, the French law does not prevent stores from opening on Sunday, but it does prevent employees from working on that day, except for workers in food retail and few other activities on Sunday mornings. In the four Scandinavian countries, Great Britain, but also in Germany and the Netherlands along with certain other countries of the Mediterranean, these were the shop opening hours which were regulated on both daily and weekly scales, typically closing after 17:00 on weekdays, Saturday afternoon in some countries and all day Sunday.

During the 1990s, the Nordic (except Sweden which had removed the restrictions on Sunday shop opening in the 1970s) and several other countries have gradually widened business opening hours. The pioneer country has been Great Britain in 1994, under Margaret Thatcher's deregulation policy (and after 10 years of debate, following the Auld report published in 1984). The Netherlands and Denmark followed during the second half of the 1990s and eventually also Germany. These three countries were the first to extend opening hours during weekdays (introduction of a night time once a week, closing time limit extends from 17/18 to 20:00) and then to an elimination of restrictions on Saturday (in Germany, e.g. before 1996, businesses were closed three Saturdays afternoons at month). Then progressively, Sunday retail has been allowed under specific conditions for each of the countries.

Table 2.1 summarises the developments related to the regulation of shop opening on Sunday for a number of European countries. It shows clearly that the deregulation movement was primarily between mid-1990s and the beginning of 2000.

During this period, several countries have revised their legislation on the opening hours of shops: (a) extension in the evening during the week (Germany, Denmark, Great Britain and the Netherlands), (b) extended opening hours on Saturday, where the opening was limited (Germany, Denmark, the Netherlands), (c) extended opening hours on Sunday, especially afternoon hours (e.g. Germany, Denmark, Spain, Finland, Italy).

Finally, we might stress that other European countries have no opening restrictions for retail on Sundays: Sweden (since 1971), Hungary, Romania, Czech Republic and Ireland.

Regarding France, the legislative changes in 2008 for employees who work in furniture stores, and the more generalised ones for all retail activities set in 2009, have created inequalities for employees in retail. These new legislations produce in fact different working conditions and salary payment depending on whether the business is in a 'touristic' area, where working on Sunday is permitted without obligation for additional remuneration, or the business is in a *Périmètre d'usage de Consommation Exceptionnel* (PUCE),<sup>2</sup> where employees are entitled to wages increase (they should be theoretically doubled) and should work on a voluntary basis.

<sup>&</sup>lt;sup>2</sup>PUCE are commercial malls which are settled in the periphery of large urban areas gathering more than one million inhabitants such as Marseille. Lille, Bordeaux and Paris.

Table 2.1 Evolution of regulation of shop opening on Sunday in some European countries

Country	Precedent legislation	Year of change	Actual legislation
Great Britain	Sunday is closed	1994	<280 m <sup>2</sup> , without restriction >280 m <sup>2</sup> , max. 6 h (10–18 h)
Germany	Sunday is closed	2003/2006	Federal Law: eight Sundays a year; but regulated by Länder
Netherlands	Sunday is closed	1996	Opening from 12–17/18 h (regulated by region/city government)
Spain	Sunday is closed	1980s	Without restriction
		1990s	<300 m <sup>2</sup> : without restriction
		2005	>300 m <sup>2</sup> : at least eight Sundays a year (the trend is 1 once a month) (regulated by the Comunidad Autónoma)
Finland	Sunday is closed	1997-2005	<400 m <sup>2</sup> : 12–21 h
			>400 m <sup>2</sup> : 12–21 h (from May to December) (regulated by the province)
Italy	Sunday is closed	2000–2001	Complete freedom during weekdays; eight Sundays a year and the whole month of December (regulated by region/city government)
Belgium	Without any restriction, but weekly rest for employees	2007	From six to nine Sundays per year (regulated by city council)
France	Food retail open on Sunday	2008	Opening of the furniture shops
	morning (market and small business)	2009	Field of deregulation extended touristic areas and PUCE

Source: Data collected by the author

As suggested by Table 2.1, the distinctive criteria for the regulation are, depending the country, linked to the geographical area (touristic, urban or suburban areas) and/or to the size and nature of the stores:

Tourist areas (deregulation almost everywhere)

Types of commerce (France)

Size of establishment (England, Spain, Finland)

Finally, we note that in some countries, like France (but also in Great Britain), the regulations of the business hours are dictated by the national government (although, in France, the mayor also has power to make decisions, but in a minor level than the prefect) while, in most of the other countries, the national legislation sets general principles (Germany, Spain, the Netherlands, Belgium, Finland, Sweden, Scotland and Italy) and gives the final say to the local government. Legislation is carried out similarly in Canada (Provinces and Municipalities), the United States (States and Counties) and Australia (Provinces).

# 2.4 Evolution of the Perceptions and Practices on Sunday in France

In France, according to 2010 employment survey, about 6.5 million people (28 % of workers) had worked on Sunday, of which 12 % (2.5 million) did so regularly.

The newspaper *Le Pèlerin* conducted opinion surveys in both 1990 and 2006 asking the public three basic questions that when reviewed allow an understanding of the developments and changes over that time period.

The first question was: 'From a general point of view, do you love Sunday?' (Table 2.2).

The majority of people clearly have a positive assessment of Sunday, even if we may notice a dilution during the period of the surveys (-7% for the positive appreciation and +5% for negative evaluations). These data reflect the intensity of the debate – which is reflected by the growing difference of those who love Sunday 'a lot' and those who do 'not at all' (growth of those who love Sunday 'a lot' and those who do 'not at all').

The second question was: 'What is your opinion on working on Sundays?' (Table 2.3).

The answers to this question are evidence of serious ambivalence about Sunday's work. Indeed, those who have a positive view of working on Sundays and those who have a negative one have increased over the period, while the share of 'no opinion' tend to grow. But in total, the majority of opinions are sharply negative in both 1990 and 2006.

The third question asked: 'What are typical Sunday activities for you?' (Table 2.4).

The survey shows that during the period, when the 35 h working week was introduced in France (and therefore the benefit of days off – Working Time Reduction Days – for part of those concerned by a 35 h agreement), the activities

**Table 2.2** 'From a general point of view, do you love Sunday?'

	February 1990	March 2006	Trend
A lot	42	46	+4
Enough	44	33	-11
Total positive answer	86	79	<b>-</b> 7
Slightly	11	11	0
Not at all	3	8	+5
Total negative answer	14	19	+5
No opinion	0	2	+2

**Table 2.3** 'What is your opinion on working on Sundays?'

	February 1990	March 2006	Trend
It's a good thing	28	26	-2
It's not a good thing	69	63	-6
No opinion	4	11	+7

Table 2.4	Typical	activities
on Sundays	S	

	1990 (%)	2006 (%)
Family, friends	56	55
Walks	43	49
TV	50	41
Take care of children	20	27
Go to the market, handling chores	9	8

such as taking care of children and walking increased compared to passive activities like watching television. It is worth noticing that shopping on Sunday was marginal in both periods.

## 2.5 The Contribution of Surveys on Time Use

To end this chapter, I present the first results of a work undertaken in collaboration with Laurent Lesnard (CNRS/Sciences Po),<sup>3</sup> which aims to analyse the use of time and specific practices of those who work on Sunday compared to those who do not. To do this, we use time use surveys (EET) produced in France by INSEE about every 10 years (1974/1985–1986/1998–1999/2009–2010).

Our preliminary work uses only the investigation surveys of 1998–1999, but in the next months, a comparative analysis over time (from 1974 to 2009/2010, date of last EET) will be available.

The interest of the time use surveys (still called Time Budget Surveys or Time Use Studies) is to give people a 'book of activities' for two separate days, one for a weekday and one for a weekend (Saturday or Sunday), which they write down their daily activities, every 10 min, in their own words (not with preset answers as in the case of most questionnaire surveys).

Our first approach has been to understand the difference in activity duration for a population group between the ages of 15 and 64 years, between Sundays and weekdays (Table 2.5).

These data reveal that people sleep more on Sunday and spend more time having meals (both at home and in restaurants) and visiting friends and taking walks. They also demonstrate that television occupies a large part of the use of time on Sunday, and that people devoted less time on shopping than on weekdays. This data shows the special status of Sunday on the week: It is the day where rhythms are less intense (people sleep more, take more time for lunch and/or to take a walk, etc.).

<sup>&</sup>lt;sup>3</sup>A first presentation was made during the 33rd IATUR conference in Oxford, August 2011.

**Table 2.5** Time devoted to the main activities on weekdays and Sundays

	Sunday	Weekday
Sleep	9 h 48	8 h 35
Television	2 h 23	1 h 48
Having a meal at home	1 h 54	1 h 34
Having a meal in restaurant	0 h 49	0 h 25
Taking a walk	0 h 35	0 h 13
Visit friends	0 h 29	0 h 14
Cinema and/or theatre	0 h 07	0 h 03
Shopping	0 h 16	0 h 33

Source: Boulin and Lesnard (2011), data: EET 1998-99

## 2.5.1 Who Was Involved in Sunday Work in 1998/1999?

In 1998–1999, 6.63 % of the people who participated in the survey (a sample of approximately 16,000 individuals) worked regularly on Sundays, 20.55 % worked occasionally and 72.81 % did not work on Sunday at all. On average, those who worked on Sunday had a minor daily duration of work than those who used to work on weekdays (6 h 20 vs. 7 h 35.)

Sunday work primarily consists of services, such as security, health and necessary services for the continuity of social life (energy, transport, hotels, restaurants, entertainment, etc.). According to the logistic analysis, the most concerned sectors, besides agriculture, are transport, health and retail. This is reflected in Table 2.6 that exhibits there are more chances to work on Sunday if you have a job in these activities and also if you are employed in security and defence activities or in intellectual and cultural sectors (museum and artists working in theatres, etc.). The regression analysis reveals that being self-employed or professional and staff managers working in small business but also being factory employees (whose work is organised on shifts) increases the probability to work on Sundays.

An important element that appears in the lower part of Table 2.6 is the correlation between the type of working weeks (i.e. the type of working schedule or shift) and that of working on Sunday. Such an analysis indicates that the Sunday work is often associated with teamwork or long weeks, and also, very significantly at irregular weeks (e.g. when from 1 week to another they do not have the same number of working days), and certain types of part-time work, for example, the short part-time (marginal, part-time 3). Therefore, it seems like the people who work on Sunday are those who are already disadvantaged in their working conditions.

# 2.5.2 Impact of Sunday Working on Daily Activities

We compared the time spent – on Sundays – in major daily activities of those who work on Sunday (more than 2 h away from their home) with those who do not work that day (Fig. 2.1).

**Table 2.6** OLS regression modelling of the probability to work on Sunday depending industry, occupation, gender, family status and type of workweek

Variable	Model 1	Model 2
Industry		
Agriculture	1.80**	2.18***
Industry	1.14	1.16
Construction	0.9	0.97
Transport	1.69***	1.31
Commerce services	1.51***	1.33**
Services firms	Ref	Ref
Education, health, social	2.05***	1.89***
Administrations	0.8	0.83
Industry NAP	2.03	2.25
Occupation		
Farmer	8.82***	5.64***
Small business	2.95***	2.52***
Professionals	1.3	0.93
Managers	0.85	0.83
Intellectual and cultural occupations	2.14***	1.64***
Teachers	1.16	1.07
Intermediate health occupation	1.07	0.9
Intermediate occupation	Ref	Ref
Police and military	2.92***	2.24***
Clerks	0.82	0.9
Service and commerce employees	0.92	0.68**
Skilled factory worker	0.78**	0.73***
Unskilled factory worker	0.71**	0.61***
Sex		
Male	1.15*	1.15*
Female	Ref	Ref
Family status		
Single	1.14	1.07
Couple no child	Ref	
Couple 1 child	0.88	0.89
Couple 2 children	0.96	0.92
Couple 3+ children	0.94	0.94
Single parent	1.06	1.05
Other	1.73***	1.73***
Type of workweek		
Standard		Ref
Long		2.39***
Shift		2.96***
Irregular		8.09***

(continued)

Variable	Model 1	Model 2
Part-time 1		2.73***
Part-time 2		0.88
Part-time 3		9.05***
N	6,257	6,257
Pseudo R2	0.09	0.17

Table 2.6 (continued)

Source: Boulin and Lesnard (2011), data: EET 1998-99

Dependent variable: Sunday work

The reference category is a person employed in services firms, in an intermediate occupation job, female, in couples without children

Model 2 adds the type of workweek as explanatory variable

Type of workweek:

Standard: 5 standard workdays

Long: 4-5 workdays

Shift: 4–5 workdays shifted in the morning, evening or night

Irregular: different number of working days in the week, or different

working hours in the working days

Part-time 1: short workdays, whole week

Part-time 2: 1 day off, standard workdays

Part-time 3: very short workweek, few days' work

The reference is a standard workweek

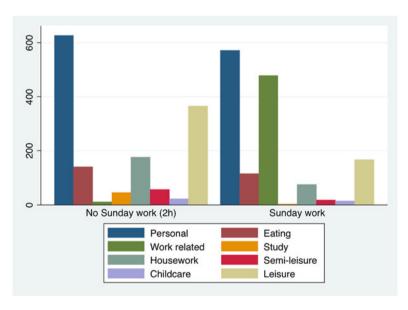


Fig. 2.1 Time spent on different activities on Sunday, for those who work on Sunday compared to those who do not (Boulin and Lesnard 2011, data: EET 1998–99)

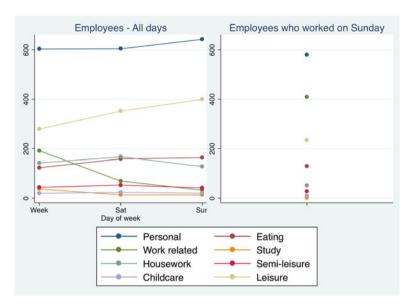


Fig. 2.2 Time spent on main activities of daily life by employees working weekdays compared to those who work on Sundays (Boulin and Lesnard 2011, data: EET 1998–99)

The result is that for those who work on Sundays, the time spent working negatively impacts the other activities. Figure 2.2 shows more explicitly that leisure and domestic activities are the most affected activities for those who work on Sundays.

Figure 2.3 shows that people who work on Sundays spend less time with their family and more time with colleagues, friends and other contacts (e.g. those working in retail and media centres meet many people during work hours). They are less often in the situation of loneliness than those who do not work on Sundays.

However, EET's data confirms the special status of Sunday as a day dedicated to family life. In fact, those who work on Sunday spend on average more time with their families on Sundays, one of their working day, than the average weekdays workers on their working days. The Sundays' workers spend also less time alone or with friends. This observation is true even for those who work on Saturdays compared to those working on weekdays, although to a lesser degree. Of course, the fact that they work 1 h less per day on average makes this possible, but the logistic analysis highlights this polarisation of family life at the expenses of the friendship circle (Table 2.7).

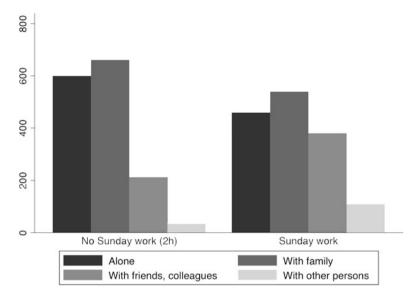


Fig. 2.3 Company of Sunday workers on a Sunday compared with no-Sunday workers (Boulin and Lesnard 2011, data: EET 1998–99)

**Table 2.7** Relative probability of spending time with family or friends – depending on working on weekdays, Saturday or Sunday

Variable	Alone	Family	Friends	Others
Weekday (Ref)				
Saturday	-20.54	102.03***	-31.20	-8.94
Sunday	41.32	129.51***	-73.94**	-29.16

Source: Boulin and Lesnard (2011), data: EET 1998-99

Controls: sex, age, occupation, family status

p < 0.1; \*\* p < 0.05; \*\*\* p < 0.01

#### 2.6 Conclusions

Over the past 20 years in Europe, there has been a noticeable decrease of the limitations to Sunday opening hours of shops and, more generally speaking, of restrictions regarding Sunday work. One consequence of this movement has been the increasing proportion of individuals who are directed to work on Sunday: to illustrate, the proportion of employees in France, who work on Sunday (both on a regular and irregular basis) has risen from 18 to 28 % over the past two decades (survey on working conditions). It should be noticed that those who work long working weeks, on atypical work schedules or part time, are most likely to work on Sundays. Since the service industry is the most solicited, women are increasingly involved in working on Sundays.

The surveys on time use show that the activities most affected by working on Sunday are leisure activities, domestic work and the time spent with other family members. Of those three activities, it is noted that those who work on Sundays favour family time at the detrimental of leisure when they are not at work. These results must be analysed respect to the hopes and desires expressed by individuals, given that Sunday is collectively understood and recognised to be the day reserved for family time.

It can be concluded that working on Sunday has a significant impact on family and social life of the individuals involved, which are increasingly women. How this affects the work/life balance of those involved in Sundays work must be taken seriously. Is it possible to accept, for example, in the twenty-first century, that employees of a large retail store were fired for 'insubordination' because they refused to work on Sunday, as recently happened in France?

The debate over working on Sundays and its subsequent developments, of which they are subject, is an indicator of how people perceive the positions and roles of work, leisure, family, social relations and consumption in their lives. In the late nineteenth century in the United States, a lively debate occurred between 'Shabbat defenders' who were in favour of a day dedicated to rest and family life - in their mind a role devoted to women marked out as guarantors of family and religious values – and 'continental Shabbat' partisans, who were in favour of opening cultural facilities for personal development and empowerment of disadvantaged populations. The 'Shabbat defenders' were against Sunday activities that are not religious or family focused, whereas the 'continental Shabbat' partisans aimed to open museums and libraries to promote the emancipation of the people (McCrossen 2005). We know that Fordism and Consumerism have hidden this type of debate: today in the United States, malls are open 24/7. But it is helpful to remember this kind of debate, while in France the recurrent Sunday's opening battle is focused on retail activities, not at all, to take an example, on the Sunday's opening of libraries or media centres. Opening hours of libraries or media centres are decided at a local level. They are not part of a national debate on the importance of reading. Neither are the opening hours of cultural spaces as spaces for citizenship. However, all the (rare) French and foreign studies attest the positive impact of Sunday opening of libraries and media centres in a context of attendance stagnation (Donnat 2009): these surveys exhibit an increased attendance and diversification of the public (the attendance being a social event, people coming with family and friends). The example of the Netherlands, where libraries are open on Sundays from October to April/May, usually in the afternoon, and the positive assessment they have should be taken into account (Boulin and Mückenberger 2002).

In conclusion, we propose that the regulation of Sunday work be in the interest of local time policies (Boulin 2008). In fact, the time colour of Sunday is not the same according to the geographical location of the observed territories, some of which offer broad possibilities for developing outdoor sporting activities, while others offer broad cultural opportunities and others exhibit few possibilities of this kind. To this, we recommend also considering the seasons in a given location, as some are more conducive to outdoor activities, while others are more favourable to indoor activities.

Thus, Sunday opening issue is typically a time/space one. All these considerations are reasons to consider that the discussion about what kind of activities should be open on Sunday should be a local one, considering all of the stakeholders involved, beyond social and economic institutions, and including the citizens themselves. The Time Offices have the ability to gather all of the stakeholders (including the civil society, inhabitants and city users) around a project table to define and decide what must be open on Sunday and what should stay closed, taking into account the economic, social and cultural backgrounds.

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# **Chapter 3 The Night and Its Loss**

Merle Pottharst and Benjamin Könecke

**Abstract** Artificial lighting is both a precondition and a consequence of the 24-hour society. It makes public spaces safer, allows a range of economic and social activities at night and influences the way goods production and services, buildings and entire cities are organised. Despite these achievements, from early on, critical voices have drawn attention to the negative impact of artificial lighting on humans, animals, cityscapes, landscapes and energy consumption. This has recently culminated in growing criticism of 'light pollution'. This chapter investigates from a socioeconomic perspective the economic and social functions of artificial light, on the one hand, and the 'loss of the night', on the other, and outlines a preliminary taxonomy of relevant positive and negative effects of nocturnal artificial light. It is part of a joint research project on the 'loss of the night', which aims to develop new concepts of lighting to reduce light pollution.

**Keywords** Night • Artificial lighting • 24-hour society • Costs • Benefits • Value of the night

#### 3.1 Introduction

Artificial nocturnal lighting has influenced the rhythms of human beings and their environment. The first artificial lighting was gas-fuelled and was installed in London some 200 years ago. Since then, and particularly since the spread of electric lighting, the use of the night, which is really only possible with light, has changed tremendously. Today, artificial lighting at night is no longer unusual. In developed countries at least, it is common. Of course, nocturnal lighting produces many

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advantages from which we benefit every day, e.g. a greater sense of safety for the population, the possibility of increased social and economic activities at night and urban design opportunities through floodlighting specific buildings and objects. It also, however, has negative effects, such as disturbing the biological rhythms of human beings, flora and fauna. Nocturnal lighting has also been associated with insomnia, depression and cardiovascular diseases. And finally, nocturnal artificial lighting is also connected with the loss of emotional, spiritual and aesthetic values because of the increasingly poor view of a clear starry sky.

The functions and impact of nocturnal artificial lighting have already been analysed in numerous studies. There has, however, not yet been a comprehensive assessment with corresponding analysis. The emphasis in previous studies has always focused on just one aspect: either the functions *or* the negative effects. A comprehensive assessment of nocturnal lighting, however, requires comparing and contrasting the two sides of the coin. The negative effects of nocturnal lighting have to be compared with the positive impacts in order to judge the real usefulness of artificial lighting and the extension of the day.

In the framework of the interdisciplinary research project 'Loss of the Night', the aim is to arrive at this kind of comprehensive analysis of the positive and negative impacts, the consequences and influences of nocturnal lighting as well as its financial costs. This chapter presents the first results of one section of the project, which aims to quantify taxonomically the positive and negative effects of nocturnal light established by a comprehensive study of the relevant literature. Here, our specific focus is the lasting and continuous change to social, economic and biological rhythms as a result of nocturnal lighting.

# 3.2 Economic and Social Functions of Artificial Light

Artificial lighting at night has changed the rhythm of human beings. The utilisation of the night was first made possible by artificial lighting. Nocturnal lighting, however, has many varied functions for numerous people. Lighting in the form of fire was mainly invented to illuminate the environment. Of course, it also led to people feeling safer and being able to warm themselves. With the invention of electricity and the spread of everyday artificial light in the society, lighting became cheaper and universal. The use of artificial light in cities changed urban life, which was no longer characterised by the distinction between day and night. 'Economic and social activities were extended into the night hours, streets and parks became safer, commercial goods, historic buildings and whole cities were lit up for adulation' (Henckel and Moss 2010, p. 12).

# 3.2.1 24-Hour Society

Light is the most important precondition for the current 24-hour society. The conquest of the urban night was made possible by the invention of universal and

cheap artificial lighting. Gas and electricity allowed the performance of economic and social activities in the night (Melbin 1987). Artificial lighting creates the possibility of producing, consuming and moving through 24 h a day. The night can be used for leisure activities as well as forms of production and an increase in productivity. Contemporary lifestyles conform to the constant illumination of our cities and liberate themselves from the natural rhythms of day and night. 'Everything at any time': the spatial and temporal growth of nocturnal transport systems, the increase in nocturnal work and the extension of opening times and working hours – all these are phenomena closely connected to the rise and spread of the 24-hour society (Henckel 2009). The continuous growth in nocturnal production, nocturnal consumption and nocturnal trade is accompanied by added value, since it facilitates a smoother and therefore more efficient use of infrastructures.

Some sectors are more integrated into this 24-h rhythm than others. There are various reasons for this: firstly, it is expensive to stop some industrial processes for a short time. Night shifts are a possibility in such cases: to exploit cost-intensive machines fully and reduce construction and production time as well as the period of paying off the equipment. Second, globalisation forces businesses to conform their production and working hours to the international competition. Third, flexible working times are increasingly creating the demand for similarly flexible services (e.g. shop opening times, childcare times.) Fourth, agricultural production requires constantly illuminated greenhouses to make the consumption of every product possible all the time (Henckel 2009). These are just some aspects which, taken together, constitute the 'night-time economy'. This refers to an economic form connected to the transition of a city from a production location to a site of (mass) consumption and for which restaurants, tourism and the retail trade are economic growth sectors (Lovatt and O'Connor 1995).

# 3.2.2 Security

A crucial function of nocturnal lighting is the increase in safety. Research into the functions of urban nocturnal lighting or street lighting (Shefer and Stroumsa 1982) shows that this appears to be the most important function. When an area is well-lit and therefore more visible, people feel safer. But are they really?

The connection between light and safety has two dimensions: social safety (crime and fear of crime) and road safety. In both cases, the correlation seems plausible: more light means more safety. Many studies have attempted to prove or disprove this correlation, and they have reached contradictory results.

The research group led by Kate Painter at the Institute of Criminology of the University of Cambridge proved in the light of changes in rates of criminality that improved lighting reduced the number of criminal assaults (Painter 1996, 1999). Paul Marchant (2004) mainly criticised the methodology used in these studies. Ken Pease (1999) finally showed that better lighting situations in cities – especially when they are the result of good participation strategies – frequently increase the population's feeling of connection and responsibility and, in this way, reduce

criminality indirectly (Pease 1999). Better lighting can also have an influence on the population's feeling of safety (Knight 2010). These apparently positive effects of lighting on safety and feelings of safety must be examined critically: too much light can also dazzle and so reduce the positive effects.

Virtually the same may be said of the connection between lighting and traffic safety. In the early days of motoring, street lighting was already an important safety aspect. Relative to the volume of traffic, many more accidents occur at night than by day (although the definition of night is important here. Does it begin at dusk or at a specific time?). This can be explained by deteriorating vision as darkness falls but also by other factors, such as tiredness and/or drunkenness. Researchers analysed the connection between various road surfaces, technical aspects of lighting and accident rates (Beyer and Ker 2009) and came to the conclusion that, in many cases, the type of lighting was an important factor in reducing accident rates.

Lighting is therefore definitely a factor that can make the environment safer with respect to society and transport. This goal can, however, only be achieved if the *correct* lighting is installed at the *right* place. What *correct* lighting is (e.g. with respect to spectrum, colour, etc.) and where the *right* place is (evenly distributed lighting) is very dependent on the spatial conditions and is an important question for current and future research projects.

## 3.2.3 City Beautification: Tourism and Identity

Artificial lighting in cities is not only for the safety of the population or for the expansion of the 24-hour society. It is also increasingly important for city marketing and urban design – for tourists as well as for residents and businesses. With mounting competition among regions, it is increasingly important for a city to present itself as unique and striking. In addition to advertising campaigns and cultural events, lighting is also utilised in everyday city beautification (licht.de 2002).

City lights have always had a positive connotation. The night-time illuminations represent modernity, economic affluence, entertainment and a new lifestyle (Auer 1997). Lighting can therefore put a definite stamp on the image of a city. With the correct lighting in the right place, unique atmospheres and identities as well as high-quality public spaces can be created. Lighting can also raise the visibility of a city. The night-time image of a city is often more famous than its image by day (e.g. Las Vegas). 'Artificial light is the basic medium to 'produce' the cityscape during the night' (Köhler 2009, p. 326). How people perceive a city at night is mainly influenced by the lighting and not by its physical/architectural form. Nevertheless, artificial lighting is no panacea. It can only support existing architectural structures that are already satisfactory. Its utilisation should therefore be planned and implemented within the framework of a well-developed and integrated lighting concept. The integration of all interest groups in the process of lighting planning can also intensify identification with a place and a feeling of

responsibility for it (Köhler 2009; Pease 1999). An urban lighting concept must take account of the lighting of a whole city or district and has little to do with the individual illumination of a building. It must also take account of existing lighting structures and the individual characteristics of a city (licht.de 2002). A good example of successful urban lighting planning is Lyon, where one of the first urban lighting master plans was conceived in 1989 (Ville de Lyon 2011).

Temporary lighting installations – for example, at light festivals – are supposed to act as tourist attractions. They are relatively cheap and easy to create and can achieve fame beyond their own region, if, for instance, important light artists participate (licht.de 2002).

Thus, light is also an element of urban economic strategies. With nocturnal lighting, city administrations pursue the wishes of guests and residents to participate in the night-time economy (see Sect. 3.2.1). By means of appropriate illumination, they try to encourage people not to follow their natural rhythms and go home when darkness falls but to continue their activities at night. That strengthens the city's economy.

In general, the lighting of the night is an increasingly utilised and thoroughly effective way of strengthening a city's image and economy. When the night-time image of a city is agreeable and inviting, it attracts tourists as well as new residents and businesses. Lighting master plans can adequately take account of these various demands on the lighting of a city and can plan for them.

# 3.3 The Loss of the Night

Artificial nocturnal lighting not only assumes important functions and facilitates the utilisation of the night, it also produces negative effects. With growing light pollution in Europe, this is becoming increasingly clear and can be observed with the naked eye. The following section examines the negative effects of artificial lighting on the environment and the health of human beings, animals and plants as well as the cultural significance of the night and of the firmament.

#### 3.3.1 Environmental and Health Problems

#### Flora and Fauna

A relatively large number of studies have examined the effects of artificial nocturnal lighting on fauna, especially birds, bats, tortoises and insects. They show that the reaction to artificial light is largely dependent on the ecosystem. Some species of bats, for example, benefit from the gathering of insects near light sources, whereas insects are confused by the lighting because they usually take their orientation at

night from the firmament (moon and stars). This means that insects not only die from exhaustion when they ceaselessly circle artificial light sources or become more easily identifiable to their hunters, they can't achieve their usual intake of food and their biorhythm is significantly disturbed (Eisenbeis 2009). This is comparable to the behavioural changes that could be observed in many other nocturnally active mammals.

The animals have two options in the way they deal with artificial light sources at night: either they abandon the cover of darkness and expose themselves to a higher risk of being detected and attacked by hunters or they feed less, which in turn can lead to a weakening of their performance, a change in their biorhythm or even death by starvation (Beier 2006).

Migrant birds are also affected very significantly by nocturnal lighting. Observations show that they are at increasing risk of flying into illuminated buildings (Evans Ogden 1996) or being 'caught' in bright points of light, such as those shining from sky beamers or lighthouses and, in the worst-case scenario, dying from exhaustion. So as not to exert a greater influence on the rhythm of migrant birds, 'bird-friendly lighting' is now being installed on some drilling platforms (Poot et al. 2008); large neon advertisements such as that of the Bayer company in Leverkusen (Bayer 2010) and the World Trade Centre Memorial in New York are being switched off for a while (Reinboth 2009). Changes to the natural rhythms of birds can even be observed in city parks. In the Parco delle Basiliche in Milan, which is closed and brightly lit for safety reasons at night, birds brightly sing their songs at 2 o'clock in the morning.

Among reptiles and amphibians, the effects of nocturnal artificial lighting have best been researched with regard to turtles. Studies show reduced nest-building activity and clusters of nests in dark areas (with consequences for safety from nest thieves). It was also observed that fewer young turtles were able to reach the protection of the water. The lighting mostly emanates from illuminated beaches and human settlements close to banks (Teikari 2007).

Research has shown that nocturnal artificial lighting also has effects on the feeding habits, reproduction, migrating behaviour and shoal formation of fish. Comprehensive studies focusing on salmon species showed reduced migratory behaviour. In some instances, there was complete repression of fish migration. The main cause cited is the illumination of bridges, which has the effect of a barrier on the fish (Nightingale et al. 2006). On the other hand, additional light encourages growth and development in young fishes. For that reason artificial light is used, for instance, in fish breeding to extend feeding periods and repress sexual maturation (Brüning et al. 2011).

The research noted above was mainly conducted in laboratory experiments. So far, there have only been a few field studies focusing on the effects of artificial light on wild animals. In general, the research data documents the following effects:

- Better orientation or disorientation
- Attraction, connection and/or rejection
- Disturbance of biological rhythms (day/night rhythm, seasonal rhythm)

- Change in the quality of habitat
- Influence on food web

(Health Council of the Netherlands 2000)

The results show two sides of the same coin. While some species benefit from artificial light, others are disadvantaged. A negative effect for nearly all animal species, however, is the shifting or disturbance of biological rhythms, either in the day/night short-term rhythm or the longer-term seasonal rhythm that influences egglaying and brooding times.

Compared with animal studies, there has been relatively little research into the effects of artificial light on plants. The decoupling of natural rhythms has been observed in the area of plant breeding, in that the development of plants was massively encouraged by light and heat in greenhouses, but the relevant studies assume that the intensity of light (e.g. from street lighting) is not sufficient to influence growth and development of plants (Health Council of the Netherlands 2000). So far it has only been observed that some trees growing close to street lights did not lose their leaves or lost them later than usual (Briggs 2006).

#### **Human Health**

Nocturnal artificial light has also been associated with various health issues. Cancer, insomnia, depression, cardiovascular diseases and even obesity (Fonken et al. 2010) have been discussed in connection with artificial light. Direct connections between increasing nocturnal exterior lighting and the health of human beings are, however, still unclear.

Since sunlight or bright artificial light (at least 2,500 lx) are important external cues (Zeitgeber) for the human being's (and also for animals') 'inner clocks' (Zulley and Knab 2009), night work and shift work (in their current dimensions) can be seen as a disturbing factor for circadian rhythms. This has been sufficiently established for the International Agency for Research on Cancer (IARC) to classify night work and shift work as potentially carcinogenic (Straif et al. 2007). The basis of this assessment is the LAN (light at night) theory, according to which, insufficient melatonin is produced in the body as a result of shifting natural rhythms – influenced, for example, by light and working hours at night. Melatonin is a hormone that the body needs to bond oxygen radicals that destroy DNA. It is assumed that a reduced production of the melatonin hormone leads to a greater risk of cancer (Stevens et al. 2007; Blask et al. 2005). The causality of this theory can presumably not be dismissed completely, but most of the evidence has been obtained from experiments working with pharmacological doses of melatonin (Kantermann and Roenneberg 2009). Apart from this, the evidence of a connection between light and melatonin production (and therefore rates of cancer) does not say anything about the impact of nocturnal external lighting on the health of human beings. Distinguishing the impact of interior lighting from exterior lighting is extremely difficult, since the human being is exposed to both lighting situations in everyday life. A study in 2009 examined the connection between types of cancer and light pollution. The researchers mapped the incidents of breast cancer in a specific area in Israel and compared their results with satellite pictures of light pollution. They succeeded in establishing statistically relevant connections (Chepesiuk 2009). But these results must also be viewed critically, since light pollution is mainly caused by economic activity and increases with growing affluence. Affluence, however, is usually accompanied by changes in lifestyle, which, in turn, could explain the increase in rates of cancer. The correlations must therefore be examined closely.

The shifting of natural rhythms, which is encouraged by the introduction of artificial lighting, can have other consequences for the health of human beings: insomnia, depression, cardiovascular diseases and obesity. These frequently have strong connections to the 24-hour society, as described above.

Like noise, the influence of light can lead to insomnia. This may be the result of direct influence – for instance, when the bedroom is illuminated by (external) sources of light – as well as by a deception of the 'inner clock' by the influence of light. Insufficient sleep, in turn, leads to tiredness and concentration problems during the day and can also lead to depression. The risk of cardiovascular diseases also increases when the body receives insufficient periods of rest.

The occurrence of obesity has also been examined in connection with circadian rhythm disturbance. So far, only male mice have been observed, but the research data is relevant to the correspondence between the increasing use of nocturnal artificial light and obesity in humans. It was observed that the use of nocturnal artificial light influenced the time and the frequency of feeding. On the one hand, the length of the feeding period is extended; on the other, the metabolism is influenced by light, which, in turn, can lead to obesity (Fonken et al. 2010).

So far, research into the influences of artificial lighting on health has shown considerable impact on circadian rhythms. To achieve concrete results, however, especially with regard to the connection between health and light pollution, further research is needed. Nevertheless, it is clear that the impact that has so far been observed is closely connected to the 24-hour society, which is influenced by light.

# 3.3.2 Loss of a Cultural Heritage

Thousands of years ago, the firmament provided human beings with orientation — in a temporal as well as a geographical sense. In addition to the metaphysical relationship to the stars, humans developed techniques and systems for determining the time, days and months from the course of the stars. The calendar models we use today are still based on the stars. The stars were also used — and still are — to determine directions and to establish routes more efficiently in the dark. This was especially true for sailors before the invention of the compass and radar.

The fascination of the night and the firmament has inspired many philosophers, poets, composers and painters. In this connection, the firmament assumes an

emotional, spiritual and artistic value. The perception and appreciation of the change between day and night is found very early in famous works, such as the Bible, in William Shakespeare's 'Midsummer Night's Dream', in Vincent van Gogh's famous painting 'The Café Terrace on the Place du Forum at night' (Arles, September 1888) and even in the form of a specific category of musical composition called the 'Nocturne'.

Artificial lighting increasingly prevents us from seeing a clear, starry sky. It is also increasingly difficult for astronomers to gain a clear view of the stars. This phenomenon can be traced to the increasing illumination of the sky through light scattered by artificial lighting, which makes weaker stars in the background disappear from view (Hänel 2010). Dubai, for example, only the moon can be observed in the night sky (Nemiroff and Bonnell 2011). In brightly lit European cities, the number of stars visible has decreased from a potential 3,000 to 100 or fewer (Hänel 2010). Thus, the Milky Way is only visible to about 50 % of the population of Europe (Schwope and Hasenöhrl 2009, 2010).

These two aspects of the night indicate the path we are on. In view of increasing light pollution, we are not only depriving ourselves of the sight of thousands of stars but also the interpretation of a cultural heritage, as there are fewer and fewer places on earth where we can perceive the fascination of the firmament. For this reason, UNESCO supported the International Year of Astronomy 2009, initiated by the United Nations, as well as a feasibility study on the suitability of five locations to be declared 'dark sky preserves' (Hattenbach 2010).

#### 3.4 Conclusions

The accumulated findings from currently available studies leave many questions unanswered, but they provide a good first impression of the effects of artificial lighting, its impact on various disciplines as well as the connections and chain reactions of these phenomena. For the sake of completeness, it should be said that in addition to the positive and negative effects we have mentioned, there are other functions and effects – for example, in the areas of astronomy, science, costs, energy consumption and energy efficiency – which could not be included in this chapter for reasons of space.

This chapter of the 'loss of the night' clearly shows the complexity of the subject. The interplay of the positive and negative effects of artificial lighting is like a dynamic model: the increase in artificial lighting increases the positive utilisation (e.g. with regard to the extension of economic activities at night); on the other hand, the negative effects also increase (e.g. the disturbance of the 'inner clock' of various animal species and humans).

The invention and spread of artificial light in the past 200 years, and especially the electrification of interior and exterior lighting, has made a decisive contribution to the decoupling and changing of daily human and ecological rhythms. Thus, economic and social activities became possible at night which, on the one hand,

produced growing affluence; on the other, however, they were accompanied – and still are – by ecological and health problems.

In the future stages of this research, the focus will be on the economic aspects of the 'loss of the night'. The effort and expense of illuminating the night must be researched, including the positive uses and the negative costs that ensue.

From these results, new perceptions and detailed observations on the rhythm of the city can be derived. We have possibly gone too far, and the extension of the day into night may be resulting in more harm than good. This question cannot be answered on the basis of research so far. If, however, this premise is confirmed, it raises a further question: what balance must be created to conserve an ecological and economic, sustainable and efficient system of lighting? The key certainly does not lie in a radical extinguishing of artificial lighting but rather in the introduction of new and innovative technologies that illuminate selectively and don't produce scattered light in the form of 'light domes', as currently occur above many (economically powerful) cities.

Germany will have a great opportunity in the near future to make this adaptation, as some 30 % of the existing street lighting was constructed in the 1960s and is therefore in need of replacement (Ringwald and Bauer 2009). In addition, the need for renovation across Europe has been increased as a result of the issuing of EU Regulation No. 245/2009. This regulation prohibits the use of mercury vapour lamps in street lighting as of 2016 because of the considerable environmental damage caused by these lamps.

This subject must be researched more intensively and results produced in the near future – results that will have an impact on the further development of exterior artificial lighting and produce new thinking at all social, administrative and economic levels.

**Acknowledgment** The authors will gladly provide in-depth information and an account of the progress of the research project. Alternatively, the website <a href="www.VerlustderNacht.de">www.VerlustderNacht.de</a> provides additional information.

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# Chapter 4 Re-populating the Nighttime City: Hospitality and Gender

**Adam Eldridge and Marion Roberts** 

Abstract Recent work on the nighttime economy in the UK has shifted from a focus on the consequences of excessive drinking to a consideration of new and emerging social and cultural trends. This chapter, based on research conducted over a period of several years, examines some of the factors contributing to greater diversity at night. Focusing specifically on young people's leisure and women, we argue that British cities at night are not homogenous spaces focused only around alcohol-related leisure activities. Whilst certain practices continue to dominate, other forms of leisure, work and shopping have grown in importance. Equally, there is a corresponding trend amongst younger people to entertain in the home before venturing out. These and other trends are used as evidence to argue that the city at night is a broad and vexed social space shaped as much by economics as by changing patterns, performances and structures of gender, age and class.

**Keywords** Night • 24-hour society • Youth • Gender • Age • Class • UK • Nighttime leisure • Space-time use • Nighttime economy

#### 4.1 Introduction

This chapter is concerned with the expansion of the nighttime economy in the UK. It is motivated by an interest in the extent to which the city at night serves as a context for new forms of leisure, community, social relations and normative gender roles. Our point of departure is a belief that new sites for leisure and new cultural practices have emerged in recent decades and that these have been shaped by demographic

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and socioeconomic changes, not least in gender relations. Of particular interest is evidence of diversification in British cities at night and the outsourcing of domestic tasks, such as eating, shopping and drinking.

The evidence upon which the argument is developed includes a series of research projects conducted between 2005 and 2008 (Roberts and Eldridge 2009), as well as more recent work with young people aged from 15 to 24 (Roberts et al. 2012). This more recent research was conducted on behalf of the Joseph Rowntree Foundation (JRF), a British charitable organisation, in 2010 and 2011 (Roberts et al. 2012). The research examined youth leisure and alcohol consumption in two contrasting areas of England with a view to understanding how 'place' might influence leisure patterns.

To begin, the chapter considers some of the influencing factors that have shaped the development of the nighttime economy in the UK. The chapter argues that the traditional binary of day and night, and that there are cultures, practices or spaces specific to either, is being bridged. Whilst much of the established literature about late-night culture in the UK focuses on alcohol consumption, other aspects of nightlife such as eating out and late-night shopping are considered. We argue that the emergence of these cultural practices, pressures to diversify the city and new social patterns is changing the character and behavioural norms associated with cities after dark.

#### 4.2 Economic and Social Context

The growth of the nighttime economy and late-night culture in the UK has been prompted by a series of interrelated economic, social and policy trajectories. As explained below, these include seemingly disparate forces that have now become interwoven into an explanatory narrative of what is termed 'the nighttime economy': post-industrialisation, post-fordism, neoliberalism, the expansion of youth culture and leisure and, in the UK at least, the expansion of alcohol-related leisure facilities and resulting drinking cultures for women, students and lesbian and gay communities. None of these factors alone can explain the emergence of the nighttime economy in all its variation and local specificity. When taken as a whole, however, and in terms of how these factors are locally articulated, we arrive at a series of research agendas, legislative and policy interventions.

The traditional starting point for seeking to better understand the rapid expansion of the nighttime economy in the UK is the shift from an industrial to post-industrial economy, popularised in particular by the political economy approach (Chatterton and Hollands 2003; O'Connor and Wynne 1996). Commentators from various Western countries and academic disciplines have added further nuance to this thesis, extensively documenting the contraction of the urban manufacturing base post-WWII and various cities' transition to spaces for entertainment, leisure and consumerism post-1970. This body of work includes contributions from Sociology (Bell 1976; Zukin 1989; Lash and Urry 1994), Planning (Hepworth 1990;

Roberts and Eldridge 2009), Tourism (Law 2002) and Geography (O'Connor and Wynne 1996; Lees et al. 2010). According to this thesis, the sharp decline in small to medium manufacturing in the urban core resulted in derelict and abandoned spaces that were gradually appropriated by urban entrepreneurs for largely leisure and entertainment purposes (see especially O'Connor and Wynne 1996).

Supporting this process, in policy and legislative terms, has been considerable intervention that has sought to develop the economic functionality of city centres from 9 to 5 to 24-hour centres of consumerism. From the influential Comedia report 'Out of Hours' (1991) to the more recent 'Towards An Urban Renaissance' (Urban Task Force 1999), there have been significant government- and community-driven attempts to develop and brand city and town centres as vibrant and dynamic places to live, work and play. The growth of 24-hour supermarkets, a relatively new occurrence in the UK, is one manifestation of this. So too is the call for more social services to run into the night including museums and libraries (Civic Trust 2006), the hours of general practitioners, the extension of licensing hours and the growth of spaces for late-night shopping, dining (Bell and Binnie 2005), entertainment and tourism (Law 2002).

In order to understand these developments, and the shift towards a more 24-hour city, we need to look beyond the post-industrialisation thesis or a purely political economy approach, however. The transformation of derelict warehouses in Manchester, waterfronts in Birmingham or factories and viaducts in London were about more than simply 'filling in' the remains of the post-industrial city. They were entwined with other social and political pressures and influences. That is, the political economy approach and the post-industrialisation thesis cannot, in isolation, entirely explain the expansion of leisure spaces or leisure culture in cities across the UK and other post-industrial nations. Nor can it fully account for other contributory factors such as changes relating to gender, youth culture or the emergence of new leisure-based opportunities and practices.

A second thesis about Britain's nighttime economy and its repaid growth looks towards alcohol consumption. In recent decades the expansion of Britain's cities at night has been overshadowed (and explained) in terms of debates about 'Binge Britain' (Measham and Brain 2005; Plant and Plant 2006). Excessive consumption of alcohol has subsequently occupied central government, local government, charitable bodies and law enforcement agencies. Though there has been a recent reduction in alcohol consumption in England with the numbers of men and women drinking more than the weekly recommended amount of alcohol falling from 28 % (men) and 15 % (women) in 1998 to 23 and 13 %, respectively, in 2006, levels of antisocial behaviour and alcohol-related disorder remain of concern. Equally, these figures use the original method of unit conversion. A more recent method of calculation shows no reduction in the 18 % of women drinking more than six units at least 1 day in the week but a reduction amongst men of 22-18 % in the same period (ONS 2009a). However, like the post-industrial/political economy approach, the focus on antisocial behaviour and alcohol-related disorder can easily detract attention from other emerging trends and social practices. Changing family dynamics, shifting leisure patterns, changing times for eating, working and the formation of new social networks remain less explored. It is to these social and cultural shifts, and how they have impacted upon the temporal and spatial workings of the contemporary city, that we now turn.

## 4.3 Challenging Temporal Norms

The use of time, as we know, is historically and culturally specific. As William's suggests, 'nightspaces ... are constituted by social struggles about what should and should not happen in certain places' (Williams 2008, p. 514). Legal, moral and spatial codes will, in other words, influence the types of behaviour, spaces or cultures that form in the day or night. This is an ongoing struggle and 'what happens in certain spaces' is subject to local conditions and pressures (Schivelbusch 1988). Times and spaces deemed suitable for certain activities are subject to change and do so as a result of social, economic and political intervention. In short, both macro and micro processes will challenge and, in some cases, entirely refigure how spaces are lived and imagined according to established temporal and spatial conventions. Further to this point, de Certeau (1984) and Lefebvre (1991) argue that spatial and temporal conventions are contested and subject to reconfiguration. Though de Certeau's work has focused primarily on the day, his insights into the ways that people 'rewrite' or actively shape the city are insightful. Rather than a relationship that is spatially determined, this account points to a generative understanding of the relationship between bodies and the built form. In short, users will play an active role in consuming as well as producing their built environment, bringing individual as well as structural frameworks to their understanding and use of social space.

Maffesoli (1996), in his work on new tribalism, has suggested that cities and leisure spaces generate new fluid and context-specific 'tribes'. Rather than pre-existing fixed communities coming together, he argues that pubs, sporting events and the like can see disparate and otherwise unknown individuals coming together in a spirit of camaraderie (see also Jayne et al. 2010). Further to this argument, Williams (2008) suggests the night serves as a context for the formation of new communities and social relations. These might include groups such as Neighbourhood Watch or Reclaim the Night. Williams' argument is especially important when considering the role of gender, which has tended to be understood largely in terms of 'fear' or subcultural behaviours. Pain's (1997) work, for example, suggests that many women avoid the city centre due to the prevalence of venues aimed at young male drinkers. Bromley et al. (2000) have also suggested that city centres at night are associated with fear and avoidance rather than inclusivity. Our own research suggests that this pattern is changing and younger women are active users of nighttime spaces and, in turn, are developing new social practices (Roberts 2013 forthcoming). Research conducted on behalf of the Joseph Rowntree Foundation with young people, as discussed in more depth later, points to an active use of city spaces in ways that cannot be explained entirely by fear or gender determinism.

Prior to exploring these arguments in more detail, it is worth noting that the notion of re-appropriating and re-territorialising (Williams 2008, citing Deleuze and Guattari 1988) social space is part of the general mythology of the city at night, attached as it is to narratives of inverting or challenging everyday, normative behaviours. However, some caution is necessary. As Thornton (1995) has argued, the nighttime economy, in the UK at least, has followed some fairly predictable patterns, mostly in terms of age, race and class access. The city at night is also strongly influenced by big business who have a major stake in guiding its development. We are not suggesting, in short, that individuals are free to appropriate and challenge spatial and temporal conventions and norms at will. The late-night city is also much more complex than a simple inversion of everyday structures. In these terms, it is important not to romanticise the subversive potential of the late-night city. In many such accounts, the endless opportunities for radical reinvention are, on closer inspection, limited primarily to privileged men or to otherwise pathologised groups such as sex-workers. To therefore fixate on the radical possibilities afforded by the city at night might unwittingly ignore the deeply historicised influences that structure our access and 'imagining' of what the night could or should be (Palmer 2000).

With this in mind, and whilst aware of the structural inequalities and conditions that frame the city at night, we do not wish to entirely overlook the fact that we are witnessing new alliances, new leisure spaces and new forms of access by different communities that, in turn, might foster new activities. As well as offering unique insights into changing patterns of gender normativity and youth culture, a study of late-night culture and the city at night reveals that temporal and spatial conventions are constantly being undermined, challenged and re-articulated by macro and micro processes.

#### 4.4 Gender

'Youth' have been the primary subject for the study of late-night culture. As the primary market for leisure spaces in town and city centres, mainly in the form of pubs, bars, nightclubs and leisure centres, young people have been the subject of considerable scholarly debate and, in turn, the focus of much policy intervention (Chatterton and Hollands 2003; Hackley et al. 2010). This will be discussed in the following section. First, we turn to the topic of gender and the diversification of the city at night from a relatively homogenous leisure-scape comprising bars aimed primarily at men to the situation now where men and women are acting as both active producers and consumers of urban, late-night leisure.

The opening of All Bar One, a British bar chain, is an important, albeit underresearched, starting point for considering the growth of women's participation in late-night culture. Women have always acted as producers and consumers in the city at night, and not only as prostitutes or barmaids (Schlör 1998). The more recent emergence of women-friendly bars, however, is indicative of post-fordism and women's entrance into white-collar professions. All Bar One was initially opened in 1994 by two women frustrated by the lack of venues for professional women to meet and socialise. Faced with a seemingly endless array of intimidating bars frequented primarily by men, the All Bar One chain was designed to attract women wanting to meet, eat or drink without harassment or feeling out of place. The chain, which now numbers 47 nationally, has been criticised for its identikit character, but it has served as a template for other chain bars that appeal to a new demographic of young, urban, female drinkers. These and other chain venues, such as the Slug and Lettuce or Pitcher and Piano, are characterised by large transparent windows, wooden floors, young staff, extensive wine menus and open-plan, fashionable décor.

Despite the growth of such venues aimed at women, in Britain today there remains a tension around women who drink publicly in town and city centres. On the one hand, evident in frequent newspaper reports in some of the more conservative tabloids, women's drinking is articulated with a lack of morality, respect or middleclass propriety (Day et al. 2004). On the other hand, there is an equally powerful narrative about women's, particularly middle-class women's, drinking as a sign of greater mobility, economic independence and greater freedom to live outside the traditional domestic sphere (see e.g. Day 1999). Advertising provides a further dimension to this, typically featuring young middle-class women in glamorous surroundings consuming alcoholic beverages in social settings. Finally, there is further intervention into the discourse of women's drinking from a scholarly angle. As noted earlier, a dominant theme in the literature about gender and the nighttime economy has been fear (Pain 1997; Sheard 2011). Equally, there has been an important body of work developed around women's participation in subcultural aspects of the nighttime economy such as raves or dance culture (Pini 2001) and our own work on hen parties (Eldridge and Roberts 2009; Eldridge 2009). If the mainstream experiences of women have been less interrogated, this is not to suggest there has been a concerted effort to ignore or sideline women's experiences. Across the study of late-night culture, there has been a tendency to focus on more extreme practices by both men and women, a point raised earlier in terms of the focus on the subversive potential of the night. Recent work by Jayne et al. (2010) has gone some way to redressing this balance, exploring such everyday practices as drinking at home or in local country pubs. This work represents a more recent attempt to understand the everyday behaviour of drinkers and to intervene within the often paralysing debate of 'Binge Britain'. In contrast to work that emphasises fear or extreme forms of behaviour, there is therefore much work to be conducted on the everyday experiences of young men and young women participating in late-night culture.

What this may tell us about the subject of diversity in cities at night is complex. Cities remain gendered spaces and relations of power, be it in terms of class, race, age, able-bodiedness and sexuality, continue to influence where and how participants occupy or perform in public space. Nonetheless, further study into how people use the public and semipublic spaces of the city at night might echo some of the initial points raised in this chapter. Albeit in some predictable ways, there has been a corresponding growth of access to the city at night with the opening up of new venues and leisure spaces, such as the All Bar One chain. These new sites represent opportunities for further sociality at night and a possible challenge to the idea of

an essentialised, masculinised and fixed late-night time-space. Evidence from the recent work with young people also suggests that young single women are not venturing out with the primary goal of meeting prospective partners. Nor are they venturing out with boyfriends or partners. The desire to dance, drink and socialise with friends, in single or mixed sex groups, shifts our understanding of nightlife in subtle but important ways. As well as women venturing out sans male *chaperones*, late-night culture is not reducible to only the fostering of sexual relationships.

Employment is a significant driver of young women's participation in latenight culture. A significant pay gap continues to cast a shadow over the subject of gender and employment but progress is being made in terms of women entering paid, professional employment. For McDowell et al. (2005) in global cities such as London, there have been marked increases in employment for educated women in public sector, professional and managerial jobs in the decades leading up to the 1990s. This can be attributed to a series of factors including sex discrimination legislation and increased access to and expansion of higher education. McRobbie has explored this subject in further depth, pointing to the 'luminosity' that now surrounds young women and the considerable pressure placed on them to be highly skilled, educated and 'productive' economic citizens (McRobbie 2009). This is played out in the increasing number of women in paid employment, which rose from 56 % in 1973 to 70 % in 2008: compared to a reduction of 92–79 % for the same period for men (ONS 2009b, pp. 48–49). University figures reveal a similar story. In the most recent University admissions process in the UK, the higher education sector received 199,000 applications from women compared to 145,000 from men (Coughlin 2011). Most interestingly, the pay gap narrows in terms of age; in the 22– 29-year-old age group, women earn 2.1 % more than men in full-time employment (ONS 2011).

In no way should this detract attention from ongoing forms of exclusion, but being in paid employment provides not only additional income, it can prompt a raft of other, related practices and spaces which, combined, influence the shape and use of the city at night. Paid employment or higher education might influence and/or result in new social and/or friendship networks which are then carried forward into the production and use of spaces outside the workplace or University such as pubs and bars, like All Bar One. Women's greater purchasing power enables them to dine outside the home, either with their families or with friends. Exemplifying this is Wetherspoons, Britain's fastest growing pub chain, which now makes more money from its food offer than from its sales of alcohol. The private provision of meals outsources a private domestic process based on (mainly) female unpaid labour to a different setting, where gender and class relations are less fixed.

We might further point to new patterns of shopping due to extended hours working and greater disposable income, new forms of shopping (purchasing work clothes in upmarket stores, for example), new transport needs and new patterns of consumption in terms of food, dining and drinking. To take just one of these examples, a subject important to understanding the nighttime economy – in its shape, accessibility and management – is transport. Despite its importance in the management and delivery of the city at night as an economic and cultural space,

the provision of transport at night and its relationship to the issues that concern us here has been poorly researched. Research conducted by the authors (Roberts and Eldridge 2009) between 2006 and 2007 found transportation to be a significant deterrent to a more inclusive nighttime economy but it remains, for the most part, beyond the study of late-night scholars. Figures exist, however, which point to the uptake of different transport means by women and men, and for what purpose.

The study of transport systems and logistics provides evidence of changing views about the city at night and, in unique ways, the extension of daytime management strategies into later hours. Far from the world of leisure and entertainment, this body of work suggests a growing recognition of the need to think carefully about how the city at night is to be serviced and managed (Independent Transport Commission 2011). It equally points to a shifting use of transport by men and women. One interesting area is the growing number of women with licenses to drive. Since 1995, the number of men in possession of a driving license has remained stable at approximately 80 %. For women, however, the figure has increased from 57 to 65 %. Further figures reveal that women take more trips than men, a fact that can be attributed to the phenomena known as trip-chaining where women are involved in more small journeys to conduct caring or domestic-related trips. However, in terms of entertainment and leisure, and visiting friends not otherwise in a private home, the figures reveal little difference: 117,000 trips for men and 116,000 for women (Dept. for Transport 2010). The figures also point to women conducting more shoppingrelated trips than men: 212,000 per year compared to 174,000 trips per year for men (Dept. for Transport 2010). However, as noted, young men will also travel to shop more than for entertainment or visit friends outside a private home.

### 4.5 Youth

If changes in employment, shopping and mobility have contributed to diversification at night for women, the implications for youth, especially those under the drinking age, remain to be seen. However, our recent work with young people in two contrasting regions of England supports the thesis of this chapter: rather than representing a single, homogenous time-space, the nighttime economy in the UK is diverse and offers opportunities for new forms of leisure and sociality. As noted earlier, this research entailed primary research with people between the ages of 15 and 24 in localities in two regions of England. Though the project was primarily concerned with local differences in alcohol consumption, some cursory comments can be made here about wider leisure patterns and the young people's participation in leisure at night (see Roberts et al. 2012 for further discussion).

An important observation to have emerged from the research was that there was little notable difference in the degree to which young men and women over the age of 18 participated in late-night, mainstream, leisure activities. More specifically, venues in the city centre were not as heavily gendered as might be expected. There was not a clearly marked separation of women's bars and men's bars, nor was there

any discernible difference in the time that young men and women arrived or left venues. Equally noteworthy is that respondents were asked if there were certain areas of the city they might avoid. Rather than avoiding certain areas on the basis of gender, the important markers of territory were class and age.

Despite the lack of notable variation in men and women attending city venues, it would certainly not be correct to say there were no gender differences in young women's and young men's leisure experiences. Where the differences were especially marked, however, was not so much in terms of where they went in public, but in the hours before going out. The time spent with friends before attending bars or clubs is an important part of the late-night leisure experience for British youth. This time has, somewhat erroneously, become associated only with drinking alcohol in a practice known as 'preloading'. Preloading is a practice that has attracted attention in recent years (Hadfield et al. 2010). It is a relatively new drinking cultural practice, the time where people meet, typically in someone's house or flat, to drink and prepare for the evening. The event can occur from 16.00 h, and in some cases earlier, to 23.00 h.

Though the public venues that young men and women meet in are mixed, and the city itself is visited by both genders, the preloading, 'private' ritual is the one component of the leisure experience that is very clearly gendered. The afternoon or evening is typically single-sex with young men using the time to drink and play computer games. There were also reports from young men of using the time before going out to visit the gym in order to be suitably 'pumped'. Young women, on the other hand, would typically meet and drink, like the men, but use the time to do their make-up or hair, listen to music and prepare for going out. That preloading takes place primarily in the home perhaps reveals little about the use of public spaces at night. Nonetheless, as a common ritual amongst UK youth, it deserves closer scrutiny, not least in terms of how it might shape the times in which clubs and bars open. More specifically, it points to the extension of the leisure experience in temporal and spatial terms.

Further to this theme, a final observation worth noting is that the strict organisation of the week into clearly demarcated time zones no longer holds as much sway as it might have for previous generations. The Friday and Saturday night ritual of venturing out to the city centre remains extremely important amongst young people. However, and in a move noted by other researchers, there has been a breakdown of the weekend as the traditional and only time to go out. Tuesday and Thursday nights have gained popularity in the UK in recent years. Initially serving as designated 'student nights', the research found that respondents would also go out at other times of the week. This was notable as the interviewees were not actually students but were instead mostly full-time workers. The extension of traditionally weekend activities into the week can be understood according to a host of competing factors. Economically, city centres in the UK have been under pressure to function throughout the day and night, across the entire week. Spatially, we have also witnessed a concentration of leisure opportunities in city centres. As noted, Friday and Saturday are very important, but it was not uncommon for young people to visit clubs or bars on other nights of the week.

# 4.6 New Employment and Leisure

This final point about the expansion of leisure across the week brings us back to the productive capabilities of the nighttime economy and Williams' (2008) point about the night serving as a context for new forms of community, sociality and networking (Wittel 2001). It is also a space for work. Beyond the focus on fun, leisure and entertainment, in Britain today 11.1 % of the working age population, that is, between 15 and 65, begin their work day after 18.00 h (Eurostat 2010). Little research has been conducted on who, where or in what industries this nightwork occurs beyond research into shift workers. The work of taxi drivers, transport providers and bar, restaurant or hotel staff is less examined. Figures exist, however, for the economic 'value' of the nighttime economy in terms of employment. Though we may know little of the qualitative aspect of working at night, in quantitative terms the nighttime economy represents a sizable proportion of the UK's economy. Researchers from TBR Associates and Make Associates claim 1.3 million people work in the nighttime economy, which represents 6 % of the overall UK economy and 10 % of its workforce (TBR and Make Associates 2010). This is slightly lower than the figure provided by Eurostat, cited earlier, but still represents a sizable employment opportunity. These mostly forgotten workers are emblematic of many of the points raised thus far. Again, these comments are speculative and research is desperately needed, but for the women and men employed across the city at night in its emerging industries, new patterns of employment and leisure are developing. Temporal and spatial conventions about the separation of work, rest and leisure are perhaps nowhere more challenged than in the early evening spaces of the urban core.

#### 4.7 Conclusion

This chapter has highlighted the extent to which there are competing discourses about the night. The city at night is no longer just a space of and for a small segment of the community (young men) and, where it is, there is considerable pressure to change this. We have focused primarily on gender and youth in an attempt to document the shifting discourses around leisure at night. Fear, economic and social exclusion and security concerns remain important and are not to be overlooked. But concomitant to these, in addition rather than necessarily opposition, there are spaces and practices developing that challenge the fixed idea of the city at night. Greater diversity of experience is happening alongside and in many ways driven by women's greater employment and access to education. Equally, the growth of shopping opportunities at night from malls to ordinary out of town supermarkets represents another form of leisure which is less about alcohol and more about late working hours. Much work remains to be done, however, on many of the issues speculated upon here. We know little about the role transport plays in facilitating the growth and diversification of the city, or of limiting or enabling access. Even less

is known about the workers holding up the late-night city be that in bars, clubs and pubs or driving the buses and staffing the supermarkets. All combined, the cultural, social and economic factors driving the nighttime city are complex and we have not even touched upon the debates that continue to frame it such as those around morality, sex, violence, binge drinking or antisocial behaviour. Nonetheless, as in the past, cities continue to reflect as well as frame social behaviour. That temporal and spatial conventions are changing is not new. What is perhaps new, however, and deserving of further research, is the opportunities it serves for new practices and performances of gender, leisure and employment and the extent to which these are diversifying the urban form.

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# Chapter 5 Teenagers in the Contemporary City: Hypermodern Times, Spaces and Practices

Luc Gwiazdzinski

**Abstract** This chapter aims to examine teenagers' practices in public space, the modes of appropriation that stigmatise certain types of places and worry parents and adults, particularly in the evening and at night. It is based for the most part on a study conducted for the French Union of Holiday Centres (UFCV) on 'teenagers' times and spaces of sociability' and on a more detailed survey conducted in the outskirt area of Besançon, in Eastern France. Our study highlights the importance of a spatial and temporal approach to youth, at the level of living areas, so as to allow for the co-construction, locally and with the youth, their parents and residents, of projects and policies adapted to their needs. The chapter emphasises the necessity of transcending preconceived ideas about teenagers, to acknowledge and respect their temporalities, in order to be able to conceive a city and public spaces that are more accessible and welcoming, places where they can express themselves and places where they can hide: ordered times and places but also places and times for freedom and adventure. More generally, these populations, whose behaviour is increasingly mobile, fragmented and unstable – caricatures of a hypermodern society – call into question the urban fabric, the duality and diversity of urban times and spaces. Between the 'poly-temporal city' and the 'à la carte city', the boundaries are increasingly blurred.

**Keywords** Youth • Everyday life practices • Public space • Mobility patterns • Space-time use

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## 5.1 Introduction

Adolescence is the only period in which we learn anything (Marcel Proust 1987).

Each society produces its own temporal system (Sorokin 1964) that results from the combination of all the social activities conducted in it. Time is the product of social activities and is the abstract measure of concrete things (Sue 1994). When and where can we create and form a territory, a community, a family, in an increasingly fragmented society (Gwiazdzinski 2003, 2007a, 2009)? Acceleration, mobility and the disappearance of great collective rhythms all call into question the foundations of collective life. Even leisure time is under pressure. In this 'à la carte society', we struggle to resist the demand for non-stop activity and individualism. Barriers emerge between individuals, groups and generations at the expense of social cohesion. Evenings, Sundays, meals and holiday times, for example, have become particular and fragmented times during which intergenerational sharing no longer necessarily occurs, and which need to be re-examined (Gwiazdzinski 2005; Gwiazdzinski and Rabin 2011).

In the face of this acceleration, it seems necessary to take a pause and to examine, in particular, the times that characterise the lives of the youth and teenagers. The aim is not to envisage them as disparate tribes exclusively defined by their behaviour, or as mere targets of marketing, but rather to bring to light their practices, life rhythms, mobilities and needs without isolating them from the rest of society.

Everyone talks about the 'youth' but in actual fact no one really knows them, especially teenagers. There is a belief that we know who they are, what they want and what they do until they are about 13 years old. Later on, adults have more difficulty understanding them (Dubet 1991; Singly 2006; Fize 2009). Parents no longer recognise them. Public representatives fear them, particularly when they gather at bus stops or in the lobbies of apartment buildings. Youth activity and support organisations do not really know how to take care of them anymore. The groups that form and dissolve within a few days, the short-lived fads, changing tastes, the need for freedom and emancipation which traditional support systems poorly satisfy and their mobility make for a difficult task (Gwiazdzinski 2007b). Grown-ups criticise them, fear them and fantasise over them – particularly in terms of sexuality – forgetting, in the process, the kind of youth they themselves used to be not so long ago. Even though everyone speaks 'in their name' or 'for their sake', the youth are given very little consideration in public policies, which currently focus on the other opposite end of the life span: old age.

# 5.2 A First Approach

The spaces, times and practices of teenagers remain to be explored, not only by researchers but also by the public authorities.

Strangers. It seems that only clothing brands have 'figured out' this population; they target, very successfully, the 'youth' and segment the 'potential market' into 'pre-teen', 'teen' and 'adolescent' categories. In all cases, we often criticise young people, we observe and worry over them, and yet, we spend our time mimicking their likes, dislikes and behaviours in terms of fashion and music; we even use their language and beg for their expert help in matters of information and communication technologies – for better or for worse.

A Need for Exploration. Several changes in daily life can be analysed from the point of view of time (Carlstein et al. 1978; Bonfiglioli 1990; Lepetit and Pumain 1993; Henckel and Eberling 2000; Boulin and Mückenberger 2002; Colleoni 2004; Boulin 2008; Marregi 2011). This is the reason why it is necessary to perform chronotopic studies of young people and their spatial practices (Gwiazdzinski 2007c), using a 'rhythm-analytical' (Lefebvre 1992) approach that will take into account the territory, the uses and users at different times of the day, of the week or of the year. The first elements presented here are based for the most part on a study on the different time periods in the daily lives of teenagers, conducted as part of a national, experimental initiative and for the French Union of Holiday and Leisure centres (UFCV). A first series of studies conducted in ten holiday centres and extracurricular organisations had led to a number of conclusions concerning leisure times and the youth (Gwiazdzinski 2007b).

An Observed Evolution. The evolution of social times has an impact on the internal functioning of leisure centres as well as on the quality of life of parents, social workers and children. Pressure from outside the centres affects the workers and the children. The children and social workers are pressured by more and more demanding parents who want more activities, production or outings. Recovery times like breaks, naps, quiet times or mealtimes are under threat. The times allotted for being together with other individuals are fewer and fewer. The essential interactions with parents and local actors are more and more difficult, in a context in which those organisations are more and more used as babysitters. The importance and respect of individual choice have become central issues, in spite of, or because of, collective living.

Finally and above all, the studies have raised the awareness of the difficulties facing the parents and traditional youth facilities in supporting or supervising a particular category of young individuals – teenagers – during their leisure times and have given rise to a desire to find out more about their temporalities, territories and practices, topics we had already explored in the context of participatory protocols in another region of France: In the Belfort area, through several research programmes on the mobility of young people, for the PREDIT (Programme of research, experimentation and innovation in land transport), in Nanterre, for the Youth Congress, and in other studies and programmes conducted at different scales in urban as well as in rural areas.

Objectives and Protocols of Exploration. The area chosen for this work is comprised of five small towns in the north of Besançon, Eastern France. The area

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in question represents a population of 10,000 inhabitants, among whom 1,000 young people aged between 10 and 20. The aim is to gain a better knowledge and understanding of the practices, uses and needs of the teenagers living in these periurban small towns, so as to be able, later on, to develop, together with the youth, the professionals, the parents and elected representatives, suitable responses.

The overall analytical approach to the times and spaces of teenagers rests on several cross protocols: a substantial awareness campaign, involving the creation and distribution of post cards, leaflets and posters designed with teenagers; a survey on the crossed representations of children and adults, conducted with about 20 families; a mobility analysis based on the GPS monitoring of 15 individuals (young and adult), for 1 week – so as to map their movements and whereabouts – followed by a session during which each individual comments the maps obtained; a survey of the territory and of the gathering places, conducted with the *gendarmerie*; periods of field observations, with adults meeting with the youth of the area, and a survey on the needs of the teenagers (200 questionnaires were analysed and the organisation of creativity sessions and public meetings every other month involving the local youth and grown-ups). This work pursues a *strong participatory* approach and in particular the setting up of thematic working groups and the involvement of the local actors at the different stages of the initiative.

# 5.3 Particular Ties to the Territory

On the face of it, one cannot say that the youth do not have any ties to the territory.

Territorial Presence. In reality, they are the ones who 'keep' the territory, the district and the village for part of the day; they do so jointly with housewives, retired and unemployed people, when the working residents have gone away to work somewhere else. The phenomenon is very common in peri-urban areas, city outskirts and dormitory suburbs, where, during the day, one only sees these specific population groups.

Territorial Synchronisation. It is also the youth that usually forms the largest battalions of members in sports or cultural associations. One cannot say that they have no ties to the town and society. When everything dissolves and splits (e.g. territories, working hours, organisations, families), the one institution that still stands, the only surviving great social rhythm, is that provided by school. The ringing of the bell provides the tempo for part of collective life and particularly for families with children whose holidays, weeks and days it regulates. School remains a 'time giver' (Sansot et al. 1983), a synchroniser, which, among other things, enables the population of a district or a village to meet.

Territorialised Memories. On a different scale, by taking a look at the work of writers or film-makers, one can easily see the ties the latter have to their youth

and the territories of their youth: a space of play, of transgression, which the child and later the teenager paces and measures; a space he discovers at the same time as he discovers and constructs himself; a space he experiences and in which the first boundaries and limits are erected. Let us remember the first words in Pagnol's trilogy in which he relates how he discovered the hills, with his father the rock partridge hunter, his mother Augustine, his uncle Jules, his aunt Rose, his brother little Paul, his friend Lili and his little sister: 'I was born ... beneath the goatcrowned Garlaban, in the days of the last goat-herds' (Pagnol 1957, p. 4). Or think of the urban trials and tribulations of the young Jean-Pierre Léaud in François Truffaut's 'Les quatre cents coups' (Truffaut 1959) or of Romain Duris' adventures in 'L'auberge espagnole' (Klapisch 2002), set at a time in life when the territory of young people opens up to the world.

To See the Particular Ties. That a young person has to the territory, we only need to relive our first school experiences, put a foot on the path we used to walk as a child, and later as a teenager. All we need to do is take a few steps and the memories come rushing back and we soon can feel where we come from. We once again experience a particular territory, which will forever be different to all the other spaces we have experienced since. The change in altitude, the landscape, the colours, noises and smells are all like Proust's little 'madeleines', they are like rugosities that catch the memory. Even though many things have changed, some buildings and people have disappeared, we remember the trees, the stairs, pavements, pedestrian crossings, the snails that stuck to walls on rainy days, the songs of birds in the spring, the moss covering facades, the people we bumped into, the baker's shop where we used to buy sweets, the butcher shop, the newsagent and the gardens in blossoms. We rediscover with emotion the hidden groves where we finally plucked up the courage to give our first kiss and the craggy spot where we built a shack or smoked our first cigarette. It was on those paths – which we often walked while playing truant, while we were rubbing ourselves to the land, its open and its concealed corners – that we stepped over the boundaries, tested our limits and that of others. 'We can only discover a place by discovering ourselves' (Maldiney 2007, p. 166) But the territory of childhood can also be a more male, a more warrior-like territory such as that depicted in Louis Pergaud's 'La guerre des boutons' (Pergaud 1912). It was into other spots of this territory that our teacher's 'object lessons' used to transport us and it was that teacher who skilfully introduced us to the trades of the local craftsmen and to the mysterious life of a pond. No one ventures there anymore for security and norm-related reasons. But there is no need here to depict a nostalgic view of youth and of the territory, which many have depicted before us. It was not better before and those who believe it was forget that in those days they were 20. Let us simply agree that strong ties develop between a young person and the territory, during their schooling times - which we have a relatively good insight into - and during leisure times, which we probably do not know quite as well.

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# 5.4 Tricky Relations Between Teenagers and Grown-ups

It has to be said, first of all, that young people and adults have complex interactions, in which representations play a large role.

Caricatural Cross Representations. Beyond the clichés, young people develop in the image of our society and do so, sometimes, to the point of caricature. When their parents are questioned, rather unflattering words pour out: 'always tired', 'unstable', 'fickle', 'scatterbrained', 'individualist', 'elusive', 'complex', 'contradictory', 'glued to their cell phones' or 'stuck to their pc' (Gwiazdzinski 2007b). What do they express if not the contradictory tendencies of a hypermodern society that fosters complexity and paradoxes (Barel 1989). When questioned about their parents, young people are not much more tolerant: 'old', 'tired', 'moaners', 'never here' and 'always in a rush' (Gwiazdzinski 2008). Return of the compliment. This is not to say that this play of cross representations means that the youth do not develop ties with the territory or that they do not engage locally. They do so differently from their seniors, in a more fractional and temporary way, at different scales and in different networks. They are fickle, sometimes seem to be elsewhere, often appear scattered, but they too get involved. The lack of understanding might result from a lack of intergenerational dialogue.

Difficult Dialogue. Teenagers hardly ever get the opportunity to have discussions with adults other than their parents or sometimes their parents' friends, or their cousins. Within the family, it is with their mother and older brothers and sisters that they interact the most. The favoured times for interaction with them are mealtimes and the evenings. They struggle to talk to their parents, particularly to their father. When dialogue does occur, the same issues keep cropping up, at the detriment of a serene exchange: school results, going out to parties and people they socialise with. They resent their parents for wanting to protect them and reproach them for continuing to often treat them like children and for being a little distant from them. They reckon that their parents do not move with the times, that they got stuck in the past. It is interesting to note that when adults are asked questions about their youth, they talk of freedom, of 'life on the wild side', of the first time they got plastered and of their first cigarettes and first kisses. The very people who criticise teenagers readily describe themselves as rebels and miss 'the good old days'.

# 5.5 A Specific Organisation in Space and in Time

Territories of Variable Size. By monitoring the itineraries of a teenager with a GPS and examining on a map, the routes he travels, one can take a good measure of his life space. Beyond his daily trips to primary or high school, his comings and goings reveal a more or less wide territory and social relations depending on whether he walks or uses his bicycle, his moped, public transport, and according to whether he

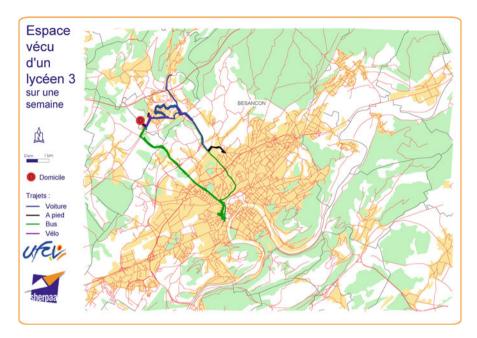


Fig. 5.1 Life spaces, travel routes and modes of transport of a male student during the week (Sylvaine Schlienger, Luc Gwiazdzinski)

is a boy and a girl (see Figs. 5.1 and 5.2). This territory, which the young person has visited, figured out and appropriated, grows as years go by, whereas for elderly people it shrinks, 'From bed to window, then from bed to armchair, and then from bed to bed' (Brel 1964).

Practices that Differ from Gender to Gender. The practices, activities and social mobilities of the youth outside school also clearly differ according to gender. For example, time restrictions for going out and restrictions on where they may go are tighter for girls, whom parents watch more closely. Naturally, there are times and places when and where boys and girls meet, but it is interesting to note that the relations young people – as individuals or as part of groups – develop with their territory are strongly conditioned by their gender (see Figs. 5.1 and 5.2).

Landmarks for Sociability and for Anchoring. Teenagers often gather in specific places on the territory. Naturally, sports places are part of this social geography: skateboarding parks, the sports field next to a school, the soccer field or even the high school. Consumption places, such as McDonald fast food restaurants, the movie theatres or shopping malls, are important in this geography and constitute real landmarks. The younger children meet at the leisure centres to take part in supervised activities. Later on, the bus stops, the public gardens or the old wash house are all places where young people can meet even in bad weather. They are the equivalent of buildings' lobbies in big cities. And it is those clearly visible

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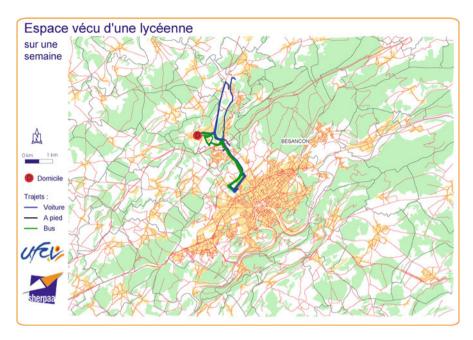


Fig. 5.2 Life spaces, travel routes and modes of transport of a female student during the week (Sylvaine Schlienger, Luc Gwiazdzinski)

gathering places that crystallise the adults' fantasies. Other, less welcoming places, like the fountain behind the graveyard, allow for more intimate meetings. An old, dilapidated caravan served as a landmark for a while. A secret shack plays this role but the caravan sticks in everybody's mind: that of the teenagers who are still angry about it and that of the adults who are glad that this 'gathering and drinking place' has finally disappeared. These gathering places are often marked with territorial graffiti and tags that serve as signals to others that 'this is our turf' and that they must 'stay out'. It is interesting to note that these places last and serve the same functions from generation to generation.

A Tendency of Territorial Control. Teenagers generally restrict their comings and goings to the towns in their area, and when they do go beyond, it is generally to visit the main city in the region. In the summer, a natural sandpit attracts the local teenagers but also those from other areas, who, in the adolescent Imaginary, only come to 'pick fights or take our girls'. Strange stories of drug dealing and of outside dealers circulate among teenagers as well as their parents. Exchanges develop between young people of different towns; parents give their 'big boy' or 'big girl' a lift to a bus stop and fetch them again later. Young people occasionally come from other towns to play soccer or basketball. Children invite one another to their homes; this is common particularly among girls, as it makes it easier for the parents to supervise their daughters' activities and friends.

*Breakaways to the City.* The teenagers go several times a month to Besançon, in particular. The girls go for walks about the city and shop for clothes and shoes. The older boys tend to visit the public places of the city centre such as bars and pool halls. Boys and girls meet in the metropolitan temples that the ice skating rink and bowling alley constitute for them. The oldest ones go to nightclubs.

## 5.6 The Constraints Related to Leisure

The functional space of teenagers and their leisure-related practices are necessarily limited by a number of constraints:

- A limited space-time budget. Young people claim to be very busy and to have heavy workloads during the week, and that they have very little time for hobbies and friends. Whereas many of the parents have a 35-h per week work schedule, the children themselves complain that they have to work over 40 h a week.
- A limited financial budget. The majority of the teenagers get a pocket money allowance of less than €30 per month. They spend most of their money on video games, airtime, DVDs, movie tickets, comic strips, clothes and sweets.
- Going out hours. The days and number of hours children are allowed to go out are restricted and vary depending on their parents' flexibility. The teenagers generally have similar time restrictions. They are allowed out until 7 pm during the week and until 10.30 pm on weekends and a little later in the summer. The hours mostly vary depending on the age and gender of the teenagers. Many of the girls still have to stay at home in the evening until they are 18 years old.
- Discriminatory transport modes. In this type of peri-urban territory, it is the parents who generally drive their children to their recreational activities when they take place outside their town. These 'taxi-parents' are not always available. For the other activities, closer to home, the children cycle, walk or use the public transports. For a minority of the children who have problems getting around, the difficulties are mostly related to a lack of public transport or to the fact that bus times might be unsuitable, particularly in the afternoons and evenings. Sociability strongly varies depending on whether the teenager has a scooter or not.

# 5.7 Particular Practices and Behaviours

Observing the recreational activities of teenagers over a given period of time reveals particular practices and behaviours.

Specific Temporalities. Teenagers generally meet on Saturdays, Wednesdays and in the holidays. They hardly ever go out on Sundays, which are still days for family time; and this does not seem to bother them. They often meet at McDonald's or at the local Kebab place in the early evening. They arrive at about 8 pm even though

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there is no prearranged meeting time. They seldom decide in advance what they are going to do and decide at the last minute, depending on the information they have and on what they feel like doing. They claim to get bored on weekends and wish they could go to Besançon or to a lakeside or river bank. They also get bored in the holidays and get out of bed late.

Holidays. Sports are a large part of teenagers' recreational time, with soccer and basketball being the most popular. When interviewed about their activities when they are together, the teenagers claim that they 'don't do much'. When they can't go to Besançon, they 'bum around' at the local shopping mall. When they 'go to town', they often just 'hang around'. They chat, laugh, go for strolls or walk to the shack. When asked what their activities are, they generally reply that they do not do anything in particular.

Generational and Territorial Identity. The youth aged between 13 and 18 feel like and call themselves 'teenagers'. Ninety percent of their hobbies are activities they share with other people their age. Most of them claim to be part of a 'group'. Most of them are high school, higher education, technical school students or apprentices. They all claim that they 'like the place' and that they feel attached to the territory even though it is not the place where they imagine living when they are older. The social relations and interactions they develop with other young people present on their territory do not seem to be determined, in any way, by the socio professional status of the parents.

Permanently Connected. Many of the children, particularly the girls, prefer cell phone to direct contact. Most teenagers have a computer (95 %) and a cell phone (90 %), except the youngest ones. They all use the Internet on a regular basis and have an email address. One third of them have a blog. They report spending on average half an hour a day on their cell phone (SMS) (mostly the girls), 2 h a day watching TV and two and a half hours on their computer (e.g. chat, email, discussion forum). The digital game enthusiasts (mostly boys) spend over 3 h a day playing (e.g. console, network games) but do not feel they spend much time doing so.

*Instability.* Though most teenagers are part of a mix-gender group of about ten friends, the composition of these groups (mostly boys) seems to change regularly, which poses a problem for a researcher. In the realm of friendship, the so-called friends for life sometimes only remain so for a week or so. The children often move from association to association and from club to club so as to try out new activities or new sports. When it comes to matters of the heart, the teenagers are relatively quiet but pride themselves in being unattached. Only a few couples make excessive displays of affection in public.

*Presentism.* Teenagers struggle to make medium- to long-term plans. They know they will meet at the end of the day or on weekends but generally decide what they are going to do and change plans at the last minute and prefer to decide in the moment according to the best offer or idea.

# 5.8 Space and Time-Related Claims

In the face of the space and time-related constraints that restrict their freedom, and of the absence of certain services, the teenagers have a number of claims.

The Right to Freedom and to Difference. They suggest that the grown-ups 'give them more freedom', 'avoid criticising them', 'stay calm' and 'not be too clingy'. They do not want to be judged or controlled. They do not want to be 'called drunks just because they have a bottle in their hand'. They do not want to be considered as delinquents even though they acknowledge that 'when someone entrusts something to young people, it often ends up being damaged'.

The Right to Idleness. Teenagers demand the right to not do anything, to relax without being deemed 'lazy'. They curse orders to 'get moving!', 'do something' and 'get some work done!'.

The Right to 'Relax'. They refute the adults' claims about alcohol or drugs even though, for the oldest teenagers, a fun evening always starts with the purchase of a bottle. They recognise being attracted to cigarettes, alcohol and even certain drugs. They teasingly remind us that their parents use tranquillizers and sleeping pills to be able to sleep.

The Right to Night Life and Mobility. Their demands revolve around three main areas: the lack of activities and events at night, particularly in winter ('everything shuts down before 11 pm', 'nothing happens at night, there are no parties for young people'); the lack of venues where young people could meet when the weather is bad (no hall or shelter, such as a caravan or bars where they could get together) and the difficulties of getting out of the territory: 'no trips to the swimming pool, to Europa-Park in Germany' and 'no buses in the evening'.

The Right to be Recognised as Equal Members of the Community. They would like to be able to discuss certain topics with their parents, about the 'challenges of life'. They acknowledge that they seldom express this need with their parents or other adults. They know little of the local representatives or their functions. The mayor seems rather unapproachable, and yet they reckon that they need to be able to express and discuss their needs with him. They think that the best way to understand young people is to meet them on their own ground and to ask them questions. More generally, they would like to share more activities, events and parties with the adults. Beyond their demands, the teenagers do offer some propositions.

Propositions to Expand Their Time Horizon and Territory. Their propositions revolve around the possibility to widen their 'play arena' by expanding their time horizon, i.e. by being able to go out for longer hours and to be able to venture further away (spatially), by gaining access to public transports and activities on offer beyond the neighbouring towns. The oldest teenagers (15–18-year-olds) would like to go on camps, for example.

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Simple Ideas. When they are asked to choose a project, they suggest the idea of a hall with lights, chairs, a sofa, an alcohol-free bar, just as a meeting place; and they also would like a end-of-year group outing. Most importantly, they express the wish to organise these projects themselves and to manage them without the grown-ups constantly peering over their shoulders.

*Conformist Dreams*. They all see themselves later in life with a family, and some of them even have an idea of their future profession: doctor, nurse and even policeman.

# 5.9 Contributions to Society

The Advantage of Spatio-Temporal Approaches. Research confirms that a spatio-temporal approach is an asset for understanding individuals, groups, organisations and territories. Time is one of the rare public policy issues that is truly transversal to all public domains. All the sectors of collective life are concerned, whether they be transports, private and public services, housing, schools, nursery school, trade, cultural and recreational facilities, etc. A competence of everyone and no one, time is one of the only themes that make it possible to involve all public and private actors in the debate, without any tension or without anyone retreating behind institutional barriers. Time imposes partnership, from the observation phase to that of experimentation and of evaluation. A sensitive dimension, time naturally repositions man at the heart of the debate. It is an opportunity. Even though the data and observations collected and analysed cannot always be generalised to all teenagers, nor to all European territories, they still provide useful information about territories, society and territories.

*Individuals Looking for Hyper Choice.* The observations and interviews conducted in this peri-urban territory revealed profiles of individuals who are mobile, unstable and connected, who more and more frequently make their decisions at the last minute. They reveal individuals who want more freedom, more mobility and wish to have a say in the decisions that concern them and to participate in projects, locally and elsewhere.

'Influential Outsiders'. These teenagers are the outposts or the caricatures of their seniors. Through their spatio-temporal practices, they outline the contours of a hypermodern society (Lipovetsky 2004; Aubert 2010) that fosters paradoxes: they stick to themselves but want to be more open to the world; they want to be consulted but are seldom available; they want services to be more open but demand the right to do nothing; they want to be surprised but get stuck in routines; they want to meet others but confine themselves at home, in a permanent tug of war between the 'I' and the 'We', the here and there, the real and the virtual.

The Paths to Hyper Territories. The practices of teenagers outline the contours of a 'widened citizenship' (Gwiazdzinski and Rabin 2011) that knows no administrative boundaries, cliques or frontiers. They inscribe themselves within a 'hyper territory'

in which they pack accumulation, connectivity and mobility, multiply connections and juggle with sociability scales and networks. They force their parents and elected representatives to rethink 'the institutional mechanic' and to make it more open and diverse.

Sentinels of the Future. Sometimes 'influential outsiders', often outposts of society, teenagers have a lot to say about society and the world. The distorting mirrors and caricatures of the adult world, they are the transmitters of weak signals and also useful sentinels that we would be well advised to try and understand and to associate with the life of the city, rather than to judge or mimic. In this respect, listening more attentively to young people, as outposts of a society that will eventually imitate them, is a duty and a necessity. To understand them is also to identify the future possibilities, to avoid getting trapped in the dogmas of proximity and of urgency in terms of territory and of democracy. For them just as for us, there are a thousand and one ways of experiencing the spaces and times of hypermodern society and just as many new ways of getting involved in the life of the city, its networks, territories and places.

These observations point in the direction of a reflection on 'expanded territories' and on 'widened' citizens: in other words, on individuals capable of crossing networks, knowledge, competences and scales in order to be able to move beyond the here and now. Our society must not withdraw into idealised, but outdated, life territories. It has to adapt to the reality of our plural and poly-chronic life modes and cities, shift from a stock identity to a flow identity, move from the spot to the pathway, from permanence to situation without falling prisoner to the present while doing so. Teenagers invite us to join them on the paths of diversities and multitudes. Let's follow them!

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# Chapter 6

# Time and Urban Morphology: Dispersed and Compact City Time Use in the Metropolitan Region of Barcelona

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**Abstract** Time use and management highly depend on personal and social factors such as the way each individual relates to labour activities, the type of family in which they live, the person's age, gender and their socioeconomic status, etc. All of these factors determine important differences. However, another basic element to be added to this list of factors differentiating people's time use and management is the city's spatial configuration. Offering possibilities while setting limits, this element determines people's life space and can therefore lead to social inequalities. Analysing time-space relationships has subsequently become a crucial element in exploring a city's possibilities, detecting problems and offering guidance in relation to town planning. This chapter analyses the relation between urban morphology and its interactions with people's life space, time use and management by focusing on dispersed urbanism and its impact on the metropolitan region of Barcelona. More specifically, the chapter focuses on the recently consolidated dispersed city morphology by comparing it with that of the compact city so that differences between their specific time and space uses can be determined. Challenges possibly set by the former to the development of a public, accessible city, that is to say, to the construction of a socially sustainable city, are also evaluated.

**Keywords** Compact city • Dispersed city • Space-time use • Everyday life practices

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# 6.1 Introduction: Urban Morphology and Time Use

Time use and management highly depend on personal and social factors such as the way each individual relates to labour activities, the type of family in which he or she lives, their leisure habits, etc. Additionally, it is also influenced by the person's age, gender and his or her socioeconomic status, all of which determine important differences. However, another basic element to be added to this list of factors differentiating people's time use and management is the city's spatial configuration. Offering possibilities while setting limits, this element determines people's life space and can therefore lead to social inequalities.

Analysing time-space relationships has subsequently become a crucial element in exploring a city's possibilities, detecting problems and offering guidance in relation to town planning. Therefore, from this perspective, urban spatial configuration would be a particularly pertinent issue to examine. In this sense, various questions should be raised: Where is each urban function located? How many does a territory have? What services, facilities and public spaces does it have? But, above all, how accessible are they according to where residents live, their characteristics and lifestyles? By analysing urban morphology, the diverse effects which different urban organisations have on their residents' time can be better understood. Therefore, there would be three key issues on which to focus:

- How do public service and facility location and accessibility affect people's time?
- Up to what extent does a certain urban organisation allow the combining of daily activities, making them compatible?
- Up to what extent does the way a city is organised contribute to the creation of public, socially sustainable cities?

This chapter analyses the relation between urban morphology and its interactions with people's life space, time use and management by focusing on dispersed urbanism and its impact on the metropolitan region of Barcelona (hereinafter MRB). Despite extensive literature on dispersed urbanism from an environmental point of view, there is much less available on its effects on facility accessibility or on how it has affected relationships, life quality or time use, despite its wide impact. Since the mid-twentieth century, both the USA and Europe have tended to grow and expand through dispersed urbanism, creating a new urban space mainly characterised by an unlimited urban expansion and highly specialised fragmented and segmented pieces from which growth is generated. This new territory's logic is completely the opposite to that of the compact city, that is, mixture and diversity.

In Mediterranean countries, this new urban form has expanded by adapting to each particular spatial condition. It has highly affected the MRB, transforming its morphology during the last 25 years. While developing its own characteristics, its environmental and social effects can also be clearly observed. These new dynamics have led to a hitherto unknown construction morphology: low-density, highly specialised and segmented neighbourhoods with only one urban function. Most

visibly, numerous housing estates<sup>1</sup> – better adapted to family needs, particularly those with small children, and at cheaper prices than large city housing – have consequently started to spring up. This new dispersed city is fragmented, highly specialised and clearly separates the public and private spheres, giving pre-eminence to the latter. Subsequently, two different urban typologies are coexisting: the traditional Mediterranean compact city model and the recently introduced dispersed city. Moreover, they are both imposing their own particular and totally different spatial logics, life spaces and rhythms.

The development of this dispersed model has transformed their residents' everyday life, introducing basic changes in their life space, which is now based on a functional segmentation, on a lower and more complex accessibility to activities, and on longer distances between them. Therefore, the time used to carry out daily activities has augmented, and a new time management, and personal and family life conciliation model has been generated. As a result, housing estate residents have consolidated their own dynamics and time uses, different to those developed by compact city dwellers. These changes are thus generating new social differences due to contrasting time uses, which defy a socially sustainable urban model. This new scenario introduces new problems and challenges to an urban model which is extending further and further beyond the boundaries of the city. This new city has become a major challenge for planners.

This paper analyses dispersed city morphology by comparing it with that of the compact city so that differences between their specific time and space uses can be determined. Challenges posed by the former in the development of a public, accessible city, i.e. the construction of a socially sustainable city, are also evaluated. The specific case analysed, the MRB, offers the opportunity of comparing the morphology of the compact city with that of the recently consolidated dispersed city.<sup>2</sup>

The chapter contains three sections. Firstly, the main recent MRB spatial dynamics and the dispersed city's specific characteristics are analysed. Secondly, MRB time use patterns are explored and differences between compact and dispersed city dwellers are made. Finally, we look at the challenges faced by this model in terms of time management and the design a public and accessible city where time is a fundamental variable incorporated into planning.

<sup>&</sup>lt;sup>1</sup>We use the expression 'housing estate' as a translation of the Spanish word urbanización. This type of urban morphology is now quite common in MRB and is characterised by low-density housing and high specialisation. There is no specific English word to translate the Spanish word, but 'housing estate' and 'residential suburb' should be a good enough approximation.

<sup>&</sup>lt;sup>2</sup>This paper intends to take the results of three research projects further. The references of the projects are Mobility, Family Solidarity and Citizenship in the Metropolitan Regions (2003–2006) with reference SEC2003-09565; Social Sustainability According to Urban Forms: Residential Mobility, Life Spaces and Use of Time in Metropolitan Regions (2007–2010) with reference SEJ2007-67948 and Residential Strategies and Urban Models in Metropolitan Region of Barcelona with reference CSO2010-22117-C02-02.

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# **6.2** Recent MRB Urban Dynamics: New Directives and Dispersed City Developments

# 6.2.1 Recent Urban Dynamics and the Dispersed City

The MRB has undergone significant change in recent years, resulting in a major transformation of its urban morphology. As a result of this transformation, two different urban models are presently coexisting: that of the traditional compact city and that of the recently introduced and superimposed dispersed city.

These changes are due to new US and European urban directives – developed during the early twentieth century - being applied. Although dispersed urbanism has recently been incorporated into urban growth in Mediterranean countries, it is a foreign morphology. From the early twentieth century, several factors have contributed to set the basis for the present spatial model. On the one hand, there is the development of urban functionalist and rationalist ideas applied to urban planning (Benevolo 2005). The Athens Charter is taken as an initial manifesto, setting new directives for a new way of organising cities.<sup>3</sup> Under a strong planning logic and that of radically separating basic functions as a way of rationalising the city, contributions are made to a new way of organising the city on the basis of standardisation, functional specialisation and spatial and functional segregation (Choay 1976). On the other hand, the wide availability of private transport radically transforms the concepts of distance, time and travelling. Scales are totally transfigured by this type of vehicle, opening a new city logic where the public and private spheres are clearly separated and there are no limits to dispersion. The car allows taking the functionalist city and function separation logic to the extreme. The USA, where the new urban theories plan cities under this logic, 4 would be the perfect example.

Eventually, these directives are also developed, although at their own rhythm and with their own characteristics, in Mediterranean countries, so the impact is soon felt in the MRB. During the second half of the twentieth century, Fordism set the basis for spatial dispersion, and function fragmentation and separation. At first, economic activities were redistributed throughout the metropolitan area: industries left large cities and settled in segregated, isolated industrial parks which had only that function and could only be reached by car. Meanwhile, service sector activities concentrated in cities. The industrial park logic was also applied to dwellings, and a large number of extensive residential parks were built in city outskirts for working class citizens. Thus, a metropolitan dynamic, based on the fragmented spaces and spread through function segregation, was created.

<sup>&</sup>lt;sup>3</sup>The Athens Charter (La Charte d'Athénes) written within the framework of the 1933 IV Congrès International d'Architecture Moderne or CIAM was set as the new urbanism manifesto. Based on rationalising the city, it proclaimed spatial zoning on the basis of the four basic urban functions: dwelling, work, recreation and transport.

<sup>&</sup>lt;sup>4</sup>Examples are Frank Lloyd Wright's theories and the Broadacre City model more specifically.

The effects of the 1970s crisis contributed to intensify this spatial logic by expanding a new building typology: housing estates. Urban congestion and a lack of appropriate dwellings for young people – who wanted to emancipate from their parents' house, but could not obtain this due to high housing prices and labour market instability – led young people to transform second homes, built as segregated low-density housing, into their main place of residence. The two main types of people participating in this change which was already beginning in the mid 1980s were, on the one hand, high class families looking for a better quality of life in larger houses with natural surroundings and, on the other, young people who wanted autonomy and, in order to obtain their own home, had to abandon the city to settle in their family's second home (Alabart and Vilà 2007). Both opened the door to the later development of numerous housing estates. Soon, real estate agents saw the great possibilities offered to them by this new market and focused most of their efforts on these development. A new way of building the city, housing estates, was established. They were built in large, segregated, dispersed areas, away from urban centres, following a low-density typology which had one exclusive function, that of being residential, therefore giving pre-eminence to the private sphere. In the mid 1990s, housing estates started to spring up throughout the metropolitan area and so did an induced demand for them (Muñoz 2005). Now, the people moving to them were mainly middle-class young couples with children in search of a dwelling better adapted to a family's – i.e. children's – needs. In their search for these larger houses with more facilities than those that could be offered by an urban dwelling in the city at the same price, an increasing number of young couples abandoned large cities to move to housing estates.

The main changes were introduced in the early twenty-first century, when this dynamic intensified and massively extended everywhere, therefore consolidating a radical metropolitan transformation. Then, housing market dynamics, identified as a real estate boom, introduced major spatial and social changes both in Spain and Catalonia in general, but, more specifically in Barcelona and its surroundings (Nel·lo 2006). The extraordinary heights prices reached, particularly in cities, finally consolidated a residential dynamic which had previously only been suspected. Now, a broad spectrum of people – not only young middle-class couples – considered the possibility of leaving a city where prices had become out of reach and moving to less expensive areas with housing better adapted to their needs.

<sup>&</sup>lt;sup>5</sup>While some were large high-quality dwellings, others had been built in illegal housing estates and were self-built. The former eventually became high-standing, good basic facility access housing estates but the latter ended as under-serviced and lacking all kinds of urban facilities. The less affluent classes went to live in these.

<sup>&</sup>lt;sup>6</sup>Some data will be given so that a general picture can be obtained. In Barcelona, from 1998 to 2002, newly built flat prices nearly doubled. Between 2000 and 2007, when the boom reached its height, these prices increased by 173 % (Source: Secretaria d'Habitatge, Generalitat de Catalunya).

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Most went to the constantly developing housing estates.<sup>7</sup> The dream of living in a house surrounded by nature, inherited from the North American model, had reached the MRB and gave meaning to this choice which also, to a considerable extent, responded to a real need (Alabart and Vilà 2007).<sup>8</sup> The metropolitan territory adapted to these new residents. After housing estates came, in other segregated areas, the services, particularly large malls. The MRB was increasingly becoming larger and more fragmented and designed to promote mobility. That is, a new urban morphology had consolidated: a new type of city, a private, dispersed, segregated and low-density one. Therefore, a new life space and new consumption patterns were created, and with this came new personal and social time use and management patterns (Montaner and Muxí 2011).

# 6.2.2 The Dispersed City and Life Space

What are the main characteristics of this new dispersed city expanding throughout the MRB? Even though some have already been presented, they deserve to be analysed in greater depth. Firstly, this new spatial organisation progressively decentralises urban activities and functions (residential, industrial, services, etc.). Secondly, this residential suburbanisation process is dominated by low-density, detached housing. As for its morphology, it is clearly a fragmented space in which each of its pieces is highly specialised. Finally, to end this catalogue of characteristics of this newly dispersed territory, physical distance, together with discontinuity, should be added to the former list (López de Lucio 1998).

This type of city has also clearly had a social impact. On the one hand, space has been organised in terms of social segregation in unprecedented spatial scales. There are no mixed social class housing estates; each belongs to a specific socioeconomic category. Those of the MRB clearly present a varied social map, spreading from upper to middle and lower classes (Vilà and Alabart 2012). The former have better facilities and infrastructures, and due to self-segregation, they are often closed, isolated and in exclusive areas. The second type would either have been born as new real estate promotions or would consist of older housing estates where facilities or infrastructures had been improved. The last type would basically be 1970s illegal self-built housing estates. They are extremely isolated, have scarce access to services

<sup>&</sup>lt;sup>7</sup>These changes of residence significantly transformed MRB urban dynamics: residential mobility highly increased, as did small municipalities, absorbing most of MRB's growth (Pujadas 2009). A significant part of this boom was basically due to the development of low-density housing estates. 
<sup>8</sup>This process and the stages it underwent are analysed in greater depth in the reference provided.

<sup>&</sup>lt;sup>8</sup>This process and the stages it underwent are analysed in greater depth in the reference provided, also in Vilà, G. (2010).

<sup>&</sup>lt;sup>9</sup>The case of Madrid analysed by R. López de Lucio has been cited here as a basis from which to study the new city's characteristics. Most of the features mentioned by this author are also directly applicable to the MRB (López de Lucio 1998).

and facilities and lack many basic infrastructures. As there is no spatial continuity, distance between all these parts makes segmentation worse. Additionally, in this kind of city, where everyday life focuses around the individual home, there are also clearly less local social relations. A significant part of social life is now concentrated around the home and garden, so fewer activities are developed in public spaces (López de Lucio 1998). In fact, housing estates often lack these completely. Streets become desolate places and are only used to move from one place to another. There are neither public squares nor places to meet other than people's homes or private facilities (sports centres). Therefore, public space is impoverished and privatised. At the same time, the territory generates other alternative peripheral centralities, often concentrated in large malls, which are used as shopping, leisure and meeting points. Finally, the car becomes the main (almost exclusive) available means of transport.

In summary, three main elements remain constant within dispersed urbanism: distance, fragmentation and specialisation. And these determine their resident's life space, i.e. the places where residents carry out their daily activities. This context leads us to interrogate the impact of the dispersed urbanism model on time use and management and to incorporate the answers into the analysis as a new dimension in dispersed urbanism studies. Therefore, in the next pages we will be examining how this morphology is affecting people's time, their experiences and the strategies they develop to adapt to this space.

# **6.3** Time Uses in the MRB: Dispersed City Versus Compact City

People's life space, their journeys and time use have been affected by new MRB urban dynamics. Generally speaking, MRB journeys have recently increased, from 12 million daily journeys on work days in 2003 to 17 million in 2010. Moreover, the number of people living and working in the same MRB municipality has decreased, and 70 % of these journeys are between MRB municipalities. However, large cities are a clear exception.

Leaving these general trends – particularly metropolitan time – aside, other major differences become apparent. Urban morphology is a key variable. Compact city and housing estate residents have each consolidated their own different life spaces and their particular ways of using the territory, adapting their time use to these life spaces accordingly. Therefore, each urban organisation model assumes its own different individual and collective time uses.

In order to better structure time and space use analysis in both morphologies, only large groups of daily activities are studied here. Only two large spheres, those

<sup>&</sup>lt;sup>10</sup>More specifically: 12,372,109 in 2004 and 17,018,306 in 2010. Source: Enquesta de mobilitat en dia feiner (EMEF), 2004 and 2010 (IERMB 2004 and 2010).

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**Table 6.1** Location of the place of work

Location of the place of work	Dispersed	Compact
Variable location	7.2 %	14.7 %
Within the own house	7.2 %	7.8 %
Within the housing estate itself/district	2.5 %	26.7 %
Within the municipality	11.5 %	31.1 %
In another municipality	71.6 %	19.7 %
Total	100.0	100.0

considered the most representative, have been examined in the document: paid work and family domestic work. Leisure activities, civic participation and social relationships<sup>11</sup> have not been analysed due to space limitation, and even though introducing population subgroups would be very interesting, we have not been able to do this for the same reason.

### 6.3.1 Paid Work

Time invested in paid work depends on two factors: on one hand there is the type and length of a working day and, on the other, its location and accessibility from the place of residence. It is within this latter factor that spatial configuration plays a key role, discriminating differences, and even frequently determining the former.

Dispersed city residents' place of work would be one of the factors differentiating the two morphologies. As housing estates only have one function – residential – the percentage of people working there is somewhat small (9.7 %) and these figures generally refer to those working from home. Therefore, residents normally have their place of work in another municipality. In fact 71.6 % of all cases would fall into this category (Table 6.1). Their usual and nearly exclusive means of transport to reach it is, with rare exception, the private vehicle. The use of combined means is practically nonexistent. On average their journey takes 27 min.

People residing in the compact city have quite a different job-related life space (Table 6.1). 65.6 % live and work in the city and 34.5 % of these do so in the same neighbourhood. City dwellers generally use and combine diverse means of transport, but many (45.5 %) travel by public transport. 18.4 % of journeys are made on foot or by bicycle, while 35.6 % of residents travel by car. The mean time employed for their journey is somewhat less than in the former case, being 21 min.

<sup>&</sup>lt;sup>11</sup>Data come from two different sources. On the one hand, from the research projects referenced. On the other hand, from the Enquesta de condicions de vida i hàbits de la població de Catalunya 2006 (IERMB 2007) that has been used to analyse the compact city model (Barcelona).

**Table 6.2** Location of the place of study

Location of the place of study	Dispersed	Compact
Distance learning	_	18.1 %
Within the housing estate itself/district	6.1 %	38.7 %
Within the municipality	55.9 %	32.5 %
In another municipality	38.0 %	10.7 %
Total	100.0	100.0

# 6.3.2 Family Domestic Work

As for family domestic work, dispersed and compact city residents also show different patterns. The former use much more time to carry out this type of work than people living in the compact city. In fact, they employ more than double the time, reaching a mean of 21.4 weekly hours, whereas compact city residents only use 14 weekly hours. The time invested by women and men is also radically different, as the former employ more than double the time (18.54 h) than the latter (7.35 h). Differences between the genders are maintained in low-density dwellings, although it is also true that men seem to dedicate more time to home maintenance (do it yourself, swimming pool, garden). Part of this extra time can therefore be explained by the fact that they have larger houses with more facilities and infrastructures which need to be maintained.

Taking small children to school has also been chosen as a domestic burden indicator. Even though it obviously also greatly depends on the child's autonomy increasing with age, school accessibility is another extremely relevant factor. Dispersed and compact city residents face very different realities as children living in the former are much more dependent, therefore increasing the domestic burden (Table 6.2). However, compact urbanism retains students more easily: 97.8 % of those living in the compact city attend school in the same municipality and tend to do so in nearby schools. 90.6 % do not even have to change district. Although dispersed urban area residents also give priority to proximity, with 62 % of children studying in the same municipality in which they live, they more frequently tend to move to others (38 % of cases). Moreover, only 6.1 % of the children studied attend a school near their housing estate. Subsequently, different proximities also imply that the transport systems used to reach schools are not the same. 70.8 % of children living in compact cities reach the centre where they study on foot, and 14.5 % by car. However, when analysing children living on housing estates, this latter figure increases to 66.7 % and even reaches 78 % in the case of children under the age of six. In fact, family members of school age are much more dependent for much longer, so the burden for their parents who have to accompany them is also higher.

Daily shopping is another factor affected by urban morphology. The patterns followed by the two groups of people to buy food follow two completely different logics corresponding to two different life spaces. Housing estate residents tend to buy less near to where they live than people living in compact cities (Table 6.3). Only 2.8 % of housing estate residents usually buy fresh goods in their own housing

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**Table 6.3** Location of the stores (fresh goods)

Location of the store	Dispersed	Compact
Internet	0.8 %	0.7 %
Within the housing estate itself/district	2.8 %	96.4 %
Within the municipality	56.8 %	2.2 %
In another municipality	39.6 %	0.7 %
Total	100.0	100.0

estate due to the lack of this type of service. 56.8 % normally buy fresh goods in their own municipality and 39.6 % in a different one. Therefore, an inter-municipal space is consolidated.

Another characteristic aspect of housing estate residents, although not exclusive to them, is the type of shop where they buy (Table 6.3). They mainly buy at large stores: 46.10 % in supermarkets and 10 % in malls. However, when it comes to nonperishable goods, percentages rise to 72.5 % and 14.6 %, respectively. Moreover, these malls also offer other services and leisure facilities. The activity fragmentation logic situates them at nodal points, which are only accessible by private vehicles – 94.3 % arrive by car – so time invested in journeys is higher. As they do not allow the combining of activities, all this fragmented time is continuously and exclusively dedicated to shopping and leisure, that is, to consuming. These malls are gradually becoming meeting and relationship points, substituting traditional civic, public places in cities. Thus, the basic social structuring function which proximity shopping has traditionally had, and which has been considered as one of its backbones, has been impoverished.

Self-containment and proximity are the two main characteristics of compact city shopping: 92.3 % and 91.6 %, respectively, of residents buy fresh and non-fresh goods in their neighbourhood. Therefore, they generally go on foot (89.8 % and 88 %, respectively). In this sense, compact city residents have smaller and nearer life spaces basically centred in their own municipality. Local and traditional shops are also more frequently used: 65.6 % buy fresh goods at markets or from traditional shops. On the other hand, 28.8 % buy at supermarkets, while 2.5 % go to malls. Other activities can also be carried out while shopping, hours are more flexible and the type of shops and spaces visited is more varied.

# 6.4 Conclusions: The Challenge of Integrating Time Into Urban Planning

In summary, from the urban morphology point of view, two different space uses and time management models have been identified within the MRB. Firstly, the compact urbanism model, which is characterised by a wide variety of services, facilities, public, civic and relationship spaces. Although recent metropolitan area dynamics have led compact cities to be integrated as a part of the increasingly fragmented

territory, leading to greater daily intra-municipal mobility, residents of the compact city have structured their life space within their municipality, following the urban continuum logic. Generally speaking, services are more accessible, so proximity, on the one hand, allows for frequent use of public transport systems, or they can even be reached on foot or by bicycle. On the other hand, a route to carry out all the diverse activities to be fulfilled can also be established. Therefore, in mobility terms, compact city residents are less dependent, and they can also have more social relationships, contributing to a more equitable city use.

In housing estates, time and space use dynamics are somewhat different. Hardly any other daily activity other than that of residing can be accomplished in them. Therefore, residents need to leave their housing estate to carry out most of their daily activities and residents are also highly dependent on the car. Subsequently, all those who do not drive due to age, culture, physical or economic condition become dependants, extremely vulnerable in both their possibilities of using the city and in their time management. As housing estates are located in highly fragmented areas, useful journeys are considerably reduced, so individual and family journeys have to be reconfigured. In housing estates, time becomes a household management matter and household members must develop many strategies to adapt (activity concentration, multi-travelling, etc.). Therefore, a differentiated time and space use is originated. Without a car, time invested in journeys increases considerably, and service and facility accessibility decreases. On the other hand, as housing estates lack public and relationship spaces, they are also deprived of the sense of being a public city.

In summary, city accessibility and personal and social time management are the new challenges set by dispersed urbanism to city organisation. Even though the way they are organised has obvious effects on personal time, it is an issue which urban planning has traditionally not considered. Quality of life is also influenced by the territory where people live and the possibilities it offers. Subsequently, it is necessary to incorporate time into urban planning. This means taking into account the impact that territory has on its inhabitants' time through service accessibility when designing cities. It is important to consider how complex the diverse personal situations can be and whether a territory reinforces traditional social inequalities through accessibility and time. In view of function specialisation and segmentation, it seems clear that a better interconnected and easily accessible territory means a better quality of life and makes activities to be carried out more compatible. All things considered, it contributes to the design of a public and sustainable city.

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# Chapter 7 INTERMEZZO: TIME WALK

Albert Mayr and Antonella Radicchi

**Abstract** Time Walks belong to a series of exercises, workshops and artistic projects using different media. They aim at increasing our attention towards the temporal and spatio-temporal aspects of the environment, at making us discover hidden and unsuspected rhythmic structures and helping us appreciate their aesthetic potential, a potential that so far has received little attention, as it is not (yet) part of the recognized parameters of environmental aesthetics. In fact, outside the recognized temporal arts, there is (yet) no such thing as aesthetics of time, i.e. aesthetics of everyday periodicities, speeds, pauses and so on. Nor have cultural studies so far acknowledged the role of the different forms of temporal organization in various cultures as components in their own right of the cultural heritage. But it is not to be seen why only the static spatial configurations and not also the dynamics in a given territory should be the object of aesthetic considerations. Time Walks are short excursions that can be done both in rural and urban environments. During the excursions we stop in one or more places and observe the events in the environment around us. Out in nature we focus primarily on the temporal and spatio-temporal characteristics of natural phenomena; in urban environments the observation is mainly, but by far not exclusively, geared to movements and presence of humans.

**Keywords** Artwork • Aesthetic criteria • Everyday space-time design • Sensuous urbanism • Spatio-temporal distribution of events

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# 7.1 Detecting Temporal Forms

Time Walks belong to a series of exercises, workshops and artistic projects using different media. They aim at increasing our attention towards the temporal and spatio-temporal aspects of the environment, at making us discover hidden and unsuspected rhythmic structures and helping us appreciate their aesthetic potential, a potential that so far has received little attention, as it is not (yet) part of the recognized parameters of environmental aesthetics. In fact, outside the recognized temporal arts, there is (yet) no such thing as aesthetics of time, i.e. aesthetics of everyday periodicities, speeds, pauses and so on. Nor have cultural studies so far acknowledged the role of the different forms of temporal organization in various cultures as components in their own right of the cultural heritage. But it is not to be seen why only the static spatial configurations and not also the dynamics in a given territory should be the object of aesthetic considerations.

Time Walks are short excursions that can be done both in rural and urban environments. During the excursions we stop in one or more places and observe the events in the environment around us. Out in nature we focus primarily on the temporal and spatio-temporal characteristics of natural phenomena; in urban environments the observation is mainly, but by far not exclusively, geared to movements and presence of humans.

In some other exercises/projects of the series, we take measurements of specific temporal and spatio-temporal parameters, for instance, of the numbers and speed of passers-by or the duration of their presence, or, in a by now historical version, we noted the alternation and permanence of users in public phone booths. But in Time Walks the emphasis is on the subjective strategies of perception. 'Subjective perception . . . which has been left far behind in the main stream of the discourse of architectural design and urban planning . . . dominantly shapes the way we appreciate and interact with the urban environment' (Min-Feng 2007).

## 7.2 Sensuous Urbanism

Already sensuous urbanism born in the 1950s due to researches and studies by Kevin Lynch and György Kepes (Lynch 1954) aimed at dealing with the immediate experiential qualities of places and their importance in people's lives (Banerjee and Southworth 1990) and criticized the inefficiency of the traditional graphic language of planning when representing important sensuous dimensions (Lynch 1971). In 1954, Kevin Lynch and György Kepes began their 'Perceptual Form of the City', a groundbreaking research project, studying the relationship between the 'sensuous' urban experience and the capacity of individuals to use and enjoy the city's public spaces. They believed that the visual images, sounds, smells and weather conditions experienced by individuals were the result of the physical city, and that the urban form, as perceived by all senses, could satisfy important needs, condition the emotional sphere and even influence the decisions of citizens (Lynch 1954). In their study, Lynch and Kepes used maps, sound recordings, films and

interviews; went around the city to record impressions; and interviewed a wide range of artists, architects and scholars in order to collect opinions and suggestions about the possibility of an aesthetic improvement of the city involving all senses. The attention to the experiential and sensory realms characterized also the following editions of 'Site Planning': Lynch was confronted with the problem of representing and communicating the 'sensuous elements' of a site; he introduced a list of 'sensuous criteria' for environmental planning which consisted in 'comfort', 'diversity', 'behavioural support', 'identity', 'temporal and spatial legibility', 'meaning' and 'individual development' (Lynch 1971, pp. 224). Unfortunately, during the following decades mainstream research in urban studies failed to adopt such an approach and pursued a sensory deprivation imposed by modernity. City planning has long privileged qualities of urban space based exclusively on visual perception and did not consider ear, nose and touch; as Mirko Zardini pointed out: 'Above all, sounds and odours have been considered disturbing elements, and architecture and city planning have exclusively been concerned with marginalizing them, covering them up, or eliminating them altogether' (Zardini 2005, p.20). Nonetheless, thanks to the 'sensual revolution' (Howes 2004, p.1) and to a renewed interest in the 'sense of the city' (Zardini 2005), researchers have come back to pursue values as subjectivity, perception and 'intimate sensing' (Porteous 1990, p.201).

#### 7.3 The Procedure of Time Walks

Time Walks are performed at various levels. On the first level participants are simply asked to observe events in their perception range and, afterwards, to draw a graphic 'score' placing the events in a two-dimensional system of co-ordinates, with time, on the x-axis, having one dimension and one direction (from left to right) and space, on the y-axis, having one dimension and two directions (up and down, where up may indicate, for instance, left, above, in front, and down may indicate right, below, behind; participants can make their choices freely). The 0 points mark the temporal beginning of the observation and the spatial position of the observer. The accommodation of observed events and their dynamics in this system of coordinates requires some ability of abstraction, and a 3D representation (with space having two dimensions) would allow to be more faithful, but would be too difficult for an execution on the spot. Experience has shown that the assignment of drawing such a score or cognitive map<sup>1</sup> makes participants concentrate more strongly on the spatio-temporal distribution of the observed events than the task of a verbal report would.

<sup>&</sup>lt;sup>1</sup>Here we follow the definition of cognitive map formulated by the Georgia Department of Community Affairs (n.d.): 'Cognitive map is the term used to refer to one's internal representation of the experienced world. Cognitive mapping includes the various processes used to sense, encode, store, decode, and use this information'. So far, cognitive maps, when applied to an environment, have been focusing exclusively on its static spatial configurations. In Time Walks we attempt to extend that approach to the temporal and spatio-temporal aspects.

At the following level we try to be gradually more accurate in observing and registering specific parameters and ask the following questions (Figs. 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7 and 7.8 show possible visualizations in a two-dimensional system of co-ordinates of the temporal and spatio-temporal parameters which are the object of an 'analytical' observation):

Which events begin during the observation period in our perception range? (See Fig. 7.1).

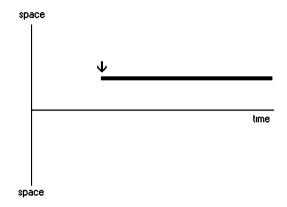


Fig. 7.1 Beginning of event

Which events end during the observation period? (See Fig. 7.2).

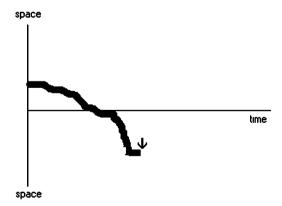


Fig. 7.2 Ending of event

Which events are short, which medium long, which long? (See Fig. 7.3).

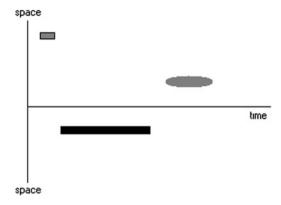


Fig. 7.3 Duration of events

Which events repeat themselves: periodically or aperiodically? (See Fig. 7.4).

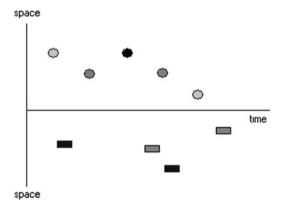


Fig. 7.4 Repetition of events

Which events follow each other? (See Fig. 7.5).

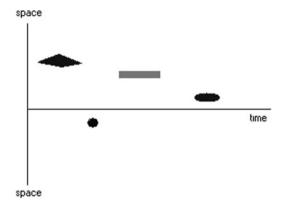


Fig. 7.5 Successions of events

Are there layers of events? (See Fig. 7.6).

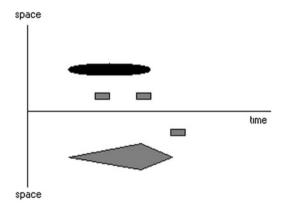


Fig. 7.6 Layers of events

What are the speeds of observed movements? (See Fig. 7.7).

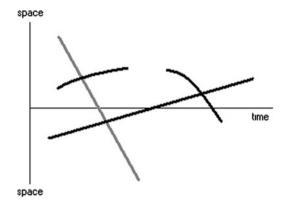


Fig. 7.7 Speeds of events

What are the rates of change (envelopes) in events? (See Fig. 7.8).

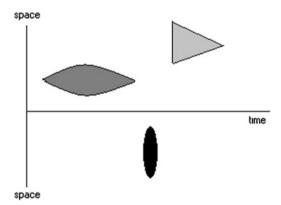


Fig. 7.8 Envelopes of events

Are there periods when nothing happens?

These questions can be divided among the participants or, when there are only few of them, distributed over several observation periods. Obviously one event may be considered in relation to two or more parameters, but in the observation parameters should be kept separate.

Similarly to this way we 'construct' a material landscape by creating, subjectively, relations between the shapes, sizes and colours of static elements, we may construct an immaterial and ephemeral landscape – or a series of such landscapes – made out of the relations we create between the spatial distribution and the temporal characteristics of events. This is investigated at the final level together with attempts to formulate (obviously subjective) value judgements on the formal aspect of the observed landscapes; so, regarding the same set of events, one participant may have (subjectively) created and appreciated a relation between the varying walking speeds of a passer-by; another one may have liked a certain succession of events, say a car door opening, a woman laughing and a siren starting to howl.

#### 7.4 Time Walk at the Technische Universität Berlin

During the conference 'Time & Diversity' at the Technische Universität Berlin held in September 2011, we did a short, first-level version. The area chosen for the observations was a small internal park on the university campus. The participants, divided into small groups up to three, had one minute for choosing – within a limited area of approximately  $7 \times 10$  m – a place for their observations. A 3-min observation period followed. Afterwards the groups were given 15 min to draw the scores. Finally, each group had approximately 1 min to describe very briefly their elaboration.

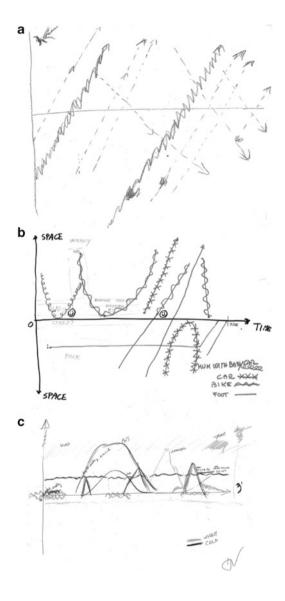
Seventeen scores resulted (one was then withheld by the respective group and is not discussed here). See Fig. 7.9 for some examples.

Obviously here we cannot venture into a detailed examination of the scores and have to limit ourselves to some more general remarks. What strikes most is the great diversity in the number and type of observed events and in the techniques chosen for representing their dynamics. A very cursory analysis shows that six groups chose a more anecdotal representation with some indication of the dynamics involved, five groups focused on the dynamics and spatial distribution of events, one group showed only one type of event, one group indicated some dynamics without a recognizable spatio-temporal distribution and three groups delivered somewhat cryptic scores which for the beholder seem to bear little relation to what was going on in the park but depicted some form of emotional response to the situation.

## 7.5 Discussion: Time Walks and Space-Time Policies

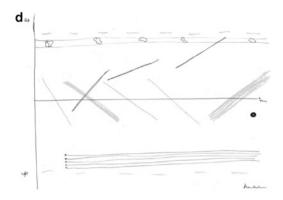
An attempt to outline ways in which Time Walk practices could become a reference point for urban time policies would probably be premature. At present, the cities of the poets and the cities of the urban planners are still too distinct, as Olivier Mongin has pointed out (Mongin 2000).

Fig. 7.9 (a-d) Results of Time Walk: examples of the 'scores' created by the participants, showing a high degree of diversity both in the observational strategies and the techniques used for representation



But perhaps there are some aspects for which exercises such as Time Walks may make a contribution to our way of conceiving and planning urban environments. At present in planning the temporal and spatio-temporal fabric of cities, the 'hard', quantitative parameters are basically the only ones considered. But as we know, in conceiving and planning the static spatial configuration, non-quantitative parameters, such as shapes, colours and the relation between sizes, shapes and colours, also come into play. Why not give some thoughts to the non-quantitative or not primarily quantitative parameters of events in time or, in other words, to temporal forms,

Fig. 7.9 (continued)



when we conceive and plan urban environments? Carlstein et al. write: 'We need a holochronic approach to the temporal structure of socio-environmental systems, one which incorporates all the aspects of time...' (Carlstein et al. 1978, p. 2). Such an approach, we want to argue, has to include the forms in which the temporal and spatio-temporal configuration of everyday events is perceived and experienced. It would certainly mean asking too much from time and space-time policies to create themselves a variety in the spatio-temporal distribution of events, but they may contribute to creating the necessary condition for such a varied distribution.

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## Part II Mobility and Access

# Chapter 8 Efficiency, Temporal Justice, and the Rhythm of Cities

Dietrich Henckel and Susanne Thomaier

**Abstract** Each and every city has its own rhythm, to a large extent depending on structural conditions like the prevalent economic base, the composition of the population (age, religion, migrational status, etc.), the development and condition of the infrastructure, the regulatory framework regarding time, but also geographic, locational, historic, and cultural factors. City rhythms are an important factor of local identity but also of the temporal efficiency and temporal justice of cities. Depending on the construction of public transport infrastructure and the provision of services, different parts of the population and different parts of the city do not have equal access to the respective relevant locations. Some have to bear higher temporal costs to get their daily chores done than others, thus producing an uneven distribution of time in the city with respect to social groups and locations. Moreover, the provision of public services is often organised in an inefficient manner leading to (unnecessary) time losses. Hence, the main cause of temporal stress (and higher temporal costs) is not necessarily time shortage but rather an unequal distribution of resources and choices to organise daily time uses. The chapter is dealing with basic concepts of urban rhythms, the temporal efficiency of cities and the impact of temporal inefficiency on temporal/social justice. Since very little material is available, the central focus will be on elaborating central questions based on a variety of practical examples.

**Keywords** Temporal efficiency • Social justice • Spatial justice • Accessibility • Distribution • Availability • Coordination

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#### 8.1 Introduction

Stickers in the Paris Metro warn that 'A second lost in the station means delay all the way'. This is the most extreme call for strict, time-efficient behaviour in the public space we have yet come across. People intuitively shy away from such massive emphasis on time efficiency; it leaves an unpleasant aftertaste. Can we with a good conscience address the subject in implicitly normative intent without being accused of taking yet another step towards economising all aspects of life? Is time efficiency perhaps a contradiction in terms? Should we not be praising idleness (Russell 2002), welcoming the unforeseen, acclaiming the joys of losing one's way (Passig and Scholz 2010)? Surely the call for time efficiency makes a mockery of Laotse's insight that whoever is in a hurry should make a detour. What does time efficiency have to do with individual and collective time?

There have been hardly any detailed studies to date on the pace and above all on the time efficiency of cities. We also note that—at least implicitly—questions of time efficiency play a constant part in everyday life; people complain, for instance, about unpunctual public transport and time lost here and there. Urban structure, its morphology (Vilà 2013), and the structure and organisation of public transport play a particular role in time efficiency, which is why we cite numerous examples from the transport field.

'Building high and running fast' (Henckel 2007) are symptoms of the particularly intensive use to which space and time have always been put in cities. Unlike the 'countryside' they offer spatio-temporal proximity. If the often anecdotic observation that life is faster in big cities has only sporadically been confirmed by empirical evidence—for example, in studies on walking and working speed (Levine 1997) and the frequency of stress-related cardiovascular diseases (Altman et al. 1985)—this does not mean that urban speed has no impact on the competitiveness of cities. Nor can differing speeds in the spatial dimension be reduced to a dichotomy of a (supposedly) slow periphery and fast city centre. Indeed, differences in speed between cities of different sizes are particularly interesting, especially where they result from active design (whether by public planners, private enterprise, or civil society). Even if we assume that time flows fundamentally faster in the city than in the country, time in the city is not more efficiently organised per se. On the contrary, the organisation of temporal proximity to achieve temporal efficiency in the city is a factor in locational competition between cities, which has hitherto attracted little attention as a subject in its own right (Henckel and Herkommer 2011).

The advantages that societies attribute to the city as a spatial organisation are based—at least from an economic point of view—on the very assumption and experience that the city is in many regards more efficient than other forms of spatial organisation (Hirsch 1973; Glaeser 2011). Although it is not explicitly stated, temporal efficiency plays a major role in this.

This essay addresses the question of the role time efficiency plays in the city, examines the nature of this efficiency on the basis of the empirical data available, and investigates the preconditions and measures needed to enhance it. Finally, the issue of time efficiency is placed in a broader context.

#### 8.2 Definitions and Relevance of the Issue

Economics assumes that goods are scarce and that it therefore makes sense to use them economically. There are two ways of looking at this: the means available should be used so as to maximise benefits and returns, or the desired benefits and returns should be achieved with a minimum of means. Efficiency in this sense describes the relationship between the means used and the results achieved. Any appraisal of efficiency assesses not the goal but only the appropriateness of the measures taken in terms of costs and benefits. A lack of efficiency points to a waste of resources: more could be achieved with the same resources.

This naturally raises the question whether such an economic perspective can or should be applied to time. Time differs in a number of ways from other economic goods; for example, it cannot be stored for later use. On the other hand, time is continually taken (implicitly) into economic account; people talk about losing or gaining time, wasting it, investing it, and so on (Rinderspacher 1996). Time serves as a resource for shaping and maximising the quality of life for the individual. Individuals have to face up to the fact that the use of this resource is largely outside their control. The use and division of personal time is crucially influenced by the design of public and private services and infrastructure in the city. Transparency in the distribution of services and infrastructure and access to them are of vital importance. From the urban planning point of view, urban organisation can help make services and infrastructure more (time) efficient for residents and users of the city.

The time efficiency of urban organisation is therefore a legitimate issue, as long as we do not claim it to be the only possible and correct perspective. It is one of many but necessary for a full picture. The decisive factor, however, is how broad or narrow the horizon is: whether we adopt a purely microeconomic view, focusing only on individual business considerations, or a macroeconomic perspective that also takes social costs into account. If we apply such a broad concept of efficiency—in essence the only viable alternative—other concepts enter the calculation. Time efficiency then also involves questions of accessibility, of the distribution of time, and thus of temporal justice. Temporal justice is closely associated with time autonomy, the right to one's own time (Mückenberger 2004), to 'discretionary time' (Goodin et al. 2008). If these circumstances are taken into account when considering efficiency, the (possibility of) time efficiency becomes an integral part of the time affluence concept or at least of thinking about time affluence.

We consider the question of the time efficiency of cities to be justified and necessary for the following reasons:

- Certain spatial structures and organisations influence how time is used and can be
  used and can contribute systematically to losses of time for at least some sectors
  of the population.
- Time organisation provides or prevents access opportunities.
- Implicit decisions are constantly being taken about times, distribution effects (temporal justice), and time efficiency without it generally being apparent.
- Time efficiency can be seen as an aspect of, an option in, the attractiveness of a city and the quality of life there.

## 8.3 Time Inefficiency in the City

Everyone has had personal experience of temporal inefficiency in urban life. Such inefficiency and its extent differ considerably from country to country and from city to city within a country. However, there are hardly any comparative empirical data on the pace of cities in different countries or in different regions of a country. Known studies focus mainly on walking speeds in various cities (Morgenroth 2008; Atzwanger and Schäfer 2000; Bornstein and Bornstein 1976; Walmsley and Lewis 1989)—for example, Levine's studies (1997) on speeds in cities, which he measures in terms of three indicators (walking speed in a downtown street, the accuracy of public clocks, and the performance of a standard service). To our knowledge, studies on time efficiency are completely lacking. As long ago as 1988, Michael Young urged analyses of city rhythms (urban 'time prints') to allow the time specifics of cities to be compared. Little has happened since. It is also difficult to pin inefficiency down, because a point of reference is needed to allow efficient situations to be compared with inefficient situations. What needs to be taken into account is that cities offer many temporal advantages through proximity and density, i.e. agglomeration (Franck 2002; Henckel 2007; Glaeser 2011), but also disadvantages such as traffic jams and congestion. It is hence not easy to find a clear yardstick. Nevertheless, it is intuitively obvious that there are benchmarks—albeit soft ones against which the time efficiency of situations can be measured. In addressing these questions, we will be looking at a number of examples of time inefficiency in cities.

## 8.3.1 Time Inefficiency in Transport

The spatial structure of public transport has a massive impact on accessibility and on the time needed to reach a destination within an agglomeration. For instance, studies by Paris public transport (STIF n.d.) provide information in the very clear form of isochronic maps (see: <a href="http://www.stif.info/information-communication/systeme-informations-geographique/cartotheque/cartes-isochrones-1919.html">http://www.stif.info/information-communication/systeme-informations-geographique/cartotheque/cartes-isochrones-1919.html</a>). The maps illustrate that only from the centre large sections of the city can be reached in a relatively short space of time. With increasing distance from the centre, time distance also grows substantially because the journey always has to pass through the centre in the absence of any orbital connections like the S-Bahn ring in Berlin. The problems have been recognised by the Paris Region authorities, and there are far-reaching plans to improve the situation through such connections.

Studies in Berlin on the impact that the relocation of the central railway station has had on time accessibility conclude that accessibility is much better distributed. A new website, 'Mapnificent—Dynamic Public Transport Travel Time Maps', makes it possible to depict cartographically the areas in many cities of the world that can be reached from any station within a certain time (Mapnificent n.d.). This amounts to the automatic production of isochronic maps on the basis of data from

the relevant public transport operator. There are marked differences between such cities as London, New York, and Berlin. Overall, this means that the structure of the public transport network has a major influence on how much time people in the city (have to) spend travelling.

Another aspect of efficiency in a transport system is the *punctuality* of public transport. Punctuality ensures the temporal calculability of distances, especially when the passenger has to change during the journey. The greater the unpunctuality, the more buffer time—generally not particularly productive—has to be built in if appointments are to be kept. Such phenomena can be shown for many public transport systems, even if we know of few empirical studies that have sought to quantify these temporal 'unpunctuality costs' (Oxford Economic Forecasting 2005; Test 2008). Although it is obvious that traffic in dense cities is slower, the additional costs are balanced out by greater proximity and agglomeration effects (Glaeser 2011). Delays are accordingly not easy to define. Nevertheless, bad organisation, failure to keep to timetables, etc. have been shown to cause costly delays (£ 1,750 million per year) in London (Oxford Economic Forecasting 2005). Such costs are likely to be particularly high in cities with a poorly developed public transport system and to have risen drastically in many cities, owing not least to rail privatisation or at least to the mode of privatisation (failure to ensure service quality). This is abundantly demonstrated by train breakdowns in England or the massive decline in the reliability of the Berlin S-Bahn due to lack of maintenance, less frequent servicing, cutbacks in servicing personnel, etc. This is indicative of a very short-sighted attitude towards efficiency in another field and the management of public transport systems. The long-term social and economic consequences, in this case massive time losses, were not taken into account. Graham and Marvin (2001) have described how privatisation and the unbundling of public infrastructure lead to worse and spatially highly selective services.

Urban spatial structures substantially influence what form traffic takes. With the furthering of suburbanisation by various trends (motorisation or—as in Germany—subsidies like the home ownership allowance and the flat-rate commuter allowance), urban sprawl has advanced to such an extent that not only commuting distances but also commuting times have much increased owing to traffic congestion despite faster transport facilities.

Studies on satisfaction with life (Stutzer and Frey 2004) show that dissatisfaction markedly increases with growing commuting time, since the loss of time involved is seen as a loss in the quality of life. Rough estimates by BUND show that there are substantial differences in the time spent in traffic (everyday private journeys) in relation to lifetime depending on where a family lives. A family living in the centre of a small town spends an average 4 years travelling, a family on the outskirts of a rural area over seven (STMGU 2006). Of particular importance in this connection is the value placed on time. A study from Zürich comes to the conclusion that time elasticity in demand is higher than cost elasticity. This means that commuters react to a change in commuting time through changes in a mode of transport more strongly than to changes in costs (Winkelmann and Bachmann 2004).

This suggests that dense urban structures tend to have a positive impact on time efficiency. But this also raises the question of the optimum size of a city with regard to temporal efficiency (in transport and in other fields), because increasing density has a strong adverse effect on traffic flow. This is particularly evident in the metropolises of the global South, which, however, also demonstrate how important the structure and organisation of transport are. There is hence no optimum: optimal conditions depend on many 'constraints' (Capello 2004).

An Internet portal in the USA ranks cities (and districts) in terms of walkability, pedestrian access to various urban functions (Walkscore n.d.). The 'European' cities of the USA (New York, Boston, San Francisco) with their dense centres have the highest walk scores, while even relatively small cities with no urban density score much lower. The operators of the website claim that differences in walkability make themselves felt in property prices, being an expression of greater attractiveness due not least to greater time efficiency.

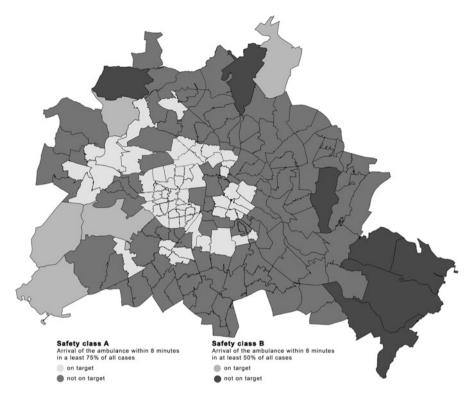
Some authors take the view that time in traffic is being increasingly exploited, thanks especially to new technologies such as the laptop and mobile telephones. Traditional time divisions are becoming more permeable, and time spent in traffic jams and in waiting is becoming 'more productive' (Lyons and Urry 2004). The two authors see this positively. We find this somewhat of an exaggeration because activity can been seen above all as a defensive strategy in disagreeable situations, even though it is clear that (especially in walking and cycling (Kuoppa 2013)) new qualities are emerging in transport that go beyond the purely functional task of overcoming distance.

## 8.3.2 Time Efficiency in the Organisation of Urban Services

An example from a quite different field shows that considerations of efficiency and time organisation in local public services can—at least implicitly—be a matter of life and death. The Berlin emergency services have defined two protection classes for the deployment of first-alarm resources: in class A at least 75 % of resources are to be on the scene within 8 min and in class B at least 50 %. Empirical studies of the emergency services show that the targets are only partly met for both classes (Fig. 8.1).

But this means that failure to meet these targets distributes the chances of survival unevenly (this is even clearer for operation times in rural, peripheral regions). The reorganisation plans of the Brandenburg police, which envisage the closure of a considerable number of police stations, mean that the time needed for the police to reach the scene after an emergency call will rise drastically. We do not

<sup>&</sup>lt;sup>1</sup>It is not a question of how and on what basis these protection classes are defined.



**Fig. 8.1** Arrival of the ambulance in Berlin postcode areas March 2007 (Map outline reproduced with permission of Amt für Statistik Berlin-Brandenburg)

claim that such decisions can be avoided: decisions on operational time, on the spatial distribution of operational bases, etc. are imposed by limited resources. What is problematic, however, is that the temporal implications are not taken into systematic account, and that distribution effects, in particular, namely, social and spatial selectivity, are neglected.

To the best of our knowledge, there have been no well-founded studies on waiting times in the provision of municipal or private services. Leaving aside the typical queues for personal services, a good example of the more complex, often very time-intensive municipal services is the issuing of building permits. Deadlines are often not set for such services, and studies on the time taken are practically absent. Nonetheless, this time repeatedly plays a role in competition between local authorities, and in the debate on Germany's standing as a location for business and industry, it has been argued that other countries grant building permits far more rapidly than Germany (Bunzel and Henckel 2003). To some extent this argument ignores that only sections of completely different procedures were compared, so that findings were not reliable.

## 8.4 Preconditions for Time Efficiency

To achieve time efficiency or at least improve the current situation, certain key preconditions have to be met. They can be identified on the basis of rather anecdotic description of time inefficiency in cities. We identify four essential conditions for analytical purposes, even though they are not always easy to keep apart:

- Transparency
- Availability
- Coordination
- Accessibility

## 8.4.1 Transparency

The first key condition is transparency. For the user, the temporal implications of spatial structure, of the organisation of public and private services, must be recognisable. Moreover, both information and actual conditions must be reliable. These conditions are far from being met for a number of reasons:

- Time aspects play only a small role; as a rule, service provision concentrates on organisational issues and financial aspects rather than time.
- Links between the organisational and financial dimensions and the time dimension are often overlooked. One example is German Rail's cost-cutting strategy: stretching servicing intervals for the Berlin S-Bahn has led to massive losses in vehicle availability. As a result, lines have had to be completely closed down for long periods and/or service frequency or train length reduced. The S-Bahn has not only lost both its good reputation as a reliable mode of transport and many customers but has also produced massive, uncalculated, or incalculable losses of time for a large number of users. Permanent unpunctuality and frequent changes in timetables have further reduced transparency.
- Distribution policy issues have usually been ignored (Henckel 2002). The example of emergency call response times shows that temporal service-provision strategies can entail considerable social and spatial selectivity. Another example of socially selective temporal adaptation strategies are the changes in the Brandenburg state central-place concept. Whereas certain services once had to be reachable in the central place within 30 min by public transport, they now have to be accessible in the same span of time by private transport. This necessarily changes the accessibility of services, which comes to depend on transport being available. While seriously affecting service distribution depending on access to private transport, it demonstrates a lack of transparency in planning and restructuring time organisation.

- Data that could provide information about the time implications of services or the spatial organisation of the city are normally:
  - Not collected: the focus is mostly not on time issues; the implications for long-term cost-effectiveness of service provision are often neglected (as the example of the S-Bahn shows), and therefore the relevant data are not gathered.
  - Not analysed: time data are often produced by the administrative machinery—
    the fire service and police offer typical examples; however, these data are
    analysed only very selectively and quite unsystematically, because the cost
    of data management and analysis is feared.
  - Not made available: for various reasons data is not published (or made available for research purposes), because publication could have unwelcome side effects (e.g. if potential criminals can discover how long operations in certain places can take). In other cases, the value of such data is not realised or they are considered business secrets underlying service-provision strategy (e.g. energy suppliers), so that data is withheld.

Studies on subjective security in Berlin public transport show that orientation and punctuality are very important for the passengers' sense of security (SusiTeam 2011) and that the information deficit gives cause for complaint.

## 8.4.2 Temporal Availability

Temporal availability always involves costs. Any demand for the discretionary availability of all conceivable services is therefore unreasonable. However, the underlying conditions also play a role in the efficient organisation of a city—Hägerstrand (1970) refers to authority constraints. A city whose working time structures extend into the night, where shift work becomes more and more frequent, but which provides no nighttime public transport services can hardly be time-efficient.

Italian municipal time planning has been given considerable impetus not least by restricted public services. More and more women have been going out to work, therefore public authorities could no longer reasonably limit opening hours to mornings. The movement 'Women Change the Times' has therefore taken the initiative to change things (Eberling and Henckel 1998).

#### 8.4.3 Coordination

Time in the city has often been described in terms of musical metaphors. The film 'Berlin: Symphony of a City' (1927) by Walter Ruttmann is probably the best-known example. What counts in a symphony is ensemble playing, coordinated

polyphony. If we keep to the metaphor, the time efficiency of a city requires the rhythms of independent or complementary functions in the city to be coordinated. Many approaches to municipal time policy in Italy and Germany are based on the realisation that this coordination is often lacking, that 'cacophony' has resulted, meaning—to give a few examples—that connections in public transport are regularly missed, that one travels into the city with a list of matters to be dealt with to find that not all functions are available at the same time, that kindergartens are not open when working parents need their services.

Urban planning cannot provide all the harmonisation needed and wanted, but any effort to improve matters would have to explicitly address the temporal perspective and attempt to achieve better harmonisation (Mückenberger 2004; Heitkötter 2006).

## 8.4.4 Accessibility

The built structure of the city, the organisation of public and private transport, the organisation of other infrastructures, the structure of the spatial division of labour among functions (mixed uses versus separation of functions), socio-spatial structures all have a crucial impact on access to services and on the social and spatial distribution of accessibility. This alone indicates that access to public and private services infrastructures in a city is closely associated with questions of distribution and temporal justice.

The example of Paris shows that a radial transport system produces conditions that hamper accessibility in extended areas. By comparison, systems with a more network-like structure operate at lower speeds on individual lines but increase (average) accessibility in the network as a whole (Stohler 1994).

In their study on splintering urbanism, Graham and Marvin (2001) have shown that although modernity has promised the even and just spatial distribution of infrastructure provision, this promise has, if held at all, been partially withdrawn in the course of infrastructural reorganisation (privatisation, unbundling) and for the cities of the global South has never been on the agenda. The result has been far-reaching and growing social and spatial polarisation, whose distribution effects are also likely to markedly reduce the time efficiency of cities (not to mention other adverse consequences) because selectivity means that essential potentials of networking, cooperation, etc. cannot be exploited or only at an inordinately high cost of time.

## 8.5 Approaches to Enhancing Time Efficiency

The question of organising the time efficiency of cities is above all one of *adaptability*. The built form of the city and the relative durability of infrastructures, especially transport systems and (notably older) buildings, the conservation of the historical legacy of architecture, are constantly at cross purposes to the steady

structural intensification of the classical forms of services. Therefore, the constant relocation and extension of transport facilities is no realistic option for enhancing time efficiency within the built structure of a city. When we consider the pace at which most urban transport systems were developed and built in around 1900, present efforts to maintain them and add to tram and underground lines a century later are quite modest in our latitudes unlike, for example, in China. The constraints on change are also apparent in the differing transport systems of Paris and Berlin (Henckel and Herkommer 2008). The softer the tools are, the more amenable systems are to upgrading; and the greater the investment required, the more difficult or at least arduous adaptation is likely to prove.

## 8.5.1 Enhancing Time Efficiency through Urban Planning

The production of spatio-functional contexts as a dimension of time efficiency is the responsibility of city authorities. Although privatisation is, of course, also well advanced in real estate and urban development, local government, still at least formally well entrenched in planning, continues to distribute roles in ever new constellations. Spatial arrangements for functionally interdependent uses, for instance, display a strong mix of political and market control. Preparatory landuse planning/zoning can make a major contribution to time efficiency by coupling spatial and temporal categories (Herkommer 2007) in planning targets. Concepts for areas with mixed, complementary, and/or competing economic uses—be it in form of specialised business parks (office parks, biotech parks, logistics parks, etc.) are examples from the economic development promotion field. In tourism concepts for concentrating attractions and linking them up with special transport infrastructrure and appropriate catering locations are possible solutions. City centre planning is another example; although primarily designed to control the establishment of retailing, they also seek to concentrate a balanced mix of retailing and services in central service areas while ensuring access by a range of transport modes.

Trends have also changed in the real estate sector. Functionally integrated concepts now play a much more prominent role; private investors are willing, even in the public space and by revamping infrastructure, to ensure the marketability of their own properties by improving accessibility and co-producing other temporal advantages (Henckel and Herkommer 2011).

There are many approaches to enhancing time efficiency in public transport. In addition to information, technical control, and the reorganisation and alteration of framework conditions (see below), there is also a range of possibilities for infrastructural reorientation. One key approach is the reallocation of public street space. Some examples:

Bus lanes, which ensure that buses travel faster than the rest of traffic. This has
to do with enhancing time efficiency for users but also with the need to meet
quality and punctuality targets such as those laid down by regulatory authorities
in public transport plans.

- Cycle tracks and lanes, which offer not only temporal advantages but also contribute to traffic safety. However, the example of Copenhagen shows how cycle traffic can be promoted by offering cyclists time advantages: on certain city routes cyclists travelling at a minimum of 20 km/h benefit from a green wave at particular times of the day. These routes are clearly marked by traffic signs, so that both fast and slower cyclists can adjust in good time (which alludes to the question of transparency).
- Shared space concepts, which influence the speed of different means of transport by giving equal rights to all participants and modes. In shared space areas, the public street space is designed and organised to allow all traffic participants to use it on an equal basis. Shared space usually has no traffic lights, traffic signs, or spatial gradations such as pavements. As in home zones/play streets, the car loses its habitual preferential treatment. The flow of traffic depends not only on traffic regulations but to a large extent also on mutual attention and consideration.

These examples show that we are concerned with equality among traffic participants (cyclists, pedestrians, public transport, private motorised transport) and thus also with distribution and temporal justice. Basically, conflicts between the street space as a transit space and an area to spend time in raise contradictions between time efficiency and the urban planning vision of a liveable city. Also interesting is the approach of the Danish architect Jan Gehl, who distinguishes between 60 km/h architecture and 5 km/h architecture. Five kilometres per hour architecture is designed to make people feel comfortable in the public space and enjoy spending time there. Such architecture is accordingly fine-grained with mixed uses and oriented on pedestrians and cyclists. 60 km/h architecture is oriented on motorised traffic, is on a larger scale, and produces sometimes efficient but often inhospitable places.

## 8.5.2 Enhancing Time Efficiency through Information

Compared with spatial information, time information is generally not available in sufficiently *bundled* form. Services such as Google Earth or Google Maps now provide a great deal of spatial information free of charge in the Internet. Time-related data, by contrast, have been only very selectively available on these websites (time tables, opening hours, etc.). One way to remedy this would be to set up a time portal (ISR 2009). This would be an online service that provides access to deliberately time-oriented information,<sup>2</sup> collating data on time, space, and functions. The online service and smartphone application 'opening hours book' (Öffnungszeitenbuch n.d.) providing information on retailer opening hours

<sup>&</sup>lt;sup>2</sup>We leave aside the question of who can develop and provide such a portal and by what means. Suggestions are to be found in ISR (2009).

in many German and Austrian cities can be regarded as a predecessor of such a comprehensive information system. Such a system is admittedly demanding, but it does much to enhance transparency. With the rising diffusion of smartphones and smartphone applications, services like this will certainly be used more and more and are going to be developed further.

Information provision can also be regarded as the function of all types of guidance system, which increase transparency and help improve the temporal use of services. Such guidance systems take many forms.

The simplest are routing systems in the city for various users (pedestrians, cyclists, motorists, etc.). Even a good, purely local sign and routing system can make a major contribution to avoiding detours, waiting times, etc., and thus to time efficiency.

More developed forms have now been introduced in many cities on main thoroughfares. The first-time guidance system to our knowledge was installed on the Paris Boulevard Peripherique (meanwhile also in Germany, for instance, on the Frankfurt autobahn). Such systems are based on the principle of time distances rather than spatial distances: traffic flow is monitored and, depending on traffic density, the expected time distances to the next exits are indicated rather than the usual kilometre distances.

In public transport the display of such information on departure times and available connections is now quite usual. This makes it much easier to calculate travel time. Live online timetables like that of the Munich S-Bahn go a step further. It displays the exact current position of all S-Bahn vehicles in real time (http://s-bahn-muenchen.de/s\_muenchen/view/aktuell/news/echtzeit.shtml). The service is also available as app for smartphones; indeed, the number of apps in this field is rapidly increasing, which offers many new possibilities for enhancing transparency and thus time efficiency.

## 8.5.3 Enhancing Time Efficiency through Technical Control

With the ongoing development of information and communication technologies and the simultaneous intensification of automatic monitoring, the possibilities of automatic control have increased markedly. In the transport sector there are particularly many examples.

Automatic speed regulation, especially on motorways, is a possibility that is increasingly widespread. The dreaded 'phantom traffic jams' develop above all when there are major differences in speed on full roads. To avoid them, speed is optimised in function of traffic flow, ensuring a maximum flow rate.

<sup>&</sup>lt;sup>3</sup>A somewhat curious variant is reported from Hungary. The system indicates when the last vehicle left and not when the next is to be expected.

On toll roads advance booking and toll payment in the Internet save time because special lanes can be used at the toll gate. An extreme and controversial variant is automatic border control. Biometric data are deposited, so that participants in this system, for example, at airports, can pass border controls much more quickly at special counters, almost without being checked because controls have been made in advance. (We are not concerned at this juncture with discussing the problems posed by such practices but to show how and where practices—even uncontrolled—for enhancing time efficiency are catching on without being referred to as such.)

## 8.5.4 Enhancing Time Efficiency through Organisational Control

The possibilities for increasing time efficiency in a wide range of fields through organisational measures or modifications to underlying conditions, for example, access conditions, are extremely varied.

#### **Traffic**

Particularly in the USA, access to certain freeway lanes depends on *minimum vehicle occupancy* (pool lanes, HOV [high occupancy vehicle] lanes) to prevent cars occupied by only one person from congesting roads and hampering traffic flow. Gridlocked motorways in Jakarta have forced the authorities since 1992 to allow only cars with at least three occupants to use them at peak hours (Berliner Zeitung 23.02.10).

Another method for increasing flow is to introduce *congestion charges* entitling vehicles to enter certain parts of the city—generally the centre. The charge is designed to lower demand in order to increase the speed of flow for the remaining traffic. The best-known example of a congestion charge is in London. Traffic has been reduced and the average speed has slightly increased, even though the congestion rate is still very high. One variant of urban road pricing combines it with public transport: the charge consists in an annual ticket for public transport (Stockholm). This also contributes to the basic financing of public transport and provides an incentive to use public instead of private transport, since the ticket has been bought anyway.

Restricted time access is granted in some cities: in Shanghai only cars with Shanghai number plates may use the elevated highways during rush hour. Another variant has been introduced in Athens. Access rights alternate daily between odd and even final numbers on licence plates; this is, however, often circumvented by using two vehicles or swapping licence plates.

There has even been discussion of how to increase the speed and efficiency of pedestrian traffic. In London, for example, shopkeepers and the business community proposed speeding up pedestrian traffic in Oxford Street by dividing the pavement

into different speed 'lanes' (Fast Lane 2000; Pedestrian speed lanes 2010). The idea was to prevent tourists from blocking the passage of people working in the area. Finally, however, the proposal came to nothing.

Escalators in major railway stations are a frequent focus of conflict about timerelevant behaviour and the hindering of time efficiency. A typical rule for defusing this conflict and enhancing time efficiency is 'walk on the left, stand on the right', to take account of differences in pace adopted by various groups of pedestrians. In the Washington subway this rule has been given somewhat more drastic expression, signalling the negative consequences of walking slowly. Slow walkers are branded 'escalefters' or even as 'escalumps'.

#### Other Areas

Not only in the transport sector are methods for enhancing time efficiency widespread. In many areas it is usual to set *deadlines*. This ensures transparency while providing for compensation in the event of failure to comply. The simplest variant is to lay down that permission is automatically deemed to have been granted if a deadline is not met unless the regulatory authority has meanwhile issued a decision to the contrary or has interrupted the stipulated period by new requirements.

In many institutions where queues are typical (public authorities, medical practices, museums, etc.), more and more rigorous ways to organise time more precisely have been introduced: the simplest variant, often used by public institutions, is to issue a *ticket*, enabling people to use the inevitable waiting time for other purposes. The better variant is the *precise appointment* or the issue of time-slot tickets, which has become the international practice in museums.

Another possibility for increasing time efficiency for people using municipal services is to make such services available on the Internet. This includes appointment scheduling systems, which allow clients to make an appointment for a certain time online, thus avoiding waiting time on the spot. Certain visits to public authorities can now be completely avoided by, for example, filling in and submitting forms online.

## 8.6 Assessing Time Efficiency, Temporal Justice, and Discretionary Time

Time efficiency has been described as *one* perspective on the organisation of public times and the coordination of times. However, we have pointed out that this perspective also raises questions of distribution and justice in the sense of temporal justice, particularly obviously when one keeps in mind that transparency, (temporal) availability, coordination, and accessibility are among the essential conditions for time efficiency. This implicitly imposes further requirements: equality of spatial and social access—in contrast to the trend towards splintering urbanism. This applies

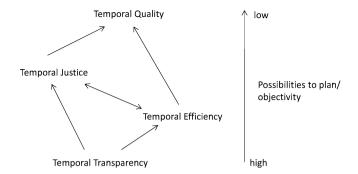


Fig. 8.2 Interrelation between temporal quality, justice, efficiency, and transparency

for both material and informational (telecommunicational) accessibility and their distribution. New technologies make new forms of (spatial and social) sorting possible, often without the user being aware of them—Graham (2004) writes of 'software sorted geographies', which, however, run contrary to the requirements of general accessibility and transparency.

At the same time, we have claimed that time efficiency, as an option in using the city, is one criterion for the quality of urban life, which suffers when time efficiency is lacking. If we try to order the concepts transparency, efficiency, and quality hierarchically (see Fig. 8.2), transparency is clearly a basic precondition for both time efficiency and temporal justice. Time efficiency and temporal justice are interdependent; intransparent situations hamper temporal justice; unjust distribution hampers efficiency. Time efficiency and temporal justice together can contribute to the quality of life. The concepts are ordered in the figure in such a way that the possibility of adaption and the degree of objective assessment decrease from concept to concept.

If we discuss time efficiency in such a context, its (potential) importance for the quality of life becomes apparent; it could then serve as a benchmark, as an option or offer open to use by the individual, and as an indicator in new economic welfare measures. This would fit in well with the argument that time should be seen as a new dimension of economic welfare and the welfare state (Goodin et al. 2008) and the demand for a right to one's own time (Mückenberger 2004). Time inefficiency, it is claimed, violates essential requirements for such a right.<sup>4</sup>

The city would then be called upon to establish the preconditions for time-efficient use; the use itself is up to the individual, and there will always be surprises and inefficiencies. Detours, losing one's way, inefficiencies are also opportunities, but they can hardly be incorporated into an organisational programme for social and technical systems.

<sup>&</sup>lt;sup>4</sup>The right to one's own time, discretionary time, means that the individual or collective use of time should not be heteronomously controlled. It should not be systematically devalued. It should not be accompanied by discrimination (Mückenberger 2004).

## 8.7 Conclusion: Strengths and Weakness of the Concept

Our aim has been to apply a (broad) economic concept of efficiency systematically to the time organisation and structure of cities. We see this as broadening the perspective on the time dimension of the city and as a contribution to investigating an important dimension of urban quality. The pertinent empirical data would enable cities to be compared.

Moves to improve efficiency are repeatedly decried as encouraging economisation. We nevertheless consider it useful to sound out the possibilities of economic efficiency studies. How broadly efficiency is defined plays a decisive role. Are we dealing with:

- A narrow, microeconomic definition or a broad, macroeconomic one that takes account of social costs and benefits.
- The short-term or long-term perspective; the assessment of efficiency can vary according to the time scale.
- Distribution issues, as well.

In this sense, we see efficiency as *one* aspect, albeit it an important one, because:

- It enables many dimensions of temporal changes and their consequences to be included.
- By establishing the link between time efficiency and temporal justice in the city, it opens up a new dimension of investigation.
- It establishes the desirability of time policy as deliberate, formative action.
- The perspective interlocks with other debates (on the right to one's own time as further development of the welfare state and the differentiation of human rights).

However, many new questions arise, questions that go beyond the scope of our study. One is the problematic relationship between efficiency and redundancy (Gleick 1999; Grabher 1994). Redundancy creates security and flexibility and increases the robustness of systems. Cascade effects threaten when timing is too close (Gleick 1999). The question of redundancy and flexibility thus brings us back to the problem of the short-term or long-term interpretation of efficiency strategy.

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## Chapter 9

## Accessibility of Public Spaces and Services: Theoretical Remarks, Practices and Instruments from Urban Time Planning

Stefano Stabilini, Roberto Zedda, and Lucia Zanettichini

**Abstract** The main objective of this contribution is to present the theory and timeoriented instruments to analyse and improve the design of supply and accessibility of public spaces and services for all inhabitants.

The supply and accessibility of public spaces and services in the realm of space-time urban design and planning requires an integrated approach to the physical design of urban space and to the organization of the city, for a better quality of the daily life of inhabitants. Urban quality is not merely an issue of quantity (of services and open spaces) but is also one of accessibility in relation to the temporal and spatial organization of the built environment. This includes the various relations between public and private spaces and considers the diversity of inhabitants and city users, in their body, gender, age, social and economic conditions, stage of life, ethnicity, etc.

A system of chronographic maps, indicators and datasets concerning the linear metropolitan system of the Po Valley presented here will be explored in order to elaborate on the following issues: temporary populations and resident inhabitants in contemporary urban areas, space-time morphology of inhabiting the urban system and accessibility and the evolution of the notion of proximity.

**Keywords** Chronographic maps • Accessibility • Urban services • Urban time planning

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## 9.1 The Neodisciplinary Approach of Urban Time Planning to Urban Design

The demand of urban transformation for a better quality of life has been expressed by the so-called double yes women (Diotima 1987; Balbo 1991), those who simultaneously raise families while working. Women not only showed the difficulties relating work time to individual life but also found difficulties managing quality of individual time and of the urban space, depending on the configuration and accessibility of the city.

In conjunction with the cities experimenting in urban time policies, <sup>1</sup> several universities, including Politecnico di Milano, established an international research network<sup>2</sup> to develop theories and practices, technical instruments, diagnostics and models for interpreting urban transformation, methods for surveying temporarily present inhabitants and mobility simulation techniques aware of public timetables and to understand the use of citizens' time (Mareggi 2002).

From both design practice and the experience of urban time policies in the early 1990s, through the most recent innovations in urban time planning, we have derived new principles for action and design:

- The inhabitants are to be considered in relation to their route, schedule and use of a place.
- The concept of temporarily inhabiting a place is developed.
- The ease of use, regarding temporary inhabitants, is considered as an architectural quality of place.
- Diversity of inhabitants (ethnic, genealogical, gender, birth and calendar needs) induces competition for the use of services and public space.
- New problems: 'continuous-time citadels', where the problem is the dichotomy between the continuous functionality of the structure and the transient presence of citizens asking for short-term usability during the time 'in between' different actions, such as travellers in a modal interchange station (Brioschi 1994).
- Proximity to services and multi-scalar dimensions of the city which alter the understanding of accessibility within the city and therefore the urban quality.
- The awareness how a place has been constructed and transformed along a historical timeline.

<sup>&</sup>lt;sup>1</sup>Urban time policies are urban public policies acting on the regulation of the public system of opening hours at the municipal level. In Italy, Law 53/2000 and several regional laws give the major the power of coordinating the public times of the city.

<sup>&</sup>lt;sup>2</sup>During the last decades, disciplines dealing with the urban project, such as urban planning, geography and sociology, produced good research schools on time and made available conspicuous surveys and researches: urban time planning (school of S. Bonfiglioli), sociology of family and work (schools of L. Balbo, F. Zajczyk, M.C. Belloni, A. Chiesi, J.Y. Boulin, U. Mückenberger), urban sociology (school of G. Martinotti), time geography (school of Lund of T. Hägerstrand), time budget analysis (school of J. Gershuny).

Today, urban time planning addresses the problem of urban design in the contemporary city using three principles:

- Approach to the space-time morphologies of the contemporary city (chronotopes), explicitly declaring both the system of values used in redesigning the territory as a result of historical transformation, and the beneficiaries to whom the project is addressed.
- The point of observation is 'in the shadow'<sup>3</sup> of the inhabitants (Sclavi 2006) who live and construct the urban space-time.
- A process of collective intelligence, stimulating innovation, feeding societal dialogue and creating a dynamic environment.

This line of research and experimentation keeps together as a whole the scale of the individual and that of the urban system where the city of flows is made visible. Its method shifts the attention of the discipline to the phenomenology of the inhabited city: 'a city that is physical and at the same time organized *in the making* of the individual and social life of its citizens' (Bonfiglioli 2010, p. 30).

## 9.2 The Concepts of Urban Time Planning

We will discuss four concepts of urban time planning: (a) the urban system, (b) the urban chronotope, (c) proximity and (d) multi-scalarity (Zedda 2009).

## 9.2.1 Urban System

We call 'urban system' the endless city, temporarily inhabited by a zigzagging flow of people, goods and information, that gravitates around and is originated by the daily activities centred on the urban nodes of this territory. The flows, initiated from the urban nodes, act as a multipolar system in sequence. In a territorial or regional scale, one that does not necessarily coincide with any administrative boundary, the flows are generated and attracted by urban nodes that intersect, forming geometries, and according to various rhythms that depend on the time of the day, the calendar and the spatial concentration of activities and events. Urban time planning declares these new space-time morphologies that follow the new spatial and temporal structures of life of individuals and firms, to be the endless, contemporary city.

<sup>&</sup>lt;sup>3</sup>Shadowing is an ethnographic fieldwork method demonstrated, among others, by Marianella Sclavi's work in NY (cit.). The specific interest of such technique to urban time analyses lies in its third person narrative approach, equally immune both from the generalization of quantitative sensing and from the cognitive bias of first-person reporting.

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The emerging features of this city of territories are:

 Physically, it is made of the built constructions of dispersed urban settlements and of transport infrastructures.

- It is temporarily inhabited by the daily activities of mobile citizens, far from their place of residence.
- It is located, with unstable borders, in the archipelago of the urban system of one or more urban nodes (cities).

## 9.2.2 Urban Chronotope

The chronotope is an inhabited place, where urban space meets the temporality of social interaction, which is regulated by public action for economical purposes (working hours), for social purposes (enabling the meeting among people and things) and for cultural purposes (local life traditions, marked in the historical and geographical features of the place). The chronotope is therefore an urbanized place:

- Transformed along a historical timeline
- Inhabited by residents and temporary populations, with cycles of use globally designing specific architectures of time
- Where the presence of population is distributed over the 24 h (or week, or season) with a substitution or concurrence of presences
- Towards which populations are attracted according to residential places and open activities
- Inside which the phenotypes of mobility of people and goods are distributed in the day (or week or season)

## 9.2.3 Proximity

The concept of proximity concerns the physical relation between the conditions of service and the body of the user. From the point of view of the individual/inhabitant, there are three different scenarios:

The spatial constraint of nearness to the place of residence ceases to be one that structures the relation between the citizen, the city and its services. This is evident for citizens using online services through the Internet but also for those who utilize an enlarged territory, such as those travelling between work and home, who choose routes based on the services in the way. This provokes the failure of traditional 'service areas' which are bureaucratically assigned according to distance criteria. Commuters, especially, choose services regardless

of the institutional and administrative borders and ask the right to speak on the choices of the municipal administrations that intersect their daily life paths, when services and their accessibility are concerned.

- Due to the reduction of proximity services in the historical city centres, and because of the scarcity of services in new residential neighbourhoods, an increasing number of citizens find themselves in a predicament: specifically elderly people, students and mothers with children. These are generally considered low-mobility citizens, moving only in relatively reduced areas. From this point of view, the concept of proximity (of the service to the body) is coincident with that of neighbourhood service, a spatial concept relating to the place of residence.
- The third scenario concerns the physical and environmental quality and the
  architectural beauty of the city, deeply connected to the 'construction of the city'
  which includes its quality of functions, social relations, density, contiguity among
  residential buildings, public spaces, monuments and built shape.

Due to the complex nature of contemporary proximity, it is essential to use an integrated approach to the challenges: (a) competition in the use of services by citizens having contrasting demands (concerning opening hours and calendars, accessibility by private car or by feet), (b) the issue of services and facilities for the 'city of flows', (c) the issue of quality of life for citizens with low mobility and (d) the issue of architectural and urban quality for all.

## 9.2.4 Multi-scalarity

We use the concept of multi-scalarity to denote:

- The simultaneous presence of relations of various scales within one place: in terms of hierarchy, physical distance between the subjects/objects put in relation, the value social actors give to relations, time and variation across time of the relations. The notion enables a design solution to the questions: How many places and how many relations can an individual get access to? How? And when? Which network (how and when) is the site of project/study connected to? (Naussbaum 2001).
- The simultaneous presence of multiple historical scales of the construction of the place. We agree with Françoise Choay that 'the history of the western city could be analyzed as a shift in scale of the urban space and of its facilities' (Choay 1992, p. 23). From the point of view of design, it is a matter of preserving a criterion of continuity in the construction of urban form.

Multi-scalarity in the time-oriented approach leads to considering the various scales as a whole in urban interpretation and design, by embracing a methodology that preserves the complex space-time relations of the place.

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## 9.3 The System of Analyses and Chronographic Design

Since the early 1990s, a European network of universities have addressed the diffusion of time-oriented policies and projects, by working in three directions:

- The construction of a praxeology that is of a technical toolbox with a temporal focus: chronographic cartography, descriptive models of inhabited places (chronotopes), governance techniques, codesign workshops, models for the analysis of public policies and administrative procedures for the management of plans and policies.
- The construction of a theoretical foundation that guides research and the sense of public action: urban time planning, sociology of the family and of work, urban sociology, time geography, chronobiology and ecology of time, public art for the expression of a culture of time and philosophy of time and feminist philosophy. These theoretical studies allow to understand and describe the effects of time in the urban and morphological configuration of the built city.
- The formation of a large atlas of case studies concerning action research, which works with and simultaneously within the transformation processes: i.e. neither *before*, as when researching knowledge for action in a framework of objective rationality, nor *after*, from a distance, as in a theoretical study.

We will now focus on two primary features that characterize the methodology of analysis and design in the new disciplinary framework of urban time planning: (a) codesign roundtables for the design of urban policies and projects and their realization and (b) chronographic instruments for urban analysis.

## 9.3.1 Codesign Roundtables

A new model of public management is emerging, one that answers the social demand for personalized services, coproduced, and cocreated through the 4P approach (public-private-people partnerships): intended not only as a complement to public offer but as a new bottom-up model of welfare, it is still largely in need of investigation and of instruments for analysis, design and evaluation.

For the design and realization of public policies and integrated urban projects, urban time policies use 'codesign roundtables'. These seek to implement collective decision processes, developed through workshops (Mareggi 2002).

This term denotes a design of urban actions developed in collaboration between the multiple actors, overcoming the typical dualism worker/firm regarding working hours. Through dialogue, a multiplicity of actors together define the problem and design and implement the solutions. At codesign roundtables there is an unwritten rule that forbids participants to say no, which encourages the participants to identify and share their interests in a responsible manner. This system fosters a research of mediated solutions that bridge between the political conflicts of interest and

Stakeholders/ age in the life cycle	Men/women	Typology of service	Typology of standard opening hours	List of services in the city	Maps showing location	Interests expressed in other time-oriented policies/ projects

**Table 9.1** Model for the identification of stakeholders

become an expression of new intelligence that is capable of incorporating multiple rationalities (time architecture) (Brioschi 1994).

Roundtables are a method for the urban government, to go beyond the traditional bilateral partnerships (the public body and the social subjects, the firms and the unions of workers, etc.) towards the construction of a four-sided partnership. We can say that the enlargement of the table of work is a concrete realization of the transition 'from social dialogue to societal dialogue' (Boulin and Mückenberger 1999).

## 9.3.2 Chronographic Instruments

We will summarize the instruments for chronotopic urban analysis developed by LabSat at Politecnico di Milano, Piacenza Campus, and fully described in Urban and Territorial Time Plans (Comune di Bergamo 2006; Comune di Bolzano 2010).

## Model for the Identification of Stakeholders Concerning Services of General Interest

The model for the identification of stakeholders defines clusters, characterized by the age of citizens with respect to life cycle, corresponding to typical temporal interests, and then reconstructs the primary services and their hours, serving as a reference infrastructure for daily life practices. The model is a reference matrix for defining types, clusters, interests and demand of change, as the ability of citizens to express themselves increases (Table 9.1).

#### Maps for Codesign

In participatory environments, codesign maps aim at facilitating the work of codesign roundtables. Tables are formed with a defined working issue and a well-identified area. Working around a map with local actors allows the participants to immediately locate 'on field' the elements that emerge from discussion, thus finding the spatial problems and measures put at play by the temporal problems

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Historical construction of the place	Inhabitants and their cycles of presence in the place	Residences and activities located in the place and their opening/closing hours	Typologies and calendar of the various forms of mobility in the place

**Table 9.2** Analytical model of the urban chronotope

being debated. Local actors at the roundtable (residents, representatives of local associations, responsible persons of services, shopkeepers, etc.) have a direct and deep knowledge of the area, because of their daily life experience.

#### **Analytical Model of the Urban Chronotope**

As is in the tradition of urban planning, the descriptive model is used as a prototype to adapt, according to the project theme, to a legend for a *map of urban chronotopes* (Table 9.2).

These four variables assist in deciphering the temporal architectures characterizing the chronotope at study.

The first variable, *historical construction of the city*, derives directly from the tradition of architecture and urban planning, according to which, the city and its places are historical products. One example of this is the Roman foundation of the *cardus* and *decumanus*, which has had a long-term morphogenetic effects, even after their visible features have long disappeared.

The second variable, *inhabitants and their cycles of presence in the place*, is the morphology of the resident and non-resident populations that inhabit the city (Martinotti 1993).

The third variable, *residences and activities located in the place and their opening/closing hours*, concerns activities in relation to the spatial and temporal scales of functioning and uses the localized opening hours to determine the spacetime architecture of the urban social calendar.

The fourth variable, *typologies and calendar of the various forms of mobility in the place*, observes the space-time variable in a way that connects the spatial regulations (rights of land use) with the temporal ones (timetables). Mobility is then approached as a phenomenon of inhabiting, as a way of using urban space. This viewpoint departs from the technicality of urban traffic and enters a new complex realm of actual mobility behaviours.

#### **Databases of Calendars and Opening Hours**

Effective chronographic instruments require the construction of an architecture of databases of spatio-temporal features, where the meaning we give to 'temporal' concerns both information explicitly addressing hours and calendars of the city (general interest services, public transport, cultural events) and information concerning the

Database	Typology of data	Typology of stakeholder	Data construction	Spatial definition
Public and general interest services	Opening hours (weekly), calendar (yearly)	Women, elderly, children	Institutional	Building and service area (scale of service) accessibility
Public transport services (urban and metropolitan)	Opening hours, calendars		Institutional	Lines, points of access, multimodal nodes
Commercial activities	Opening hours, calendars	Residents, city users	Institutional and participatory	Point and area (commercial surface)

Table 9.3 Example of a database structure for the project 'Accessibility to services'

ways and times citizens use the city. Hence, it is necessary to categorize different anthropological typologies of stakeholders especially with regard to their gender and age (children, mothers, elderly, etc.) and incorporate spatial definitions in the context of mapping ways and times of use of the city (chronographic maps), along with utilizing typical spatially defined maps (and data used for their construction). The following table is an example breakdown of a calendar database (Table 9.3).

# 9.4 Geo-referenced Chronographic Cartography at Three Spatial Scales

The system of chronographic maps prepared at Politecnico di Milano-LabSat provides a reference framework for chronotopic interpretation of the city and its territory, giving visibility to the morphologies of use of the territory by the different populations and stakeholders. The objects of these cartographic instruments are the features of the contemporary urban environment that are related with the agenda of everyday life of both resident and temporary inhabitants:

- The morphology and dynamics of settlements and functions at the scale of the province/region, showing the urban system in a manner that underlines the nodes and the mesh of multi-scalar mobility, the great attractors and the features of the urban settlement
- The system of gravitations and mobility in the urban system
- The patterns of use of urban areas at the municipal scale, including resident and non-resident populations such as city users, students, workers, commuters and tourists
- The urban chronotopes, at the scale of the municipality and of the neighbourhood, using the chronotopic model of analysis to show populations, rhythms of use of places, activities and their calendars, historical construction of the place and mobility patterns

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**Fig. 9.1** Morphology of settlements and distribution of main attractors between Milano and Bergamo (the map shows different urban nodes, types of urban diffusion, agricultural land, touristic areas and zones of recent urbanization; this helps to understand how these areas are used and connected)

The rhythms of use of urban areas at the urban or neighbourhood scale: calendars
of public transport and railways, calendars of airborne transport, calendars and
maps of cultural events and fairs and on/off maps of public and private services

Some instances of this cartographic system are collected here, with the intention to demonstrate the use of the analytical model. The examples are taken from the territorial time plan of the city of Bergamo (2006), the Masterplan of the City of Bolzano (2010), along with national interest research on the linear metropolitan system of the Po Valley (Busi and Pezzagno 2011).

## 9.4.1 Morphology of Settlements and Distribution of Main Attractors

We use, as a demonstration of this issue, the Map of the Urban System of Bergamo (2006).

This map (Fig. 9.1) shows clearly that the morphology of mixed residential/tertiary settlements is characterized by a diffusive sprawl-like distribution and

shows positive dynamics, polarized in the territories extending towards Milan, outwards of the half ring of productive settlements. The dynamics of productive and residential/tertiary settlements confirm a well-known trend concerning European territories: a pattern of diffusion of urbanization and services from the inner urban areas (often defined as 'mature areas') to the outer rings. The relation between the distribution of settlements and the network of roads is clear and confirms that the diffusive phenomena is strictly related to road-based mobility of people and goods.

In this map, the diversity of the *urban system* concept can be seen, compared to that of *metropolitan area* or Greater Bergamo. This latter configuration (Greater Bergamo) had been validated by the Astengo-Dodi Plan and its creation of a 'supporting skeleton, opening the city to all the relations among its parts and all active parts of the metropolitan area' (Comune di Bergamo 2006, p. 13).

The metropolitan area is composed morphologically by the surrounding municipalities, the periurban ribbons that due to the orography of the territory extend into the three adjacent valleys. The notion of urban system, in this case, has a morphology that is relative to the distribution of settlements with which the city of Bergamo interacts. The urban system takes the form of an archipelago of intersecting urbanized territories that is inhabited by city users.

Among the four populations of the new social morphology of the contemporary metropolises (residents, commuters, businessmen, city users), city users are the most interesting (Martinotti 1993). City users settle in the periurban territories or in the system that includes also noncontiguous territories, but choose to utilize services that are located within the territories, not in their proximity, and therefore only accessible by private car. City users require supply for unsystematic mobility, a need that remains largely unattended at all scales by public transport systems. We can assume the distribution of commercial centres and *loisir* attractors to be proxy indicators of unsystematic and zigzagging mobility.

#### 9.4.2 Morphology of Flows at the Scale of the Urban System

This set of maps focuses mainly on the commuting phenomenon, which serves only a portion of mobility demand and is losing terrain to unsystematic mobility. This choice has three central reasons:

- 1. The lack of availability of a structured database and in time series at the interregional scale.
- 2. Inhabitants find commercial, cultural and entertainment services primarily along their commuting paths.
- Finally, since commuting has been the foremost indicator to describe the structure of the industrial regional space, any changes in this pattern can be interpreted as structural changes consequent to the formation of the post-Fordist society.

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Fig. 9.2 Commuting in the urban systems of the LiMeS (Linear Metropolitan System) of the Po Valley: core areas identified by larger flows (100+ units)

**Fig. 9.3** Commuting in the urban systems of the LiMeS (Linear Metropolitan System) of the Po Valley: diffusion of lesser flows (<100 units)



### Maps of the Urban Systems of the LiMeS (Linear Metropolitan System) of the Po Valley

By comparing a set of maps, constructed with different criteria, it is possible to observe important qualitative differences in the morphological flows in the urban system. The use of appropriate threshold values in mapping daily commuter flows in the larger metropolitan region highlights the coexistence of different spatial configurations that correspond to varying mobility patterns and demands. Clearly shaped catch basin areas for the major nodes of gravitation emerge after isolating the top-ranking flows (100+ commuters): these guided our analysis, choosing the central cities of the urban systems in the Po Valley area (Fig. 9.2). It is worth noticing that the radius of the class of mobility trajectories corresponds to the area identified as the core service area for the metropolitan public transport system of Milan (giving priority to frequency over speed of transport).

Lesser flows, movement of single individuals, conversely show a wild diffusion pattern (Fig. 9.3), which:

- 1. Is largely indifferent to the gravitational systems of nearest urban nodes
- 2. Is extremely dispersed and not organized along the main infrastructural axes
- 3. Displays the internal differentiations, ridges and confluence lines that help in understanding the more complex morphology of everyday mobility

#### 9.5 The Field of Mobility Flows in the LiMeS

By examining the prevalent direction of flows generated by each origin node, this map charts the complex shapes that commuter flows trace daily in the metropolitan space (Fig. 9.4). The 'tensor map' technique used here is preferred to other self-containment or functional districting methods, because the 'tensor map' technique follows the mobility trajectories in the archipelago space of the contemporary metropolis. The magnets of mobility are clearly shown, except in the areas where the gravitational effects overlap and individuals adopt less predictable mobility choices. These areas are particularly interesting, since they challenge the interpretation of the metropolitan space based on the settlement and mobility choices of the inhabitants:

- The ridge line running along the natural border represented by the Po River, setting Piacenza at the intersection between the Po Valley system and the urbanized coastal strip along the Adriatic
- A second watershed of flows, among Brescia and Verona, marking the mediation between the western urban systems of Milano and Torino and the urban network of the Venetian plane
- The complex shapes of the Piedmont flows, between Milano and Torino, where the catch basins interfere, creating fuzzy patterns
- The role of the ring of regional nodes around Milano, especially in the north, generating complex local dynamics while still gravitating on the metropolitan centre

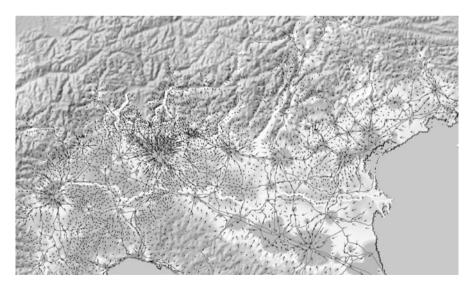


Fig. 9.4 The field of mobility flows in the Linear Metropolitan System of the Po Valley

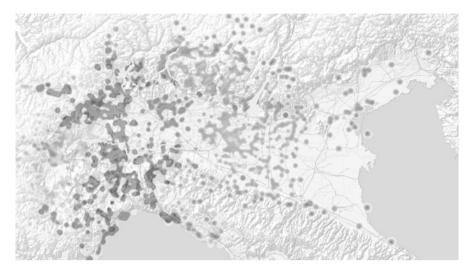


Fig. 9.5 Interference areas at the edges of the urban systems of Torino, Milano and Genova. Darker colours show areas related to more than one urban system

The far-reaching edges of the major urban systems are addressed specifically by means of a dedicated map (Fig. 9.5), in order to identify the areas of interference and their relation with the infrastructural network.

#### 9.5.1 Morphologies of the Inhabited City

The map (Fig. 9.6), taken from the Bolzano Master Plan (Bolzano 2010), investigates the relation between populations and services, with the objective of reconstructing the morphologies of use of the urban space by different groups of stakeholders:

- 1. *Resident populations* are mapped according to few selected age classes, in order to study the presence of proximity services, which are important especially for children and the elderly.
- 2. *Typologies of services* are grouped in two classes, constructed according to proximity and regional scale, in order to analyse the relation with permanent and temporary inhabitants.
- 3. *Regional scale attractors* are used as indicators of public space use by temporary inhabitants.
- 4. *Typology of use of public buildings and special areas* focuses the analysis on the use of the city by inhabitants.

The resulting interpretation outlines four distinct urban environments, characterized by different uses and populations:



**Fig. 9.6** Morphologies of the inhabited city in Bolzano (different grey shading represents different morphologies of use of the urban space, considering different uses, functions and populations of the city)

- 1. The *historical city*, inhabited by residents of all ages but with a prevalence of elderly persons and evident use by temporary inhabitants, which suggests spatial and temporal conflicts in the use of services and public spaces and diversified demands of services.
- 2. The *city of families* is mainly inhabited by resident populations with a high presence of young people, but the map shows how the spatial distribution of age groups is uneven at small-scale, single-block level, which indicates the accessibility to proximity services must be tuned to a finer, more detailed scale.
- 3. *Oltrisarco* is the central node of Bolzano, with a resident population composition that, although older, is analogous to that of the *city of families*, with fewer proximity services but greater large-scale attractions that serve temporary populations.
- 4. The *industrial city* has a consolidated productive structure but indicates some spatial and functional elements that could trigger future transformation and the need for new services.

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#### 9.6 Remarks on Space-Time Design of Services

From the experiences in Italy emerges a space-time design approach that can provide public and private subjects with tools to design and plan the public space and the territory. The methodology and techniques developed through the space-time approach assist in describing, interpreting and representing the inhabited city and the morphologies of use of urban space by permanent and temporary inhabitants. This is particularly useful, since designing efficient services is not only an organizational matter but also a problem of giving architectural and urban shape to the physical and temporal relationship between the individual and the services they require, in a specific place and time. Moreover, improving accessibility to services and the quality of urban form implies intervening in the shape and use of public spaces, according to the diverse times and calendars of those who inhabit them.

We summarize some useful principles of a space-time approach to designing the provision of services while improving their accessibility:

- Rationalize the timing of the offer of services in relation to the new demand profiles. It means to take charge of some phenomena such as the colonization of the night and holidays through the establishment of entertainment and cultural services; to work with timetable changes, such as long hours in the evening and during the lunch break for the services of general interest; providing flexible hours and 'on demand' access for services to people; and ensuring time-niches for so-called rare services.
- Increase the options for selecting local services, to improve the flexibility of the agenda and the reconciliation of daily life (for the family, for social relations, for themselves) and working time. This is possible through actions of schedule flexibility, remote access, facilitated access in an emergency, information and mobile information, prudent choice for the location, coordination of services, etc.
- Improve the quality of the mobility of people and the spatial and temporal connection between the services and territories at different scales, with the construction of service chains, designing safe routes for soft mobility, etc.
- Pay attention to the quality of public spaces, at the small scale, starting from their equipment and appropriateness to the functions they contain and the people who inhabit them.
- Provide for the flexible use of some public spaces and the installation of temporary services related to the presence, in certain places and at certain times/schedules, of temporarily present populations.
- Monitor changes in demand for services, with particular attention to hidden demand and to the disadvantaged (elderly, single women with small children, etc.).

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# Chapter 10 Mobility, Accessibility and Social Equity: A Comparative and Interdisciplinary Empirical Study in the Metropolitan Areas of Milan, Bologna and Turin

Matteo Colleoni

Abstract Although mobility is truly essential for access to urban assets and services and fundamental for social and urban integration, it tends to be unevenly distributed between individuals and social groups and does not always share the same quality relating to the resources used or the restrictions limiting their use. The inequalities relate both to the different social distribution of access resources and to the presence of restrictions which hinder their use. The objective of this study is to analyse the way in which the urban structure of residential areas influences the presence and availability of opportunities and how the location of residential areas and opportunities, combined with the residents' mobility capital, influences their mobility styles and their accessibility to urban assets and services. The theoretical part of the study aims to explain the meaning of the concepts of mobility capital, mobility style and accessibility, while the empirical part aims to describe the relationship between residential location, mobility styles and access to opportunities. The study relates to a comparative Italian survey carried out in the metropolitan areas of Milan, Bologna and Turin in 2009-2010 by the Universities of Milan, Bologna and Turin.

**Keywords** Urban structure • Residential areas • Accessibility • Social distribution • Mobility capital • Mobility style • Access to opportunities

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The study has been carried out by an interdisciplinary group of research of the University of Milan Bicocca (Mario Boffi, Matteo Colleoni and Clara Melzi), University of Bologna (Giovanni Pieretti, Marco Castrignanò and Francesca Mantovani) and Polytechnic University of Turin (Cristina Pronello and Cristian Camusso).

#### 10.1 Introduction

Studies on accessibility do not tend to overlap those on mobility, although they often include both subjects. While typical mobility surveys describe the characteristics of journeys, studies on accessibility analyse their potential for access to valuable places and services that meet the actors' needs (Hansen 1959). In his studies on cities in the United States, Handy shows that there are situations marked by good accessibility and poor mobility, where residents live a short distance from the desired facilities, and other situations characterized by good mobility and poor accessibility, where broad thoroughfares and lack of congestion are accompanied by poor or inadequate facilities (Handy 2002).

The concepts of potential access, satisfaction of needs and relevant opportunities give an assessment approach to studies on accessibility, which mobility studies lack. Knowing the mobility of an actor does not enable us to say anything about accessibility if the importance of the place and service he/she wishes to access is not previously defined. This is the reason why accessibility studies belong to the broader category of social equity studies.

As is known, the question of social equity relates to the opportunity for actors to enjoy equal rights of citizenship and a fair distribution of resources. The reference to rights and resources is intrinsic to the issue of accessibility, because it is a universal right to reach resources and opportunities considered adequate for sharing a common sense of territorial and social inclusion. This may explain the tendency of some authors to include inaccessibility to local resources among the most important factors of social inequality (Lucas et al. 2001; Nuvolati 2002; Lucas 2004; Cass et al. 2005; Le Breton 2005; Balducci et al. 2008; Colleoni et al. 2009; Colleoni 2011). For the same reason, we see why policies that support mobility and urban accessibility today account for an increasingly important sector of public policies to offset the phenomena of territorial segregation and social exclusion. These policies share the assumption that social exclusion consists not only of a lack of opportunities but also a difficulty in accessing these opportunities (Preston and Rajé 2007; SEU 2003).

#### 10.2 Mobility, Urban Accessibility and Social Equity

#### 10.2.1 Mobility and Mode of Access

Accessibility to services is normally surveyed by retrieving people's mobility profiles, where the expression 'profile' relates to the combination of several dimensions: time, mode, distance and purpose of the journey. International research and statistics generally focus on the time taken to reach services with different modes of travel. Measuring time is preferred over distance because the territory is neither uniform nor homogeneous and equal distances have varied access times. Since not everyone owns a car or has access to public transportation, the measure

of time is calculated by journeys on foot. Expressed with the term 'micro-mobility' (or slow mobility), pedestrian mobility is considered a condition of liveability, as the condition that increases co-present interactions in space (Urry 2002). In this sense we may understand why being able to reach a facility on foot within an acceptable threshold of time is considered the most important indicator of urban accessibility. These time thresholds vary according to the type of service and population, decreasing for basic services and for persons with mobility problems. Considering just basic services and only the healthy adult population, surveys made by the UK Department for Transport established the threshold value for enjoying an acceptable level of accessibility at 13 min and use this value to determine the percentage of people able to reach the facilities within this threshold (Department for Transport 2010a).

North American and Australian studies on the sustainability and quality of urban life focused on walking access time for opportunities. In the United States, the International City/County Management Association, jointly with the Government Division for Development, the Community and the Environment, coordinates policies for sustainable urban development and work out macro-action programmes, one of which is aimed to create walkable communities (Icma 2011).

Interventions to create pedestrian communities with the intent to improve access and urban opportunities are affected by nearness of facilities, compactness of urban development, safety from crime and traffic safety, pedestrian suitability of the road network and attractiveness of the routes. These studies that focus on walkability are at the forefront of today's research regarding the quality of life (Cervero and Kockelman 1997; Handy et al. 2002; Krizek 2003; Levine et al. 2005).

Relating to the quality of life and pedestrian mobility, again we should mention the work carried out by the Danish architect Gehl in several metropolises around the world. These projects are aimed at improving the quality of districts and involve the achievement of surveys in collaboration with local governments and universities. They include research studies on the pedestrian environment and describe the profiles and flows of pedestrian mobility, the quantity and type of activities carried out and the quality and spatial distribution of the pedestrian mobility infrastructures.

In Italy national surveys on mobility include journeys on foot or by bicycle (Isfort 2011). The slow mobility trend, for the medium period, shows that – despite increasingly frequent invitations to choose eco-sustainable mobility – the percentage of journeys on foot or by bicycle fell from 26 % in 1991 to 21 % in 2011. Unlike the British survey, the Italian study does not supply data on facilities access times, and therefore no conclusion may be drawn regarding slow accessibility. However, the fact that the number of slow journeys has decreased as to those by private transport is not encouraging either for the prospect of an improvement in the quality of urban space or for an increase in accessibility.

In the absence of national surveys showing the relationship between pedestrian mobility and accessibility, we suggest devoting attention to local government experiences enacting 'services plans' or 'urban time policies'. The local government services plans supply directives so that the number, type and area distribution of the services ensure equity, usability and accessibility.

Like the surveys of the UK Department for Transport, the majority of these plans adopt time indicators of pedestrian accessibility to facilities that establish two thresholds at 6–7 min (very high) and at 10–12 min (high). In other cases spatial indicators are used, such as a 300-m threshold of pedestrian accessibility to facilities, where the percentage of population living within this threshold is calculated. Lastly we must consider the reference scale of the services and propose different accessibility measures accordingly. Apart from services plans, urban time policies also deal with pedestrian accessibility services times. Unlike the other planning tools, they manage not only the territorial distribution of services but also their timetables, and therefore they propose the coordinated management of opening and closing times taking into account new rhythms and the co-presence of different urban populations (Nuvolati 2002; Mareggi 2011).

Accessibility has been greatly studied regarding the public transport services. One of the strategic policies proposed by the European Community's Green Book consists of having an accessible urban transport system (Commission of the European Communities 2007). The lack or shortage of public transport reduces opportunities for interaction and increases social exclusion (Currie et al. 2009; Litman 2009; Stanley and Vella-Brodrick 2009; Currie 2010). As is known, the accessibility of a public transport system hinges on multiple factors. The possibility of reaching a transport stop within an acceptable threshold of time is considered a priority for accessible public service. In 2010, the UK Department for Transport proposed a measure entitled PTAL (Public Transport Accessibility Levels) based on pedestrian access times to stops and stations and the frequency of availability of services (Department for Transport 2010b). Like the United Kingdom, local governments of various states in the Australian continent are adopting accessibility measures for public transport based on the principle of space-time proximity. In the late 1990s, Murrey coordinated a research group at the University of Queensland with the objective of assessing public transport access measures adopted in the South East Queensland region (Murrey et al. 1998).

Lastly, studies in the United States consider a 'smart' transport system to include improvement strategies both for mobility and accessibility and to give users the chance to choose between several means of transport (Handy 2002). Focusing attention on North American policies, Litman underlined the fact that they tend to adopt measures centred almost solely on traffic and mobility instead of on accessibility (Litman 2003). As to urban policies, accessibility policies ought to increase the density and mixed use of the land, improve the level of connections between the various networks, strengthen slow mobility and broaden the range of modal choices. Particular attention, Litman (2003) suggests, must be given to pedestrian mobility which has a greater impact than vehicular mobility on the

<sup>&</sup>lt;sup>1</sup>For an in-depth examination of the proximity and multi-scale concepts and their application to local planning tools, see Zedda (2009).

<sup>&</sup>lt;sup>2</sup>For an in-depth examination of the 'urban time policies' in Italy, see Irer (2009) and Mareggi (2000, 2011).

way in which people perceive the transport system and the environment, since the experience of reaching activities is measured more in terms of time than of distance.

While the principle of multimodality has been applied in the urban centres, this is not true for the peri-urban areas with a low demographic density. The weakness of the public transport system in the peri-urban areas translates into an absence of modal alternatives and difficulties of access to services for those not owning private transport. Many research studies have dealt with the relation between characteristics of land use, modal choices and urban accessibility. In 1977 Pushkarev and Zupan's studies highlighted the relationship existing between low demographic density and high use of cars (Pushkarev and Zupan 1977), which was underlined by the studies made by Newman and Kenworthy regarding the relationship between low-density and high-fuel consumption (Newman and Kenworthy 1999). In the last 20 years, research studies have narrowed this subject of study, some analysing the relation between road network design and vehicle mobility (Kulash et al. 1990; McNally and Ryan 1993), others focusing on the relationship between phases of urban development and mobility models (Cervero and Gorham 1995; Friedman et al. 1992), while others examining the correlation between type of settlement, duration and frequency of journeys (Cervero and Kockelman 1997; Boarnet and Crane 2001; Handy and Clifton 2001).

Special attention should be paid to those studies that analyse the relationship between characteristics of settlements, socio-personal features of actors and mobility styles. Focusing on mobility styles, in 2001 Ewing and Cervero concluded that the properties of the land are more important than one's personal characteristics regarding mobility length, but that reverse is true regarding the frequency of trips and the modal choices (Ewing and Cervero 2001). The combination of residence in mono-functional peri-urban areas and socio-economic weakness translates into an absence of alternatives of modal choices and a high duration and frequency of journeys. Like other research results (Naess 2006; Borlini and Memo 2009), Ewing and Cervero's survey also describes the highly fragmentary nature of mobility as a cause of inaccessibility. These results remind us that accessing local opportunities relates not only to the properties of places, the structure of transport systems and mobility styles but also to subjective dimensions such as people's values, habits, attitudes and characteristics. The latter will be examined in the following section.

#### 10.2.2 Social Actors and Capital of Access

The focus on promoting mobility for actors came to the foreground in the second half of the last century, starting from Hansen's work (Hansen 1959). He defined accessibility as a potential for interaction, enabling authors of the following period to shift attention from places to persons. Dijst's studies on the concept of action space and Kaufmann's on mobility capital may also be included in this different perspective.

Action space is the area within which opportunities may be reached by individuals for their activities (Dijst et al. 2002). This approach shifts attention from

the places and services which must be reached to the actor's ability to reach them. According to Dijst not only the assets concerning the individual's socio-economic condition but also those relating to his/her resources, competences and knowledge are access resources. The reference to relations has been subsequently analysed by the Anglo-Saxon literature on the subject; in particular, Cass, Shove and Urry (2005) argued that access is associated not so much with the possibility of reaching more opportunities as with the capacity to access the most significant ones in the actors' networks. In his studies Chevallier highlighted the relationship between shortage of alternatives of choice, less extension of action space and actors' low level of autonomy (Chevallier 2005), while Urry pointed out that for the more marginal actors an effective way to increase access to opportunities would be to have access to the means of public transport rather than owning them (Urry 2002). Apart from the strength of social networks, the possibility of expanding the action space relates to competences. According to Nuvolati, in order to analyse the daily mobility practices, various dimensions must be considered, in which personal motivations and cognitive maps of places and social relations take on a particular importance (Nuvolati 2007). Several studies carried out in Anglo-Saxon countries and in France (Grieco et al. 2000; Stern 2000; Mignot et al. 2001; Dupuy et al. 2005) highlighted that the differences in gender, profession and income class do not act on accessibility directly but through the action brought to bear both by the knowledge, skills and practices and by the degree of freedom of choice between possible alternatives (Sen 1993). Within complex territorial systems such as metropolitan ones, knowing how to move and have the opportunity to do so by choosing between different modes is also a condition of social inclusion. This explains the policies enacted by some urban transport companies to improve mobility competences of those actors most exposed to the risk of social exclusion or, more generally, those lacking a sufficient knowledge of the language and rules of mobility (Allemand 2008).

The relationship between extension of the action space and accessibility depends on the presence of individual resources such as social networks, competences and knowledge. Together with more traditional ones concerning the socio-economic condition of social actors, these resources are included in the definition of mobility capital proposed by Kaufmann in 2004 (Kaufmann et al. 2004). In the author's view, an individual's mobility behaviour is to be considered as the joint outcome of three factors of his/her mobility capital (or motility): firstly, the access to mobility services and the conditions on which they are available; secondly, the competences to use the available options; and lastly, the way in which the actors interpret, give meaning to and make use of the access opportunities. The use of the term motility instead of mobility is justified by the author's intention to shift attention from the territory to individual action. The reference to capital responds to the conviction that mobility, like other aspects of human behaviour, is the not-coincidental result of the combination of resources which the individual acquires and exchanges with other forms of economic, cultural and social capital (Flamm and Kaufmann 2006). Accessibility is an asset of local opportunities, but its application is increasingly related to the possession of individual access resources (socio-economic, relational and, in particular, cognitive).

#### 10.3 Survey Aims and Method of Research

The research belongs to the tradition of studies on the interactions between the spatial and morphological characteristics of cities, the socio-economic structure of the societies living in them and the mobility of their populations. Carried out by the Universities of Milan, Bologna and Turin in 2009–2010 in the metropolitan areas of Milan, Bologna and Turin, the study aims to analyse the way in which the urban structure of residential areas influences the presence and availability of opportunities and how the location of residential areas and opportunities, combined with the varying possession of mobility capital, influences styles of mobility and accessibility to urban assets and services and, therefore, the level of urban and social inclusion (Fig. 10.1).

The data were collected by using two different sources:

- Population and housing Census and economic Census, to find the spatial distribution of people, local facilities and assets (opportunities)
- A sample survey carried out through time-budget (travel diary)<sup>3</sup> and question-naire, to profile mobility styles and residents' access

The boundaries of the three metropolitan areas were drawn by using the spatial distribution of functional indicators such as housing, services, industries and commuting and, within them, the municipal areas divided into districts according to

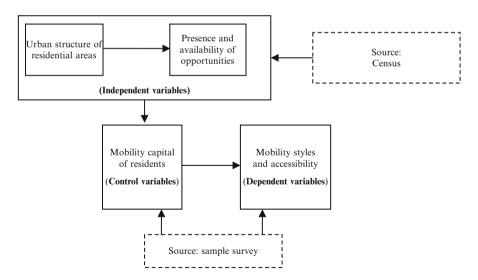


Fig. 10.1 Survey hypothesis and data sources

<sup>&</sup>lt;sup>3</sup>The English term 'time-budget' is the most useful survey method to collect data on the use of time and space of representative samples. For an in-depth examination, see Colleoni (2004).

Metropolitan area and district			Frequencies	%
Milan	Core	Milan centre	74	5.5
		Milan Garibaldi	75	5.6
	Suburban	Milan Affori	149	11.1
	Peri-urban	Seregno	149	11.1
Bologna	Core	Bologna centre	149	11.1
Dologiia	Suburban	Bologna boroughs	150	11.2
	Peri-urban	Argelato	101	7.5
		Castel Maggiore	52	3.9
Turin	Core	Turin centre	80	5.9
		Turin Crocetta	62	4.6
	Suburban	Turin Santa Rita	152	11.3
	Peri-urban	Orbassano	152	11.3
Total			1,345	100.0

Table 10.1 Districts and number of cases by metropolitan area

their distance from the centre of the metropolitan area (central: core, intermediate: suburban and peripheral: peri-urban<sup>4</sup>).

The analysis units and survey cases are:

- The territorial district (for a total of nine districts, three per metropolitan area)
- The resident nuclear family with at least one child under 16 years of age (for a total of 1,345 families, see Table 10.1)

By independently filling in a questionnaire and a daily time mobility schedule, the adult members of the sample families supplied the necessary data to construct the indices referring to two dimensions: (a) individual access resources and (b) urban resources and level of accessibility.

#### Individual Resources

- Social status: gender, age and type of household
- Health: personal disability
- Employment status
- Income
- Household car availability
- Personal car access
- Driving licence availability

<sup>&</sup>lt;sup>4</sup>By peri-urban we mean the area of settlements stretching between the boundaries of the historical cities and the low-density area, at times inappropriately called countryside (Martinotti 1999).

#### **Urban Resources and Level of Accessibility**

- Average trip time per facilities, main mode and district
- Average trip length per facilities, main mode and district
- Average trip number per facilities, main mode and district

#### 10.4 Main Results

#### 10.4.1 Social Status

The family's social status was retrieved by constructing an index synthesizing the indices of economic and cultural status. Tables 10.2 and 10.3 summarize the sociodemographic features and social status of the sample according to metropolitan area and district. The families' economic status and the monthly income in the metropolitan areas of Milan and Turin are similar. Bologna differs from the other two with its lower income but also shows a higher percentage of employed respondents. The comparison between districts highlights a more disadvantageous situation for families resident in peri-urban and suburban areas, regarding both cultural status and level of family income. This seems to follow through with the hypothesis that, whatever the location and features of the metropolitan area, families resident in the suburban and peri-urban areas have a lower social status than those in metropolitan centres.

#### 10.4.2 Mobility Capital

In the theoretical section of the study, we argued that access to opportunities is not directly associated with mobility but according to the mobility capital owned by an actor. The mobility capital was retrieved by constructing an index synthesizing the values of the following indicators:

Table 10.2	Social	status:	per metropolitan area
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	Milan	Bologna	Turin
Men (%)	38	48	38
Individuals per household	3.7	3.6	3.7
Children aged 0-5 per household	0.3	0.4	0.4
Children aged 6-17 per household	1.2	1.1	1.1
Average age of children	7.5	7.3	7.1
Average respondent age	43.2	43.3	42.3
Percentage of employed (%)	80	90.5	85
Average household income (monthly)	3,768	2,910	3,956
Economic status	Medium-low	Medium-low	Medium-low
Cultural status	Middle	Middle	High
Social status	Medium	Medium	Medium

<b>Table 10.3</b> Social status per dist
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	Core	Suburban	Peri-urban
Men (%)	42.5	38	43.5
Individuals per household	3.6	3.6	3.7
Children aged 0-5 per household	0.4	0.4	0.3
Children aged 6-17 per household	1.1	1.1	1.1
Average age of children	7	7.2	7.6
Average respondent age	43.4	42.9	42.5
Percentage of employed (%)	87.7	86.3	81.9
Average household income (monthly)	4,273	3,173	3,074
Economic status	Medium-low	Medium-low	Medium-low
Cultural status	High	Medium	Medium
Social status	High	Medium	Medium

Table 10.4 Mobility capital index by metropolitan area and district

	Milan	Bologna	Turin
Cars per household	1.4	1.5	1.5
Motorbikes per household	0.3	0.3	0.2
Bicycles per household	3	3.2	2.9
Driving licences per household	2	1.9	1.9
Season tickets per household	0.5	0.4	0.3
Car availability index	Medium	Medium	Medium
Capital of mobility index	Medium	Medium	Medium
	Core	Suburban	Peri-urban
Cars per household	1.4	1.4	1.6
Motorbikes per household	0.3	0.3	0.3
Bicycles per household	2.9	2.9	3.4
Driving licences per household	1.9	1.9	2
Season tickets per household	0.5	0.4	0.3
Car availability index	Medium	Medium	Medium
Capital of mobility index	Medium	Medium	Medium

- Number of cars per household
- Number of motorbikes per household
- Number of bicycles per household
- Number of driving licences per household
- Number of season tickets per household

Table 10.4 sums up the values of the indicators chosen to describe the families' mobility capital. There are no significant differences between the three metropolitan areas regarding the ownership of means of transport, since each family may possess more than one car. This translates into the presence of a medium level of mobility capital in all the metropolitan areas. These conclusions change little if we observe the values of the indicators per district. Mobility capital indices throughout show

Workplace	Core	Suburban	Peri-urban	Total
In the borough of residence	83.8 (331)	77.9 (311)	26.9 (101)	63.5 (743)
Outside the borough of residence	16.2 (64)	22.1 (88)	73.1 (275)	36.5 (427)
Total	100 (395)	100 (399)	100 (376)	100 (1,170)

**Table 10.5** Workplace settlement by district

**Table 10.6** Reachability of workplace on foot by metropolitan area and district

	Milan	Bologna	Turin	Core	Suburban	Peri-urban	Total
Yes	29 (106)	24 (99)	33.3 (130)	41.1 (161)	24.6 (98)	20.2 (76)	28.7 (335)
No	69.1 (253)	74 (305)	63.8 (219)	55.9 (214)	73.4 (293)	78.2 (295)	69.1 (807)
Work at	1.9(7)	1.9(8)	2.8 (11)	3.1 (12)	2 (8)	1.6 (6)	2.2 (26)
home							
Total	100 (366)	100 (412)	100 (390)	100 (392)	100 (399)	100 (377)	100 (1,168)

medium values, although in the suburban and peri-urban districts, ownership of private means of transport increases, while that of season tickets for public transport decreases.

Two conclusions may be drawn on the basis of these results: the first of a methodological and the second of a substantial nature. While the mobility capital index is constructed by considering only ownership of means of transport, driving licences and season tickets for public transport, in contexts marked by a mediumhigh level of well-being (such as those in the metropolitan areas in North Italy), it does not reveal significant differences between families living in different areas, living together in different districts. This leads to the second conclusion of a substantial nature, which in the future suggests constructing the index by taking into account not only the ownership of means of transport but also subjective properties (such as gender, age and health status) and objective properties (such as distance from opportunities and from public transport stops).

#### 10.4.3 Mobility Styles

Daily mobility is here considered according to the type of opportunity motivating travel. Since reaching the workplace is the main reason for mobility, we will firstly devote attention to the description of the families' mobility styles. As expected, living in suburban and peri-urban districts increases the likelihood of working outside the borough of residence (see Table 10.5).

The possibility of walking to the workplace, consequently, decreases considerably when moving from the centre of the metropolitan areas to the sub- and peri-urban districts (without outstanding differences between the metropolitan areas, apart from the presence of a slightly worse situation in Bologna, see Table 10.6).

Mode	Milan (%)	Bologna (%)	Turin (%)	Core (%)	Suburban (%)	Peri-urban (%)
Car	53.2	65.3	61.2	45.4	58.0	76.6
Walking	26.6	17.5	26.1	30.1	26.4	13.6
Public means	5.5	3.8	4.8	8.2	7.2	1.6
Motorcycle	3.9	7.0	1.6	5.9	4.3	2.4
Bicycle	6.0	4.8	4.5	9.2	2.8	3.3

**Table 10.7** Transport modes by metropolitan area and district

Table 10.8 Time spent travelling and number of trips by metropolitan area and district

Mode	Milan	Bologna	Turin	Core	Suburban	Peri-urban
Time spent travelling	3:28	1:99	2:65	3:03	1:68	3:21
Number of trips	4.21	4.17	4.30	4.16	4.21	4.51

Paying attention to the time needed to reach the workplace, this differs according to the mode; the highest average journey times are recorded for trips made with extra-urban public road transport (49 min) and by train (58 min). Those using urban surface public transport take 32 min on average, while those driving their own car take approximately 24 min. Those reaching the workplace on foot, or who have at least stated they could reach it on foot, take on average 18 min. If apart from the workplace we also add the other opportunities, we may find the general mobility styles in relation to the type of metropolitan area and district. We will do so by focusing attention on the means of transport, the journey times and number of trips.

In all three metropolitan areas the car is the primary means of transportation for travellers (see Table 10.7). Compared with the national average (65 %), people living in the metropolitan area of Milan show a lower level of car use and a higher percentage of slow mobility (on foot and bicycle: 33 % compared with 21 % in Italy). Differences in car usage can largely be accounted for by differences in types of residential areas: 77 % of people living in peri-urban areas travel by car every day compared with 45 % of people living inside core areas.

Inhabitants of distant areas travel for more time and over longer distances, not only for work and study, but also family commitments and leisure (see Table 10.8). In addition, travel events may be seen to be more frequent in peri-urban areas, which appears to indicate the difficulty of combining different activities in a single journey. This phenomenon is normally described with the expression 'distance decay', the tendency to avoid some activities if they involve travelling considered to be too costly, not only in economic terms but also in those of space-time, with reference in general to leisure activities. Compared with men, women travel for less time but with a higher number of trips (fragmentation of mobility).

In order to better examine the relationship between time spent in journeys and the other independent variables, a multiple linear regression analysis was carried out. The results highlight that the independent variables explain approximately 42 % of the variability of time spent travelling by the respondents (see Table 10.9). The

$\overline{R}$	$R^2$	R <sup>2</sup> adjusted	Standard error		
	В	S.D	Beta	t	Sig.
0,658	0,432	0, 423	37,11216		
	-79,299	14, 369		-5,519	0,000
Sub-urban	-4,467	2,514	-0,043	-1,776	0,076
Peri-urban	-4,381	2,621	-0,042	-1,671	0,095
Gender (male $= 1$ )	5,424	2,364	0,055	2,295	0,022
Age	0,949	0, 238	0,108	3,982	0,000
No. household members	-0,072	5, 117	-0,001	-0,014	0, 989
No. children	0,124	5, 858	0,002	0,021	0, 983
No. children 0-5	-0,772	5, 667	-0.01	-0,136	0,892
No. children 6–17	-1,708	5,031	-0,028	-0,339	0,734
No. children >17	0,191	5, 595	0,003	0,034	0,973
Age youngest child	-0,717	0, 447	-0,061	-1,606	0, 109
Respondent (engaged $= 1$ )	10,866	3,072	0,079	3,537	0,000
Partner (engaged $= 1$ )	-1,587	3, 581	-0,011	-0,443	0,658
Time taken to reach workplace	0,834	0,067	0,279	12,534	0,000
Time taken to walk to nearest public Transport stop	0,312	0, 326	0,02	0,956	0, 339
No. household cars	2,624	1,069	0,054	2,455	0,014
No. household motorcycles	0,752	1, 783	0,009	0,422	0,673
No. household bicycles	-0,273	, 706	-0,009	-0,387	0,699
No. household driving	-2,095	2, 246	-0,024	-0,933	0, 351
licences	2 522	1 (20	0.050	0.15	0.022
No. household season tickets	3,522	1, 638	0,050	2,15	0,032
Length first trip	13,867	0,869	0,369	15,966	0,000
No. daily trips	12,109	0, 546	0,508	22,171	0,000

**Table 10.9** Multiple linear regression (dependent variable: time spent travelling)

value indicates the presence of a good level of adaptation of the multiple regression model proposed (confirming the validity of the variables and the indices chosen).

In decreasing order, the most influential variables are the total number of daily journeys, the duration of the first journey, the time needed to reach the workplace and the age. Some direct relationships are obvious, like that between the number of trips and their duration and that between the duration of the first trip and the overall duration of daily mobility. Others are, however, expected and confirmed by the coefficient values, e.g. that between the number of children, male gender, the age and professional status and the duration of trips. With a growing capital of the mobility the duration of mobility also increases, while, unlike the outcome of the bi-analysis, living in the sub- and peri-urban areas does not essentially seem to lead to an increase in the duration of mobility.

Applied to the number of trips, the multiple regression analysis shows that the variables in the model explain 26 % of the dependent variables trend. As already observed, the variable showing the most marked positive relation to the number of trips is the duration of trips. The presence of a high number of children and the

R	$R^2$	$R^2$ adjusted	Standard error		
	В	S.D	Beta	t	Sig.
0,525	0,276	0,266	1,756		
	5,245	0,656		7,996	0,000
Sub-urban	-0,126	0,119	-0,029	-1,063	0,288
Peri-urban	-0,168	0,122	-0,039	-1,381	0,167
Gender (male $= 1$ )	-0,934	0,109	-0,225	-8,585	0,000
Age	-0,019	0,011	-0,051	-1,67	0,095
No. household members	-0,65	0,241	-0,231	-2,694	0,007
No. children	0,475	0,276	0,158	1,718	0,086
No. children 0-5	-0.051	0,268	-0,016	-0,189	0,85
No. children 6–17	0,348	0,238	0,134	1,463	0,144
No. children >17	0,254	0,265	0,085	0,962	0,336
Age youngest child	-0,025	0,021	-0,052	-1,206	0,228
Respondent (engaged $=1$ )	-0,817	0,144	-0,141	-5,68	0,000
P(engaged = 1)	0,311	0,169	0,052	1,84	0,066
No. household cars	-0,083	0,051	-0,041	-1,64	0,101
No. household motorcycles	0,134	0,084	0,038	1,591	0,112
No. household bicycles	0,115	0,033	0,091	3,46	0,001
No. household driving licences	0,227	0,106	0,062	2,141	0,032
No. household season tickets	-0,23	0,077	-0,078	-2,979	0,003

**Table 10.10** Multiple linear regression (dependent variable: number of trips)

female gender lead to a high number of trips, confirming the results of other surveys on the fragmentary nature of the working mothers' mobility styles. Vice versa, male gender and professional status (more frequent among males), positively associated with the duration of trips, reduce the number of daily journeys (Table 10.10).

0,001

0,36

15,188

0,000

0,015

#### 10.4.4 Subjective and Objective Accessibility

Time spent travelling

The level of access to the workplace and facilities was retrieved at subjective level asking the interviewees to indicate, on a scale from 0 to 10, the possibility of walking access to each service, and at objective level, detecting the time to reach each service.

Looking at the subjective dimension, the workplace is the service considered least accessible by the residents in all the areas (see Table 10.11).

From these results we may deduce that the residence is not chosen in proximity to the workplace but at a distance making it necessary to use faster means of transport than walking. Walking accessibility of the railway station shows different values according to the residence area, since a railway station is not always located in all the districts included in the survey. As far as the other services are concerned, they

Table 10.11 Walking accessibility (%) by metropolitan area, district and facility

	Milan		,		Bologna				Turin		
District	Core		Suburban	Peri-urban	1	Suburban	Peri-urban		Core	Suburban	Peri-urban
	Milano	Milano	Milano		:na	Bologna		Castel	Torino	Torino	
Facilities	centre	Garibaldi	Affori	Seregno		boroughs	Argelato	Maggiore	centre	boroughs	Orbassano
Workplace	45.9	25.3	16.8	18.8	32.9	22.0	15.8	1.9	45.2	25.8	20.4
Supermarket	93.2	200.7	97.3	6.68	94.6	92.7	80.2	80.8	88.8	0.96	87.8
Chemist	10.0	100.0	100.0	82.6	99.3	99.3	83.2	80.8	97.5	9.76	92.5
Doctor	86.5	89.3	87.9	61.1	73.2	72.7	67.3	67.3	74.1	78.2	88.2
Nursery	87.8	85.3	94.0	75.2	81.2	7.06	76.2	75.0	78.2	77.8	73.7
Primary school	89.2	200.7	95.3	83.9	91.3	7.06	77.2	84.6	7.67	82.3	9.88
School	74.3	82.7	87.9	71.1	71.1	70.0	37.6	48.1	0.79	83.1	74.9
Post office	9.86	94.7	95.3	67.8	81.9	64.7	82.2	80.8	94.9	88.3	84.3
Playground	89.2	0.96	97.3	87.2	83.9	0.06	68.3	71.2	61.4	9.08	85.9
Park	97.3	84.0	97.3	93.3	0.96	94.0	92.1	90.4	84.3	93.5	94.9
Library	48.6	70.7	87.9	65.8	8.79	68.7	79.2	57.7	67.5	76.2	84.7
Sports facilities	77	73.3	84.6	66.4	75.8	79.3	79.2	65.4	61.9	75.4	65.1
Church	9.86	100.0	7.86	0.96	7.86	2.96	82.2	86.5	88.3	6.68	93.7
Public transport	9.86	100.0	100.0	83.2	0.86	28.7	94.1	92.3	96.4	96.4	93.7
stop											
Railway station	8.99	0.89	84.6	69.1	67.1	59.3	61.4	53.8	83.8	9.3	∞.

		Walking	Walking	
Rank	Facilities	accessibility	accessibility index	
1	Public transport stop	96.4	0.57	©
2	Chemist	94.7	0.46	0
3	Church	96.1	0.34	©
4	Park	94.1	0.33	0
5	Supermarket	91.7	0.22	0
6	Primary school	88.8	0.21	0
7	Nursery	83.6	0.12	0
8	Playground	85.5	0.11	0
9	Doctor	77.2	-0.13	•
10	School 11-13	74.0	-0.14	⊕
11	Library	75.3	-0.27	⊕
12	Sports facility	75.6	-0.30	⊕
13	Post office	84.2	-0.34	⊕
14	Workplace	28.7	-0.58	⊕
15	Railway station	55.7	-0.73	•

**Table 10.12** Walking accessibility (%) and walking accessibility index by facility

are considered accessible by over 60% of the respondents, whatever the survey area. Different values are only found for a few, in particular:

- Railway stations are considered poorly accessible in the peripheric districts of Turin and Orbassano. Only 9.3 % of the respondents found the service accessible on foot in the suburbs of Turin, while there is no railway station at Orbassano.
- In the central Milan district, the library is accessible for only 48.6 %.
- In the district of Argelato (Bologna) and Castel Maggiore (Bologna), the middle schools are, respectively, accessible for 37.6 and 48.1 %.

In order to classify the facilities in relationship to the accessibility rating, an analysis of the correspondence between the services was carried out, followed by a calculation of the walking accessibility index. As may be observed in Table 10.12, 8 out of 15 types of facility show positive values, negative values being associated with the medical centre, middle school, library, post office, workplace and railway station. Whatever the type of metropolitan area and district, significantly low values are given for the accessibility index by large families, families with a middle-low mobility capital and families with a middle-low social status.

When examining the objective dimension of accessibility, the analyses of the walking access time show that residents of Turin and Bologna have greater travelling times than residents in Milan, for almost all the facilities, with the exception of:

- Gardens, parks (longest times recorded in Milan)
- Libraries (longest times recorded in Milan and Turin)
- Sports facilities (longest times recorded in Milan)

Table 10.13 Accessibility
time on foot by metropolitan
area and facility (minutes)

	Metropolitan area		
Facility	Milan	Turin	Bologna
Workplace	15.4	17.4	18.6
Supermarket	6.3	5.5	6.9
Chemist	5.0	5.3	6.1
Doctor	8.1	8.6	8.6
Nursery	7.6	8.1	7.4
Primary school	7.4	7.4	7.7
School	8.9	9.1	10.2
Post office	9.5	9.2	10.3
Playground	7.3	7.9	7.5
Park	6.0	5.8	5.5
Library	11.0	11.0	10.6
Sports facility	9.6	9.5	9.2
Church	6.1	6.6	6.4
Public transport stop	3.5	3.5	4.0
Railway station	13.3	13.8	13.4

This result, highlighting a different distribution of walking access times, might give evidence to a greater density of facilities in the Milan area compared with the areas of Turin and Bologna or a lesser tendency on the part of its residents to reach the various facilities on foot (Table 10.13).

#### 10.5 Conclusions: Respondents' Mobility Profiles

In order to identify family groups with similar mobility profiles, a factorial analysis was first carried out followed by a group analysis.

The analyses made it possible to identify four groups:

- The first is composed of individuals giving high accessibility ratings to facilities
  despite the presence of high travel times. They live above all in the sub- and periurban districts, combine the use of cars with public transport and walking and
  give low ratings to the accessibility level of the workplace.
- 2. The second group includes individuals who still give high accessibility ratings to facilities despite the presence of high travel times. Unlike the first group, they live above all in the peri-urban areas and travel mainly by car, giving high accessibility ratings to the workplace.
- 3. The third group is composed of individuals who give medium-high ratings for the accessibility level to the facilities and have high travel times. They live in the urban centres and have a high mobility capital.
- 4. The last group is composed of individuals who consider the facilities poorly accessible and spend a great deal of time in mobility. They also live in the city centres but have a low mobility capital.

As may be observed, the first two groups are found above all in the peripheral areas, while groups 3 and 4 live in central areas. In all of the groups, the time devoted to mobility is considerable, although individuals living in the peri-urban areas show a greater use of private cars. Living in peripheral areas (whether sub- or peri-urban) does not seem to negatively affect accessibility ratings for facilities which generally appear high. The ratings of individuals in groups living in urban centres are more negative, especially when they have a low mobility capital or a high sociocultural status (which presumably increases the level of expectation regarding the supply of facilities).

The situations marked by a lower of access capacity thus relate more to the territorial differences as such (both in the metropolitan areas and, inside these, between districts), to the combination of territorial and social factors, such as the presence of large families living in peripheral areas with low accessibility to the workplace, or elderly families living in central areas marked by a low mobility capital.

In the same way, the relationship between accessibility and mobility has been shown to be complex and not linear. The presence of high mobility does not exclude the possibility of considering facilities accessible. Mono-modal mobility profiles (centred almost exclusively on car use) and fragmentary ones (marked by a high number of journeys) instead move more in the direction of difficulty of access.

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# Chapter 11 Beyond Vague Promises of Liveability: An Exploration of Walking in Everyday Life

Jenni Kuoppa

**Abstract** This chapter analyses walking as an everyday practice, which might have potential to improve the quality of life of urban dwellers as is suggested by voluminous policy discussion and scholarly literature in the field of urban planning. It analyses this assumption through exploring the shaping of walking experiences in both the short and the long term by asking: How do the qualities of immediate spatial and temporal experience merge into the everyday life of inhabitants? Do the daily walking habits of urban dwellers have a role in how they believe they can shape their quality of life in the future? The analysis draws upon walking-interview data with inhabitants of two Finnish cities. Interviews illustrated the multiplicity of perceived, qualitative temporalities of walking. We use and manage our walking time to open possibilities for various other experiences. The analysis shows that walking can offer individuals possibilities to enrich their everyday life and their relationships with their environment and enhance their quality of life. However, the general promise that walking enhances the liveability of cities must be put to the test and evaluated in relation to local socio-material conditions and individual spatio-temporal contexts of everyday life.

**Keywords** Pedestrians • Walking • Mobility patterns • Everyday life • Space-time use • Perception • Public space

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#### 11.1 Introduction

Renters make comparable changes in an apartment they furnish with their acts and memories; ... as do pedestrians, in the streets they fill with the forests of their desires and goals (de Certeau 1984, p. xxi).

... at moments like this, the city goes soft; it awaits the imprint of an identity. For better or worse, it invites you to remake it, to consolidate it into the shape you can live in. You, too. Decide who you are, and the city will again assume a fixed form around you. Decide what it is, and your own identity will be revealed... (Raban 1974, p. 3).

The aim of this chapter is to analyse walking as an everyday practice, which might have potential to improve the quality of life of urban dwellers. In scholarly literature, walking is often loaded with great expectations as regards its potential to enhance liveability and quality of life in cities (see e.g. Forsyth et al. 2009; Middleton 2010; Pinder 2011). However, my view is that we still need more tangible, fine-grained and concrete understanding of the premises for these promising claims. Do the promised benefits of walking originate in systems of planning and governance, or in more or less theoretical and romantic ideals of urbanism, which have little to do with the realities of everyday urban life? Like Middleton (2010), I try to situate, unpack and understand the practice of walking in the day-to-day experiences of urban pedestrians in a context where 'much policy discussion assumes all walking to be the same and largely a self-evident means of transport, whilst many academic engagements with walking are highly abstract theorizations that lack any systematic empirical exploration of actual pedestrian practices' (Middleton 2010, p. 575). I am assessing the promises of walking in a local, specific context and from the viewpoint of the everyday life world. I will concentrate on the positive experiences, or 'quality of life', which mundane walking provides for the (sub)urban dweller, in order to start to unpack 'the black box', where liveability and walking are mixed together in a taken-for-granted alliance.

I approach the walkability of an environment from the viewpoint of an active perceiver. This research approach, focusing on the agency of a walker, has gradually gained a foothold in mobility studies, and there is now a vast body of literature on walking as a practice of everyday life, its experiences and implications for city life (e.g. Ingold and Vergunst 2008; Middleton 2010; Pinder 2011). Walking is often discussed as an embodied and multisensuous practice of learning about spaces, discovering and transforming the city, mutual constitution of bodies and landscapes or constructing meanings in human-environment relationships (Middleton 2010; Pinder 2011). The experiences of walking are constructed in concrete, mutual interrelationships between the pedestrian and the environment in the context of everyday (Macnaghten and Urry 1998; Ingold 2000).

I will contribute to this discussion by bringing the element of time to the analysis. I will consider the experiences of walking in their (spatio-)temporal context and look more closely at the dynamics of walking and time. Walking also produces its very own temporalities and characteristics of time (Szerszynski 2002). Watts

and Urry (2008) show that there are multiple travel times filled with activities and meanings which are very context specific. They see the value of travel time in its liminality, its status as a place in-between, which creates socio-material specificity and creates a sense of ambiguity and possibilities that are markedly different from other (immobile) places. To quote Watts and Urry (2008), passengers 'weave their temporality, landscape, and expertise of train travel – their "trainscape" so to speak. Thus, it seems that travel time is made in travel-time use. There are many travel times' (Watts and Urry 2008, p. 868). The same goes for walking: there are multiple walking times, which are also actively produced, and there are diverse walkscapes in the same physical environments. It is those temporalities of walking and their embedded, actively constructed possibilities that I will trace in this chapter. Walking in everyday life is not the passive consumption of possibilities created by urban and transport planners (cf. de Certeau 1984). We use and manage time tactically for our own purposes, to open possibilities for different activities and experiences. The idea of tactic here draws on De Certeau (1984), who famously distinguishes between the strategies of the powerful that construct places and the tactics of ordinary people that fleetingly appropriate, use and rework spaces (Pinder 2011).

I am taking into consideration the multiple temporalities of human life and experience (see e.g. Szerszynski 2002), aware that present experiences incorporate both past (memories) and future (expectations) and, at the same time, memories and expectations are only interpreted in the context of the here-and-now (Karjalainen 2004). We not only manage our present time, we also orient our present actions with the intention of influencing the future (Szerszynski 2002). To understand here-and-now experiences of walking, they have to be contextualized in this longer time horizon. On the other hand, to understand the promises of walking – the future-oriented dimension of it that creates possibilities (whether on the level of individual life stories or community futures), one place to start are present experiences, where the temporalities of walking interact and commingle with each other.

The analysis draws upon interview data with inhabitants in two Finnish cities. I explore the short-term and the long-term time horizons of walking experiences by asking: How do the qualities of immediate spatial and temporal experience merge into the everyday life of inhabitants? Do the daily walking habits of urban dwellers have a role in how they believe they can shape their quality of life in the future, and if so, how does this potential of shaping the future shape immediate experiences of walking?

#### 11.2 Methods

The research material analysed for the chapter consists of 14 interviews (one interview was made with a couple) conducted in two Finnish cities, Helsinki (550,000 residents) and Hämeenlinna (67,000 residents), in 2008 and in 2010. The material includes interview data from two different case studies, which both deal with the experiences and practices of walking in the everyday life of inhabitants, but

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with slightly different emphasis. In Helsinki the research area included the suburban neighbourhoods Herttoniemi and Roihuvuori (about 23,000 residents in total). The distance from the city centre is about 7 km and the area is well connected to the public transport network. In Hämeenlinna the smaller neighbourhoods of Kauriala and Hirsimäki were studied. Kauriala is situated in walking distance from the town centre and Hirsimäki about 5 km from the centre. All areas except Hirsimäki have good local services. Five of the research participants lived in Herttoniemi, three in Roihuvuori, four in Hirsimäki and three in Kauriala.

The walking-interview method (e.g. Jokinen et al. 2010) was used in data gathering. The method is based on semi-structured interviews with inhabitants who guide the interviewer as they walk their daily routes together. The participants were of different ages. Three of them were under 30 years old, five were between 30 and retirement age and seven were retired. Most of the interviewees did not work regularly and only two had children living at home. Four of the interviewees, all from the Hirsimäki neighbourhood, had easy access to a car. Walking was an important mode of getting around among the interviewees and recreational and leisure types of walking were emphasized. In addition we accompanied one excursion of a 'walking club', a self-organized group of elderly people in Herttoniemi. Three of the interviewees participated in the walking club regularly.

I analysed the interview data using qualitative content analysis, particularly applying Szerszynski's (2002) idea that all forms of human action produce their own characteristic kinds of time, and using the concepts he introduces for understanding these temporalities. In addition, elements of narrative analysis have been made use of

# 11.3 'Putting One's Own Beat in Space'<sup>2</sup>: Temporalities of Walking and Tactical Uses of Time

The interviews illustrated the multiplicity and diversity of experienced, qualitative times of walking. They included experiences of sociability and face-to-face interaction and of more anonymous sociality but also experiences of solitude and time reserved for oneself and one's own thoughts only. This draws out how the temporal context for the practices of walking is created by collective rhythms but also how, at the same time, pedestrians create their own, individual temporalities. We use and manage our walking time to open up possibilities for various experiences.

<sup>&</sup>lt;sup>1</sup>The Roihuvuori neighbourhood is officially part of the area of the Herttoniemi neighbourhood, but it also has its own character and a small local centre with neighbourhood services.

<sup>&</sup>lt;sup>2</sup>Edensor (2010, p. 15).

Interviewees used the tactic of synchronizing<sup>3</sup> their time and activities with the collective rhythms of the city. Collective rhythms can be understood as a periodic synchronization of the activities of different people (Szerszynski 2002), the simultaneous participation of many of people in timetabled routines (Edensor 2010). When we synchronize our routines with others, we also mark and perform our relationship to larger collectives (Szerszynski 2002) and so produce collectively shared places (Edensor 2010). According to Kärrholm, '[t]he urban landscape is a place of heterogeneous temporalities and rhythms set by clock time, working hours, seasons, timetables, bodily functions, etc.' (Kärrholm 2009, p. 423).

Negotiating shared space in terms of what kinds of encounters are seen as favourable or to be avoided can be done by managing time. For example, the retired interviewees had the possibility to avoid peak times related to work hours for doing their daily shopping or for using the most popular recreational paths. Also, interviewees who made more trips bound for certain destinations and tied to specific schedules used the tactics of avoiding 'crowds' or of otherwise appropriating space and time for themselves. A middle-aged woman living in Herttoniemi describes her tactics of walking:

I find it an enormous benefit that I don't need to start my day by getting on the bus, which is crowded with stressed out and more or less unhappy people ... I also have the opportunity to choose the time I walk and exercise, when there are not so many other people around. On Sundays at noon this path is crowded like Itäväylä [motorway nearby]. And they flail around with their walking sticks (Woman, about 50 years).

The interviewee relates her walking practices to the segmentation of time in daily life. Segmentation means marking and dividing time into periods which have particular qualities or characteristics (Szerszynski 2002). She manipulates time segmentation, which differentiates between the time of obligations, such as working time, and leisure time of behaviour that is not instrumentally rational (see Szerszynski 2002). For her, her regular walking practices challenge this segmentation, making it fuzzy and thus her time looser. Her walking time can be a time of duties and a personal time of leisure at the same time. When walking, she feels like she has no need to perform a role related to these specified segments of everyday life. Walking time, for her, is neither family time, caring time, time with her partner nor work time, but rather time of her own.

Although I might be on my way to take care of some duties, I'm trying to enjoy the journey and that's why I choose particular routes. Because they support this aim. But I can also meditate on Abraham Wetter's street [a busy street in Herttoniemi] in the middle of traffic. I'm trying to live slowly and to attain a state of presence . . . it is my personal project, and contrary to the spirit of our age (Woman, about 50 years, Herttoniemi).

<sup>&</sup>lt;sup>3</sup>The concept of desynchronization could also be used, but I have chosen to use the term synchronization because it also refers to tactics such as purposely making things happen at different times. Desynchrony, on the contrary, means that events occur at unrelated times or independently of other events or cycles. Synchronization refers to a rhythmic interrelationship between activities, whether simultaneous or not.

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As Rebecca Solnit writes, '... thinking is generally thought of as doing nothing in a production-oriented culture, and doing nothing is hard to do. It's best done by disguising it as doing something and the something closest to doing nothing is walking. Walking itself is the intentional act closest to the unwilled rhythms of the body, to breathing and the beating of the heart. It strikes a delicate balance between working and idling, being and doing. It is a bodily labor that produces nothing but thoughts, experiences, arrivals' (Solnit 2000, p. 5).

Spaces of doing are functional, designed for some particular action and often regulated by some authority. Spaces of being, on the other hand, imply environments that embody idleness and the appropriation of space (Thomson and Philo 2004 cited in Kuusisto-Arponen and Tani 2009; cf. 'modes of doing and being' Horelli 2010). Spaces of being are supported by permitting multiple and alternative uses of space. This is how tight spaces turn into loose space (Franck and Stevens 2007; Kuusisto-Arponen and Tani 2009). Walking can challenge the division between being and doing. It can provide loose time and a space of being, not restricted to particular points in the physical environment. One of the interviewees, a 15-year-old boy, walks a lot around Herttoniemi, just hanging about with his friends. For him, walking affords a space and time of privacy or at least free from the control of parents.

If we are at someone's home, the parents are [listening] there just behind the door. We want to have privacy and in addition it's nice to do something, not just sit still. Not that we have any secrets, but it is the privacy walking gives (Boy, 15 years, Herttoniemi).

The practice of interviewees hanging about walking is strongly contextualized by multiple temporalities – seasonal rhythms and varying environmental conditions, rhythms of work, school and holiday seasons. This boy accommodates his walks and routes to these, but at the same time he also uses those rhythms tactically. In summer, he and his friends walk to the seaside because 'it is kind of beautiful there... and it isn't so damned hot there', or they tend to stop and camp out on the beach or on the rocks, whereas in winter they choose routes further inland to avoid the cold wind. A long summer vacation offers the possibility to spend time at home indoors without disturbance from parents who work during the day. In winter, walking is a way to keep themselves warm and 'escape' the control of parents who are at home after the school day. Another interviewee describes how she often goes for a walk with her friends to appropriate time-space for their conversations:

Perhaps for women it [walking] is also a matter of having private conversations... we talk about everything and about personal issues while walking. If the other person has family at home, we can go for a walk and ponder things just the two of us. Not all things are meant for the ears of all family members (Woman, about 55 years, Hirsimäki).

The tactics of walking are not only designed to create privacy or produce experiences of solitude. Sociability and seeking social contacts, also relatively anonymous in nature, played an important role in the walks of the interviewees. In a multirhythmic environment, certain encounters may become frequent and stabilize through synchronization and regularity. Synchronization produces shape and rhythmic regularity to occasional encounters, when people following the same rhythms meet on their walks. This kind of synchrony can also be intentionally created by individuals. An interviewee in Herttoniemi describes it like this:

Yes, I often run into one particular person. And then she/he always says that "you are an early bird this morning!" and I answer "So are you". But if I go for a walk in the morning I seldom meet anyone. I am more likely to bump into people if I time my shopping for the afternoon (Woman, about 70 years Herttoniemi).

For another aged interviewee, accidental social encounters had developed into acquaintances, developed over time as she had regularly been walking the same routes to the older people's day centre and to local services. The anonymity of these encounters can start to crack through repetition. This is an important factor in why she finds her neighbourhood a good place to live.

You can run into many people here ... it wasn't always easy, but I have made friends since moving here ... Maybe I was ready for that myself too ... I began to feel at home here and I believe I'd miss everything if I had to move away. It's lovely, that you can stop and start a chat, or at least say hello and ask how life is and wish a good day (Woman, about 75 years, Roihuvuori).

An older couple describes their encounters like this:

It depends a little... if we go for a walk before noon, we seldom meet any-one. The same passers-by. We have begun to say hello to some people we encounter regularly (Couple, about 70 years, Herttoniemi).

Gardner (2011) has studied older people's experiences of public space. Her results highlight the significance of third places (originally Oldenburg 1989), sites of informal public life, which are located outside of the home and of work, for the experiences of well-being of older residents of a neighbourhood. Significant places of social contacts and neighbourhood networks also included 'thresholds' – semipublic spaces near home – and 'transitory zones' – the sidewalks close to home, the subway platform, seats on buses and the line at the grocery store. Gardner observed how participants intentionally occupied these places and used them as places to connect with people, even for a just a moment (Gardner 2011).

Of course this intention to occupy certain places and connect with others is not limited to older people. One interviewee who was about 20 years old describes the young people's habit of hanging about in Herttoniemi. They know the rhythms of this collective activity and know how to bump up into each other without making appointments. They use synchronization to produce encounters, which are accidental and purposeful at the same time.

All the best places to hang about were here [in older parts of Herttoniemi] ... young people want to hang about in a places where they might possibly meet each other, but without calling each other... they just got together... When I was young, the usual place to go was the railway station [in the city centre], but we didn't need to go there because we had our own, much nicer, places here (Boy, 20 years, Herttoniemi).

Encounters can be intentionally managed, but based on the interviews, it can be said that a good part of the joy of the encounters that walking generates is their variety and their fleeting and unexpected nature. This came up particularly when participants spoke about the experiences that the constantly changing, mundane environment offers to the senses. People pay attention to changing vegetation,

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the colours of the leaves in the trees and whether there are flowers, berries or mushrooms in the usual places. They sometimes planned their routes specifically in order to check these changes in the environment. This draws attention to the way the variation in the environment, especially the cyclical change of the seasons, also keeps us moving: usually we do not have much choice over the routes we use when we leave home, so changes in these familiar environments may be an added source of motivation for walking, whereas otherwise the routes would be routinized.

I always find something new and exciting there. ... I love surprises. I just go out of the door and then decide on a route ... and I can find tadpoles or something ... It's the joy of discoveries ... once I found a wild honey-suckle by noticing the scent first (Woman, about 75 years, Roihuvuori).

I enjoy seeing [the forest] in the different seasons because ... this walk is always the same anyway, and it sure can be boring since it's always the same. ... I'm searching for something all the time, ... there's always something new find here. [Passing the small boat harbour] those dead-looking boats on the waterfront ... in summer I often stop here; if the wind is blowing, it's nice to listen to their masts. ... Now I don't know what we'll find (Woman, about 50 years, Roihuvuori).

## 11.4 Stemming from the Past, Oriented Towards the Future: Walking as Part of Biography

The temporal context in which walking becomes meaningful is not restricted to the multiple rhythms of the city – the immediate experiences described in the previous section – but also encompasses the longer time horizon inherent in a person's own daily life. Past experiences shape the meanings we give to our encounters with the social and material environment in the here and now, so that experiences of walking are constructed and given meaning in relation to one's life span. How the sociability of walking is experienced depends on the stage of life and the current situation – Is a person looking for time of one's own and solitude, for shared experiences with acquaintances or for anonymous social encounters?

I live alone and spend a lot of time by myself, so sometimes I don't mind a bit of hustle and bustle around me at all (Woman, Kauriala, 70).

It is a little hard to get myself to go for a walk alone. I sit by myself at my desk all the day ... If the radio isn't on, it's totally silent there [in Hirsimäki]. I have as much peace and quiet as I want (Woman, about 55 years, Hirsimäki).

I won't say it's inconvenient, but when I'm choosing the routes where I walk, I don't care about [social contact]. I get my share of social contact during the day... so I prefer to be alone with my own thoughts and to laugh at my dogs fooling around (Man about 45 years, Hirsimäki).

Within the narrative mode of understanding, individual events can only fully be understood according to how they are placed in the overarching plot (Szerszynski 2002, p. 186). The events and descriptions in the interviews were often contextualized in biographical stories or narratives about settling in the area, and in the evolution of daily practices and travel habits. According to Franzosi (1998), the

story in general is a 'chronological succession of events'. In a narrative, events must also be bound together by some principles of logical coherence and they must disrupt an initial state of equilibrium (Franzosi 1998). Either the events that stories describe have already occurred or a teller predicts or wants them to occur in the future (Kaplan 1986). Stories function at different timescales, such as micronarratives, which structure everyday life and biographical narratives, which give shape to a personal life (Szerszynski 2002). When, for instance, experiences of enjoyable solitude are situated in a story about belonging and social ties, they become framed as exceptions, which only serve to highlight the bigger narrative of belonging. If they were told as part of a phase of life (or life story) about weak social ties, they would gain quite another meaning. Any efforts that are made to escape social roles and ties, or by contrast, attempts to attach and create ties, are strongly related to the specific life situation. In this way the temporalities of walking can stretch from the temporal scale of daily routines and tactics to that of biographical life stories.

Interviewees often recounted their walking (or mobility) history as a story of continuity, that is, durability from past to present. They characterized themselves as natural pedestrians with an inborn urge to walk, but often their story also revealed how they had come to be walkers. For instance, moving around on foot had been a necessity, not an option, in their childhood, but in the course of life, it had become a habit and so also a virtue.

I'll walk as long as my feet are still working. I have always walked. First we didn't have many options, later we did, but I just felt that I have to walk. I have always been such an outdoor person. I feel nervous if I can't get out for a walk. ... When I have taken a walk I feel peaceful, better (Woman, about 70, Herttoniemi).

Participants also anticipated continuity in the future and did what they could to ensure that they would be able to walk in the future. The elderly interviewees showed active initiative and a willingness to continue the practice of walking in older age. In Herttoniemi, some people had even created a routine that provided social support for walking and getting outdoors. This self-organized 'walking club' brings together older people for weekly walks, which helps them maintain their habit of regular walking, since other people's company creates an added feeling of safety. The members gained satisfaction from going for safe, social walks, and they also experienced their gatherings as meaningful because they enabled less physically fit members to get outdoors without feeling overly vulnerable.

We had another club too. The idea was for it to be open for all kinds of activities and issues to talk about. But this didn't stay active very long, it ended because people just wanted to go walking (Couple, about 70, Herttoniemi).

Walking can be future oriented in the sense that it aims to preserve physical mobility and explicitly to set up a healthy and mobile future for oneself. Thus, even pushing oneself a little is often seen as worthwhile.

If I go for a lunch at the sheltered home, I know I ought to leave home well in advance, so that I'd have time to take a walk before going there. I should try something new to get myself into the rhythm of walking... I should push myself a little (Woman, about 75, Herttoniemi).

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The possibilities of future mobility and the need to adjust or prepare for changes to come were issues that became part of conscious considerations in narratives about transitional turns of life. Significant moments, which had somehow changed the direction of interviewees' mobility routines, included moving house, starting a family, the illness or death of family members, divorce (one's own or one's parents), medical operations, friendships and neighbourliness, acquiring and having to give up pets, new jobs and so on. Interviewees had considered future possibilities for walking when they had chosen where to live. Walking related to wishes people had before moving to their current home and it figured in adjusting everyday routines to different settings. Experiences of walking were part of stories about putting down roots – making a home in a specific place, becoming attached to it. A retired interviewee explains that she decided recently to move to Roihuvuori because she was still fit and well enough to get to know the place on foot:

I don't have a family and of course I'm motivated to become attached to this place, to find my own places and to create bonds. I'm quite fit and healthy now, I'm sixty-five and I'm able to walk. So I can still learn the routes and ... It's my goal that I should get out of the house when I'm old as well. Now there is still some flexibility ... I don't want to end up living in-side these four walls, as if that were my whole world ... First it felt difficult even to get used to the local shop here. But now I like to go there. Actually the point at which this place started to be nice to my mind, was when the saleswoman said hello to me on the bus. That's when I thought, yes, I can put down roots here (Woman, 65 years, Roihuvuori).

This section has argued that actively moving around in the environment is a promise about a future where one belongs and is attached to one's living environment. The motivation to continue walking in old age relates to a connection with the social and natural environment – a sense of dwelling, which walking supports. On the other hand, the sense of dwelling constructs the meaningful and supportive frame for the practice of walking. The concept of dwelling highlights the fact that the dweller can orientate herself/himself in an environment, identify with it and experience that environment as meaningful. Dwelling is associated with concrete place (Norberg-Schulz 1980), being a process of continuous attentive engagement with the environment, where the world is progressively revealed and the environment becomes known, familiar and meaningful (Ingold 2000).

For Peace et al. (2005, 2006), as cited in Gardner (2011), for the aged, going outside to interact with the material and social neighbourhood is essential to their well-being and self-identity. It offers important engagements, which make reflecting on the self and the diversity of urban life possible. In my interview data there are stories about walking habits, which aim to preserve this kind of capability in the future, but also stories about how the practices of dwelling are formed in childhood and youth. A 20-year-old boy, who has grown up in Herttoniemi, describes how he has become familiar with and gradually expanded his knowledge of the environment in everyday activities, which are largely about moving around on foot – playing, adventuring and hanging about. In the interview he constructed a story of attachment to place, a nostalgic description of the very speciality of the place and the strong influence it has on his life.

## 11.5 The Streets That Kill the Forests of Their Desires and Goals<sup>4</sup>

The previous sections have illustrated the great variety of spatial and temporal experiences of walking. Inhabitants actively use time to create those experiences and, on the other hand, manage walking habits to construct certain qualities of time in everyday life. This is how the immediate experiences of walking merge into the diversity of urban everyday life. In addition, interviewees saw walking as having a role in shaping their quality of life in the future. Walking can be a practice of dwelling, creating ties to the social and natural environment. This perceived potential of walking makes it meaningful in the present and significant to constructing a future.

However, to avoid too naïve a celebration of the manipulating and transforming potentials of the tactics of walking, certain observations still need to be highlighted. In this section I will consider how socio-material conditions can work against individual agency. To modify de Certeau's poetic expression – sometimes the forests of desires and goals have too little soil – they are killed by the streets and so the promises of walking remain unfilled. It depends on the characteristics of the place and of the pedestrian, whether the pleasurable experiences of walking develop or not. Pedestrians have capabilities to manage and affect those experiences, but only within the possibilities created by the environment. There can be strong structural factors, social as well as material in nature, which dominate the spatial context and foil the efforts of the individual to manage her/his time and experience. Furthermore, the encounters with the socio-natural environment are not necessarily enjoyable. In some places, the interviewees wanted only to get through the environment, not to stop, look or listen to it. A 15-year-old boy describes his regular route through the industrial area:

But I have to say that it looks terrible here ... The surroundings are ugly, the smell is bad and it's noisy. At night there are fewer cars, fortunately. When I'm walking here with my friend we can't talk because the cars are passing us constantly and we're just trying to get through this as quickly as possible (Boy 15 years, Herttoniemi).

Older interviewees also confronted difficulties in adjusting their rhythms and their walking pace to the rhythms of the environment – for instance, crossing the street to the rhythm of traffic lights.

Additionally, our future everyday life is not simply ours to control, and agency over it is not equally distributed across society. That is to say, the qualities of the environment, which often contribute to the quality of life, such as walkability, are not equally distributed. Furthermore, the possibilities to make use of existing opportunities vary between individuals according to their heterogeneous abilities and resources (Lewis 2011). Liveability and walkability are always and only defined in relation to human agency, the real and actual ability to make use of opportunity

<sup>&</sup>lt;sup>4</sup>Cf. de Certeau (1984, p. xxi).

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(Lewis 2011). However much one walks, it is not guaranteed that one's life gets any better. A middle-aged interviewee in Hämeenlinna identifies herself as an experienced, satisfied and even enthusiastic pedestrian and cyclist, but the promises of city life and belonging and getting attached to place seem to remain unfulfilled for her. This experience of an, at least partly, unfulfilled promise also influences her perception of her future life. The city seems to her to have an agency, which resists her efforts to create social ties.

Sometimes there just are no people to come across here [on the pedestrian street in the town centre]. I like having people around me. That's the reason I moved to the city. ... I like encountering different kinds of people and I like it even more if they talk... it's cool. But social life is not very active when you come here as an outsider ... I'm just hoping that this town will turn out to be a little friendlier to me. Otherwise I wouldn't like to live here when I'm retired. It is really difficult to make friends here. Maybe it is the age or ... I've been roaming around here seven years now and I keep chatting to people ... I have acquaintances but not any actual friends, no real friend. ... The social atmosphere is, if not rude but ... a little reserved (Woman, Kauriala, 50).

Furthermore, walking is not always a choice but a necessity. In the absence of other options, it is no longer possible to see it only as an enjoyable practice facilitating, for instance, more social contacts or a slow lifestyle. For example, this interviewee does not have access to a car and has restricted possibilities to use public transportation or a taxi. Her attitudes support walking and cycling instead of driving, but, nevertheless, she walks and cycles out of necessity with unlimited mobility provided by car remaining a tempting but unrealistic vision.

When I moved here I was going to get a driving licence but then everything in my life went upside down and not at all like I had planned. And I couldn't afford it. I assume I never will.

... But I can imagine how I could get into driving a car, because I love moving around and going from one place to another. I have often thought about how much easier it would be by car. Especially as I'm getting older and getting all kinds of aches and pains... it is not as easy to cycle as before. So I have to say that lack of means restricts my travelling, I have to walk and cycle. ... The travel distance to the health centre increased [when the local health centre was closed]. It's bleak to go by bike or to walk in the sleet when you are ill (Woman, Kauriala, 50).

The interviews also included descriptions of recreational walking practices, which, in the case of Hirsimäki, took place in a car-dependent, quiet, peaceful, socially homogenous and structurally single-use environment. Those practices offered positive experiences and inhabitants hoped they could stay on in their neighbourhood into old age. The green areas and recreational possibilities were seen as outweighing the challenges of the car-dependent location and the rather long distance to services.

#### 11.6 Conclusions

One of the most persistent justifications for the increased enthusiasm for nonmotorized travel has become the idea of liveability. Walkable urban environments, which make it possible to conduct daily affairs without needing to drive, are widely agreed

to offer many benefits, such as health, well-being and wealth-in-time in everyday life. In contrast, environments, which are dominated by car traffic, are seen as limiting the pleasures of living in cities (Forsyth et al. 2009; Middleton 2010 on the UK context). However, the linkages between walkability, liveability and quality of life of urban dwellers remain vaguely defined. This is partly due to the elusiveness of the concepts used. However, it is also because down-to-earth empirical studies, which tackle the issue in all its multiplicity at street level, such as this one, have been few in number so far. What findings have been published, such as those mentioned in this chapter, suggest that walking encompasses a variety of experiences, which the general concepts of liveability and walkability tend to hide.

The interviews presented here also showed that walking is highly significant in producing liveability: it can offer possibilities to individuals to enrich their everyday life and relationships with their environment, and it can enhance their quality of life. They also indicate that people appropriate time-space in practical ways through walking, making it an art of manipulating and enjoying, a way of dwelling in a place (de Certeau 1984, p. xxii). In this way, practices of walking, including seemingly unproductive ones, can also be seen as active and productive. People are creating and shaping their own future possibilities for walking by making active choices. Walking sustains physical and social activity, enriching everyday life in the present, but it can also be creating a virtuous circle, where it produces good experiences and agency, which in turn generate the conditions for continuing walking in the future.

Hence, it can be claimed that promoting pedestrian-friendly, walkable environments enhances the liveability of cities. However, it is important to notice the heterogeneity of the desires and goals of everyday mobilities. Their meaning has to be understood as part of the broader context of everyday life and personal history. In addition, the potentials of walking are contingent on the socio-material environments where walking takes place. Thus, the analysis here also reveals the vagueness and unequal distribution and actualization of the promises of improved life through walking.

In arguing for policy measures to promote walking, catch-all phrases, such as sustainability and liveability, risk hiding the multiplicity and diversity of walking practices and experiences as well as a subjective and political nature of the concepts of liveability or quality of life. As Kaal (2011, p. 534) argues, 'conditions which might be liveable for one, could be less liveable for another'.

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#### Chapter 12

## **Encounters in Motion: Considerations of Time and Social Justice in Urban Mobility Research**

Konrad Miciukiewicz and Geoff Vigar

Abstract This chapter investigates the qualities of urban travel time by looking at daily mobilities as time-spaces of social encounter. Following the 'new mobilities paradigm', we regard everyday urban mobility not only as a 'means to an end' but also as an 'end in itself'. This implies a move from instrumental, utilitarian and deterministic understandings of travel time towards a holistic conceptualisation of urban mobility that calls for the embedding of social qualities of travel in urban planning and design. We argue that urban public transport networks are political sites of the everyday wherein emancipatory and discriminatory practices are not only enacted but also reshaped through different events, encounters and processes. Hence, we challenge traditional time-saving strategies in transport appraisal and call for a more complex and politicised approach to time in policy-making that would highlight a socially just consideration of speed, efficiency and qualitative aspects of urban travel.

**Keywords** Everyday mobility • New mobilities paradigm • Space-time use • Social encounter • Social qualities • Urban design • Urban planning

Funding Statement: This research was supported by the Flemish Agency for Innovation by Science and Technology, IWT-SBO grant SPINDUS 'Spatial Innovation, Planning, Design and User Involvement' (Project IWT 090080).

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#### 12.1 Introduction

To be teleported would be to lose something. John Urry (cited in Adey and Bissel 2010, p. 6)

The modern notion of clock-time, which gave conceptual foundation to the positivist ethos that shapes urban transport systems as a merely mechanical means of physical movement in space, is being increasingly put into question. The multiple uses of travel time, the diverging technological arrangements shaping commuter movement and new forms of social interaction that emerge in and through everyday mobility undermine both economic and societal assumptions that have backed up 'time-saving' approaches in transport appraisal. This chapter addresses the relational considerations of travel time alongside social justice concerns that arise in conjunction with emancipatory and discriminatory social encounters on the move. Following the 'new mobilities paradigm', we push for more explicit acknowledgement and comprehension of the experiential dimensions of travel time and an associated inquiry into the socially (dis)integrative aspects of everyday urban mobility. We examine processes of social interaction and identity formation from a social justice perspective and call for a rethink of time-saving approaches in transport appraisal. Last but not least, we suggest a politicisation of transport planning by embedding articulations of difference and conflict in planning practices and an associated antagonising of power relations in policy circles that perpetuate an unequal politics of time.

To these purposes, Sect. 12.2 introduces two ways of understanding urban movement – 'mobility as means to an end' and 'mobility as an end in itself'. Section 12.3 looks at utilitarian and instrumental considerations of travel time. Sections 12.4 and 12.5 examine urban mobility as a domain of meaningful social experience and social encounter. Section 12.6 draws upon previous sections to develop a relational conceptualisation of travel time. Section 12.7 points to new forms of social exclusion *from* and *through* urban mobility that arise from negative registers of communication and conflictive relations with others while on the move. Section 12.8 concludes the chapter and calls for a holistic understanding of urban mobility as well as for embedding socially just considerations in public transport policy-making.

#### 12.2 Mobility as 'Means to an End' and 'an End in Itself'

Most transport analyses consider urban mobility as 'means to an end' – an instrumental tool for linking people to places where they perform economic, leisure and consumption roles. However, questions of the impacts of urban mobility on the life of individuals have a long history in urban studies (e.g. Park et al. 1925; Wirth 1928; Massey and Denton 1993). First, urban mobility is addressed – from a socioeconomic perspective – as means of access to goods and services. These

analyses examine movement and mobility as critical to freedom, independence, access to work, education, health and leisure and, as such, a prerequisite for intraand intergenerational social mobility in the broader sense (Bergmann and Sager 2008; Social Exclusion Unit 2003). Such work is also being undertaken with a consideration of access to information and communication technologies seen as both substitutive and complementary to physical mobility (e.g. Lyons 2009; Hine and Grieco 2003; Durieux 2003). Second, urban mobility is considered as a condition for participating in various social networks, both bonding with families and friends and bridging with other societal groups in the city (see 'network capital' in Urry 2007).

These considerations have generated a strong interest with the social exclusion/inclusion problematic in regard to urban mobility which is now being intensively researched by transport geographers and transport planners in more systemic ways (e.g. Lucas and Stanley 2003; Hine and Mitchell 2001; Rajé 2004; Kemming and Brinkmann 2007). Mobility exclusion arises from diverse factors such as physical barriers in the built environment, privatisation of public spaces, dispersal of facilities and services as well as geographic, economic and fear-based exclusion and time poverty (Church et al. 2000). In turn it correlates with social isolation, estrangement, and, as such, undermines all forms of sociability including participation in civil organisations, local associations and family life. Withdrawal of large numbers of people from broader society and the impacts of weakening social bonds in deprived neighbourhoods create further implications for levels of crime and the assurance of social order in the city (Beckmann et al. 2007).

What complements these considerations, and is a focus of this chapter, is a recognition of urban mobility as an 'end in itself'. Such an approach – in the expanding work on 'mobilities' in particular – entails approaching travel time as time of meaningful social experience, and as a political site for identity formation and negotiation of social affinities (Urry 2007). The recognition of relationality between experienced urban mobility and identities of travellers breaks with consideration of mobility as dead time in favour of looking at the construction of individual subjects through transport systems, planning imaginaries (Richardson and Jensen 2008; Lévy 1999; Miciukiewicz and Vigar 2012) and ambiences of urban travel (Bissel 2010).

#### 12.3 Utilitarian Considerations of Travel Time

More complex considerations of spatial mobility that go beyond understanding of urban travel as a derived demand have emerged in approaches to travel time over the last three decades. The dominant trends in transport policy that – drawing upon transport economics – have prioritised time savings over quality of travel time and other variables have been discussed and put into question from different angles of transport research. The widely cited thesis of Sheller and Urry (2006) that 'time spent travelling is not dead time that people always seek to minimise'

(Sheller and Urry 2006, p. 213) has been supported from a number of disciplinary and paradigmatic perspectives and well empirically evidenced.

First, research within the discipline of economics itself has questioned the underpinnings of approaches to time in traditional transport modelling. Recent analyses in transport economics call for a departure from assigning a single standard economic value of time reduction towards more nuanced socioeconomic analyses of values of travel time savings (VTTS). Amongst others, this includes researching different cognitive thresholds that apply to values assigned by travelling individuals to time savings depending on total length of journeys, work, leisure or consumption activities to which the trips are related and sizes of time reductions (e.g. Jara-Diaz 1990; Galves and Jara-Diaz 1998; Hultkrantz and Mortazavi 2001; Karlstrom et al. 2007). This resonates with work in behavioural economics that breaks with understanding of urban travellers as ideal utility-maximising actors in favour of examining more hidden, situational, subjective and socio-subjective valuations of time and integrating them into systems of mathematical modelling (Small 1982; Winston 1987; Camerer and Loewenstein 2004; Avineri and Prashker 2005). Such nuanced inquiry pushes for more complex treatment of time in transport economics, for greater inclusion of non-time attributes of travel such as security, information or comfort in cost-benefit analysis, as well as builds more awareness amongst policy circles as to if, when and to what extent costs of time saving associated with transport improvements can be passed on to travellers and commuters (e.g. Mackie et al. 2003; Metz 2008).

Second, challenges to the treatment of time in transport research have recently become more prominent in transport geography wherein a bulk of studies that predominantly take utilitarian and instrumental approaches to travel time point to its positive and productive uses for the performance of activities – both work related and recreational – that are external (or parallel) to travelling itself. Although many policy documents still consider travel time mainly as a loss of working time and thus a cost to employers (e.g. DfT 2011), new empirical transport research along with studies on the use of ICTs unravel evidence of the growing economic productivity of activities performed while travelling, such as sending e-mails, calling clients and partners, reading documents or preparing presentations (Lyons and Urry 2005; Lyons et al. 2007; Jain and Lyons 2008). Utilities assigned to travel time by individuals differ in regard to means of transport and types of trips, but they have been evidenced for all forms of urban mobility. This recognition of utilitarian use of time in motion blurs boundaries between travel(-time) and activity(-time) and thus challenges dominant considerations of time as an economic cost of travelling that individuals would always seek to minimise and policy makers should, by all means, attempt to reduce (Lyons and Urry 2005). Accordingly, in regard to recreational uses of time, Jain and Lyons (2008) and Mokhtarian et al. (2001) point to various leisure activities, such as reading, listening to music or playing games, that are performed in means of transport. Last but not least, transport research in geography and planning suggests that travel time proves to be 'operational' also through carrying of new potentials for anti-activities, such as resting or daydreaming, which are not directly productive, but bring work-transferable benefits to individuals. Hence, Jain and Lyons (2008) consider travel time as a 'gift' offered to a body of a traveller, which allows daily transfers between social roles and switching between bodily operation modes (Mokhtarian and Salomon 2001).

These innovative approaches to the utility of travel time in different transport research disciplines have challenged the speed-focused underpinnings of economic modelling that justify large infrastructural projects, and have made transport planners more aware of new opportunities arising from productive uses of travel time. On the one hand, transport policy can focus on a better use of the existing transport infrastructures and improvements to the quality rather than reduction of travelling time (Shaw et al. 2008). This could be done, for instance, by the delivery of more frequent and thus less congested urban rail or bus services and/or by investing in better designed and more technologically advanced vehicles that would provide work-enabling mobile environments (i.e. comfortable and well ICT-connected). However, it is more likely to be the case that the research on productive uses of travel time might further reinforce the drive in policy-making to deliver new premium networks that would be both high-speed and work-enabling. Such an approach is considered a win-win strategy where time savings are combined with economic colonisation of travel time, and a push for public transport investment. But how 'public' that transport is seems to be a moot point. From a social justice perspective, premium transport networks are seen foremost as fragmented and unbundled infrastructures (Graham 2000) that further disconnect and exclude 'mobility poor' populations and deprived neighbourhoods from network interactions and produce socially and spatially splintered urban societies (Graham and Marvin 2001). The divergence of high- and low-speed transport networks along with a series of facelifts and deteriorations of connected and disconnected neighbourhoods have been both key expressions and drivers of the transformation of unitary cities into 'two-track' urban systems in the Anglo-Saxon world (Soja 2010; MacRury 2008), where transport network liberalisation is more apparent, and – more recently – in continental Europe (Tripp 2007; Rutherford 2008).

The next sections of this chapter will focus on most recent approaches to travel time – brought forward by the 'new mobilities' research and forming core elements of the new paradigm – that go beyond utilitarian and instrumental understandings of the (predominantly economic) utility of time. The following sections, which dwell on behavioural, emotional and symbolic practices that are directly related to spatial mobility, will address travel time as a domain of meaningful experience for individuals and on societal implications of time spent travelling.

#### 12.4 Travel Time as a Domain of Meaningful Experience

The expanding work on mobilities has prompted an increased recognition of diverse cultural values related to the practice of movement itself. This approach recognises mobility as something that has its own intrinsic trajectories, performances, ambiences and affinities. What would one lose if one was teleported? She/he would lose meaningful travel time – the experience of movement and the experience of what

happened on the move. This time is filled with different behaviours, reflexive and affective practices and emotions through which individuals establish relations with others and with the city. As opposed to the above-mentioned utilitarian approaches in transport geography and planning, in the work on 'new mobilities' (see Shaw and Hesse 2010; Cresswell 2010; Vannini 2010; Götz et al. 2009), travel time is treated not as an empty container where activities external to travelling, such as reading or sending e-mails, can be accommodated but as a dynamic assemblage of physical movement with activities intrinsic, related and parallel (or external) to it. For individuals the time spent on commuting offers a meaningful sphere of identity formation (Jensen 2009). The mingling moments of thinking, reading, viewing landscapes through the window and looking at or listening to conversations of others while on the move are crucial for the processes of sense making and positioning oneself within urban society. 'Mobile, embodied practices are central to how we experience the world, from practices of writing and sensing, to walking and driving. Our mobilities create spaces and stories – spatial stories' (Cresswell and Merriman 2010, p. 5). On the one hand, the practices of movement – including the use of particular means of transport and certain routes or interchanges – are reflexively constructed and rooted in individuals' values, interests, constraints and past experiences. On the other, in turn, the experiences coming from daily urban mobility take part in reshaping orientations of individuals towards the world and their behavioural modes of action. Hence, the travel time is 'used' by individuals - more or less consciously – for behavioural and symbolic interaction with 'the environment' and personal identity construction (Jensen 2010). Different performances of movement, such as walking, cycling or bus riding, are increasingly considered emancipatory practices through which individuals gain power to renegotiate meanings of self and the city. 'New mobility' work on forms of mobile empowerment - which often recalls the classic book of Michel de Certeau (1984) The Practice of Everyday Life – originated mainly from analyses of walking, wherein urban walks are seen as cunning tactical practices that cut across fixed spatial grammars of cities and bend pre-planned urban routes (e.g. Middleton 2009; Cresswell 2011); but a number of analyses capture also the emancipatory performances of cycling (Jones 2005), driving (Thrift 2004) and urban public transport usage (Jensen 2009; Jirón 2010).

The different qualities of travel time are experienced by individuals sometimes reflexively and discursively, but often through combinations of multi-sensual interactions between corporeal bodies and materialities of the mobile environment (Hannam et al. 2006). The urbanites' bodies serve as 'affective vehicles' (Sheller and Urry 2006) whose sensual experiences are transformed into atmospheres and form 'emotional geographies' of urban travel. The emotional geographies may be sensually pleasant, joyful, passionate or sexual, but they might turn into misanthropic ambiences of frustration, discontent and aggression.

While the affective atmospheres are invisible, nonrepresentational, they form part of the ubiquitous backdrop of everyday life on the move. Rather than being inert, background, atmospheres are forceful, ... and central to everyday conduct ... since they facilitate and restrict particular practices and, in doing so, precipitate particular structures of feeling (Bissel 2010, p. 272).

Emotional geographies play a crucial role in mediating both sensuous and reflexive relations between urbanites on the move and technologies that facilitate mobility. 'Such sensuous geographies are not only located within individual bodies, but extend to familial spaces, neighbourhoods, regions, national cultures' (Sheller and Urry 2006, p. 216). The nonrepresentational atmospheres and ambiences, which are considered forms of 'sociable dwelling-in-motion' (Sheller and Urry 2006), shape not only individual but also collective temporalities of travel.

#### 12.5 The Collective Temporalities of Travel

Urban travel time is formed by a meshwork of multilayered and overlapping individually and collectively experienced temporalities. Although the relationality of these behavioural, reflexive, emotional and affective temporalities has often a 'messy' character (Hajer and Reijndorp 2001), it is a forceful vehicle of production and reproduction of urban societies. Amongst others, Lefebvrian rhythmanalysis (see Lefebvre 1996) and de Certeau's inquiry into tactical spatial practices (see de Certeau 1984) provide powerful tools for exploring the role of temporal organisation of movement in the making of cities (see also Cresswell 2010; Middleton 2009). Not only the construction of individual identities and affinities but also the processes of formation of collective identities, as well as the decoding and recoding of spatial grammars, are entangled with the practices of movement, wherein time is considered as the fourth dimension of space: 'People not only observe the city, whilst moving through it, rather they constitute the city by practising mobility. The meaning of places in the city is constituted by the movement as much as by their morphological properties' (Jensen 2009, p. 140).

Collective travel temporalities, which emerge in different modes of urban mobility such as walking, driving or cycling, but foremost in the means of public transport, are constituted by a number of social and spatial practices. The specific interactions and forms of mobile sociability fall into two broad and sometimes overlapping categories: social encounters on the move and collective socio-spatial practices of navigation. The social encounters on the move comprise more or less conscious forms of social contact such as conversations on the bus, looking at and listening to conversations of others as well as sensual affective relations between travelling bodies. The specific dynamics and rhythms of these relations are mediated by formal and informal norms (see Watts and Urry 2008), individual beliefs and routines and spatialities and temporalities of movement – such as waiting, changing platforms, getting on the bus or train, finding a seat or being 'mobile with' (Jensen 2010) others in the carriage. These interactions between travelling bodies are complemented by socio-spatial practices of navigation along and amongst fellow urban travellers: passing by, overtaking, giving way, congregating (Jensen 2010), but also cutting up, pushing or shoving (Bissel 2010).

Both social encounters on the move and practices of navigation, which are forms of intensive being with random others in very close proximity, carry powerful social

potentials. 'The notion of 'social condensers' in relation to urban travel is highly important and points in the direction of a less bounded and territorially delimited way of relating to places and other fellow humans. ... The network and mobilities are reconfiguring our 'sense of place' and belonging' (Jensen 2009, p. 152). In the plurality of intimate encounters in motion - friendly and unfriendly, inclusive and exclusive, emancipatory and oppressive – different social groupings and whole urban societies renegotiate the existing and produce new forms of affinities and prejudices. What is more, the spatialities and temporalities of these societal relations are increasingly mediated by technological systems and institutional arrangements of public transport. The 'armatures' (Jensen 2009) of urban mobility, such as transport interchanges, rail tracks, ticketing machines, CCTV cameras and ICTfitted vehicles, shape certain 'time regimes' of public transport and different experiences of travel time (Adev and Bissel 2010). These non-human actants (Latour 2005) take active part in the processes of assembling not only people and places but also individual, societal and technological temporalities (Adey and Bissel 2010; Jensen 2008).

## 12.6 Towards Time-Space: Relational Reconceptualisations of Travel Time

Rising complexity in the socio-technical assemblages of everyday urban mobility and growing awareness of their profound impacts on the daily lives of individuals and the formation of urban societies on the move call for a reconceptualisation of modern notions of time and temporality. Hence, the notion of clock-time, which gave conceptual and ethical foundations to the positivist ethos that has shaped urban transport systems, needs to be complemented with relational ideas of (travel) time.

The development of relational thinking about travel time within the mobilities' paradigm has challenged Newtonian and Cartesian conceptualisations of time. First, the Newtonian tradition, which had been founded on the understanding of time as an absolute entity which has its own nature separate and independent from temporal human practices, has been gradually supplemented by relational approaches embracing utilitarian and experiential values that individuals and social groupings assign to the practices of movement and to instrumental and communicative activities performed on the move (Urry 2000). Second, the Cartesian notion of linear, measurable and symmetrical – broken into space-like units – mechanistic clock-time is being complemented with apprehension of multiple diachronic times that emerge in and through mobility (Urry 2000; Hannam et al. 2006; Middleton 2009). This has also been conceptualised as a difference between represented time and experiential time-space (Crang 2001).

The relational approaches to time line up with reconsiderations of space in human geography and strategic planning whereby the Euclidean notion of absolute space – conceived by Descartes as continuous body, which had served traditional planning

ideas and maintained the reductionist understanding of 'cities as single, integrated, unitary, material objects' (Graham and Healey 1999, p. 624) – has been surpassed by a relational notion derived from Leibniz's theory of space (Madanipour 2010). Since 'relational' (Healey 2004, 2007; Amin 2004) and 'folded' (Jones 2009; MacCann and Ward 2010; Amin 2007) topologies surpass territorial and hierarchical thinking about space, intra- and interurban scales are conceived as 'multilayered' (Massey 2005) sites of interaction, wherein travelling knowledge, ideas and imaginaries are mobilised by different actors both within and across spatially bound territories. Relational planning practices – just as 'new mobility' analyses – turn towards an approach to qualities of spaces which is based not upon values intrinsic to objects (and ideal templates for these objects) but upon experiential values of these objects which are identified by perceiving, thinking and feeling subjects. 'Space and time are now dynamic qualities: when a body moves, or a force acts, it affects the curvature of space and time – and in turn the structure of space-time affects the way in which bodies move and forces act' (Hawking 1988, p. 33 cited in Urry 2000, p. 119).

The non-linear approach to qualitative temporality has a strong potential for progressive thinking about urban mobility. Both the movement itself and what happens on the move carry opportunities for individual emancipation, social connectedness and empowerment of urban communities. The 'new mobility' analyses bring therefore not only new ways of thinking about urban transport but also call for policy-makers to consider what exactly the mobile experience offers. This project entails a deepening of a long-standing concern for a generalised service quality (e.g. Hine and Mitchell 2001; Uteng 2008) but goes further to think of transit spaces as public spaces, looking at who benefits from how these operate, and also to consider how we might value such considerations in regulatory and investment decisions. The next section provides some pointers for this project through a consideration of the quality of time-spaces of urban mobility, looking particularly from a social justice perspective, at both inclusive and exclusive forms of social interaction on the move.

#### 12.7 The Gift and the Curse of Travel Time

New relational approaches unravel not only the spatiotemporal complexity of sociotechnical assemblages of everyday urban mobility but also increasing socio-spatial splintering and fragmentation of cities wherein transport systems play both connecting and disconnecting roles (Graham and Marvin 2001). We argue that the growing socio-spatial unevenness and cultural diversity of urban societies is projected onto and reinforced by transport systems and networks of human urban mobility. Timespaces of urban transport constitute crucial 'social condensers' (Jensen 2009) of urban life – always classed, gendered, sexualised and racialised – where physical movement, corporeal travel and bodily experience intersect with various forms of social interaction and identity formation. Practices of urban mobility put in motion processes where physical fabrics, social relations, actors, humans and non-humans are involved in complex and contingent processes of folding together or

pulling apart. The constitution of urban public transport as sites of social encounter relates both to inclusive and exclusionary social practice. Experiential qualities of urban mobility carry connecting and disconnecting powers capable of placing and displacing particular urban travellers. This understanding of time-spaces of mobility as political sites rather than just homeostatic formations of the public domain in spaces of public transport points to conflictive and discriminatory politics of urban mobility. This section looks at how social relations in space contribute to mobility exclusion.

In increasingly diverse and unequal urban settings, for many people, urban travel time is linked with stress, unpleasant social encounter and often an open conflict with others. This time, which for privileged urbanites, who enjoy benefits of ICT communications and comfortable spaces of resting and daydreaming, is a 'gift' (Jain and Lyons 2008) for other groups, such as ethnic migrants, the homeless or mothers travelling with children, often becomes a 'curse'. While travel time – when 'mobile others' (Jensen 2008) from various walks of life come together to travel on a bus, cycling route, underground or form together car traffic - might serve as a laboratory of diversity and a 'training ground for tolerance and openness to other people' (Runge and Becker 2007, p. 15), it often turns into a battleground of discriminatory and hostile social practices, continuing class and racial prejudice, antisocial behaviour and hate crime. The shortage, overcrowding and frequent delays on metropolitan transport create hostile affective registers of communication (Bissel 2010) between delayed and fatigued bodies of passengers. Events when the vulnerable travellers get marked out, threatened and verbally or physically abused on public transport are intrinsic part of their everyday mobility and a source of continuous distress. Moreover, moments when a bus drives past while they are waiting at a bus stop or when they are refused entry constitute recurrent reminders of limited rights and life opportunities.

We consider time-spaces of urban mobility as political sites of the everyday, where both inclusive and discriminatory practices are not only enacted but also reshaped through different events, encounters and processes. The negative ambiences on public transport are a result not only of prejudices towards different groups of people and discriminatory discourses disseminated by mass media but also come into being through processes inherent to public transport itself. The underprovision of services reinforces fatiguing effects of everyday commutes, which turn into negative atmospheres that trigger small acts of violence and more serious expressions of outrage. Last but not least, the over-presence of visual campaigns - often important and justifiable - which aim at fostering antiterrorist surveillance and reduction of misbehaviour and crimes of different sorts, such as fare dodging, 'spit and run' or benefit fraud, adds to an atmosphere of distrust, suspicion, hostility and a negative affective charge which might result in expressions of negative emotions towards those who fall into different categories of potential suspects. As a result, the conflictive social encounter not only causes high level of stress for urban travellers but also prevents individuals and groups from using certain modes of transport and, as such, reinforces their time-based (e.g. peak services, evening services) or spatial (e.g. underground, complex interchanges) exclusion from public transport. This, in turn, might become a source of further marginalisation of whole groups or categories of people who cannot take part in various networks of interaction as a result of socio-spatial exclusion through suppressed urban mobility.

## 12.8 In Conclusion: Towards a Holistic and Socially Just Concept of Urban Mobility

Recognising the experiential qualities of time-spaces of mobility, wherein individual subjects, social relations and places are shaped through movement, calls for a rethinking of the theoretical foundations in the disciplines of transport geography and transport planning, as well as transport planning practice. This means a move from instrumental, utilitarian and deterministic understandings of urban transport towards a holistic conceptualisation of urban mobility, embedding social qualities of urban travel in urban planning and design. Such an approach also entails a reconsideration of concepts of time in transport planning. While mainstream transport planning approaches, which employ Cartesian concepts of time, focus on speed and efficiency and prioritise time-savings, the holistic understanding of mobility as spatiotemporal relational practice requires mobilising multiple perceptions and experiences of time and different temporalities of space emerging in everyday mobility. Such an approach entails the treatment of time-spaces of urban travel not as realities on their own but as realities framed through social and institutional practices, bureaucratic time frames, discursive and affective modes of communication and bodily experience.

Embedding social justice in transport systems constitutes one key aspect of the holistic conceptualisation of urban mobility. This requires innovative mobilisation of concepts of time and space in a search for more socially inclusive networks of human urban mobility. While engaging with experiential quality of travel time and identity formation on the move, mobilities research has opened up avenues for analysing and putting in motion culturally emancipative and socially integrative practice. At the same time, however, mobile encounters may – and often do – carry a disruptive, disintegrative potential. This – particularly classed, gendered and ethnic – understanding of urban travel shows how different social relations are performed on the move, and how these relationships are shaped through particular mobility situations. In unequal urban settings where sociocultural conflicts coexist with underprovision of transport services, experiential time often constitutes yet another layer of social exclusion.

Foremost, the conflictive topology of experiential travel time calls for research and policy approaches that would work in favour of improving the quality of social interactions on urban transport networks. While poor design of public transport vehicles, interchanges and services, pricing policies and spatial distribution of services in cities have been widely addressed in accessibility planning,

fear- and social discomfort-based exclusion of certain social groups has been only partially examined by transport researchers and policy-makers and then often only within frameworks of crime prevention and control. More in-depth research is needed into persistent risks, anxieties, discomforts and traumatic experiences that exclude certain groups both from and through performing mobility, as well as into where and how hostility develops, how it is expressed and how its effects are felt. With new insights on social exclusion, an array of understandings of mobility constraints and suppressed journeys emerge ranging from alienation, disenfranchisement, capability loss, distress related to potential and experienced discriminatory encounters in space.

What is the way forward then? While the new mobilities paradigm exposes the experiential dimensions of travel time, recent analyses in transport geography (e.g. Hine and Mitchell 2003; Rajé 2004) and planning offer fully fledged systemic ways of inquiry into social justice concerns. From a research perspective, complementarities and synergies between the two strands of thought should be explored in order to better address 'links between transport activities on the one hand, and their socio/cultural/political meanings and representations, and corporeal and (en)gendered experiences on the other' (Shaw and Hesse 2010, p. 307). For this purpose, a mix of quantitative and qualitative methods is needed to address both traditional – i.e. economic and time-poverty related – forms of transport exclusion and more subjective, experiential mobile (dis)connectors. Such an effort would expose the unequal 'politics of mobility' (Cresswell 2010) that operates in and through transport networks. Last but not least, the deciphering of the politics of mobility should serve as a vehicle for embedding more complex articulations of difference and conflict in the practice of planning and thus further politicise transport policy-making practices and often hidden behaviours and biases in society and planning practice. Such a politicised transport planning would not only search for a balance between time savings, utilitarian uses of travel time and experiential socially (dis)integrative qualities of time but also antagonise the existing power relations within policy circles to ensure the socially just – both in quantitative and in qualitative terms – distribution of travel time in transport appraisals. This would expose the transport planners not as morally neutral technicians but as practitioners engaged in moral and ethical questions posed through policy design, evaluation and implementation.

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## Chapter 13 INTERMEZZO: Time Intervention in Public Spaces – The Artist Mark Formanek

Dietrich Henckel, Benjamin Könecke, and Susanne Thomaier

**Abstract** This chapter presents some of the works of the artist Mark Formanek, who lives and works in Berlin. Many of his works and installations in public places are intricate approaches to the topic of time. Formanek is fascinated by abstract, impalpable elements such as wind, smell or time. His works, often installed in public spaces, aim to stimulate people's awareness of, and reflections on these invisible elements of their environment. The installations are disconcerting, challenging the audience to get involved. Formanek refrains from giving any directions on how to proceed. Observers are free as well as compelled to find their very own approach to what they see and to situate themselves in space and time. Formanek exploits the relation between points in time and spaces of time.

**Keywords** Artwork • Public space • Perceptions of time

Since 1992, a small sign reading '14. März 1996 17:30 Uhr' ('March 14, 1996, 5:30 p.m.') was fixed, at a height of 4 m, to a wall on Domplatz in the city of Münster (North Rhine-Westphalia, Germany) – no explanation or directions given. Observers were free to make sense of it. On March 14, 1996, 5:30 p.m., the sign was replaced by another one, now reading '13. März 2000 17:00 Uhr' ('March 13, 2000, 5:00 p.m.'). This sign, again, remained on the wall until the new datewas reached.

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Fig. 13.1 First changing of the sign in Münster (Reproduced by permission of Mark Formanek)

Meanwhile, the city of Münster bought this piece of art, thus taking possession of ten signs for the next 40 years, each of them to be shown for a period of about 4 years, ending with the date marked on the sign, on the wall on Domplatz. Changing the sign has by now become a public event that attracts its own crowd of fans and followers – with still no explanation for either the signs or the dates (Fig. 13.1).

This installation entitled 'Datum' ('Date') is one of Münster-born Mark Formanek's early works. Today, he lives and works in Berlin, and like many of his works and installations in public places, 'Datum' is an intricate approach to the topic of time. Formanek is fascinated by abstract, impalpable elements such as wind, smell or time. His works, often installed in public spaces, aim to stimulate people's awareness of, and reflections on, these invisible elements of their environment.

In 2009, the film 'Standard Time' (subtitle: 'Built time') was published, a work conceptualized and realized by Mark Formanek in cooperation with *Datenstrudel*, a film production company and media agency. The film shows an oversized digital clock constructed of wooden boards, with 72 workers engaged in rebuilding every single minute of a 24-h period (Fig. 13.2). The underlying idea was conceived some 20 years ago by Formanek who, during a computer course, drew inspiration from a digital clock on the monitor. After many years of preparatory work, the 4-by-12 m digital clock was installed in a semiwild, semipublic Berlin inner-city area, and for 24 h, the clock's by-the-minute rebuilding was filmed. Today, the documentary is a great success and subject to worldwide distribution. For Formanek, the Berlin project's primary interest was not in its performance character but, rather, in developing a new type of 'digital' clock face. Initially conceived as a PC screen saver and time indicator, the film is now available also as an app for smartphones



Fig. 13.2 Standard Time (Reproduced by permission of Datenstrudel)

and can even be used as an alarm clock – the alarm function triggers the film's soundtrack, you hear the workers call out to each other to coordinate their rebuilding operations, you hear the sounds made by the wooden boards and the tools.

Due to the high organizational manpower and financial requirements of this installation, follow-on projects have so far been few in number. From November 27, 2009, 5:00 a.m., to November 28, 2009, 5:00 a.m., the installation was reproduced at Rotterdam railway station – albeit quite literally smoothed down and standardized: the boards had been cut to standard size, and special scaffolding was provided to facilitate placing them, thus allowing for a reduced number of workers (and, as a result, lower costs) (Fig. 13.3).

Unlike the Berlin installation, the Rotterdam project was mainly perceived as a performance and a public event. The site, in this case, was a very busy place where time, as visualized by clocks, is of key importance (railway station). The Rotterdam installation was filmed as well, the film being later shown in Münster railway station. A third version of the installation was realized by two female Korean students in a Münster exhibition room, in which their conversation in a foreign language generated even more questions by the audience.

The installations are disconcerting, challenging the audience to get involved. Formanek refrains from giving any directions on how to proceed. Observers are free as well as compelled to find their very own approach to what they see and to situate themselves in space and time. Formanek exploits the relation between points in time and spaces of time. In 'Datum', this is especially obvious: you wait



Fig. 13.3 Rotterdam performance (Reproduced by permission of Mark Formanek)

for this special point in time to come, you fill the space of time that separates you from the date marked on the sign with your very own expectations, experiences and associations. Thus, a point in time, arbitrarily fixed, launches a dynamic that is all about the observers' individual mind games.

With the digital clock performance, the passing of time becomes an object of contemplation. The space of time between the minutes is filled with the workers' rebuilding activities, and passers-by (or people watching the film) tend to stay longer than they usually would before clocks, sometimes even reaching a meditative state of mind – watching how time 'passes'. This extension of the attention span, brought about by the contemplation of an object, can also be seen as embodying a criticism of the way time is subjected to acceleration. Likewise, due to the rationalized nature of the sequence that is presented, the installations may be perceived as mirroring the ever more radical exploitation and ever more rigid standardization of time. Yet another perspective is offered by the description that accompanies the film: 'The spectator [...] does not only see the time, but also people constructing it. People who, with a stoic sense of duty, are wasting time on anapparently useless activity that

**Fig. 13.4** Wristwatch (Reproduced by permission of Mark Formanek)



fulfills only one function: to display time' (Standard Time n.d.). But, most notably, the clocks provide a wonderful illustration of the fact that (clock) time is a human construct (Fig. 13.4).

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### Part III Urban Time Policies

# Chapter 14 Revisiting Exemplars of the Times-of-the-City Approach: The Viability of the 'Neodiscipline' Claim

Jeroen van Schaick

**Abstract** This chapter contains a descriptive account of the development of the so-called times-of-the-city approach. The times-of-the-city approach or chronotopic approach to urban planning is the core of a research programme for localised action research with the purpose of developing tailor-made, explicit and/or integral territorial time policies for cities or urbanised regions. At its inception, the authors who coined the approach have considered the approach as a neodiscipline, taking a novel cut at academic and policy practices across the domains of geography, sociology, urban design and planning policy. The aim of this chapter is to examine if the approach can be considered to constitute a neodiscipline. I show, through an analysis of the diffusion of the times-of-the-city approach from Italy to other European contexts between the 1980s and 2000s, that such a claim should be reconsidered. The conclusion implies that it is necessary to develop other measures of success in future research that can evaluate the degree of integration of the policy domains of time planning and spatial planning.

**Keywords** Urban time policies • Space-time approach • Times of the city • Neodiscipline • Europe

#### 14.1 Introduction

The times-of-the-city approach or chronotopic approach to urban planning is the core of a research programme for localised action research with the purpose of developing tailor-made, explicit and/or integral territorial time policies for cities or urbanised regions (see Bonfiglioli 1997; Boulin and Mückenberger 1999).

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Territorial time policies are plans for coordinating collective and individual time rosters within a predefined area which are developed with a range of stakeholders that affect or are affected by the time regime in a certain area. Despite ample case documentation, there exist few accounts of the development of the approach over time that incorporate developments in different countries. Such a historicising view is important, though, to understand the degree of institutionalisation of the approach in both academia and practice.

Why are we interested in the institutionalisation of the approach? The most important reason is that core authors on the approach have strived since its inception for institutionalisation (see Bonfiglioli 1997; SURE-consortium 2006). The success of the approach can thus be measured according to its level of institutionalisation. One particular claim concerning the institutionalisation of the times-of-the-city approach is that it can constitute a so-called neodiscipline.

The aim of this chapter is to examine if the approach can be considered in terms of a neodiscipline. This chapter shows, through an analysis of the diffusion of the times-of-the-city approach across European borders between the 1980s and 2000s, that this claim should be reconsidered. This also implies that it is necessary to develop other measures of success to evaluate the approach. I propose one such measure at the end of the chapter.

The core of this chapter contains a descriptive account of the development of the times-of-the-city approach. It is derived from a more extensive analysis of the approach, with a different focus, undertaken elsewhere (van Schaick 2011). The description in this chapter is based on written accounts of cases applying the times-of-the-city approach and of research programmes and projects that evaluate sets of examples.

#### 14.2 The 'Neodiscipline' Claim

#### 14.2.1 Times-of-the-City Approach as a Neodiscipline?

Dealing with the differences between disciplinary approaches has been at the centre of the times-of-the-city approach since the 1990s. The awareness that different disciplines were necessary to tackle the problem – the tension between collective and individual rhythms of life, initially for women in particular – was clear from the start. Key disciplines that got involved were social geography, sociology, urban planning and design, transport sciences, economics, public policy and specialisations within those disciplines such as the organisation of labour, sociology of leisure and time use research.

The differences between these disciplines and the solving of those differences when they presented a problem were not the starting points for the times-of-thecity approach. Rather, the shared feeling of an urgent societal problem combined with the momentum of a wave of feminism in Italy and, later, the prospect of

an action-research approach were the binding factors. Sandra Bonfiglioli (1997) claimed this as a new discipline: urban time planning. Within the research project SURE, this was described as '... a neo-disciplinary paradigm, with an interdisciplinary and transnational approach. A new discipline, a new paradigm, academic as well as practical ...' (SURE-consortium 2006, p. 37). At the same time, however, Ulrich Mückenberger questioned in that compilation of research the possibility to develop the approach as a true academic discipline outside the context of Italy.

#### 14.2.2 What Is a Neodiscipline?

To unravel the claim that the times-of-the-city approach constitutes a neodiscipline, it is important to start by considering that the notion of 'neodiscipline' is the most institutionalised form of an 'interdiscipline', 'a term that covers a variety of interactions ranging from informal groups of scholars to well-established research and teaching communities' (Klein 1990, p. 43). David Long (2002) defines a neodiscipline as a combination of characteristics; according to Long (2002), neodisciplines

- Take a different cut at social practice from the traditional disciplines
- Are disciplines in so far as they involve or can involve systematic training in a coherent body of knowledge
- Involve a core of studies around which there are a variety of other disciplinary contributions
- Challenge the ability of established disciplines to comprehend the complex totality of the subject matter
- Arguably require more than disciplinary fragments in order to be understood comprehensively and holistically, an approach that is impossible or at least difficult in line departments
- Institutionally are marked by the creation of academic units that do not fit the usual disciplinary categories
- Result from and reflect social practices

An important element of Long's characterisation is the notion of institutionalisation in academia as well as in its relation to social practice. Such institutionalisation requires a legitimisation of the carving out of the neodiscipline. The question of how legitimisation is used to argue that the times-of-the-city approach is a neodiscipline is beyond the scope of this analysis; Klein (1990) would provide good starting points for such an analysis. Here, I focus on a different angle. Analogous to the work of Small (1999) on the legitimisation of new disciplines, I distinguish three different arenas in which the legitimisation takes place: (a) the local institutional arena, to gain institutional support and capital resources; (b) the wider academic arena, to gain academic recognition and intellectual legitimacy; and (c) the wider public arena, to gain political support and resources. By analysing the degree of legitimisation and, hence, institutionalisation in these three arenas, it is possible to judge the degree to which an approach can be considered a neodiscipline.

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#### 14.3 A Concise History of Exemplars

#### 14.3.1 Distinguishing Episodes

Institutionalisation is something that does not happen overnight. It is a process of years, often decades. For that reason I develop my argumentation by historicising the development of the times-of-the-city approach. I have chosen to characterise episodes in the institutionalisation of the approach according to a combination of (a) characteristic novelties introduced in the discourse on the approach; (b) the emergence of characteristic cases, which can be considered exemplars for the times-of-the-city approach's paradigm; and (c) key publications which showcase the approach.

After the initial phase of the development of the times-of-the-city approach in the 1980s, it is possible to distinguish four episodes from 1990 onwards. These episodes are based on sequential projects and publications of core network members (Table 14.1). Bonfiglioli (1997) and Bonfiglioli and Mareggi (2002) provided earlier delineations of the history of the times-of-the-city approach for the Italian situation in particular. I view the times-of-the-city approach in a wider context. I introduce several new components here:

- The inclusion of practices other than the Italian practice, in particular German,
   French and Dutch practices
- Emphasis on a combination of both Italian and German language literature for the initial development of the approach
- The connection between stages of development and important key exemplars
- The addition and identification of the characteristics of a fourth and fifth episode since 2002

#### 14.3.2 1980–1990: Early Work, Clearing the Path

The foundations of the times-of-the-city approach are not easy to describe in a linear manner. Rather, the groundwork of the approach later established as the times-of-the-city approach can be characterised as one of several theories *in*, as well as consisting *of*, a patchwork of theories that have arisen out of classic fields of study as disparate as sociology, geography, economics and planning.

Sandra Bonfiglioli (1997) identifies three origins of the Italian times-of-the-city approach as an action-oriented approach to time developed between 1985 and 1990: (a) the attention given to the social construction of time in Italian academia at the end of the 1980s in both the domain of *urbanistica temporale* (see Bonfiglioli 1990) and the sociological domain, (b) legislative initiative on *Le donne cambiano i tempi* (women changing the times) and *orari di lavoro, stagioni della vita, tempi della città* (working hours, life stages and urban times) by a women-led political movement in

Table 14.1 An overview of episodes in the development of the times-of-the-city approach

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	Characteristic developments	Characteristic cases	Key publications
1980–1990	Theoretical work, trying to develop an action-oriented perspective of time use research	Modena, preparation of legislation in Italy	Time geography research in Italy and the Netherlands, e.g. Belloni (1984) and Droogleever-Fortuijn et al. (1987)
1990–1996	First comprehensive territorial time plans; first systematic account of principles of time-oriented policies	Pesaro, Bolzano	TTPs Pesaro and Bolzano Bonfiglioli et al. (1999) and Bonfiglioli and Zedda (2000)
1996–2002	European cooperation, national/regional/EU funding for local projects, legislation in Italy	Daily Routines comparison of local practices in BEST-study	Compilation reports Mückenberger (1998), Boulin and Mückenberger (1999), and Henckel and Eberling (2002)
2002–2007	(International) academic legitimacy, embedding in planning processes	Bergamo 2002–2006, VERA project Hamburg 2004–2007, Belfort, SURE-consortium 2002–2005; Bremen2030	Zeitleitplan Bremen2030 Projektteam Bremen2030 (2003c) TTP Bergamo Comune di Bergamo (2006), Pohl (2009), and SURE-consortium (2006) Evaluation of the Dutch programme Dagindeling Keuzenkamp et al. (2003) VERA project Läpple et al. (2010)
2007–2010s	Further transfer of approach, also to other countries	n/a (diverse studies examining transferability – Austria, Belgium, Netherlands, Finland)	Literature reviews by Mairhuber and Atzmüller (2009), OCW and Dehora (2009), Horelli (2005), and Glorieux et al. (2007)

Italian parliament merging the emancipatory movement and the feminist movement, and (c) first experimentations with time-based action in Modena and Reggio Emilia promoted by mayors. As pointed out earlier in this chapter, the Italian term for the times-of-the-city approach is derived from the work by Carmen Belloni in the 1980s on time budget analysis in Turin, Italy: 'tempo della città'. As one of the first studies of its sort in Italy, Belloni's was an important work after which national

time budget analyses were introduced (Moccia 2000). This illustrates that time geography theory (Hägerstrand 1970) has always been at the basis of the times-of-the-city approach. Gender theory and gender-oriented practices have played an important role in weaving a number of these theoretical strands together (Bonfiglioli 1997). From this latter point of view, Laura Balbo describes the rise of the times-of-the-city approach in Italy metaphorically as one of several 'quilting' processes; in this 'quilt', three overlapping blocks of theoretical work were interwoven since the 1970s/1980s, each aiming 'to influence policy discourse and the policy agenda' (Balbo 2004, p. 7): the sociology of everyday life from the perspective of women, transformations in the model of the welfare state from the perspective of women and the study of time as a resource from the perspective of women.

In a different language domain and without direct reference to the Italian or French developments at that stage, during the 1980s, the Deutsches Institut für Urbanistik (Difu German Institute of Urban Affairs) set up a project group 'Zeit-strukturen und Raumentwicklung' (time structures and spatial development) (Henckel 1988; Henckel et al. 1989). These comprehensive studies – strongly related to the domain of urban planning and with much attention on economy and the effects of mobility and information technology - lay the foundation for a theoretical view on timespace and urban planning which later fed into the initiatives on developing the times-of-the-city approach. This theoretical work of Difu built on previous work on the role of information technology and urban development (Henckel et al. 1984) and the role of production technologies in spatial development (Henckel and Grabow 1986). In terms of theoretical grounding, these studies lean almost exclusively on German language literature with the work of Jürgen Rinderspacher (1988a, b) being central to the argument – rather than any grand theory. Rinderspacher elaborates upon the idea that time structures are of a dynamic nature. Rinderspacher describes the dynamics of temporal structures as Verzeitlichung:

The dynamics of the development of our temporal reference systems can be described as a process of *Verzeitlichung* (temporalisation/timing). Seen this way, time gets construed, in both a qualitative and a quantitative sense, just as other forms of social organisation or of social reference systems. *Verzeitlichung* implies the transition of rhythmic movement being governed by nature, to a socially governed, ordered movement. (Rinderspacher 1988b, pp. 23–24) (Translation JvS)

In the Netherlands, during this same period, academic work focused on the shaping of interdisciplinary, interuniversity study groups at the border between geography, design and planning. This development was based on a widely spread academic practice of time geographic research (see van Schaick 2011) and a history of interdisciplinary, societal-problem-oriented orientation in the academic domain of urban and regional design and planning (Klaasen 2004). Applied research on activity behaviour to develop methods for urban and regional design and planning was an important step forward during this period (see e.g. Droogleever-Fortuijn et al. 1987). It was part of a feminist, emancipatory movement in both planning practice and academia (Mey 1994).

## 14.3.3 1990–1996: The First Comprehensive Territorial Time Plans

In 1990 the Italian Ministry for Research and Technology funded a university network to develop an interdisciplinary research programme on themes that would be of interest for the development of time policies. This led in 1994 to the establishment of the research centre for Times of the City as a cooperation between Politecnico di Milano and Universita Milano-Bicocca (Bonfiglioli 1998). At the same time, Italian mayors were empowered to develop official time policies for their cities (Mareggi 2002). This marked the introduction of an action-oriented approach where earlier work focused on sociological, analytically oriented work on time use (Belloni 1984). This also implied the introduction of a spatial dimension to sociological theory that focused exclusively on time. Bonfiglioli explains: "The idea of consolidating urban time and timetable articulation practices into a plan comes from an idea born within a town planning ('urbanistica') context. The plan is seen as an 'instrument for making proposals for the town'" (Bonfiglioli et al. 1995, p. 46, cited in Mareggi 2002, p. 183).

Two products of this new approach were published at the end of the 1990s. Guided by Sandra Bonfiglioli's research group, planning processes in the Italian towns of Pesaro and Bolzano resulted in comprehensive territorial time plans. Both the Pesaro case and the Bolzano case were presented as exemplar cases in special issues of 'Urbanistica' (Bonfiglioli et al. 1999; Bonfiglioli and Zedda 2000) (also see Mareggi 2001), although they cannot be seen separate from important earlier exemplar cases such as those in Milan and Cremona (cf. Mareggi 2002).

The Pesaro case consists of four key policies: (a) project for welcoming citizens and temporary hosts, (b) quality of public services and urban quality, (c) reconciliation of life and working times and (d) development of an administrative structure to institutionalise the territorial time plan. These four angles provided the formal political foundation of the territorial time plan to which the local council committed itself. However, the process leading up to these formal policies, the mapping of chronotopes for the city of Pesaro and the elaboration of the policies in pilot projects are also considered integral to the territorial time plan.

The novelty of the Pesaro plan was the attempt to provide a spatially defined vision of the temporal structure of the city by means of a chronotopic map of which an early version was used to inform the development of a new land use plan for Pesaro (Bonfiglioli et al. 1999). What constitutes this as a comprehensive territorial time plan is the complex interrelation between projects such as a public front desk, a time bank, three projects oriented towards the school system, a mobility pact, several physical urban development plans for public space and time table agreements with businesses. The interrelations between the different projects are guarded in two ways: on the one hand, through coordination by the new time bureau and, on the other hand, through continuous deliberation between the involved stakeholders using a participatory approach. However, no evaluation of the case is available to

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judge if this comprehensive approach worked and no subsequent actions resulting from the territorial time plan have been documented such that they are accessible for research.

The Bolzano case is different in three ways. Firstly, it is different in its focus with regard to content. Instead of a wide formal, politically supported foundation as in Pesaro, the instrument called 'mobility pact' is central to the territorial time plan of Bolzano (Mareggi 2001). A mobility pact is an agreement between institutions, businesses and associations within a specific urban area. Instead of an overall vision, the Bolzano plan focuses on the reconciliation of the different contributors to the rhythm of mobility patterns. The aim is to better manage the mobility, informed by research into mobility flows and attractors for mobility and governed by several sessions of round table debates. The mobility pact for Bolzano was limited to an agreement for the south of the city, incorporating its industrial area. In addition to the mobility pact, the *Zeitleitplan* or *piano dei tempi e degli orari* ('temporal master plan' or 'plan of times and schedules'; Bolzano/Bozen is a bilingual city) includes projects for urban development, projects for the improvement of public services and the establishment of a time bureau as coordinating institute.

Secondly, the territorial time plan of Bolzano is formulated more substantially as an integral temporospatial planning endeavour. The documentation of physical urban planning projects demonstrates that physical planning and the temporal considerations delivered by the mobility pact went much more hand in hand than in the Pesaro case. In Pesaro, there is only one clear example of policy implementation through spatial development, the redevelopment of a square, resulting from the territorial time policy (Mareggi 2001). Examples in Bolzano of physical projects being coordinated by the team of the *Zeitleitplan* are a design competition for city gates, the redesign of public space previously belonging to private space of schools and the redevelopment of an urban street.

Thirdly, it is different with regard to its integration in mainstream policy. The timing of the development of the territorial time plan (*Zeitleitplan*) was consciously tuned to the parallel and related development of the urban development plan (*Bauleitplan*). Rather than focusing on an end-image and a comprehensive plan, Bolzano chose to see territorial time planning as a continuous process slowly built up in a network of stakeholders and animated by local projects, often connected with physical urban development. The documentation of the Bolzano case shows much stronger emphasis than the Pesaro case on building up an extensive knowledge base for that process, including the development of new technical visualisation tools that build on the cartographic principles of the on/off map and chronotopes as attractors for activity as proposed in earlier pilot projects elsewhere (Bonfiglioli and Mareggi 1997). Time has become a proper policy domain for the city of Bolzano with the development of a strategic time plan in 2005 (Comune di Bolzano 2005) and continuing efforts to keep time as a subject on the agenda of local politics (Comune di Bolzano 2007).

# 14.3.4 1996–2002: Exploration, Internationalisation and Legislation – A Transition Phase

Around 1992, several German cities (Hamburg, Bremen) started inviting Italian practitioners and researchers to explain the initiatives in Modena and Milan (Mückenberger 1998), which led after several years to the establishment of the EUREXCTER network, marking the beginning of a new episode in the development of the times-of-the-city approach.

With the 4.5 million Euro EUREXCTER project (1996–2000), the Italian concept *tempi della citta* was proposed and adopted as an exemplary approach to be transferred to the French and German contexts (Hoffmann and Boulin 1997). It was funded by the EU programme EQUAL (Mareggi 2002). Rather than a platform for cooperation in projects, EUREXCTER was explicitly aimed at capacity building on the subject between local actors and subsequent transnational knowledge dissemination. Dissemination amounted to, on the one hand, the cataloguing of local practices from Italy, Germany and France and, on the other hand, the development of higher education programmes based on the times-of-the-city concept (see Mückenberger 1998). With its aim of 'improving quality of daily life in space and time' (Mückenberger 1999, p. 43), the programme had a strong time-oriented profile, largely neglecting the spatial aspects and showing no relation to urban planning.

Many initiatives towards time planning practices in this period are associated with the EUREXCTER network. The early publications from within the EUREXCTER project (Hoffmann and Boulin 1997) and the Eurofound project (Boulin and Mückenberger 1999) demonstrate that the network is searching for a firmer theoretical grounding of the times-of-the-city approach. It is presented as a task for Europe to develop policies on the quality of life of citizens in light of European socioeconomic policy, particularly from the perspective of trade unions (Villeneuve 1997). Despite the importance of EUREXCTER for the building of an expert network on the times-of-the-city approach, this idea of Europeanisation of time policies has not survived in later accounts of the times-of-the-city approach.

The start of this episode is also marked by instituting a *Zeitbüro* in Bremen-Vegesack, the first of its kind in Germany, and by the project 'Die Zeitbewusste Stadt Hanau' modelled after the example of plan development in Modena, Italy (Mückenberger 1998). Bolzano, as a bilingual German-Italian city, seems to have played an important role in transferring practices between Italy and Germany. Several other German projects developed around the same time such as in Hamburg and Hannover (see Mückenberger 2004). In Italy, the city of Cremona started the process of developing a territorial time plan from 1997 onwards, again under the guidance of researchers from Politecnico di Milano (Mareggi 2004). But this episode in the development of the times-of-the-city approach is not characterised by any particular exemplary case of integral temporospatial planning, but rather

by the exchange of practices between local administrations and between different European countries and by the 'sensitising' of administrations to the times-of-thecity concept.

Parallel to and partially overlapping with the EUREXCTER project, Eurofound (the European foundation for the improvement of living and working conditions, based in Dublin) funded a comparative research project on 'Times in the City and Quality of Life' (1997–1999). This project widened the scope of knowledge exchange to also include practices in Finland and the Netherlands. In particular the German practices of this period have been thoroughly documented in the book 'Bessere Zeiten der Stadt' (Mückenberger 2001), which also includes some articles based on the Eurofound study. The overall results – comprising an analysis of practices from both the 1980s and 1990s – have been documented by Boulin and Mückenberger in a report encompassing the results from five explorative studies on national levels including Finland, France, Germany, Italy and the Netherlands (Boulin and Mückenberger 1999).

The end of this episode in the development of the times-of-the-city approach is marked by the approval of the Turco act in Italy in 2000, a pivotal point for time-oriented policies that brought the times-of-the-city approach from the stage of experimentation to that of legitimised policy and provided closure for this episode in the development of the approach. The Turco act made the formulation of territorial time plans obligatory for Italian municipalities with more than 30,000 inhabitants as well as the establishment of an *ufficio tempi* (time office), the employment of a time manager and the establishment of a *tavolo di concertazione delle forzi sociali* (round table for the coordination of social powers) (Mareggi 2002). Less prescriptive was the French second Aubry act of 2000 on time policies, which made room for local time policies (in particular the setting up of time bureaus) but left it up to local actors to determine how they would take form (Boulin and Mückenberger 2002).

# 14.3.5 2001–2007: Seeking Academic Legitimacy and Legitimacy in Planning Processes

What happened next took form through a new stage in European cooperation on the one hand and the establishment of new initiatives on national levels on the other. A new generation of projects was initiated that might be regarded exemplary by the expert network in the following years, because of their comprehensiveness and extensive documentation, although still largely in local languages. During these years, the theoretical grounding of the approach is further refined, in particular by German and French authors.

European cooperation took again a more formal shape with the allocation of EU research funds to the project SURE (running 2001–2005). This project on 'a time-oriented model for sustainable urban regeneration' focused strongly on developing technical instruments – in particular chronoGIS – to support analyses of temporal

organisation in a series of experimental projects in France, Germany, Italy, Spain and Poland (SURE-consortium 2006). With this project timespace cartography supported by GIS-like software platforms is brought to a prominent position in the times-of-the-city approach.

In Germany, this episode of the development of the times-of-the-city approach is also marked by the founding of the Deutsche Gesellschaft für Zeitpolitik (DGfZP; German Society for Time Policy) in 2002, which brings together some of the key contributors to the debate on the times-of-the-city approach thus far. In 2005, the DGfZP published a manifest on time policies (DGfZP 2005). With this work, emphasised throughout related project documentation and theoretical works, the DGfZP proceeded in extending the normative and theoretical component of time policies.

Two of the key exemplars of this period need to be seen in the context of the tension between, on the one hand, a normative frame focusing on temporal organisation and, on the other hand, the attempt to integrate time planning and spatial planning. The first key exemplar is the 'Bremen2030: Zeitbewusste Stadt' project which ran from 2001 to 2003 (see Warsewa 2004; Mückenberger and Warsewa 2005; Projektteam Bremen2030 2003a, b, c, d, e, f). The second was the VERA project ('VErzeitlichung des RAumes', i.e. timing space) based in Hamburg. It ran from 2004 to 2007 (Läpple et al. 2010; Pohl 2009; Timpf 2005; Mückenberger and Timpf 2006). Both projects were led by the Time-Lab group at Hamburg University headed by Ulrich Mückenberger (Time-Lab n.d.).

The case of Bremen2030 is interesting because it is the only example of an attempt to develop something similar to a comprehensive territorial time plan for a city outside Italy. The project is the result of being selected as 1 of 21 projects in the ideas competition Stadt2030 (Difu 2005). In this competition Difu invited local councils to propose projects with the aim of developing – in cooperation with scientific partners – visionary conceptions of the future and guiding visions for their cities and regions with a long-term view of 30 years, which would also provide frameworks for action for immediate policy and planning (Difu 2000). With the funding of the Bremen2030 project, the times-of-the-city concept became recognised by Difu as a visionary framework. The situating of the project in the city of Bremen was not by chance. Bremen had been the location of the first German time bureau after the Italian model, namely, the time bureau for Bremen Vegesack. The time bureau became a partner in this new project as well (Projektteam Bremen2030 2003c).

The project contained several subprojects bound together by the development of a 'Leitvision Bremen2030 – eine Zeitgerechte Stadt'. The *Leitvision* (guiding vision) put down a normative framework for action along three lines:

- The city should be shaped by spatial density and temporal variety and therefore be lively and attractive.
- Work times, social times and the urban organisation of time must be tuned to the day-to-day organisation of life paths of individual citizens.

 Public and private services must consistently be reorganised such that they see quality and accessibility from the viewpoint of the temporal necessities and needs of their users; and so serve the realisation and promotion of quality of life.

With regard to tangible projects, Bremen2030 rested upon two mobility pacts, one for the east of the city (Bremer Osten) and one for the north of the city (Bremen Vegesack), as well as a project focusing on the identification and resolution of conflicts between the different types of uses in a centre-peripheral highly mixed-use neighbourhood (Bremer Ostertorviertel). The mobility pact for Bremen Vegesack needs to be seen as a contribution to the revitalisation process of this urban district (Projektteam Bremen2030 2003d). The mobility pact regarding Bremer Osten was primarily developed as an instrument to deal with mobility problems in which the mobility generated by the Daimler-Chrysler plant played a major role (Projektteam Bremen2030 2003e). The latter is similar to the Belfort case regarding the PSA Peugeot plant documented in the SURE project (SURE-consortium 2006). The mobility pact concerning Bremen Vegesack also included contributions to design physical interventions such as a new bus station and bicycle parking. Overall, the different projects and guiding vision centre on reframing urban problems in terms of spatially distributed temporal problems. In this regard the project can be considered successful. However, it is unclear if this reframing has been taken up in mainstream policy making for Bremen.

The VERA project is interesting for other reasons. Contrary to the Bremen2030 project, the VERA project was primarily developed as a research project with strong links to practice using an action-research method based on real-life experiments in Hamburg and Bremen. It is mainly interesting because of its explicit goal setting and elaboration as a transdisciplinary project. And, it is one of the few times-of-the-city projects having been thoroughly evaluated against a strong methodological framework on action research (Mückenberger and Timpf 2006).

The work of the VERA project was divided over three research teams: time policy, urban economics and geography. The aim of the project was twofold: on the one hand, to develop an integral temporospatial analytical method on the three themes and, on the other hand, to set up concrete projects that would contribute to an improvement of the quality of daily life for citizens (Läpple et al. 2010; Timpf 2005). The goal to set up concrete projects was elaborated in terms of defining the problem, networking of actors, empowerment of actors and cooperative problem solving with different roles for the researchers each time. Despite a seemingly successful project from a researcher's point of view – the testing of the model for action research, the development of cartographic tools and testing of hypotheses that were part of the problem framing – the projects were only marginally successful and/or difficult to measure whether they reached the project goals with regard to the improvement of quality of life or for sorting concrete effects in planning processes (Läpple et al. 2010).

In Italy, the work of the research group at Politecnico di Milano is marked during these years by their work in Bergamo (2002–2006), which delivers an exemplar for time-oriented planning practices with possibly the same weight of the early

examples of Pesaro and Bolzano. Several Italian partners joined together to set up professional education on the times-of-the-city approach in the Consortium CTC after first initiatives in light of the EUREXCTER project. This has played a significant role in Bergamo with one of the key players of the municipality receiving her degree during the development of the Bergamo territorial time plan (Comune di Bergamo 2006). The territorial time plan for Bergamo builds on the cartographic tools and principles from those early exemplars. What makes the Bergamo territorial time plan of 2006 into a novel exemplar is the way in which it pays attention to how territorial time policies fit within the overall development of the general spatial vision for the Bergamo region. Where in earlier examples – such as the Pesaro and Bolzano cases (see above) – such relation was seemingly desired and partially established, in the Bergamo case that relation between the urban development plan and territorial time plan is formalised (Bonfiglioli 2008). However, the territorial time plan is only a peripheral input for the overall urban development plan (Piano di Governo del Territorio). The extensive territorial time plan is used as input for the much leaner plan for public services (Piano di Servizi) (Comune di Bergamo 2005–2006), which in its turn is tuned to the overall plan.

In France the attention to temporal aspects in planning was quite fragmented at this stage. Because of this thematic fragmentation, it seems an important development in France that a national network of times-of-the-city-like approaches was set up from 2005 onwards – 'Tempo Territorial'. This network initially had four working groups of which one focused on time in urban planning. However, over the years this angle has been abandoned.

Before this network was initiated, the focus in France – where only at the end of the 2000s a debate on the temporal dimension of planning really took a hold – was much more to frame the problem from the viewpoint of mobility than elsewhere. Vodoz et al. (2004) and Bailly and Heurgon (2001) provide characteristic examples of such framing. But French practices also have a strong cultural component exemplified by the work of Luc Gwiazdsinski (2003, 2005, 2007, 2008) who puts, for example, a strong focus on the theme 'night' (see also SURE-consortium 2006).

The case of Belfort-Montbeliard, which contains both the cultural and mobility component, has been partially documented in the research report on the EU-funded SURE project (SURE-consortium 2006). From 2001 until approximately 2005, the 'Maison du temps et de la mobilité' of the city of Belfort developed a range of projects in the larger region around Belfort based on the times-of-the-city approach. The emphasis was on mobility in relation to urban rhythms. Rather than the development of a comprehensive territorial time plan, this time bureau focused on developing separate projects. This is the case in most French time bureaus (cf. the 'Espaces des Temps programme of the Grand Lyon region'; Espaces des Temps n.d.).

It is interesting also to look at what had happened in the meantime in the Netherlands. In 1998, the 'Commissie Dagindeling' (Committee for Daily Routines) advised to take a different approach than in some of the other countries (Commissie Dagindeling 1998). Rather than bottom-up networking or pilot studies, its

exploration led to advice to install a national programme to fund local initiatives for the reconciliation of work and private life. In the following years this national programme stimulated the proliferation of 140 local, focused experiments in the Netherlands and the exchange of best practices, in several rounds of subsidies funded by the European ESF funds (SZW 2005).

Of particular interest for the purposes of this chapter is the explicit identification of the domain of traffic/transport/spatial planning, in addition to the domains of education/childcare/leisure, balancing work and private life and the domain of personal services. This is in line with the advice by the 'VROM-raad' (VROM-raad 2000) (national advisory council for environmental policy) which sees some opportunities to improve the quality of life for task combiners in paying attention to both temporal and spatial organisation.

However, of 140 subsidised experiments in the Daily Routines scheme, only 11 fall under this theme (Keuzenkamp et al. 2003, p. 128). Of these projects some focus on creating conditions for including Daily Routines considerations in spatial planning, most focus on concrete plan making or realisation of a planning concept. Key examples of the latter are the development of multifunctional buildings, in particular nodes for public services, the inclusion of the temporal component in the redevelopment of industrial estates and the development of *kindlinten*, safe routes for children at a neighbourhood level (SZW 2005). Of the former type of projects, it is particularly the projects in light of the 'Ruimtelijke voorwaarden voor taakcombineerders' (spatial conditions for task combiners) that are noteworthy (Tummers 2002; Tummers and Boer 2003). Finally, in the Netherlands the national Daily Routines programme drew to a close in 2007, also marking the end of this episode. At this stage, the Provincie Zuid-Holland had abandoned an active Daily Routines policy within the domain of spatial planning.

# 14.3.6 2007–2010s: Towards a New Phase of Transfer of Practices and Principles?

After a generation of projects was finished in 2007, a new stage in the development of the times-of-the-city approach has only slowly taken shape. Most effort of the involved core researchers has gone into publishing and disseminating the practices of the previous years (Läpple et al. 2010; Bonfiglioli et al. 2009). Effort has also been put by some of the core researchers into developing a text book on European time policies (Time-lab n.d.). In France, the network 'Tempo Territorial' has gone from an explorative mode into an exchange of running practices since 2007 (Tempo-Territorial 2008, 2009). This exchange is likely to deliver a base for a new generation of exemplary practices, but extensive documentation and scientific evaluation of these practices is rare. One case showing a continuation and progression of practices from the previous years is the region of Lyons with its 'Espace des Temps programme' (Espace des temps n.d.).

Outside Italy, France and Germany, other countries are (again) picking up on the times-of-the-city approach more and more in recent years. After the relative success (in terms of number of local projects at least) of the Daily Routines subsidy programme, Dutch time policy has shifted to a new approach. Based on covenants with so-called koplopers (pioneers) on time policy, Dutch government was aiming in 2010 for more elasticity in the day-to-day organisation of activities around the new '7 to 7' concept, aiming to shift away from the classic '9 to 5' working day model. The concept has been picked up, primarily, through education and child care policy, including the development and building of so-called broad schools. In Belgium, Austria, Spain and the Netherlands, explorative studies have been commissioned by national and regional administrations to inspire new policies on time (Glorieux et al. 2007; Mairhuber and Atzmüller 2009; IERMB 2008; OCW and Dehora 2009). These explorative studies mostly reiterate the findings of exemplary practices up until the early 2000s. The focus is, for the large part, exclusively on time policies rather than on integral timespace policies or territorial time policies.

## 14.4 Summarising: Merging of the Public and Academic Arena

The approval of the Turco act in Italy in 2000 was a pivotal point for time-oriented policies which brought the times-of-the-city approach from the stage of experimentation to that of legitimised policy and provided closure for this episode in the development of the approach. The Turco act made the formulation of territorial time plans obligatory for Italian municipalities with more than 30,000 inhabitants as well as the establishment of an *ufficio tempi* (time office), the employment of a time manager and the establishment of a *tavolo di concertazione delle forzi sociali* (round table for the coordination of social powers) (Mareggi 2002). Less prescriptive was the French second Aubry act of 2000 on time policies, which made room for local time policies (in particular the setting up of time bureaus) but left it open for local actors to determine the form that they would take (Boulin and Mückenberger 2002).

After some early initiatives in Italy at the start of the 1990s, the times-of-the-city concept came to fruition as an approach for planning practice after it was developed as a shared framework for European cross-border cooperation at the end of the 1990s.

In subsequent years, the approach is actively promoted by a multidisciplinary network of researchers and practitioners – some with a background in urban planning and design, others in the domains of sociology and economy – that are primarily located in Italy, Germany and France.

However, the fact that the approach has been promoted outside Italy and has picked up on the momentum and history of similar ideas in other countries does not necessarily mean the approach adds up to a neodiscipline. In fact, the different countries demonstrate different directions in the institutionalisation of the approach.

	Italy	France	Germany	Netherlands
Dominant interpretation of the times-of the-city concept	Time policy; primarily looked upon as a new type of social policy inspired by emancipation policy; move towards scaling up to regional scale and integral planning processes	of mobility and transport policy; some elements of labour market research	Integral timespace planning and research; focus on recombina- tion of labour market research, social policy and urban redevelopment policy	Emancipation policy; mostly fed by time geographic research and attempts to apply results of such research in urban planning

**Table 14.2** Differences in orientation of the times-of-the-city approach in Italy, France, Germany and the Netherlands

Table 14.2 highlights the major differences. What is clear overall in Table 14.3 is that the institutionalisation can be considered most advanced in Italy. The situation in Italy is characterised by a parallel and related institutionalisation in multiple arenas.

Over time, focus has shifted from one arena to the other, but with characteristic cases at the centre of the institutionalisation process, Italy is defined by the merging of the different arenas *a priori*. This is what fundamentally separates the institutionalisation in Italy from that of Germany and the Netherlands (Table 14.3). Both are countries with a history of case development. Germany has shown some merging of arenas, but to a far lesser degree than in Italy. In the Netherlands, the institutionalisation in the academic arena has lagged behind and, perhaps for that reason, has not been able to turn around the declining political interest in the public arena. The case of France seems to demonstrate that explorative pilots are not enough if they are not supported by either an institutionalisation process in academia or one in practice that helps the approach or discipline to expand the network of researchers and practitioners.

## 14.5 Conclusions and Discussion: Towards an Alternative View

The aim of this chapter has been to examine if the times-of-the-city approach can be considered in terms of a neodiscipline. The establishment of a neodiscipline can only be stable and considered institutionalised if it is so in multiple arenas. This chapter shows, through an analysis of the diffusion of the times-of-the-city approach from Italy to other European contexts between the 1980s and 2000s, that such a claim for this approach should be reconsidered. I posit that the times-of-the-city approach cannot and should not be looked upon at this moment as the carving out of a neodiscipline but, rather, as a transdisciplinary practice diffused

**Table 14.3** Differences in institutionalisation of the times-of-the-city approach in Italy. France. Germany and the Netherlands in the period 1990s–2000s

	Italy	France	Germany	Netherlands
Interdiscipline institutionalised in local academic environment	Department and professional Master degree	n/a	Trans-/interdisciplinary research projects	Fragmented, individual research projects
Interdiscipline constituted in wider academia	Informal but tight knowledge network; practice-oriented publication of research	Ad hoc knowledge network	Formalised knowledge network; focus on scientific publications	n/a
Interdiscipline institutionalised in policy practice	Legislation and formal policy plans	Explorative studies, ad hoc city-focused programmes	Pilots in policy explorations, localised action-oriented research	Nationwide subsidy programme for projects and programmes
Interdiscipline institutionalised through path dependency (refers to situation before 1990s)	Sociology and gender debate	n/a	Technological systems in urban planning, Italian practices, economy/organisation studies	Geography, interdisciplinary study groups in the 1980s
Stability of the paradigm since 1990s	Stable from core exemplary practices	No stable base, some continuous initiatives in particular cities	Theory-driven progressive stability: expanding and integrative	Declining political momentum

through networks of researchers. The times-of-the-city approach can be regarded to some degree as a community of practice which at times operates as an epistemic community (cf. van Schaick 2011). In terms of disciplines, seen from a bird's eye view on European practices, the approach is characterised by a multidisciplinary conglomerate of subdisciplines in geography, planning, organisational sciences and policy analysis. The differences between national contexts are great. And although concepts and techniques can be transferred through the network across planning systems and cultures, largely dependent on individual researcher's interests, the institutionalisation will remain highly context dependent. The approach itself has failed to some degree with regard to its own goal setting. It has not fundamentally brought together the notions of time and space, having focused on the switch from empirics of time ordering to the planning of time. It has seemingly lost its focus of bringing about a novel cut at social practice that is both spatial and temporal.

This conclusion implies that it is necessary to develop other measures of success to evaluate the integration of time planning and spatial planning; other measures beyond the degree to which the particular concepts and methods of the times-of-the-city approach are taken up in policy practice and academic practice. A possibly rich avenue of future research in that sense is to examine the extent to which notions of temporal organisation have been embedded in the domain of spatial planning and urban design. For that the work by Henckel and Eberling (2002), Henckel et al. (2007) and van Schaick (2011) provide interesting starting points.

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## Chapter 15 City, Urbanism, Social Sustainability and the Right to the City

Fermín Rodríguez Gutiérrez

**Abstract** This chapter presents an approach to the concept of right to the city by proposing a methodology that assists the equitable city in improving the living conditions of its inhabitants. The issue is addressed by presenting a path of research and support to the territory of Asturias for territorial development that CeCodet (Center of Cooperation and Territorial Development) of the University of Oviedo has worked since the late 1990s. From the initial research and projects regarding the citizens' use of time in relation to the urban space, to the personal time management difficulties with citizens' mobility and the consequences in terms of social sustainability, this chapter proposes a new process of research and action research for urban planning that reconsiders the central relationship between civitas and urbs.

**Keywords** Just city • Right to the city • Sustainability

# 15.1 From Urbanism to Social Sustainability: Methodological Considerations<sup>1</sup>

We try to apply the territorial perspective as an element to control the transformation of the territories within a local scale, to help to establish transformation control as

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<sup>&</sup>lt;sup>1</sup>That is assuming that the territory, the city, is a living organism, composed of its physical body and of the inhabitants that provoke its transformation. It is, in other terms, the inhabited city. Because of this reason, urban and territorial transformations are filtered through slow processes of study, project and learning by its inhabitants. This is why the authors give a high value to the choice of terms.

a systemic need through an active strategy that aims at sustainability as well as through the development of the capabilities of the territory.

Using an ontogenetic perspective, we compare territory with a living being that passes through different stages where the development of knowledge and its practice is dynamically combined in a sequence of successive stages of learning. Territorial agents participate and learn as isolated monads and as elements of a set which, at the same time, affects the learning process of each of them.

We believe that the concept 'territory' is equivalent to 'civitas' (Rodríguez 2004). Space and territory do not mean the same thing. There are many types of space; one of them is the geodesic space, which carries different qualities understood as values, such as freedom, security and autonomy, providing it with citizen density, which prevents against risks of territorial transformations, contributing to social welfare. The 'civitas' territory depends largely on the excellent work of participants. In this sense, the amount of territory in a given space is variable. It depends on the excellent action of the participants, the conditions of space, the interaction with other local systems and random factors.

In the current context of our global civilization, transformation control is a structural key for the system that needs a specific method of regulations, known as governance, and focuses on the basic unit of development, which for us is the local scale, in practical useful projects for people.

Here, we review some of these projects, applying the value of their contributions to territorial development, which at the University of Oviedo has been developed since 20 years ago in the Center of Cooperation and Territorial Development (CeCodet) of the University of Oviedo (Rodríguez et al. 2001).

The territorial system is presented according to its scale in different sizes. The basic scale is the local unit, which is embodied in the city as settlement of modern civilization, which concentrates population and economic activity, and consumes resources. The city is the most dynamic representation of the population system. Its dynamism and size make it essential, to avoid structural crisis, the aspiration to its government according to general interest. Here, we explore new fields of the urban experience, such as those related to the management of people's time, mobility in the urban body and social sustainability.

## 15.2 The Temporal Cycle as a Management Tool

Time is a powerful tool for the management of the city. Time cycles are vital for the establishment of systems of transport, management of public spaces and the schedule of public and private services. In short, the adaption of the rhythms of the city to the rhythms of the citizens, offering a comfort and easy use of the city, can improve the quality of life.

The rhythms of the city are variable. They change depending on the temporal cycle and the socio-economic status: a woman that works does not use her time in the same way as an unemployed person, a student or a male worker. Nor is the

rhythm of a citizen of 'blue collar' culture the same as that of a 'white collar' citizen. As society changes and some social groups dominate over the others, the uses of the city and their times change.

It is necessary to analyse the usage of time, the rhythms of the city, to understand and govern it, looking for a qualitative step from 'urbs' to 'civitas'.

The time of the city has been studied from a variety of approaches, which have been enriched over the years. The first stage, with a gender perspective, was hosted from feminist positions with the first women who joined the labour market in the services sector and in managerial positions. They discovered that neither society nor the city facilitated their lives. Its beginning took place in Italy, where women still had a very traditional role.

Those first researches analyse the use of time at home and in public services. In a second stage, the discussion extended to the world of work. Two models appear:

- The French-German, supported by trade unions and classic large companies who propose the reduction of the workweek to 35 h and/or ruptures of the standardized work cycles
- The Italian model, based on more flexible consultation on working hours, encouraged by companies from the industrial districts

Analysis on the time of the city emerges in a third phase. It first appears in Italy and extends across Europe. The time of the city presents itself as a new form of global planning and regional/sectoral management, influencing the pursuit of life quality through the city pulse, synchronizing its beat, to prevent collapses and diseconomies. In some locations, citizens exchange their time through local time offices or time banks.

The CeCodet of the University of Oviedo has been involved, since its foundation, in these study approaches. Academic research, basic or applied, on the use of time has been a constant of the centre. In 2002, in the framework of the Master in Local Development, driven by CeCodet, some research papers focused on the use of time: 'Time and city in Gijón: A proposal to improve quality of life through the organization of time' or 'Time and city in Avilés'. CeCodet worked in projects such as 'Times of women in the Caudal and Nalón mining regions', 'Women times in Siero' or 'The uses of the time in Gijón: analysis from a gender perspective'.

CeCodet participated in the implementation of activities like 'The night is yours' or 'Open until dawn', developed from the city councils of various Asturian municipalities to provide healthy entertainment alternatives for young people.

CeCodet also participated, along with the *Maison du Temps et de la Mobilité* of Belfort, is the programme 'À *travers la nuit*', which analysed nightlife in various cities. Nightlife economy is often ignored, but it employs 20 % of the total, involving economic sectors such as industry, hotels, transport, health or security forces. In Asturias, 30 % of the employees work in shifts.

#### 15.3 Mobility, Sustainability and Time

Mobility is a key element for the functioning of a city and its territory. It occupies a growing part of the citizen's time and is directly related to the use of their time. Transport systems often alternate high use intensities with hours of weak or medium use.

Contemporary cities, with their tendency to sprawl, do not facilitate sustainable mobility. This results in is a seemingly dysfunctional city that places its own efficiency at risk. Some authors point out that part of the relative decline of the United States has to do with the economic and social costs of this model of city. Spain is no stranger to this.

Public transport is a challenge, especially in middle or small size cities, where their low intensity of use complicates their profitability. This is also the case in urban areas not officially recognized, where transport networks are not well developed. The Central Area of Asturias is an example.

The endless growth and displacement gives rise to social and environmental sustainability problems. Cars neither fit in the city centres nor on the routes that reach them. The increasing specialization of city districts, which dedicate urban centres to tertiary activities and peripheries to housing and infrastructure, is a cause of massive and highly concentrated radial mobility at certain times of the day. The amount of underground parking facilities has grown. In Oviedo's downtown, capital of Asturias, there are 3,000 street parking spaces to accommodate approximately 90,000 cars that enter on a daily basis.

There is a noticeable increase in time dedicated to obligate mobility. The time spent is proportional to the size of the city. Additionally, there is an increasing complexity of trips in several stages and multimodal methods of transport. Numerous studies have shown the correlation between both traffic congestion and stress and automobile use and obesity, not to mention the inherent difficulties that this system imposes to social relations.

In Spain, transport-related carbon dioxide gases that affect global warming have increased by 57 % between 1990 and 2003. They now account for 28 % of total emissions, which tended to decrease in recent years. All of the Spanish urban areas assessed, except for Alicante and Navarra, exceed the limits of pollutant agents. It is also significant to look at the consumption of soil. Urban areas such as Madrid, Murcia and Alicante have seen approximately a 40 % increase in their urbanized soil. Leisure mobility is increasingly important and more dependent on the automobile.

In short, the rising need and consumption of sustainable mobility resources is imperative – always in relation to the time spent on transport and the associated cost.

The application of sustainability criteria to growth and urban planning represents a profound revision of growth models.

Since the end of the nineteenth century, low-density growth has been associated with well-being and health, as a reaction to the overcrowding of the cities. Indeed, studies conducted at that time showed clear correlations between mortality and

population density. Therefore, the appropriate model to improve the conditions of life in the city proposed lower density, large avenues and extensive green areas to put people in contact with nature.

European hygienist models coincided at that time with philosophies advocated by Thoureau and others as the 'city beautiful' movement. Proposals to build new cities arose in Great Britain, and, in the case of Spain during the dictatorship of Primo de Rivera and the second Spanish Republic, towns and satellite cities of cheap houses were proposed and built. Similarly, Frank Lloyd Wright advocated the wide, extensive cities, connected by highways, whose model was unveiled at the universal exhibition of 1939, stunning the world. Other models, such as Le Corbusier's, propose the opening of free spaces in exchange for an increased building height.

The coincidence of these proposals with the diffusion of the automobile made it possible to translate into reality a model of low density, open spaces, to extremes that distort the original model. Both in Europe and in the United States, both extension and height models were used, although with an almost total dominance of the suburbia in America and more of a mix in Europe.

The sum of these city models and the patterns of evolution already shown lead to a city model which, in the current state of application of technology, is inefficient and probably not sustainable from an energetic or economic point of view.

The trends need to be reverted. Reduce distance and amount of travel. Make them more efficient in both the urban and territorial scale. This will give back lost time and improve the quality of life of inhabitants. In architecture, design and build homes that save energy.

That is why there is an open debate on the model of city and its ideal density. The Americans, at the beginning of the 1990s, began to question the sprawl that marked their urban areas: the Smart City movement emerged, seeking a more compact model. The debate between the advocates of both trends continues and goes beyond the academic world and into the media, as the rise of energy prices makes dispersed urbanization very expensive.

In Europe, the debate continues, although European cities have greater diversity than the United States. In Spain, the situation reveals nuances. On one hand, our cities are dense but show signs of expansion in the form of rural area occupation, where agricultural farms are transformed into residential areas. However, the model of higher densities is being currently defended instead of having buildings surrounded by green areas.

The patterns of evolution of the cities, which respond to the logic of economic production in market economies, suggest that mobility will continue to be essential and may even increase. That is why it is important to intervene in the city by taking on and working with these trends (Mückenberger 2007).

We must work to determine optimal density to concentrate the city without suffocating it and locate employment favouring the creation of secondary employment centres that balance distribution, complement the residential uses with tertiary uses and establish lines of communication between them. We must respond to peripheral mobility and harmoniously combine the three pillars of planning: residence, transport and equipment and services, taking into account the need for efficient accessibility, energy and the environment.

It is essential to think about the energetic model of transport. Technologies that transform the notion of transport must be developed to gain more efficiency.

Social habits play an important role in energy efficiency. The access to technologies that allow the reduction of mobility, such as telework, online commerce or flexible working hours to help ease congestion and rush hours, should be facilitated, along with information to the citizens about sustainability as an element of efficiency and savings for the consumer.

The incorporation of sustainability to the markets, as a criterion for costs reduction, may be a crucial step to improve the efficiency of our cities. Technologies, both of transport and telecommunications, can play an important role, avoiding the consumption of time, resources and cost of travel.

#### 15.4 Social Sustainability and the Right to the City

Sustainable mobility introduces the three facets of sustainability: environmental, economic and social.

Social sustainability leads us to the right to the city, a right of the so-called fourth generation, following the first (eighteenth century – American and French Revolutions), second (nineteenth century – working class rights) and third (twentieth century – United Nations letter). This is very important in a world where more than 50 % of the population lives in cities, and, properly applied, this can be the key to work on the concept of 'civitas'.

In an era of urbanization on a planetary scale, the city crisis manifests itself, for the society that inhabits it, in terms of exclusion, marginality, inequality and spatial segregation. The cities, engines of economic development and wealth generators, are not capable of eradicating poverty, which affects an increasingly broader population stratum. Personal contacts, exchanges, meetings, which are at the heart of urban living, are becoming rare because there is no place or time to celebrate them. The public spaces have been abandoned for the home-refuge and are occupied and privatized by the car.

Some of the answers to these urban issues are based on the definition of the right to the city, understood as the equal use and enjoyment of the cities within the principles of sustainability, democracy, equity and social justice. The concept 'civitas' (Rodríguez and Villeneuve 2001) extends the traditional approach based on house and neighbourhood to the inclusion of living quality on the urban scale along with its rural surroundings: this is also described as a step from the right to housing to the right to the city (Borja et al. 2001).

Citizens' welfare depends to a large extent on a well-planned environment that is pleasant to live in. Poor conditions of housing and transport, or the lack of spaces for communication and entertainment, have strong effects on the population. Hence, it is important to use urban planning as a set of techniques that are intended to modulate and define the form of the city.

Urban rights are:

- Right to diversity, multifunctionality and complexity. A city where the greatest variety of social groups, uses and urban tissue can be accommodated.
- Right to facilities and infrastructures for the satisfaction of the individual and collective needs, also including spaces of social relationship.
- Right to public spaces designed to foster personal relationships and neighbour-hood, with aesthetic value and quality, free from cars.
- Right to mobility for all. All citizens must be able to move in a competitive public transport, between the different neighbourhoods and areas of centrality, taking into account the specific needs of each group.
- Right to accessibility. Housing, public spaces, streets and squares should be accessible to all citizens in an autonomous way.
- Right to the collective identity. The sense of belonging is essential for integration
  and the achievement of collective life within a territory. The positive elements
  of identity are essential; they can be historical and cultural values or physical
  features of the territory with which its inhabitants may be identified.
- Right to participation. Urban legislation should provide channels and policies for the informed participation of citizens in the planning of their environment.

CeCodet worked with the right to the city in the district of La Calzada, Gijón, Asturias (Rodríguez et al. 2007), initiating and attempting to implement a methodology that would diagnose the degree of social sustainability in large-scale urban territories, find the relationship between urban shape and social sustainability and identify possible actions to guide towards a socially sustainable urban planning.

These objectives highlighted the need to identify indicators for the social sustainability of cities; to establish comparisons between urban entities and the layout of time series; to validate each of these indicators; to set out a method to obtain each one of them and apply these indicators to a specific territory; to prove their validity; and to establish comparisons with other areas wherever possible. We believe that the project, pioneer in Spain, fulfilled its goal, testing a methodology to measure the social sustainability of an urban territory. The proposed method successfully combines various approaches that complement each other and are self-enriching. Most of the indicators worked and fulfilled their mission satisfactorily allowing the comparison between different areas and scales: the town of Gijón (local level), Asturias (regional level) and Spain (national level), clarifying the relative position of the study area.

During the development of the study, subjective indicators were found to be an important measure of social sustainability. Thresholds and standards are useful for measuring the environmental and economic sustainability, but are not adequate tools to measure social sustainability. In the case of La Calzada, where, according to the standards, there is a shortage of areas for public, the majority of the citizens do not perceive such shortage. This may be due to the proximity of the majority of households to the green areas, despite their scarcity.

The perception of the city changes with each individual. Some barely sustainable neighbourhoods, considered ghettos for people of high socio-economic status, are among the most coveted areas of the city to reside. The degree of sustainability is not the same for all: for a young person versus an old person, for those who spend their daily time moving from one side to another versus one who has nowhere to go, for someone of high socio-economic status versus someone with few resources. Hence, the need arises to combine qualitative with quantitative indicators to understand social sustainability.

The combination of qualitative and quantitative methods has been a proven success. The various sources complement and enrich one another, providing nuances and giving more validity to the analysis. However, these types of indicators offer limitations in establishing time series and in comparison with other areas.

Cities are complex systems that offer various forms of sustainability according to their different areas. Dense, diverse and accessible downtowns that are well equipped with services and amenities can lose population as a result of high land prices and sometimes due to the lack of equipment. On the contrary, many neighbourhoods, abundant in facilities and green areas, are inhospitable due to lack of streets and meeting areas, but they have a growing population.

The case of La Calzada is exemplary. Although it is not a physically appealing neighbourhood, and it was not designed or planned, it is nice for its inhabitants. Its urban fabric promotes social life. It has good equipment and some gardens. Its biggest weakness is how it relates with the rest of the city, the surrounding big avenues and railway tracks, which create a barrier between La Calzada and the rest of Gijón.

We think that this work is a step forward in the measurement of social sustainability. But there is still work to do.

## 15.5 Common Challenges

The road ahead is long and requires an urban planning tool that complies with the objective of arriving to 'civitas'. As for Spain, urban construction coming to a halt in recent years is an opportunity to rethink the role of the city.

Some proposals advocate working with the existing city, intervening in neighbourhoods constructed during the decades of 1950s, 1960s and 1970s: the neighbourhoods that have transformed their inventory, regarding use and functionality over the years.

We have explored new areas for the establishment of formulas of city management and the improvement of the living conditions of its inhabitants. As time progresses and societies and territories transform, new challenges that threaten the urban balance emerge. Research possibilities are endless: it is necessary to advance in knowledge alongside with the changes that an evolving society brings.

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## Chapter 16

## The Area Governance Plan and the Territorial Time Plan of the City of Bergamo: An Example of Temporal City Planning

Marina Zambianchi

**Abstract** The space temporal approach can influence the quality of use of the individual time and public space by redesigning urban space and public timetables. Time-oriented planning offers a comprehensive policy framework, integrating different sectoral policies and strategies. The city of Bergamo has developed two specific tools that reflect the municipality's space temporal approach: the Area Governance Plan (AGP) and the Territorial Time Plan (TP). The contribution illustrates key elements of both plans, their integration of time polices with strategic spatial planning, their relation to each other and their contribution to new collaborations within the local administration. Both plans are focussing on the quality of public spaces and services as well as on the accessibility to urban spaces and services.

**Keywords** Urban time policies • Urban time planning • Implementation • Intersectoral approach • Bergamo • Italy

#### 16.1 Introduction

The space temporal approach showed the need for recomposing the structure of urban space and public timetables (working hours and opening hours of general interest services), wherefrom the quality of use of individual time and public space depends, into a unique framework of interpretation and in an integrated system of actions we can call time-oriented planning.

New issues of the space temporal approach are presented through the case of Bergamo, where the Area Governance Plan (AGP) and the Territorial Time Plan (TP) are applied. The Area Governance Plan is the new urban planning tool: AGP is a flexible, strategic, not rigid and normative tool. The Territorial Time Plan coordinates the different times of the city.

Bergamo's case presents new institutional practices that have allowed us to use new space-time tools in the urban project. The development of the Territorial Time Plan promoted the collaboration among different sectors and offices of the local administration by creating a positive merging of time polices with strategic territorial planning. This was possible thanks to the reinforcement of the Time Office's institutional tasks, of its technical and institutional tools and of its relationship with urban planning activities. Therefore, the Territorial Time Plan is now a tool connected with the AGP to give orientation to territorial projects.

Both instruments focus on public space and its quality, considering

- The quality of the public space and of services on an urban and territorial scale
- The accessibility to places and services

The AGP integrates all territorial policies: all other plans (concerning mobility, services, etc.) are coordinated to the general strategies identified by the plan itself. Urban living quality is the core goal of the AGP: the Time Plan and the Services Plan are the tools to achieve it.

### **16.2** The Time-Space Approach<sup>1</sup>

The time-space approach to urban planning was developed side to side with the experience of urban time policies since the 1990s, and it is distinctive of the new discipline of 'time-oriented planning' (Bonfiglioli 2010).

Architecture and town planning have taken the task

- To describe in a joint vision space temporal reasons of territorial and socioeconomic transformations
- To find a method able to integrate space and time in architectural and urban design
- To develop tools for time-oriented projects

The functioning of a city is relying on two connected aspects (besides others): on the one hand, the spatial/urban structure; on the other, the organization of time and timetables of public services, work and associations.

<sup>&</sup>lt;sup>1</sup>In the context of this chapter, the themes in the first paragraph are only mentioned without being developed.

Space-time description and interpretation focuses on the relationship between the city and the lifestyles of residents and temporary inhabitants (space temporal structure, urban structure, urban history, activities and functions, timetables of residents and of temporary inhabitants). The inhabited city is a chronotope, where urban structure and the use of the city can be thought as linked together (Zedda 2009).

This approach arises in a new season of urban planning, following the long period of international studies and researches carried out from the 1970s and onwards (Bonfiglioli et al. 2012).

In the 1970s, the cities began to live a transformation determined by several new issues:

- The development of information technology and new space and time assets
- The end of the logic of the compact city and the rise of urban sprawl, regardless of every administrative boundary (boundaries that are however still relevant in the planning of urban services)
- The diffusion and development of transports, especially based on the use of the private car
- New uses of daily time and new lifestyles

The city changes, becoming a city of flows: inhabitants live in an urban system marked by the movements of people (Dupuy 1995). What does this mean for the functional level?

- The lifestyles of people and inhabitants change. Temporary inhabitants are often higher in number than residents. Their presence is based on schedules and is variable in number.
- The rhythms and calendars of the presence of temporary inhabitants are characterized by a day lengthening towards the evening, by a more intensive use of the night and of weekends and by short holidays.
- The new citadels within the city (citadels of business, entertainment, sport, university, wellness, etc.) build a new landscape for temporary life practices.
- Time-oriented planning redesigns the city while its physical shape changes: the periurban system is not a new peripheral low-density model of city, but a part of an 'archipelago' of territories with different spatial scales. The urban system is strongly connected to new life and work styles brought by new technologies:
  - Different sequences of work/not work in the use of time
  - The use of services on a wider territorial scale (not only near home)

Also the shape of the city of Bergamo changed, as it happens all over Europe: from a wider settlement with suburban beltways to a metropolitan area (Plan Astengo) and to an urban system that covers several (not contiguous) areas, designed by the movement of people, goods and information, according to complex timetables and calendars. Bergamo is one of the attraction centres of this network.

#### 16.3 Phenomenology of the Urban Context

Bergamo lies at the heart of Lombardia, 50 km from Milan, in the centre of a wide metropolitan area, where an intensive use of the territory is the reason for a fast and frequent internal mobility.

Bergamo as a city is becoming more and more a tertiary city, and, therefore, it is changing the relationship, in radical ways, between population and territory. The city is redefining its fundamental systems: social relationships, strategic infrastructures of the urban system.

The urban system of Bergamo is made up of all the territories with which communities, residents, companies and organizations of the core city maintain relations of life and work. The city of Bergamo is now extended, from the point of view of its influence area, well beyond its administrative boundaries: its territory tends towards the character of a metropolitan city with a polycentric structure composed of various local nodes of relevant hierarchical level (towns like Dalmine, Seriate and Ponte San Pietro), strongly related with the province and influenced by the proximity of Milan with its metropolitan area. Synergic relationships among the network nodes create a complex space: variable geometries not definable within predetermined limits or boundaries.

The new lifestyles extend the territorial scale where citizens live, work, move and benefit from services. Their movements are only partially based on a regular origin–destination cycle while more and more frequently showing chaotic rhythms and zigzag movements at different spatial scales.

Every day, about 30,000 university and secondary school students arrive from the hinterland, adding their number to another 30,000 temporary inhabitants of Bergamo (workers, tourists, city users). The city is inhabited during the day by over 160,000 temporary and permanent residents.

Over time, the settlement was built responding to this variety and to the territorial features, giving birth to the upper town (Città Alta) on the hills and the lower town in the plain.

The upper town is the symbolic centre, religious and cultural, artistic and monumental; the lower town is the fashionable centre, cultural, administrative, directional, educational and productive.

Città Alta is also the town of night-time and social life, as opposed to the lower town, which is a magnet for services, administrative centres and cultural centres and lives a daytime life related to the opening hours of services.

In the urban area of Bergamo (including the first peripheral belt), we can find three types of chronotopes, which reflect the presence of temporary populations and the pulse of the inhabited place represented in the calendars of the population<sup>2</sup>:

<sup>&</sup>lt;sup>2</sup>For further details and illustration, see also the map on http://www.comune.bergamo.it/servizi/Menu/dinamica.aspx?idArea=1182&idCat=1195&ID=1925.

- The productive areas in the peripheral belt open and close, generating a full-empty rhythm. Production areas experience the daily working rhythm of enterprises, which is further overlain by the 4+4 rhythm. A population of workers lives there temporarily, and mobility is of the origin–destination type.
- The two areas in the centre of the city, the ancient city on the spur overlooking the northern Italian plain and the Sentierone where the civic services are located (court, municipality, etc.), are both inhabited by temporary populations. Activities that are concentrated in Città Alta attract temporary populations on a seasonal, academic, weekend and night-time basis: the university, the cultural, artistic and environmental heritage, the entertainment services. It is also characterized by secondary residences of people from Milan and other highmobility populations who have replaced the bourgeoisie of the city, which moved out to new high-class settlements on the plain during the 1970s. The ancient city is a chronotope of temporary seasonal and night-time inhabitants. Today there is a competition between resident citizens, who would like to return to live in the ancient city, and temporary residents with their secondary residences. It is a problem typical of Italian cities. The area of the Sentierone is a diurnal chronotope. The resident population is abandoning the area, which is becoming more and more an area of diurnal activities and services.
- The Porta Sud which closes the North-south axis of the city is an area of mixed settlement not yet resolved, a multimodal access gateway to the city centre.

The maps (see footnote 2) of the chronotopic organization of the Sentierone and of the historical centre showed the public administration and planners a reality that had already been perceived and yet never fully described. This new awareness of the urban structure opened the opportunity to address specific problems and define projects, all of them collected in the Area Governance Plan (AGP), in the Services Plan (SP) and in the Territorial Time Plan (TP) of the city of Bergamo.

## 16.4 Legislative Framework

The implementation of the space temporal approach in practices finds a particularly favourable ground in Lombardia region, after the issuing of two almost synchronic laws:

- The law that rules the coordination and administration policies of city times (Regional Law n. 28, approved in December 2004)
- The law for the government of the territory (Regional Law n. 12, approved in March 2005) that renews the frameworks and instruments of action for urban and territorial planning at different levels and that, particularly, introduces the municipal planning instrument of the Area Governance Plan (AGP), replacing the old General Town Plan

Before examining the two regional laws, it is worthwhile recalling National Law n. 53 'Dispositions pro motherhood, fatherhood, care, background and coordination of city times', approved in the year 2000. The second part of Law n. 53 deals with city times: it forces mayors of towns with more than 30,000 inhabitants to

- Have a Territorial Time Plan
- Create a Time Office
- Elect a manager in the field of urban time
- Create a codesign roundtable, with city institutions and stakeholders, to carry out projects contained in the plan

The Regional Law n. 28/2004 establishes the coordination and administration of timetables as a tool to promote equality between men and women and a better quality of life through the harmonization of work, relationships, family care, education and leisure times of people who live in the region, or use its territory, albeit temporarily.

The main purpose of the new Regional Law 12/2005 is the promotion of a sustainable development of the territory. This new urban law forces a strong change and obliges the local governments to a responsible behaviour in managing their territorial resources.

The main principles of this law are

- Subsidiarity, either vertical (competence of administrative activities belongs to the local bodies nearest to citizens) and horizontal (improvement and extension of spaces of freedom and responsibility of citizens regarding the role of institutions)
- Environmentally, socially and economically sustainable choices of urban planning: e.g. recovery of the territory, minimization of land consumption and so on
- Wide participation of the citizens in defining the choices of the territorial government
- Planning flexibility, in contrast to the previous rigid and hierarchic system
- Equalization of economic planning consequences

After the new Regional Law 12/2005, the Administration of Bergamo has approved the new Area Governance Plan (AGP) that substitutes the previous instrument, the General Town Plan. In this new framework, the real challenge is to use the AGP to integrate a multitude of urban policies.

The main difference is that AGP is a strategic, flexible and procedural plan, while the General Town Plan was rigid and prescriptive. Furthermore, in coherence with the new principles of the most recent urban planning tools, the AGP has a strategic dimension, which can be translated in an overall view of the territory and its development (Palermo 2004), and one more directly operative dimension, marked by the decision of specific objectives, of different functional destinations and location of the areas designated for transformation.

The common aim of the two regional laws is the enhancement of urban quality and quality of life: in time policies quality is closely connected with the subjects living in the city, with attention to their different ages of life. Quality of life, on the other hand, is the explicit aim of the Services Plan, which is now one of the tools of the AGP to plan the public city.<sup>3</sup>

#### 16.5 The Area Governance Plan (AGP) of Bergamo

According to the recommendation given by the present administration in the mandate plan, in relation to the future transformation of the city and the territory, the new urban idea suggested by the AGP has some specific features.

Strategic choices and planning activities in the AGP are defined so as to grant not only the fulfilment of economical and temporal targets but also and especially the objectives of urban and environmental sustainability. It is a vision for a city that is (Commune di Bergamo 2008):

- Liveable
- Accessible
- Hospitable
- Safe
- Polycentric
- Innovative
- Competitive
- With an identity

According to the AGP, Bergamo must be inhabited in its built spaces but also in its relational spaces, where the new urban quality must be able to attract new inhabitants and new functions linked to them (services and trade, small business and handicraft, creative and innovative activities), particularly in those areas affected by the disappearing of previous productive activities, abandonment of buildings and decay of urban spaces.

The city is made accessible through policies aimed, on the one hand, at expanding the network of the public transport and, on the other hand, at improving road connections, for better conditions of access, use and fruition of public spaces, according to different timetables and for different types of users. Urban accessibility is also functional to the improvement of the city's vocation for historical tourism and should produce solutions that define infrastructure as part of the new urban and territorial landscape.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup>The AGP is made of three main tools: the Planning Document, which outlines the goals and strategies of urban planning policies; the Services Plan, which projects the public city (services and public spaces); and the Plan of Rules, which regulates the development and the transformation of all existing buildings and structures.

<sup>&</sup>lt;sup>4</sup>See also http://territorio.comune.bergamo.it/area-download-atti-pgt.

A hospitable city can answer suitably the different demands expressed by the complex range of its users: old and 'new' residents, weak social groups, children, the numerous Italian and foreign tourists and the very frequent business visitors.

The new idea for the Bergamo of tomorrow aims at improving the usability and liveability standard of urban spaces, particularly public ones, towards a safe city, not only for residents but also for workers, commuting students, tourists and visitors, and at the same time promoting the network of environmental resources of its territory.

This territory must be seen in a polycentric dimension, overcoming administrative boundaries and including many cities of the first and second belt. The city acquires importance only if related to its urban system, in a relationship of strict connection and interdependence.

In this metropolitan perspective, the city of Bergamo becomes the example of a large-scale territorial project for the development and expansion of a network of historical, economic, social, landscape and cultural resources, assuming a leadership role.

This new idea of a city pushes Bergamo into the direction to define itself as an innovative city. Hence, the promotion, by means of economic incentives, of research and development with emphasis on new technologies but also urban transformation with respect to energy saving and renewable energy, new materials and sustainable building techniques are relevant issues. All these initiatives aim to promote the future city as a technologically well-advanced and therefore more and more competitive city, responding to the new standards of liveability and urban sustainability.

Finally, Bergamo seeks to be a city with an identity, recognizing and appreciating its (present and potential) resources that are historic-architectonic, economic, social, cultural, artistic, landscape related and environmental. These are developed in close relation to the territorial context: in the firm belief that the push to innovation and modernity also needs to preserve its roots within the places.

## 16.6 Time Policies in Bergamo

In Bergamo, a 15 years' experience of approaching, exploring and developing time policies allows us to have an insight into the matter. Time policies allowed new subjects, the majority of which were women, to come onto the urban policy scene (Mareggi 2002).

Time policies speak the language of differences: of gender, of culture, of age. They remind us that nobody is an abstract body: every person is a unique melting pot of cultures, knowledge and practices, and this influences the definition of social problems and their solutions. Through urban temporal policies, women began to speak about everyday life, how to conciliate work time with care time and how to make the city a pleasant place to live. The challenge is to set experiences/knowledge/practices as a shared perspective. Problems connected with

the times of the city and its timetables derive from specific situations and from specific needs, but they become a raison d'être that involves the city and its functioning. Urban time policies are not universal and ready to be reproduced policies, but they are attentive to what is called 'the micro physics of daily life'. The focus is on the city you live. Lived by whom? Where? How? When? Doing what? If you discuss accessibility, you do it thinking about the subjects who need access to urban services, considering their objective conditions. Accessibility to a place or a service is a very different thing in the needs of an elderly person or of a young person or if you are considering daytime or night-time.

In Bergamo, it was the 'Women's Council' (a citizen-based advisory group of Bergamo's municipal government, made up of the women elected in the city council, of the representative of the administrative districts and of a representative for each group and organization who looks at the territory with 'women's eyes') who first opened the debate about the need of living in the city in a more 'user-friendly' way, bringing their personal experiences and focusing, in particular, on their double role as workers and taking care of a family at the same time. Considering the differences among individuals led women and various committees involved in the Time Plan projects to think about the places where people live, investigating aspects and problems pertinent to the place-people-time relationship.

The Time Plan of Bergamo brings city times into urban planning, improving the quality of life of all the people together with urban quality. Its goal is to move from a feminine political vision to a plan that gathers and values women's outlook over the city and for the city.

### 16.7 Bergamo Time Plan (TP)

Bergamo Time Plan is constructed on two deep roots:

One root is the exemplary urban tradition of the city that, in the twentieth century, saw the best Italian architects and planners alternate, becoming a laboratory of some important planning innovations: Piacentini's urban design of a second city centre in 1920, Astengo's metropolitan city in 1970 and Secchi's system city in 2000.

The second root is based on the social construction made by two social actors, women and trade unions, that, by the early 1990s, opened a new public space of citizenship. They have understood, interpreted and brought up a new social demand for life quality, rich in temporal aspects that anticipated, for course of action and subjects, following innovations in the field of social studies and urban planning. Time policies deal with the theme of hospitality, of an improved liveability, questioning the use of time of its inhabitants, the places and times of mobility, spatial and social regeneration of urban areas.

The Time Plan looks, interprets and describes, with planning purposes, the inhabited city. It focuses on the link between the quality of life expected by its permanent and temporary residents (seen as individuals, communities and generations) and the performances of urban organization, as related to the urban

and morphologic structures of the built space and to the managing styles of public interest services.

Bergamo's Time Plan is enacted through pilot projects, according to three strategic guidelines (Comune di Bergamo and Politecnico di Milano 2006):

- Sustainable mobility
- Accessibility to the services and places of the city and the urban system
- Social revitalization and urban quality of public spaces

The Time Plan can only be implemented by participation and a joint view of problems and a joint vision. The methodology for choosing pilot projects includes the construction of a local forum to set a dialogue with the network of local stakeholders to share the definition of the problems to be solved.

The proposals that emerged from this first exchange of ideas with inhabitants (permanent and temporary residents of the neighbourhoods) are analysed by a political table, which defines the priorities of action, and, later, by a technical committee, which ensures the technical and economical feasibility of the solutions proposed.

At this point, always with the local stakeholders, a codesign table discusses urban policies and projects to address the problems previously identified. The codesign activity enables the social actors to interact: when defining actions to be developed, in the identification of the proposals, in the definition and carrying out of researches and studies and during the implementation of actions.

At last, the City Council approves the project and finances its actions.

### 16.7.1 Pilot Projects

The first of three pilot projects launched by the Time Plan and now largely realized was:

'Out of the centre: The boroughs at the centre, liveliness and identity of a city district'

The project began in January 2006, and the whole question turned on how to improve the quality of life in Redona, working with its different inhabitants from the parish and from the local district administration. All the stakeholders and Administration Offices (Culture, Education, Mobility, etc.) were involved in studying and analysing the territory.

The following tools have been used to define the project:

- 'Map of the problems', which showed the different needs expressed by residents
- Chronotopic map<sup>5</sup> that highlighted the space-time barriers in the project area

<sup>&</sup>lt;sup>5</sup>For further details and illustrations, see also http://www.comune.bergamo.it/servizi/Menu/dinamica.aspx?idArea=1182&idCat=1195&ID=1925.

The planning elements defined in the neighbourhood of Redona consisted in the requalification of open spaces, especially in the improvement of access to local services, with the aim of removing the space-time barriers identified by the forum:

- In particular, the opening hours of the main park were extended, and a cycle path was created around the main park, with a cycle track completely outside the park, practicable 24 h a day, and a cycle track through the park open from 7:00/7:30 to 20:30 during the winter and to 22:00 during the summer.
- Furthermore, a temporary and temporal safe zone was created (limited traffic zone): active during the half hour before and after the entry and exit time of the primary school from 8.15 to 8.45; from 12.15 to 12.45; from 15.45 to 16.15 and from Monday to Saturday.
- To grant a safe home-school movement for the children, 15 Piedibus stops and
   5 Piedibus lines have been created: an ideal bus with which the children go to school, moved by their own feet.
- Another result of the project was the improvement of urban quality, safety and liveability of the spaces, through the development of a new function in the park, a new space for young people for which 300,000 Euro was provided.

The process and communication of this project have been cofinanced by the Lombardia Region for an amount of 110,000 Euro, while its practical realization has been financed by the local municipality for an amount of 447,539.76 Euro. The project is now concluded and achieved.

The second pilot project of the Time Plan is:

'Città Alta. Times of life and tourism'

Its goal is the improvement of accessibility to the historic, monumental centre and the conciliation of the conflicting necessities of residents and city users, these latter attracted by activities like the university and by cultural and entertainment initiatives. This project had the further aim of improving the logistic of goods and of defining new modalities of access to the Upper Town, testing new mobility services.

The third pilot project is:

'Let's meet in Sentierone. A nice day and a good party'

This project has the goal of improving the supply and accessibility of services and the hospitality of the city centre as well as reinforcing its role and quality in the commercial and cultural circuits. The approach focused on the quality of life of temporary and permanent residents. A chronotopic interpretation of the project site helped to understand the physical and morphological assets, such as infrastructures, accessibility, and multi-scalar mobility; presence and copresence of temporary and permanent populations; and urban functions, attractors and events with their timetables, calendars and styles. Through this project, our aim is to find

<sup>&</sup>lt;sup>6</sup>For further details and illustrations, see the chronographic map on the pilot project: http://www.comune.bergamo.it/servizi/Menu/dinamica.aspx?idArea=1182&idCat=1195&ID=1925.

a new and shared identity for the city centre. The focus of the project is public space and its quality. The project also experimented with new tools allowing the administration to coordinate the use of public space to improve accessibility for workers, tourists, users and shoppers. The target is to promote a coordinate use of public space and to manage space-time conflicts through the construction of a Calendar of use of public space.

The goals of the TP pilot projects have been acquired by the AGP, and this area has become a strategic area of the Plan. Therefore, this project is the main ground where a relationship is sought between the Time Plan and the Services Plan.

The methodology proposed in the construction of the TP pilot projects is the same methodology used in the Services Plan to define its planning actions in the strategic fields outlined in the AGP. For each strategic area identified in the Planning Document, the project of the public city in the Services Plan identifies goals and strategies, later on specified in actions and intervention policies.

## 16.8 Relationship Between Time Plan and Area Governance Plan: The Services Plan

The Territorial Time Plan and its pilot projects have been included in the Services Plan as tools to implement the actions and policies mentioned in the strategic areas of the AGP (Commune di Bergamo 2008).

The strategic areas are the new tools identified in the Plan to allow a clear identification of the Plan's strategies to reach a new idea of city and to answer collective needs, offering effective solutions at different territorial scales (the large area of the environmental and conurbation systems, the urban area, the specific scale of the district).

Two scales were chosen as reference:

- The local scale, with interventions aimed at improving the quality of public space, the accessibility to the services present in the area (at a distance of 100 m), the liveability of the area for those who live in it, even temporarily. At this scale, the logic of the project consists in the localisation, space-time accessibility and improvement of the new neighbourhood services with a coordinated use of the existing services.
- The regional and urban scale, with interventions aimed at improving accessibility to the strategic area and at improving the role of the strategic area in relation to the city and the territory. At this scale, the project works on the localisation or upgrading of services of over-local interest, of attractors of temporary population, on their multimodal accessibility and on the services complementary to them.

The strategic areas, in their different characterisations, become an opportunity to reconnect parts of the city through a network of green areas and sustainable mobility, able not only to improve public accessibility to the city but also to contribute in

creating new services; strategic area projects are also the occasion to guide the redevelopment of transformation areas directly connected or complementary to the strategic areas.

## 16.9 Urban and Services Quality: Strategic Guidelines in the Services Plan

Urban life quality is one of the overall aims of Bergamo's AGP, and the Services Plan becomes a tool to design and implement it.

A quantitative 'standardized' supply of services is not enough to meet the needs emerging from the new lifestyles and the new ways of using the city and its territory. The need of services is increasing, becoming more and more sophisticated and concerning more and more innovative services that are framed in the concept of the new material welfare (Karrer and Ricci 2006).

The Services Plan is thus the tool to implement the change from the concept of quantitative standard to that of qualitative standard: it is the key element between the policies regulating the supply of services and the more general issues concerning the regulation of the uses of the city (Brioschi 2008).

The project of the Services Plan could not be developed, today, without taking into account the use of the city and the public space, open and built, in relation to the new lifestyles of inhabitants, temporary or residents. Services Plans find today a new definition through a new approach to the quality of public space: gaining the ability to deliver integrated answers under the sociological, economic but also and especially urban aspect.

The direct consequence of this is the introduction of new paradigms within which the project must find responses and define actions:

- Proximity services are to be understood as close to users, no longer strictly identified as residents but as all the populations (even temporary) that inhabit the city.
- Services on a territorial scale are defined by the movement of people, in relation
  to the findings of surveys that highlighted the highly attractive role of the chief
  town in relation to a complex urban system.
- The quality of public space must be planned and designed in line with the new lifestyles of the citizens of Bergamo, especially according to the different needs of different ages.

The Services Plan of Bergamo articulates the vision of the public city along four strategic lines (Commune di Bergamo 2008):

#### 16.9.1 Building an Environmental System

Objective: The Services Plan aims at providing continuity and connection between different parts of the city, built and in transformation, through the implementation of a system of usable green infrastructure and accessible mobility. This objective should be achieved through these actions:

- Contributing to the implementation of the Planning Document strategies for the realization of new parks
- Implementing usable green infrastructure (equipped and planted) and enhancing environmental green infrastructure
- Creating continuity and connections among the existing and new services and the built city
- Enhancing urban parks and their connections
- Enhancing the ecological network and its use

#### 16.9.2 Building a 'Chain of Services'

Objective: The Services Plan aims at creating an integrated, multi-scalar vision of the existing and new services to regulate the efficiency of the services system in the logic of a chain. The chain becomes efficient if the routes and the means/ways to reach the services are efficient and effective. A particular attention will be given to the conditions of physical accessibility and conciliation of timetables. This objective will be achieved through these actions:

- Building a network of complementary services to answer to the different needs expressed by resident and temporary inhabitants
- Enhancing existing services, by increasing their connections, ensuring space temporal accessibility and increasing their quality
- Answering to traditional and emerging needs also through innovative services and a flexible use of spaces
- Enhancing the system of relationships with the services in the over-local area

## 16.9.3 Ensuring Space Temporal Accessibility

Objective: The Services Plan aims at rethinking the concept of accessibility, focusing on the user with particular attention to age, motility conditions, the 'constraints' dictated by its agenda and the opportunity to grant sustainable mobility. Space temporal accessibility must be ensured for the service and for its physical space considered at the different scales (district/urban/regional).

This objective will be achieved through these actions:

- Ensuring multimodal access to services, advantaging sustainable mobility systems, to complete and implement the existing network, particularly:
  - Building cycle-pedestrian safe greenways from home to school/work/event, paying particular attention to children
  - Building 'platforms' of interchange between different mobility systems, properly equipped (bar, kiosk, info-mobility services, car pooling, taxis, bike rentals, etc.) and connected in a strategic way to the rest of the city (railway station, airport, etc.)
  - · Promoting additional forms of public transport
- Structuring public space in a flexible, versatile and equipped way in accordance with the different calendars of use (day/evening/party/event) and with the different ages of life
- Planning info-accessibility services targeted to the different types of users
- Rethinking opening and closing calendars and timetables of services in accordance to the new lifestyles

#### 16.9.4 Promoting Better Services and Urban Quality

Objective: The Services Plan promotes urban quality through the architectural quality of public space (open and built) – maintenance, security, openness, suitability to host populations of different ages and their contemporaneous presence.

This objective shall be achieved by ensuring the following requirements:

- Safety of open spaces, to be achieved by ensuring a mix of functions with different timetables to obtain an extended day-and-night control on space and a coherent urban design (lighting, presence of information points, etc.)
- Accessibility/multimodality (soft mobility)
- Identity, by sharing the project with inhabitants to build ex ante a sense of recognition and belonging to the place
- Different scales, to be achieved by integrating the public space in the context and constantly checking the function at the different scales (urban, territorial and proximity)
- Flexibility of use in relation to the different calendars of presence, to the different ages of life and to the different populations that inhabit or will inhabit it
- Liveability/hospitality to be achieved by combining the different uses of space both in perception (landscape) and in fruition (party, play, relax, etc.)

The Services Plan targets all the categories of services, as they contribute to shape the quality of urban space. The Services Plan of Bergamo promotes in fact a classification of services that includes innovative and a-spatial services (e.g. 'remote access', emergency services, home care, sustainable mobility and info mobility).

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Also, social housing is considered to be a service, giving shape to policies and measures aimed at social integration in the neighbourhoods.

The Services Plan aims to give a qualitative response to previous and emerging needs expressed by the city and aims to regive an identity and sense of belonging to places and public spaces, suggesting a strategy for the design of public city in a process of exchange and open debate, broadened with various public and private entities that work on the territory of Bergamo.

#### **16.10** A New Configuration for the Time Office

The Territorial Time Plan is a tool that works in coordination and synergy with the AGP to give strategic orientation to territorial projects. Public space and its quality are the common notion, controlled by leveraging the quality of services and accessibility on an urban and regional scale.

The AGP integrates all the territorial polices, and the different sectoral plans (e.g. mobility, services, trade) are coordinated according to its general strategies.

In Bergamo, the shared construction of the Territorial Time Plan promoted the collaboration among different offices of the local administration by creating a positive merging of time policies with strategic territorial planning. The institutional task of the Time Office is to promote the integration of territorial planning activities with the policies addressing the harmonization of working time, life time and urban times, developing local projects aimed at improving the quality of life of the peoples of our city. The Urban Space and Time Office is the result of a reinforcement of the Time Office's traditional tasks, of its technical and institutional tools and of its relationship with urban planning activities. This office plays a coordinating role between the Time Plan and other management and strategic planning tools that have become sites for the application of a space-time approach to urban planning. The innovation proposed with the establishment of this new structure aims at finding a procedure to answer in a concrete way the new needs expressed by the communities: promoting actions, interventions and projects starting from a new methodological approach – the challenge is to put experiences, knowledge and practices into a shared perspective.

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## Chapter 17 Time Policies in Italy: The Case of the Middle Adriatic Regions

Raffaella Radoccia

Abstract In the framework of the Italian regulation on territorial services, this contribution describes how Puglia Region and Abruzzo Region, by means of specific regional laws, support their municipalities in the design of urban time plans and in time-oriented policies. This chapter, moreover, demonstrates how these regions make use not only of a time-oriented regulatory framework but also of rules and norms concerning the improvement of quality of life in the cities and the accessibility of territorial facilities. In general, regional regulations on time and space in Italy are coherent with the European programmatic lines on issues of local development and social cohesion. Namely, Puglia and Abruzzo seem to be on the way of promoting a specific reform of territorial welfare, through integrated actions of time policies, urban policies and social policies, with the use of innovative and participatory instruments.

**Keywords** Urban time policies • Urban time planning • Europe • Regional and urban law • Regulation • Urban welfare • Italy • Abruzzo • Puglia

#### 17.1 The Italian Legislative Framework

During the years 1990s of the past century, the rise of urban time policies in Italy has been supported by laws and regulations for the enhancement of the organization and functions of territorial services. These laws anticipate a sort of reform of the 'government of the territory', stimulated by a national debate asking for a renewal

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of public action on the territory<sup>1</sup> and the introduction of national norms on urban times. Time-oriented regulations have been gradually introduced and are recalled here in chronological order:

- Law 142/1990 on local autonomies and decentred administration. Namely, art.
   36 gave the Major the power to launch projects for the harmonization of the timetables of urban services.
- Law 241/1990 on the transparency of administrative processes.
- Law 195/1991 on man-woman equality in workplaces, with the introduction of
  positive actions for a different organization of working hours, facilitating the
  conciliation of working time and spare time, also in order to support a better
  balance between professional and domestic responsibilities.
- Law 127/1997, Law 59/1997, Law 31/2001 and Decree 112/1998, supporting the reforming process of Regions, Provinces and Municipalities with the aim of giving better answer to social demands, especially concerning the services offered in the territory.

'In this framework of progressive re-articulation and localization of norms, aimed at the regulation of the processes and organizational models of the public administration, local bodies take a role of decisional autonomy, allowing for innovative initiatives of local government and urban time policies' (Virno 2011, p.40). This is evident, for example, in the Decree 267/2000 'Unified text on the regulation of local bodies'. Of the same year is Law 53/2000 'Provisions for the support of motherhood and fatherhood, for the right to care and training, for the coordination of urban time'. In this law, chapter VII is dedicated to the Times of the City and assigns to the Regions the task - along with the financial means of promoting the municipal coordination of the opening hours of commercial and public services and the promotion of the use of time for social purposes.<sup>3</sup> To this aim, municipalities will use the instrument of the Territorial Time Plan (or briefly Time Plan – PTO). This law compels cities with more than 30,000 inhabitants to adopt a time plan. Decree 165/2001, in application of the law, states that every local administration has to promote the harmonization of the opening hours of public services with the needs of the customers and of the other public offices.

<sup>&</sup>lt;sup>1</sup>Due to a lack of a new national law on local planning in Italy, the regions are producing their own laws for the 'government of the territory'. Lombardia among the first has promoted an urban planning law that requires municipalities to design new Plans of Services and put these in relation with the regulations on 'urban times'.

<sup>&</sup>lt;sup>2</sup>The so-called Turco Law after the name of the first signatory. It is also called 'Times of the city', with reference to the part addressing urban times.

<sup>&</sup>lt;sup>3</sup>With the support of Time Banks, non-profit organizations where citizens exchange their availability of time to take on tasks for others (for instance: I give 1 h of my time to teach Italian in exchange for being seen at the hospital for medical treatment).

## 17.2 Time-Oriented Policies and New Welfare in Middle Adriatic Italian Regions

Following the European line of policies, some Italian regions have started their own local welfare reform. Some regions have attempted to harmonize the administrative practices along with urban transformation and social-economical needs. In particular, some regions have decided to integrate socioeconomic and urban and territorial planning, together with operational and procedural matters, such as:

- Type of local services to be provided
- Performance of services
- Territorial supply and demand
- Integration and innovation of instruments

In recent years, some Middle Adriatic regions have developed innovative policies on their territory, paying specific attention to the improvement of the quality of life in urban areas. This way, the Abruzzo region followed the approach of other regions such as Lombardia, Veneto and Toscana, and it made similar movements at the time as other regions like Emilia Romagna and Puglia – in line with the objectives of European planning (i.e. the measures that aim to support the European territorial cohesion). In fact the programme aims to support European territorial cohesion, arguing that cities can directly create the conditions for strengthening local development. In general the European Regional Development Fund (FESR) has supported urban projects, which improve services and their progressive integration with territorial governance. It allowed the conduction of first experiments regarding new ways to improve local social welfare, inviting the administration to introduce the use of vertical subsidiarity principle.

#### 17.3 Time and Space Regional Laws in Puglia

In 2007 Puglia Region has enacted the Law No. 7 'Provisions for gender policies and services for the conciliation of work and family life in Puglia'. Namely, in Chapter II, art. 3 – coordination of urban times – the Region declares its scope and the general objective of the law: 'to favour programs for the economic development, sustainable urban development and social inclusion, by promoting the coordination of times and timetables, and by monitoring project and management quality of the space of cities, with the aim of supporting equal opportunities between men and women and the quality of daily life through the conciliation of the time dedicated to work, to social relations, to parental care, to formation, and the individual time of

<sup>&</sup>lt;sup>4</sup>Namely, FESR 2007–2013 programme is aligned with the recommendations of the Leipzig Charter on Sustainable European Cities and the Europe 2020. Middle Adriatic regions have produced innovative laws with respect to this European context.

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the residents in the territory of the Region, even if temporarily present. In this way, the Puglia Region aimed also at promoting the use of time for purposes of social solidarity and political activities'. Moreover, art. 4 of the same law specifies that 'the policies of coordination of times and spaces – as of art. 3 – are articulated in the regional, provincial and municipal level', thus enhancing the multi-scale action that urban time policies require and enforcing a synergic action among the different levels of local government.

In Puglia, the Plan of Urban Times is called Territorial Plan of Times and Spaces (PTTS). It is a relevant practice of territorial welfare and makes reference to a more general framework of policies to coordinate daily life/work rhythms, in order to improve the quality of life in urban centres and metropolitan areas, throughout the whole regional territory. Particularly, space-time plans are a planning tool, aimed at rationalizing the organization of time in the city and improving the conditions of daily use of urban services. They also regard economic development, sustainable urban development and social inclusion.

In 2009 Puglia Region has published a call for the preparation of feasibility studies for Plans of Times and Spaces (PTTS) – Provision no 720/2009 of the Social Welfare and Equal Opportunities Service, in coherence with Law 7/2007 and with the two following national and regional laws:

- Law 328/2000: 'Framework for the realization of the integrated system of social programs and services'
- Law 53/2000: 'Provisions for the support of motherhood and fatherhood, for the right to care and training, for the coordination of urban time'
- Regional Law 19/2006: 'Discipline of the integrated system of social services for the dignity and welfare of the women and men living in Puglia', followed in 2007 by the enacting regulations.

This regulatory framework ensures conspicuous and continuous financial resources to the territory of Puglia, precisely through the call for the preparation of feasibility studies for plans of times and spaces. Municipal administrations are pushed to work inter-sectorally and to cooperate on a larger scale for the development of integrated space-time projects, as to incorporate existing instruments of social policies.

This framework enables the creation of the Piano Sociale di Zona<sup>5</sup> and of local projects connected to this instrument, with modalities that are coherent with local policies and projects aimed at urban and social regeneration. This is conceived as an innovative and effective way to answer the needs raised by those who inhabit the region.

Related to this, it should also be recalled that in November 2008 the Puglia Region has initiated a parallel path of institutional consultation and social participa-

<sup>&</sup>lt;sup>5</sup>The Piano Sociale di Zona is introduced through art. 4 of the Puglia Regional Law n.19/2006. It is the instrument that has been devised to build an integrated system of social and health-care services for a new global welfare rooted in local communities.

tion by the definition and development of two innovative tools. The *first instrument* is the Regional Regulation 21/2008: 'Regulations for the design and actuation of plans of times and spaces and for the creation, promotion and support of time banks – as of Regional Law 7/2007 and Law 53/2000 – in order to assign regional financial contributions to the municipalities and their aggregates'. Article no.2 of this act defines the contents of the Plan of Times and Spaces (PTTS), specifying the regulation of urban times and the management of the different urban areas, by integrated inter-sectoral actions such as municipal public services, social and health-care services, services for social care, education, conciliation, public and private commercial services, agriculture, manufacture and tertiary sector, transport services for soft and sustainable mobility, cultural services and recreational services for different ages.

Thus, the Plan of Times and Spaces is compatible with the principles and criteria of national and EU programmes and can be connected to the following planning instruments:

- Urban Master Plan and actuation instruments
- Urban Traffic and Mobility Plan
- Area Social Plans and actuation territorial plans for health-care services (PAT)
- Territorial Coordination Plan of the Province
- Large area strategic plans
- EU initiative programmes
- Plans and programmes for the development of tourism

The *second instrument* is the 'Guidelines for the preparation of feasibility studies to design Space-time plans', enacted by the Integrated System of Social Services of the Area for the Promotion of Health and Equal Opportunities of Puglia Region. These guidelines specify actions that should be promoted by municipal administrations for the creation and actuation of Plans of Times and Spaces. According to the guidelines, the first step should be a feasibility study, defining the strategies and lines of action of the Plan, accompanied by the implementation of an Urban Time and Space Office. This office is integrated in the organizational structure of the municipality, taking tasks of management and coordination of several interventions:

- Realization of urban analyses as a reference for the Plan, such as the analysis of social needs, the identification of strategic objectives and of the beneficiaries of space-time actions
- Initiation of procedures for the construction of institutional partnerships and for social participation
- Agreements on protocols for the definition of roles, tasks and financial obligations of each private and public partner involved in the Plan
- Identification of the human, financial and organizational resources for the design and implementation of the actions of the Plan
- Definition of the communication strategy of the local administrations with the citizens and the associations involved

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So far, the municipalities of Puglia have completed the feasibility studies and are starting the Territorial Plan of Times and Spaces. They have increased their competences in the design and implementation of time-oriented urban policies and projects, also with the help of specialists for spatiotemporal analyses, time-oriented urban design techniques and local partnerships. The aim is to find cooperative solutions to the problems raised during the process and to define a priority order for the single projects.

Finally, in Puglia the Territorial Plan of Times and Spaces (PTTS) falls within a broad process of planning policies for the reconciliation of urban times, encompassing also the instruments included in the Action Plan on Family Policies of Puglia Region ('families at the future'). In this sense, the Puglia Region is promoting the integration of the guidelines given by PO-FESR 2007–2013,<sup>6</sup> through comprehensive actions regarding services and territory. More specifically Law 7/2007 introduced other innovative instrument of conciliation: the Gender Social Pacts, representing one of the most interesting experiments on territorial policies in Italy since the second half of the 1990s. Gender Social Pacts are agreements between institutions, firms, unions, syndicates and the educational system. They aim at promoting the experimentation of formulas of management and organization, both for the individual and for the firm, for the conciliation of life and work and thus for a better balance of family care tasks and a higher equity in the use of territorial services.

## 17.4 Territorial Time-Oriented Regional Laws in Abruzzo

Time policies are active in Abruzzo since the Regional Law 20/2003 'Norms for the coordination of urban times'. In Abruzzo, such as in Puglia, the regional administration has started parallel initiatives that are coherent with the experience of urban time policies, thus building a cultural environment that favours innovation. In 2003, Region Abruzzo approves a Regional Plan of Services designed to strengthen the network of local services – by improving organizational processes and managerial skills and quality of services and through participative planning between major providers and stakeholders. From 2003 to 2005, the provinces of L'Aquila, Teramo, Chieti and Pescara had specific Piano Sociale di Zona, in order to improve the interventions for childhood and youth, assistance to the elderly, in relation to the distribution of work places and leisure time use. In 2002, the Regional Social Plan had helped to revive the Regional Social Observatory (OSR) and had given new instruments of governance to provinces and municipalities, such as monitoring the supply of services, geographical distribution of information, computer technology

<sup>&</sup>lt;sup>6</sup>PO-FERS 2007–2013 is the *Programma Operativo* (Operational Program) 2007–2013 to implement the objectives of the European Regional Development Fund.

<sup>&</sup>lt;sup>7</sup>See also Ministero per lo sviluppo economico (2007).

to support the processes of local experimentation and promotion of territorial intervention.

Between 2003 and 2005, by means of Law 20/2003, the Region has financed several municipal administrations, in order to produce Territorial Time Plans and to start experimental actions, such as Time Banks. This is the scenario of an experimental process aimed at the realization of a Territorial Plan of Time and Services (addressing the supply and accessibility of services) of the Union of Municipalities of the metropolitan area (UNICA). The municipality of Spoltore is the leading institution of UNICA. Specific attention should be given to the relations between this instrument and the analogous plan of the city of Pescara, head city of the province and main administrative centre on the Abruzzo coastal line.

In 2005, Abruzzo Region has promoted a new law on urban times: Regional Law 40 'Regional Policy for the coordination and administration of city times'. In 2010 after this law and Regional Law 95/2000, 'New regulations for the development of mountainous areas', Region Abruzzo has launched a call to finance pilot projects for the preparation and adoption of urban space-time plans in mountainous and marginal areas. Law 40 and the related financing are designed to put into practice methods and techniques of time and space coordination, based on a balanced access to services. Moreover, Abruzzo Region has constantly stimulated the municipalities to start pilot projects and to adopt urban time plans, also through inter-sectoral actions and even using different normative references. For example, in 2008 Abruzzo Region has promoted the project, 'To reconcile: it's possible', to support, animate and develop policies for the conciliation of life and working time and for gender parity. The actions of the project have been planned by the Direction of Active Policies of Work of the Region, in the framework of the 'POR Ob. 3 2000/2006, Measure E1 – Promotion of women's participation to job market', accessing the European Social Fund, through the Italian Ministry of Work and Welfare. This project has triggered positive actions from the firms and the actors of local development, animating innovative subjects both within and outside the firms and finally disseminating a culture of conciliation to the public opinion. It was a systemic project, striving at conjugating territorial development, production requirements and quality of life. Liveability and sociability have been regarded as immaterial factors of economic growth and sustainability.

Analysing the projects submitted for regional funding within the framework 'To reconcile: it's possible', the following priority sectors emerge:

- Harmonization of the schedules of public and private services with respect to the working hours of employees
- Simplification of the procedures for access to the information and services of the public administration, also by means of ICTs
- Enhancement of urban mobility and reduction of polluting emissions
- Realization of projects for the Territorial Time Plan, even if belonging to other programmes and instruments

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## 17.5 The Case of the Territorial Time Plans of UNICA<sup>8</sup> and Pescara

The territorial time plans of UNICA and Pescara are pilot projects for the implementation of time policies in Abruzzo. The territory where these plans apply is a metropolitan area including the important city of Chieti and featuring the large phenomena of urban sprawl. The two plans issue a double question of sustainable mobility and flexible use of working time – especially concerning women – with an objective of conciliation of work and individual life. This is why this case study involves many other European areas of similar territorial configuration and expressing analogous organizational needs. These plans have been preceded by preliminary studies conducted by the local University, another research institute (Cresa), the National Statistic Institute (ISTAT and CENSIS), and by time-oriented projects, such as the project 'Equal Spaces and Times at Work'. <sup>9</sup> The development of UNICA's Space-Time Plan has used the technical and operational support of the National Institute of Urban Planning (INU).

The UNICA Territorial Time Plan is configured as a path for co-planning time and services, performed by the major towns between Chieti and Pescara. Its main innovation does not consist in enhancing accessibility to services on the territory but in providing a practical and institutional way of involving the public administrations of Pescara and Chieti. Thus, UNICA's plan supports and gets into reciprocal relation the territorial services that are present in the various municipalities, through which quality of life of the inhabitants moving in the network of cities between Chieti and Pescara is enhanced. UNICA's territorial time plan is the first time plan addressing the issue of enlarging its project area, overcoming the limits of the administrative areas and stemming from the everyday practices of inhabitants. The Territorial Time Plan of Pescara took this problem into consideration and was configured as a new organization of public administrations, according to the needs of those who live in whole metropolitan area. Consequently, the time plans of UNICA and Pescara are committed to deal with the multiple inter-scalar relations weaving this territory, considering multiple networks of small enterprises; mobility of resident and temporarily present citizens; mobility flows between universities, schools and the Palace of Justice; the organization of hypermarkets and shopping malls; acquisition and use of goods, services and leisure infrastructures. UNICA's Territorial Time Plan was codesigned by all the municipalities, and the process of actuation involved directly the citizens and even the neighbouring municipalities, up to the realization of each experimental intervention. The codesign process was supported by the results of technical inter-sectoral tables on public service,

<sup>&</sup>lt;sup>8</sup>The municipalities related to UNICA are the following: San Giovanni Teatino, Montesilvano, Francavilla al mare, Spoltore, Pianella, Bucchianico, Miglianico, Torre Vecchia Teatina, Cappelle su Tavo.

<sup>&</sup>lt;sup>9</sup>European project EQUAL (IT-G-ABR-008).

commerce and education. In such a complex inter-institutional framework, the path to get to effective projects was long and the actuation still meets some administrative difficulties.

## 17.6 Puglia and Abruzzo in Time-Oriented Planning Between Territory and Welfare

In Puglia and Abruzzo, time plans have a procedural path aimed at establishing new forms of coordination and inter-institutional concertation between local administrations, management agencies, associations and social and educational organizations. They also try to foster the cooperation between public and private local actors, committed to take active roles in enhancing quality of life in the territory.

In Abruzzo, the enacting of Regional Law 40 triggered the reasoning on the integration between the set of policies addressed to the development of internal mountainous areas and the management of disparities and disadvantages in other areas. In this respect, the Plans of Time and Services of Pescara and UNICA are good instances of the administrative mechanism devised by Regional Law 40, capable of opening and supporting a direct relation between the planning practices of the municipalities and the lines of the Regional programmes on territorial and economic issues, so as to rearrange and support the enhancement of public utility services in some transformation areas especially along the coast of Abruzzo.

In Puglia, the enacting of Regional Law 7 aims at granting better access to services and to main public and collective structures. This happens through integrated urban and regional programme development and in accordance with the EU programme lines on urban welfare. Therefore, a specific exchange of methods and instruments with other Adriatic regions would adjust and support the municipalities' abilities to build territorial networks and to enhance accessibility to services. This exchange of knowledge, experiences, individual needs and collective expectations will accompany the initiation of measures contained in the programmes and in the regional laws and regulations for urban development for the period 2007–2013.

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# Chapter 18 Studying Good Practices to Lesson Drawing and Transfer: Introduction to the Causal Mechanisms Approach – A Proposal for Exchanges Among European Networks on Time-Oriented Policies

Giancarlo Vecchi

**Abstract** The work of an epistemic community, of academics and of practitioners, like a European network on time-oriented policies, refers, implicitly or explicitly, to the diffusion of ideas and good practices. However, the term 'good practice' is ambiguous, as it implies – for subject with learning and transfer objectives – relying on others' accounts, which often are poor as they leave out significant causal factors (e.g. characteristics internal or/and external to organisations).

With the objective to clarify the theoretical opportunities in studying and to represent good practices in a learning perspective, this contribution presents, initially, a brief review of the public policy literature on lesson drawing and policy transfer. After that, it discusses a proposal to develop an approach based on the theory of causal mechanisms, useful to pursue an extrapolation strategy to adapt good practices in cases characterised by a different context in comparison with the original experience. Finally, a sketched case is illustrated, related to time-oriented projects by the Milan Law Court (Tribunale di Milano).

**Keywords** Lesson drawing • Policy transfer • Organisational processes • Time use • Good practices • Milan Court of Justice

## 18.1 Studying Good/Smart Practices to Lesson Drawing and Transferability

One of the tasks of a network of experts, academicians and practitioners, is the comparison among policies and programmes in order to identify good practices aimed at diffusing knowledge about them and their use in other contexts. For instance, an

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epistemic community (with the perspective of a community of practices) devoted to time-oriented policies has this objective.<sup>1</sup>

However, often this issue (good practices) is dealt without recurring to a solid theoretical approach. Thus, it results into descriptions that propose a mere replication of interventions, which are supposed to have reached a certain level of success.

Therefore, the purpose of this chapter is to present the main literature – within the policy analysis field – which has dealt with learning from others' experience (second-hand experiences) developing a specific analytical framework. Furthermore, the chapter will focus on an in-depth analysis of causal mechanisms approach. This approach focuses on the study of good practices with the explanatory aim to identify the factors at the basis of the results achieved; it adds a new perspective to studies about the transferability of good practices. The chapter ends with a sketched application of this approach to the case of policies focusing on the time and timetable of the Milan Law Court.

Policy learning is considered to be a distinct type of learning called instrumental learning, which is linked to the improvement in the performance of policies.<sup>2</sup>

Instrumental learning is divided into two categories: learning-by-doing and vicarious learning. The rationale of these types of learning is clearly defined. In the first case, actors (individual and/or organisations) learn from their own, direct experience by trial and error, especially if feedback processes (i.e. monitoring, evaluation) are in use. In policy terms, they use programmes and policy instruments as experiments to deal with social and/or organisational problems. In the second case, under vicarious learning, actors take advantage from others' experiences with existing policies and programmes. By borrowing from others, institutions do not have to wait for their own errors and crisis to show the way ahead. 'The advantage of vicarious learning stems from the fact that direct learning's experiential base is limited. ... Vicarious learning evidently allows actors to draw on much more experience. Even so, the argument for vicarious learning needs some qualification. As actors do not have access to lived experience with others' undertakings, they have to rely on accounts of them. The strength of the argument for vicarious learning is, thus, highly contingent: it depends on how rich or impoverished the available accounts are' (Barzelay 2007, pp. 521–522).

Research on and analysis of good practices are part of this research programme. As it is well known, the specific literature uses the terms 'best practices', 'good practices' and 'smart practice' for defining 'the most successful program for dealing with a given policy problem' (Rose 2003, p. 1) or 'a set of exemplars across different

<sup>&</sup>lt;sup>1</sup>See Bardach (1998, 2004), (2009), Barzelay (2007), Myers et al. (2004), Veselý (2011), Wenger (2008).

<sup>&</sup>lt;sup>2</sup>See Gilardi and Radaelli (2012); May (1992); public policy literature, in the context of very different fields of research, defines learning in four categories: reflexive social learning, instrumental learning, political learning and symbolic learning. For a review, see Freeman (2006) and Grin and Loeber (2007).

contexts in order to derive more generalizable principles and theories' (Overman and Boyd 1994, p. 69).

According to Bardach (2009, p. 95), the word 'best' is often misleading because rarely we are confident 'that some helpful-looking practice is actually the best among all those that are addressed to the same problem or opportunity. The extensive and careful research needed to document a claim of 'best' will almost never have been done'. But even the more modest word 'good' may be inappropriate. What appears to be a 'good practice', in the sense that it successfully deals with a problem, also depends on the context (transfer from a setting where a practice worked well to a setting that differs in relevant ways may result in perverse and unattended damaging outcomes). Bardach prefers to think at this kind of research as 'a search for (apparently) smart ideas embodied in practice' (Bardach 2009, p. 60), suggesting the use of the term 'smart practices'. In Bardach's view, a practice (a 'practice' is a tangible and visible behaviour) to be called 'smart' implies the existence of an interesting idea, a clever ingenuity used in undertakings with the aim of achieving performance effects.

We are close to Bardach's proposals, but for a practical use, we will adopt both smart and good practice terminology.<sup>3</sup>

The good practices research (hereinafter referred to as 'GPR') entails two main phases.

The first phase consists in doing some research on the design exemplar in the source-site<sup>4</sup>: 'stated in familiar social science terms, the research task is to explain the design exemplar's performance effects (explananda)' (Barzelay 2007, p. 523). By explaining performance effects, the research provides an understanding of 'what' works and 'how' the exemplar functions.

Otherwise said, the task of the analyst is to identify the successful practices, to prove their performance and to define the relevant factors for their transfer in another context.

In the second phase policy designers can use the properly elaborated account of the design exemplar in a replication/adaptation/extrapolation process to deal with the problems of the target-site. In this sense, the research has to concentrate on questions as:

– Why do organisations decide/have to learn (voluntary vs. coercitive learning, etc.)?

<sup>&</sup>lt;sup>3</sup>One of the characteristics of smart practices is 'getting something for nothing': 'Contrary to the dictum that there is no such thing as a free lunch, creative policymakers and policy implementors invest quite a lot of energy in looking for just such comestibles' (Bardach 2009, p. 96). Here Bardach wants to demonstrate the existence of such practices that cost nothing or relatively little and are highly beneficial nonetheless. See also, for a comparison between Bardach's proposals and other best practices literature, Veselý (2011).

<sup>&</sup>lt;sup>4</sup>In Bardach and Barzelay writing, the term 'target-site' identifies institutions whose working is to be improved, and the term 'source-site' identifies institutions providing inspiration for such expected change.

- How do policy actors learn (perfect vs. bounded rationality)?
- How does the transfer process function (copying vs. extrapolation; prospective evaluation)?

This chapter focuses on the first stage of this process and especially on the question of the main factors to study in GPR.

## 18.1.1 Good Practice and Policy Transfer, Policy Diffusion and Policy Convergence Literature

Lesson drawing and policy transfer are concepts that refer to a process in which 'knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system' (Dolowitz and Marsh 2000, p. 5).<sup>5</sup>

The analyses related to the concept of lesson drawing are based on the valorisation of learning deriving from second-hand experiences or vicarious experiences.<sup>6</sup> A search for new ideas is less costly than starting from scratch, reducing the danger of a 'policy disaster'.

When referring to the administrative reforms, Barzelay uses Levitt and March's distinction on lived and vicarious experiences (Levitt and March 1988, 1995): 'Under vicarious learning, actors take advantage of experience with undertakings in which they do not directly participate. . . . Even so, the argument for vicarious learning needs some qualification. As actors do not have access to lived experience with others' undertakings, they have to rely on accounts of them. The strength of the argument for vicarious learning is thus highly contingent: it depends on how rich or impoverished the available accounts are' (Barzelay 2007, pp. 521–522).

It is Rose who has drafted an operational guide on the rational analysis focused on lesson drawing (Rose 2005; see other contents in Rose 1991, 1993, 2001). Rose's scope is to help readers deal with problems of public policy by learning from the experience of other national governments (in other words, looking abroad). However, his proposals are useful for the analysis of good practices too.<sup>7</sup>

<sup>&</sup>lt;sup>5</sup>See also Bulmer et al. (2007).

<sup>&</sup>lt;sup>6</sup>There is a specific literature about learning and policy learning. See Bardach (2004), Barzelay (2007), Schneider and Ingram (1988), Radaelli (2000), Gilardi and Radaelli (2012);, Zito and Schout (2009), Sahlin-Andersson (2003), Sahlin and Wedlin (2008). See, also, Brunsson (2006) four learning models: rational analysis, emulation, experience and following the rules (tradition).

<sup>&</sup>lt;sup>7</sup>As Rose notes, there is a difference between good practice analysis and the more general objectives of lesson drawing or learning from comparative public policy: 'Concentrating attention exclusively on best practice overlooks the benefits of learning from worst practice. A better understanding of the causes of failure in other countries can help governors avoid politically fatal mistakes'. See Rose (2005), p. 39. Furthermore, there is a difference between the analysis of best

He defines ten steps for the realisation of a lesson-drawing analysis:

- 1. Learn the key concepts: what a programme is and what a lesson is and is not.
- 2. Catch the attention of policymakers.
- 3. Scan alternatives and decide where to look for lessons.
- 4. Learn by going abroad.
- 5. Abstract a generalised model of how a foreign programme works from what you observe.
- 6. Turn the model into a lesson fitting your own national context.
- 7. Decide whether the lesson should be adopted.
- 8. Decide whether the lesson can be applied.
- 9. Simplify the means and ends of a lesson to increase its chances of success.
- Evaluate a lesson's outcome prospectively and, if it is adopted, how it evolves over time.

What is the unit of analysis of the research? Rose focuses explicitly on learning deriving from *programmes*. He sustains that *policy* is a too vague concept as it includes also the intentions to deal with a problem, while the *programme* concept refers to a specific measure that sets out the way in which public employees are authorised to spend money in the pursuit of the stated objectives.

But for a good practice research, the proposal of Dolowitz and Marsh is more useful. They identify various categories of what can be transferred:

- Policy design (goals, content, instruments)
- Programmes (implementation of goals, content, instruments)
- Structures (institutional, administrative)/administrative techniques
- Approaches
- Ideas, strategies and rhetoric
- Accepted wisdom
- Negative lessons (regarding things that must not be done what not to do)<sup>8</sup>

Following Rose, the two authors consider that policies are constructs that will not necessarily be implemented, while programmes refer to a concrete implementation aimed at solving specific problems. To this, the two authors add other elements such as the creation of organisational structures, the use of specific techniques, the transfer of strategies and rhetoric.

practices and benchmarking. The latter not only deals with the best cases but also with alternative ways of solving a problem (id. 39).

<sup>&</sup>lt;sup>8</sup>Adapted from Dolowitz (2009, p. 13) and Dolowitz and Marsh (2000, pp. 9–12). See also Bennett (1991, p. 218), who takes into account policy goals, policy content, policy instruments, policy outcomes and policy style. For comments and critics, see James and Lodge (2003).

The literature on policy convergence related to administrative reforms is also useful for this point, because it helps to better define the 'object' of the investigation for good practices. In others terms, we search good results of what?

When going into details on this issue, Pollitt (2000) and Pollitt and Bouckaert (2011) identify four broad levels of results, which may derive from the administrative reforms:

- Operational results: refer to the improvement of the output and outcome production for citizens or to reaching higher levels of efficiency, lower costs and internal effectiveness.
- Process of management or decision making: the results here are about the reduction in transaction costs (better coordination, information available in one place, processes are streamlined, etc.); 'the assumption is normally that process improvements on this type will lead directly to improvements in operational results that is, to better outputs and outcomes' (Pollitt and Bouckaert 2011, p. 131).
- A 'result' may take the form of some broad change in the overall capacity of the political or administrative system: for example, it may be decided that all senior civil service appointments will be competitive and open to any applicant. 'In a way, capacity changes are processes improvement writ large. They mean that government organisations are now able to do more things within a given period of time, or can do things better in a more evidence-based or flexible way' (Pollitt and Bouckaert 2011, p. 132).
- 'Results' may be assessed relative to the degree to which the system has shifted towards some desired or ideal state: this is a strategic sense of result. For example, 'if the ideal is very small, 'light' state apparatus... then [reforms] may be judged in terms of how far they have moved the system in the direction of this vision' (Pollitt and Bouckaert 2011, p. 132).

It is clear that the first and the second levels are more precise and concrete and – potentially at least – more quantifiable than the other two. In this model, the assumption is that policies/programmes are set up to address some societal needs or organisational opportunities.

Therefore, we can find good practices analysing the performance of programmes. Hence, we can monitor external performance in the sense of outcomes observed, i.e. the level of amelioration regarding a problem (results = outcomes related to the problem of direct target; impacts = outcomes related to societal problems).

<sup>&</sup>lt;sup>9</sup>The simplest image of convergence is that of a number of lines converging on a point. In institutional and administrative terms, this could be thought of as many different jurisdictions adopting similar – or even identical – organisational forms, procedures, processes and instruments. See Pollitt (2000, p. 474), (2002) and (2007), Olsen and Peters (1996), Sahlin-Andersson (2003), Christensen and Lægreid (2003), OECD (2009).

Interventions can produce a relevant positive change in an undesired condition (a utility <sup>10</sup> judgement) and/or improve the cost-effectiveness ratio.

However, an intervention can ameliorate the internal performance indicators in terms of productivity, quality, efficiency and economy. In this case, the 'clients/customers' can be external/internal.

When using this model, it is important to underline that the unit of analysis is a policy or a programme or, in micro-terms, a process of service realisation. Therefore, a good practice can be a new policy/programme/process or one of its components: a new instrument, procedure, technology, etc.

From this point of view, we have to consider that, in general, a policy/programme is conceived as directed to deal with 'societal' problems. Nevertheless, we can also conceive policies as elaborated to cover organisational difficulties (i.e. difficulties to reach expected societal results or/and deal with the environment). We can call these interventions 'administrative policy' of a public structure. In this case, total quality models provide a useful guide to handle problems in organisational terms (this way is more similar at the second level of factors presented by Pollitt and Bouckaert).

For example, in the Common Assessment Framework/CAF Model, <sup>11</sup> the nine criteria are divided into two parts: five of them are indicated as 'enablers' and include categories referred to organisational processes.

These are:

- Leadership
- Strategy and planning
- People (employees)
- Partnerships and resources
- Processes

The other four criteria are called 'results' and refer to outcomes:

- Citizen-/customer-oriented results
- People results
- Society results
- Key performance results (outcome and financial indicators)

If following these factors, good practices can concern also the ways managers lead the organisation (visions and missions), the strategic and planning system, the policies regarding the employee, the resources management, etc.

<sup>&</sup>lt;sup>10</sup>Utility refers to the results and impacts obtained by a programme/project in relation to broader societal and economic needs. Utility is a very particular evaluation criterion as it makes no reference to the official objectives of the programme/project. It may be judicious to formulate a question of utility when the objectives of a programme/project have been badly defined or when there are many unexpected impacts.

<sup>&</sup>lt;sup>11</sup>The Common Assessment Framework is the model of organisational self-assessment promoted by the European Community for European public administrations. See Eipa (European Institute of Public Administration) (2006).

Another interesting point to be underlined for the purpose of this chapter is the identification of relevant factors for the representation of a practice as a good practice aimed at policy transfer. It consists in providing an answer to the question *What to learn about how it works*? Otherwise said, it refers to transforming information deriving from the analysis of others' experience (the 'how it works' problem) into knowledge that can be applied to a precise context (the 'what to learn' problem). To this purpose, Rose proposes to elaborate a *model* based on the source-case analysis: 'To be useful in lesson-drawing, a model must be abstracted from a program actually in operation elsewhere, so that in can be related back to the context from which is abstracted' (Rose 2005, p. 70).

This proposal seems similar to Schön's one. Donald Schön proposed, writing about architectural education and design work, the heuristic of design exemplar. A design exemplar is a concrete example of a solution to a design problem that is somewhat similar to the one that actors aim to solve. Examining design exemplars is meant to stimulate ideation about how to contrive similar effects as those evident in the design exemplar (Schön 1983, 1988).

The next list presents the elements that, following Rose, have to be reconstructed for the model elaboration:

- Laws and regulations: They specify the criteria for determining how outputs are
  to be produced and the conditions for being a recipient, whether the service is
  health care or imprisonment for a crime.
- Organisation: Every programme must have one or more organisations responsible for producing outputs, whether they are in the public or the private sector.
- Personnel: Specialists, such as doctors delivering health care or air traffic controllers, and generalists, such as secretaries, computer programmers and accountants.
- Money: Finance can come from general tax revenue, earmarked taxes, user charges or a combination of sources.
- Programme outputs: They may be cash payments, services of public employees or physical goods such as roads.
- Programme recipients: They may be individuals (mothers, students, consumers) or organisations (businesses, other government agencies, foreign countries).
- Goal: This is the outcome a programme is intended to promote, such as reading skills of poor children or low accident rates on the highway.

Another part of the literature, namely, the policy diffusion one, has identified other relevant factors linked to the innovation capacity of public organisations. These factors are useful for explaining both the internal and external context, which ease the success of practices.<sup>12</sup>

<sup>&</sup>lt;sup>12</sup>See in general Rogers (1983), (2003), Berry and Berry (1990), (2007), Tornatzky and Klein (1982), Weiland (2006), Wolman (2009), Bennett (1991), DiBella et al. (1996), Downs and Mohr (1976), Gilardi (2010), James and Lodge (2003).

The classification of the different ways of applying the model is a final interesting element for the purpose of this chapter. Rose underlines seven different levels, along a continuum between replication and extrapolation alternatives:

- Photocopying: producing an exact photocopy with a minimum of change in the names of institutions and places and dates
- Copying: duplicating almost all the elements of a programme already in effect in another place
- Adaptation: altering details of the design of a programme elsewhere without removing major elements
- Hybrid: combining elements of programmes with the same objective in different jurisdictions
- Synthesis: combining in a novel way familiar elements of programmes with the same objectives
- Disciplined inspiration: responding to the stimulus of a programme's inspiration elsewhere by creating a novel programme not inconsistent with foreign examples
- Selective imitation: adopting attractive, but not necessary essential, imitation parts of other programmes while leaving out awkward but essential bits (Rose 2005)<sup>13</sup>

This classification emphasises how the reconstruction of a good practice in a source-case is useful not only to its replication in another context but most of all to an extrapolation strategy (Bardach 2004; Barzelay 2007; see also Schön 1983, 1988).

## 18.2 Adding a New Perspective: The Causal Mechanisms Approach

## 18.2.1 Introduction: The Bardach and Barzelay Proposal to Deal with the Extrapolative Problem

Bardach (2004) and in particular Barzelay (2007) developed a specific perspective based on the idea of using the transfer of good practices in an extrapolative way. The research question that they are making can be synthesised as it follows: if the objective of the good practices transfer is not their replication, but rather their

<sup>&</sup>lt;sup>13</sup>See also the proposal of Dolowitz and Marsh, who distinguish among copying (which involves direct and complete transfer), emulation (which involves transfer of the ideas behind the policy or programme), combinations (which involves mixtures of several different policies) and inspiration (where policy in another jurisdiction may inspire a policy change, but where the final outcome does not actually draw upon the original) (Dolowitz and Marsh 2000, p. 13). See also Dolowitz and Marsh (1996), Dolowitz (2003), (2009), Bulmer et al. (2007). See for a model of isomorphic behaviours DiMaggio and Powell (1991).

use in an extrapolative way (because actors think that replicating the exemplar's solution will not generate the same results in the receiving case due to differences in situational or contextual factors), how does a researcher have to represent a good practice, considering that he needs to presuppose what kinds of undertakings and associated aspirations actors/designers would wish to pursue?

Bardach sustains that there are two types of answers that have to be included in a design exemplar:

- What works or the levels of exemplar's performance in the source-case.
- The architecture of how the exemplar works: it is not enough understanding if a certain intervention has been effective in a certain context, but the analysis requires an in-depth study of how the actors' action has been started and has led to significant outputs (Bardach 2004).

The 'what works' problem is a specific field addressed by the evaluation research, both through experimental and quasi-experimental designs and case studies. <sup>14</sup>

The 'how the exemplar works' problem starts from the acknowledgement that it is necessary to study and represent not only the performances of good practices but also the causal mechanisms that explain how those performances have been obtained.

Bardach uses the concept of basic mechanism for explaining the causal links between the analysed intervention, the independent variables, which are modified, and the level of dependent variables to be obtained as a consequence (expected outcomes).

This proposal is further developed by Barzelay. Barzelay sustains that for reconstructing the experience of the source-case in terms of 'how it works', it is necessary to conceive the intervention as a *process* and not as an entity: 'The argument for conceiving of design exemplars as processes can be stated succinctly. An aim of vicarious learning is to discern how outstanding performance characteristics or effects have arisen in undertakings, either by design or epiphenomenally. Such performance characteristics or effects are unmistakably cumulative outcomes of events. Processes must therefore be understood' (Barzelay 2007, p. 525).

For this goal, Barzelay refers to causal (or generative or social) mechanisms as the main factors that play a role in explaining event trajectories of design exemplars. The Barzelay remark starts from Bardach's proposal, but the use of the 'mechanism' concept is quite different and based on the researches developed by analytical sociology, political science and other disciplines. We reserve the next paragraph for a brief examination of this concept.

<sup>&</sup>lt;sup>14</sup>The evaluation research literature is vast; see as example Mohr (1995); Weiss (1998); European Union/Regional Policy (2009). See also Bretschneider et al. (2005); they propose a framework derived from the economic theory of production to evaluate best practices.

#### 18.2.2 Mechanisms-Based Explanations

In the contemporary debate, the effort to develop explanations through (causal or generative or social) mechanisms involves many social sciences disciplines, from analytical sociology to historically oriented political scientists and some public policy researchers.

Despite a wide consensus about the basis and objectives of an approach based on the mechanism theory, researchers offer some different definitions of mechanism (see Mahoney 2001; Hedström and Swedberg 2005a; Hedström and Ylikoski 2010; Kuorikoski 2009).

However, at least implicitly, most authors agree that *mechanism statements are* causal generalisations about recurrent processes: 'Ontologically speaking, the term mechanism refers to recurrent processes linking specified initial conditions and a specific outcome' (Mayntz 2003, p. 4; see also Barbera 2006). This holds for mechanisms in general. In the case of policy mechanisms, phenomena related to the policy process are to be explained: for example, the performance of a programme, continuities or changes, conflicts or agreements, etc.

The search for mechanisms starts with the identification of an *explanandum*. The term '*generative* mechanism', which is used often to define the approach, underlines this explanatory strategy. Processes generally do not come as discernible, 'given' units: they have no naturally given beginning and end. Researchers artificially pick out a sequence, a part of the ongoing phenomena, and try to explain how it has come to the particular point that is their *explanandum*. Generally speaking about political sciences, an *explanandum* may be an event like a riot (see, e.g. McAdam et al. 2003), a specific policy decision (see Scharpf 1997), an outcome of a public programme (see Pawson and Tilley 1998) and even an institutional change (see Ostrom 2002). In each case, explanation means causal reconstruction, a retrospective process-tracing that ends with the identification of crucial initial conditions (Mayntz 2003).

If mechanisms are to *explain* observed phenomena or relationships, and in fact observed or suspected regularity of that phenomena, this means that the latter are logically prior than the individuation of the operating mechanism (or concatenation of mechanisms): the 'what' logically precedes the 'how' question.

To summarise, explanations through mechanisms show how the termination conditions (outcomes) are produced by the set-up conditions (input and context characteristics) and intermediate stages: 'to give a description of a mechanism for a phenomenon is to explain that phenomenon, i.e., to explain how it has been produced. Mechanisms are composed of both entities (with their properties: i.e. actors, resources, etc.) and activities. Activities are the producers of change. Entities are the 'things' that engage in activities. Activities usually require that entities have specific types of properties' (Machamer et al. 2000, p. 15).

#### 18.2.3 Some Examples of Causal Mechanisms

In a 2001 book on contentious politics, McAdam, Tarrow and Tilly used concepts as brokerage, actor certification (or decertification), attribution of opportunity and threat and identity shift.

Brokerage is defined as the linking of two or more previously unconnected subjects (individuals, groups, organisations, etc.) by a unit that mediates their relations with one another. Actor certification (and the reverse, decertification) is used in terms of the validation of actors, their performances and their claim by external authorities, and decertification is the withdrawal of such validation by certifying actors. Attribution of opportunity is an activating mechanism responsible in part for the mobilisation of previously inert populations. Identity shift in contentious politics is an alteration in shared definitions of public answers to the questions: 'Who am I?' and 'Who are you?'.

The interest in causal mechanisms goes back to Merton. <sup>15</sup> Merton developed, for example, the concept of 'self-fulfilling prophecy' that is one of the most famous mechanisms-based theories; he described with this term 'a *false* definition of the situation evoking a new behaviour which makes the originally false conception come *true*' (Merton 1968a, p. 477), and he underlined it was at the base of large-scale social problems. The key abstract example used by Merton to illustrate this argument was a run on a bank. If a rumour of insolvency somehow gets started, some depositors will withdraw their savings. Their withdrawals will strengthen their belief in the rumour, partly because the withdrawals actually may hurt the financial standing of the bank, but more importantly because the act of withdrawal in itself signals to others that something indeed might be wrong with the bank. This produces even more withdrawals, which further reduces the trust in the bank and so on. Because of the operation of this mechanism, even an initially sound bank may go bankrupt if enough depositors withdraw their money in the (initially) false belief that the bank is insolvent (see Hedström and Swedberg 2005a, b).

More recently, social philosophers as Elster, economists as Schelling and sociologists as Boudon turned to the theme, and the publication in 1998 of the volume edited by Hedström and Swedberg (2005a, b) started a new debate on the mechanisms approach. In this book some of the most studied social mechanisms are reminded to readers. For example, the Granovetter's threshold theory of collective behaviour (a case of belief-formation mechanism): an individual's decision whether or not to participate in collective behaviour often depends in part on how many other actors already have decided to participate (Granovetter 1978); and the segregation mechanism developed by Schelling; he showed that a small preference for one's neighbours to be of the same colour *could* lead to total segregation

<sup>&</sup>lt;sup>15</sup>See Merton (1968a, b, c). Authors in sociology and political disciplines and sociology find that much of Tocqueville's work relies heavily on a sort of mechanistic explanations; see, for example, 'Democracy in America' and 'The Old Regime and the French Revolution' (Elster 2005; Boudon 2005).

(Schelling 1969, 2005). <sup>16</sup> In those cases, behaviours of interdependent but not coordinated individuals have collective results. However, types of mechanisms that remain at the psychological individual level are formulated, too. Elster discusses two famous cases (among many others) of dissonance reduction defined as 'sour grapes' and as 'wishful thinking' mechanisms. In special cases, dissonance<sup>17</sup> is generated by a desire for an outcome X and a belief or suspicion that X can/will not come true: in Aesop's fable of the fox and the grapes, 'sour grapes' indicate that a desire may be changed and not to be followed anymore in case outcome X does not come true (i.e. a type of adaptive preference formation); 'wishful thinking' (the adaptation of beliefs to wants) says that the beliefs may change so that a subject acquires a firm conviction that desire and outcome X are in fact the case – in other words, they are to be followed (Elster 2005, 2007).

## 18.2.4 Back to Good Practice: In Search for a Useful Categorisation of Causal Mechanisms

In their book McAdam, Tarrow and Tilly define a threefold typology of mechanisms. They start with a definition of mechanisms as '... A delimited class of events that alter relations among specified sets of elements in identical or closely similar ways over a variety of situations' (McAdam et al. 2003: Amazon ebook edition, location 359 of 4891) and propose a distinction among environmental, cognitive and relational mechanisms:

- Environmental mechanisms: mean externally generated influences on conditions affecting social life.
- Cognitive mechanisms: they operate through alterations of individual and collective perception; words like recognise, understand, reinterpret and classify characterise such mechanisms.
- Relational mechanisms: they alter connections among people, groups and interpersonal networks (e.g. brokerage).<sup>18</sup>

<sup>&</sup>lt;sup>16</sup>If we specify the apparently mild condition that individual elements are contented if at least 50 % (say) of their immediate neighbours are of their own type, and if those who are discontented according to this criterion move to the nearest spaces where they are contented, and this process is repeated until every element is contented, then Schelling showed that the result is extreme segregation, although none of the individuals required it for their contentment and their human counterparts may even have preferred less segregation (Schelling 1969, 2005).

<sup>&</sup>lt;sup>17</sup>Dissonance is stipulated to arise when a person holds two or more 'cognitions' that are inconsistent with one another. See Festinger's theory of cognitive dissonance.

<sup>&</sup>lt;sup>18</sup>The authors underline the fact that environmental, cognitive and relational mechanisms can intertwine.

Category	Main mechanisms	Other related mechanisms and strategies
Incentive	Attribution of opportunity	Sticks and carrots
	Attribution of threat	Focusing events
	Bandwagon/threshold effect	Precommitment
		Public disclosure
Reputational	Actor certification	Naming and shaming
	Actor decertification	Public disclosure
	Perception of effectiveness	Competition
	Blame avoidance	
Coordination	Performance feedback	Repeated interaction
	Deferential adjustment	Fire alarms
		Metarules
		Focusing events

Table 18.1 A categorisation of causal mechanisms derived from local development studies

More recently, following a policy analysis approach, Dente and colleagues<sup>19</sup> have elaborated a classification to explain partnership and institutional capacity outcome in the field of territorial development policies.

They discern among:

- Incentive mechanisms: actor-centred (focused on actors), they act upon the utility actors attribute to a certain course of action; the goal is to generate and maintain engagement.
- Reputational mechanisms: actor-based but relational, they act on other actors' perception; the goal is to enhance/maintain/decrease the role of an actor.
- Coordination mechanisms: relational, they structure modes of interaction; the goal is to facilitate smooth interactions.

Based on these definitions, they derive the following first classification attempt (Table 18.1).

This (effort of) compendium has the merit:

- To use an approach of policy-explanatory mechanisms, i.e. to explain the performance of policy/programmes/projects defined as the outcome of interactions among intentional actors individual, collective or corporate (of course, these interactions and outcomes are affected by the characteristics of the institutional settings and the context within which they occur) i.e. it is not interested in non-intentional, individual or collective behaviours.<sup>20</sup>
- To be actor's based, but not interested in psychological factors.
- To be based on strategic rationality and not on a synoptic rational one.

<sup>&</sup>lt;sup>19</sup>See Dente (2012) and European Union/Espon (2012), Bardach (2004), Radaelli (2010), Ongaro (2011), Melloni (2012).

<sup>&</sup>lt;sup>20</sup>See Scharpf (1997) and Dente (2011).

We can look at this proposal for developing a compendium more focused on the issue of implementing organisational change projects.

Therefore, the proposal is to classify social mechanisms in a way that they are useful to explain a good practice and its sustainability so that it can be transferred in other contexts. Table 18.2 presents a classification of mechanisms in this sense.

### 18.3 Organisational Changes Within the Milan Law Court: An Attempt to Use the Social Mechanism Theory for Explaining Them

In this paragraph I present in very simple terms the case of Milan Law Court to illustrate, even if in a sketched way, the potentials for good practices research of adopting a causal mechanisms approach.<sup>21</sup> The examples provided refer to interventions that have an impact on the users' time and urban mobility.

The Milan Law Court together with those of Rome and Napoli is one of the three big Italian judicial offices.

The Milan Court covers a territorial area with 2.6 million inhabitants, of which 300,000 foreigners. To the resident population, tourists and business tourists have to be added. In 2010, the number of tourists in the Milan area reached 5.7 million visitors of which 2.8 foreign tourists.

In the Milan area, there are around 250,000 enterprises, which count around 1.9 million workers and produce around 10 % of the national GDP. In fact, the Milan area is one of the major Italian productive poles. The complexity of the social and economic context is also reflected in the justice demand. The 'justice demand' within the territorial area covered by the Milan Law Court can be approximated based on the number of crimes and civil cases registered during the last judicial year. Data provided by the Prosecutor's Office show that more than 144,000 offences, 54 % of which against unknown perpetrators, were reported during the last judicial year. Offences regarding patrimony are the most common (more than 54,000, most of which committed by unknown perpetrators). However, offences against the public administration (around 4,000 during the last judicial year) and fiscal offences (more than 3,000 during the last judicial year) are also relevant.

The number of civil cases has to be added to these data. Almost 100,000 ordinary and summary civil and labour proceedings were entered in the list of cases of the Milan Law Court during the last judicial year. As to the civil summary proceedings, it has to be underlined that more than 5,500 regard eviction orders for non-payment

<sup>&</sup>lt;sup>21</sup>Methodological aspects and models about how to conduct case studies within a causal mechanisms perspective are discussed in Barzelay and Cortàzar Velarde (2004), Cortàzar (2005), Barzelay (2007), Barzelay and Thompson (2010), Ongaro (2011). See also Abbott (2001), McAdam et al. (2003), Ragin (1987), Stake (1995) for an introduction to case study research.

 Table 18.2
 A proposed classification of causal mechanisms

Categories	Meaning	Mechanisms
Advocacy coalition building	Building and developing the network of innovators (inside and outside the organisation)	Strategic precommitment Metarules Identity shift Brokerage (strategic) Repeated interactions Compensating feedbacks Focusing events
Goals and stakes (policy development and defence)	Defending and developing innovative programmes and projects: problem definition (paradigms, theories), solutions available, future scenarios	Mechanisms of hope Framing Coding and decoding processes Naming and shaming (strategic) Actor certification Issue expansion: mobilisation of criticism against alternative policies, selective retention, focusing events Path-dependency effects (lock-in effects)
Resources	Developing resources	Blame avoidance Public disclosure
	Political/general consensus	Issue expansion Increasing returns
	Economic	Cost-effectiveness perception Partnership cooperation Increasing returns
	Legal	Perception of legal accountability
	Knowledge/information	Lesson drawing and policy transfer Trial-and-error processes Performance feedbacks (internal and external evaluation, monitoring, etc.)
	Reputation	Actor certification/decertification Perception of effectiveness Blame avoidance
Coordination and management	Developing organisational and inter-organisational commitment and pro-activity to expected changes	Brokerage (technical, intra- and inter-organisational) Attribution of opportunities and threats Bandwagon/threshold effect/herding effect Stick and carrots Organisational disclosure (operational) Naming and shaming (operational) Competition

(continued)

Categories	Meaning	Mechanisms
		Normalisation of deviance
		Performance feedbacks, fire alarms
		(positive and negative), backwards looking
		Targeting customers and stakeholders Authoritative advice
		Integration processes
Social capital	Developing and defending	Repeated interactions
and environ- mental management	exchanges with the context	Participatory evaluation
		Strategic planning

Table 18.2 (continued)

In the Appendix, definitions for each of the mechanisms presented in this Table are provided

of rent. As to the ordinary proceedings, more than 7,400 consist in separations and divorces, 1,600 regard the selling of movables and 461 real estates and over 1,000 regard public tenders. As to the labour justice sector, most of the offences regard payments (2,800 proceedings), fixed term employment contracts and training on the job contracts (1,300). Proceedings regarding social security amounted to less than 2,000 during the last judicial year.

As to the organisational structure of the Milan Law Court, in June 2011, it included 275 ordinary magistrates (among which the president of the Milan Law Court), 573 administrative functionaries and 46 titular (honorary) judges. The Milan Law Court is made of four different sectors: the civil sector, the criminal/trial sector, the criminal/GUP office sector and the administrative sector made of administrative clerks, employed within Offices of the Clerk of the Milan Law Court to support judges and within other offices of the Court supporting the entire organisation.

## 18.3.1 The Main Organisational Innovation Projects of the Milan Law Court

A relevant aspect characterising the Milan Law Court case regards the high number of innovation projects under way.

The Milan Law Court takes part in numerous innovation initiatives. One of these regards the national programme of digitalisation aimed at the realisation of the Online Civil Trial (in Italian known as Processo Civile Telematico – PCT) and the dematerialisation of the documents referred to criminal proceedings. Another is a national programme called 'Diffusion of best practices in the Italian judicial offices'.

Other projects realised with the support of local administrations and private sectors are under way.<sup>22</sup>

The Milan Law Court has adopted a Strategic Plan aimed at facilitating the coordination of this high number of projects, at their better internal management and most of all at the management of the partners involved in these initiatives.

The adoption of the Strategic Plan of the Milan Law Court is one of the most interesting points of this case. Differently from the Italian judicial tradition, the Milan Law Court is testing (as the Prosecutor's Office of Bolzano, whose experience is at the basis of the Best Practices national programme) a deep interaction with the local public administrations and the other external stakeholders, among which the Lawyers' Order is the most relevant. This collaboration has been formalised through the creation of the Milan Justice Table, where they take part both as sponsors and/or direct participants to the implementation of ongoing projects.

The projects foreseen by the Strategic Plan of the Milan Law Court are divided into four strategic policies. Table 18.3 presents the main interventions related to these policies.

Many of these interventions have been considered good practices, even though there is no independent evaluation at the moment. Many of these interventions refer to time-oriented policies. Among these:

- The so-called PCT Processo Civile Telematico (Online Civil Trial)
- The so-called witnesses project
- The design of Public Relations Office
- The Social Budget Report (social responsibility report) and the guide to the services offered by the Milan Law Court
- The implementation of a monitoring system within the civil justice field to control the rapidity of procedures

In the next paragraphs, I am going to present some data on two projects, 'witnesses project' and the so-called PCT project, as they show how the activity of a judicial office can be relevant for the times of a city.

Every day there are hundreds of witnesses that have to go in Milan Court. Before the project implementation, witnesses received summons, which often did not specify the trial room and hour or information on expenses refund. Furthermore, modules used for witnesses were different from one case to another. The outputs of the project implemented together with the Prosecutor's Office and the Lawyers' Order are:

- A quality manual ISO 9001:2008
- Standard modules for summoning witnesses
- Indication of the trial rooms
- Creation of an Assistance Office, which provides assistance to witnesses, in particular on trial rooms and administrative procedures and offices

<sup>&</sup>lt;sup>22</sup>See Castelli and Xilo (2010) and Tribunale di Milano (2011).

 Table 18.3 Strategic plan of the Milan Law Court: policies and related projects (2011–2012)

Strategies projects	Policy A. Improvement of internal management	Policy B. Qualification of services offered and customer orientation	Policy C. Accountability and Communication	Policy D. Creation of national and local partnerships
Judge's office	X			X
Agreement for the employment of unemployed people within the Milan Law Court	X			X
Online management of the documents drafted by judges and by the two parts and of the minutes of the hearings (PCT)	X	X		X
Online notifications and communications of the offices of the clerk of the Milan Law Court	X	X	X	X
Online orders	X	X		
Online system for the entering of a suit in the list of cases	X	X		
Online bankruptcy proceeding	X	X		
System for the management control and management of alarms within the civil justice field	X			X
Digitalisation of the criminal file and of criminal notifications; dematerialisation of judicial documents	X	X		
System for vocal recognition during hearings and online minutes	X			
Adequacy of the ICT technology (hardware e software) in use	X			X
Information desks for specific users; Public Relations Office	X	X		
System for the testimonies' management	X	X	X	
Revision of the paying modalities of lawyers, translators, experts and guardians	X	X		

(continued)

Table 18.3 (continued)

Strategies projects	Policy A. Improvement of internal management	Policy B. Qualification of services offered and customer orientation	Policy C. Accountability and Communication	Policy D. Creation of national and local partnerships
Provision of online qualitative services: booking of the hearings for the validation of evictions; enforcement of sentences	X	X		
Social Budget Annual Report			X	
Guide to the services offered by the Milan Law Court	X	X	X	
Revision of the website of the Milan Law Court		X	X	
Justice table				X
Online civil trial	X	X		X
Reengineering analysis	X			X
Specific digitalisation plan	X			X

- Website
- Immediate refunding of witnesses' expenses

During the first months of the project (October–December 2011), 489 witnesses used the Assistance Office, and in 80~% of the cases, taxes were refunded immediately. Therefore, witnesses saved a lot of time and reduced their contacts with the administrative offices.

The so-called PCT is the second relevant project that regards civil trials. The online management of case files impacts upon: (a) time for sending and receiving documents and information and (b) elimination of problems such as the postponement of trial hearings due to the lack of received notifications. This project impacts upon the work of professional users and in particular lawyers. Now, they are able to manage directly from their office all the communications and transmission of documents with both judicial offices and parties hereto. Therefore, lawyers that are outside Milan can manage cases without using in loco lawyers and can also reduce travels and consequently travel expenses.

It is intuitive how this new working modality can bring advantages in terms of time saved by professionals as well as advantages referred to a reduction in traffic and consequently pollution. Some data can show the relevance of the intervention: in 2010 there were around 60,000 civil trials registered to the Milan Law Court, involving more than 8,000 lawyers and over 171,000 parties hetero. Furthermore, there were estimated around 386,000 annual accesses to the offices of Milan Law Court.

Table 18.4 PCT (Online civil trial): numbers of documents registered via online transmission between April 2011 and April 2012 – Italian Law districts

		Total documents
		registered via PCT
Law districts	PCT start year	April 2011–April 2012
Ancona	2012	276
Bari	2010	117
Bologna	2010-2012	15,649
Brescia	2009	7,204
Campobasso	2012	23
Catania	2008-2010-2011	423
Firenze	2010-2011	3,578
Genova	2008-2009-2010	2,268
L'Aquila	?	165
Messina	2012	1
Milano	2008-2011	66,990
Napoli	2008-2011	713
Palermo	2011-2012	198
Roma	2010-2011	3,099
Torino	2010-2012	12,563
Venezia	2008-2009	2,000

Source: Ministry of Justice (2012)

However, by presenting data on the PCT use in some Italian judicial offices between April 2011 and April 2012, among which the Milan Law District (in which the Milan Law Court operates), the following table shows the difficulties of the so-called PCT implementations (Ministry of Justice 2012, Xilo 2013).

The Milan Law District shows positive results compared to the other judicial offices (due to the strong activation of Milan Law Court), even though some difficulties were registered in certain months of the period considered. However, diversity in the results obtained by these judicial districts, independently of the workload and starting time, shows that the implementation of an innovation does not occur through the simple replication of a technical model. The implementation of an innovation implies a change in the actors' behaviour through triggering of some mechanisms (Table 18.4).

In this chapter the causal (or social) mechanisms concept was introduced in fact for explaining this aspect: how some specific outcomes considered positive could have occurred.

We can apply here an analysis based on causal mechanisms concerning the Milan Law Court case. All the projects mentioned above are dealing with a series of issues new to the judicial offices<sup>23</sup>:

 The monitoring of each magistrate's activities aimed at producing information to be used for taking decisions regarding the organisation of the Court; this aspect can be a contrast to the magistrates' autonomy, a constitutional right.

<sup>&</sup>lt;sup>23</sup>See Tribunale di Milano (2011).

Communication with external stakeholders and accountability. This aspect is new
and different from the idea of the magistracy to consider the justice system as
closed to its external stakeholders because of its status of independence (the socalled third branch).

- Attention to customers' satisfaction and time-oriented factors (rapidity, quality aspects) for those activities to be considered services. This aspect is new and different from the idea that magistrates' activity is a 'function' without parts that can be classified as a 'service'.
- Employment of external consultants for obtaining support on organisational issues. On the contrary, in the past magistrates dealt by themselves with the internal management issues and asked for support only to consultants in informatics.

The research question posed in the next chapter refers to the social mechanisms triggered by the Best Practices programme and other projects for obtaining changes in the actions of the 'actors' of the Milan Law Court.

#### 18.3.2 Causal Mechanisms Analysis

After the analysis of the *explananda* (what works, i.e. the outcome considered as a success), a following step for the analysis of social mechanisms consists in formulating hypothesis on how mechanisms could have acted on the source-case in order to favour changes and to introduce a new regularity. Goldthorpe's proposal is a useful reference in this case (2001, 2007).<sup>24</sup> He develops a three-phase sequence for an approach to causal analysis in the sense of generative processes:

- 1. Establishing the phenomena that form the *explananda*
- 2. Hypothesising generative processes at the level of social action
- 3. Testing the hypothesis

It is useful to have a model or list that presents the main mechanisms classified in a theory-based manner, in order to deal with the problem of hypothesising ex ante, in designing a case study research, the mechanisms that we expect to find in a specific setting. Therefore, in this reconstruction we will use the compendium presented in the previous chapter.

In the Milan Law Court case, the regularities (in simplified terms) that are linked to negative performances are considered to be the following:

Magistrates continue to think that both the juridical and administrative activity of the Law Court cannot be classified – not even partially – as a service, but rather as a function of the state power. Therefore, the activity of the Law Court can be evaluated only by state bodies and/or similar bodies/actors. Thus, there is a general tendency of not taking into account customers' (be them citizens or professional users) satisfaction.

<sup>&</sup>lt;sup>24</sup>See also Barbera (2004).

- Magistrates think that their activity is not part of the Law Court as an organisation, but of the national juridical system. Therefore, attention is paid to the performance of the single magistrate or at maximum to the performance of the division the magistrate belongs to. There is little interest in the organisational factors and the overall performance of the Law Court. Moreover, limited attention is paid also to the linkages between the activity of the Law Court and that of the Prosecutor's Office and the Appeal Court. Moreover, there is little interest in creating filters when entering and getting out of the justice system.
- The rigid defence of the magistrates' autonomy triggers the refuse of any kind of hierarchy and organisational action that can be a threat to their autonomy; therefore, the analysis of organisational performances is also refused as it can lead to decisions on the management of the juridical activity and offices. This attitude also causes the refuse to learn from other disciplines (such as organisational studies or policy analysis). Magistrates consider that only they know how to organise their own work and the management of the judicial offices.
- The refuse to make partnerships with external stakeholders is prevalent due to the fact that magistrates consider that the magistracy is independent.
- Magistrates consider that each process is a 'particular' case (different from all the others), and, therefore, monitoring of the activity is considered to be useless as this would imply the hypothesis of assimilating a large part of their activities (eventually by adopting homogeneity techniques).
- The issue of paying attention to the efficiency of the use of resources is not a relevant one.<sup>25</sup>

This way of conceiving the functioning of the judicial activity brings about:

- Difficulties in intervening at the right time when negative performances and organisational difficulties are observed
- Difficulties in learning from the analysis of past performances or from the performance of other organisations
- Difficulties in the management of innovation projects due to the lack of a longterm vision, of the team work capacities and motivations
- Difficulties in the management of innovation projects due to the lack of a monitoring system
- Little interest in paying attention to customers' needs referred to the accessibility and guidance to the services offered by the Court, to the timeliness of the answers provided and management of activities
- Limited collaboration with local institutions for the management of juridical activities that involve also external stakeholders, little interest in creating partnerships for realising and managing organisational improvement projects

<sup>&</sup>lt;sup>25</sup>See about quality in judicial structures Contini and Carnevali (2010); about Milan Law Court Castelli and Xilo (2010).

In order to explain the obtained changes, we will adopt the hypothesis according to which an innovative coalition (directed by internal actors in partnership with external ones) deals with the unsatisfactory regularities by using the resources provided by national and local projects to activate mechanisms useful for generating positive change results. Moreover, these efforts can profit from factors present in the external environment and in the internal organisational context.

Therefore, the reconstruction starts from these situational variables. Considering the *external context* two factors are more relevant.

The first one regards the high media and political pressure exerted on the Milan Law Court as it has been involved in solving some of the most important Italian trials, which have both an economic relevance (see, e.g. recently, the Parmalat trial) and most of all a political one (see in the 1992–1995 period the 'Tangentopoli-Mani pulite/Clean Hands' case – the judicial investigations into political corruption held in the 1990s and started in Milan and, more recently, the saga of the entrepreneur and ex-Prime Minister Berlusconi's trials). This situation has strengthened the internal identity and has got the managers of the Milan Law Court to make use of legitimacy and consensus also through the mechanism of 'effectiveness perception'. As some of the protagonists of this change process sustain, the Milan Law Court has to present itself as the most innovative judicial office able to contribute to the diffusion of innovations within the entire judicial system.

The second external factor regards institutional thickness<sup>26</sup>; institutional thickness indicates the level of collaboration among public and semipublic organisations of the same territorial context (the Municipality of Milan, the Chamber of Commerce of Milan, the Milan Province, Lombardy Region, banks and most of all the Lawyers' Order) with the Milan Law Court to the development of organisational improvement projects.

As to the internal organisational factors that have favoured the action of the coalition, the following aspects have to be underlined. First of all, the strong leadership of the President of the Milan Law Court is not common among the Italian judicial offices. It has triggered mechanisms for sustaining the innovation process such as strategic brokerage (linkages between the actors of the innovating coalition and other external actors sustaining organisational changes), issue expansion (defence and extension of innovations) and blame avoidance initiatives. Another aspect relates to the inclusion within the innovating coalition of actors acknowledged at national level for their role and initiatives (the Ministry of Justice/ex-director of the Organisation Department). Their presence has brought about legitimacy and technical brokerage (linkages with universities and public and private experts) and a bandwagon effect, persuading, thus, many other colleagues and administrative staff, as well as other external stakeholders, to collaborate.

<sup>&</sup>lt;sup>26</sup>See for an explanation of the concept: Amin (1999), Amin and Thrift (1995), Amin and Roberts (2006), European Union/Espon (2012).

The third internal aspect favouring the action of the coalition concerns the presence of magistrates which are experts in informatics. This has sparked lock-in effects for the development of ICT applications.

Some of the mechanisms strengthening the action of the 'innovative' coalition have been induced by the programmes themselves. These mechanisms include competition and actors' certification. Many judicial offices take part in the programme, and the issue of organisational innovation has been diffused – at least as an idea – within the entire judicial system. For the actors of the innovating coalition of the Milan Law Court, this has led to increased efforts to affirm the identity of the Milan Law Court as innovator. Furthermore, the implementation of the projects within the Milan Law Court has been sustained by qualified consultants, including some of the best Italian universities and most known private consulting firms. This has made the internal organisation (magistrates and administrative staff) to perceive the programme as a relevant one and has contributed to the creation of a concatenation of mechanisms (legitimation  $\rightarrow$  bandwagon effect  $\rightarrow$  integration processes).

At this point we can identify the main mechanisms that have been triggered by the actors of the innovative coalition with the contribution of the diffusion of best practices and PCT programmes; they are:

- Identity shift
- Lock-in effect: focusing event, strategic precommitment and accountability
- Public disclosure
- Performance feedbacks
- Attribution of opportunities (to the administrative staff and magistrates)

First of all, the leaders of the Milan Law Court have sustained the need of a deep identity shift in the way the activities of the Court were carried out and perceived. Attention to customers' needs and satisfaction, attention to the performance of the Milan Law Court and attention to partnerships with local stakeholders have triggered a lock-in effect, activated through mechanisms as public disclosure, strategic precommitment, accountability and focusing events. Interventions such as Social Budget Report (containing also the monitoring of the Strategic Plan of the Milan Law Court), the guide to the services offered by the Court and the Public Relations Office are considered now important tools for supporting the change process within the Law Court. The autonomy and the independence is out of discussion, but now the actors of the system (Milan Law Court) recognise that:

- The legitimacy of the Court derives also from the quality of its activities, which
  are now conceived for some aspects as a 'service', within both the judicial
  proceedings and the administrative ones. Thus, attention to professional/nonprofessional customers' satisfaction is more relevant now.
- The creation of partnerships with national and local institutions is important as
   (a) there is a need to have a proactive policy style in order to dealwith the social

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and economic issues of the covered territory and to coordinate the action of the Court with the one of other institutions and (b) the lack of resources obliges the Law Court to search for collaboration opportunities with other private or public stakeholders.

Secondly, the performance feedbacks produced by the performance measurement system of the civil sector and by the Social Budget Report have strengthened the configuration of the Milan Law Court as an organisation and underlined the strategic relevance of inter-organisational relations and at the same time have legitimised the steering role of the top leadership of the Law Court and the cooperation between magistrates and administrative staff.

Finally, an attribution of opportunities mechanisms has been triggered, stimulating the involvement of (a part) of the administrative staff. Taking part to the innovation initiatives has allowed them to get more visibility, to have a say in the evaluation of their work and quality of services provided and to have more learning opportunities. This is also the case of magistrates, as the participation to innovation projects is now one of the criteria of the Magistracy Council for judging the magistrates' professional activity.

#### 18.4 Conclusions

In this chapter we have dealt with the issue of good practices in order to learn how to transfer positive experiences to other contexts. This issue seems relevant also for the reflections on time-oriented policies as we consider that exchanges between the various European experiences are extremely important as well as the objective of creating a European network of institutions and research teams able to draft studies and develop practices on time-oriented policies.

The research question to which we have tried to provide some analytical answers consists in how good practices developed by a certain institution have to be represented so that knowledge and information useful for their transferability elsewhere can be derived.

The first part of the chapter presents the main variables used within the policy analysis literature for defining a good practice aimed at lesson drawing. Some of these variables refer to:

- The role of output and results evaluation aimed at justifying that an experience is a good practice based on its outcomes and sustainability (in other words, this is the answer to the question 'what works')
- The relevance of explaining how the good practice has been obtained, by analysing on the one side internal organisational aspects and on the other the external context

The second part of the chapter focuses in depth on this latter aspect. In particular, the 'social mechanisms' approach is presented. According to this approach, it is necessary to study the mechanisms that explain how a regularity in behaviours connected to unsatisfactory results can be modified and replaced with virtuous behaviours that lead to positive results. In this way, it is possible to underline how innovating coalitions take advantage of propitious internal and external conditions in order to obtain the desired changes through the activation of certain mechanisms. The value of this approach resides in underlying that often the source-site and the target-site differ in external and internal contexts and that cannot allow a pure replication of good practices. On the contrary of a replication design, this approach is based on the extrapolation of relevant factors in order to derive learning on the transferability of a good practice from one institution to another. In this sense, learning does not regard only technical aspects of a practice but also process elements such as the strategy that the actors involved put into practice in order to obtain the desired change. Knowledge on causal mechanisms associated to positive outcomes in a source-site represents elements that can be extrapolated in order to check whether they can be activated also in a target-site. This second part of the chapter ends with a proposal for classifying the main causal mechanisms proposed by the literature for explaining good practices within the framework of public policy implementation.

The third part of the chapter presents an empirical case of how this approach can be used for studying a good practice. The case refers to the modernisation of the judicial sector in Italy and, in particular, to some interventions implemented by the Milan Law Court that deal with time-oriented policies.

The auspice is that this approach can represent a reference point for knowledge and innovation exchanges on time-oriented policies at European level. This approach should be used for strengthening the analytical capacities when looking at experiences developed at country level as it allows considering that original contexts can be different, but learning and diffusion opportunities of the analysed practices are still possible.

## Appendix A Non-exhaustive List of Causal Mechanism and Related Definitions

Sources: Bardach (2004), European Union/Espon (2012), Falleti and Lynch (2009), McAdam et al. (2003), Hedström and Swedberg (2005a, b), Radaelli (2010), Gilardi and Radaelli (2012), Melloni (2012), Weiland (2006).

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Causal mechanisms	Brief definition
Actor certification/decertification	It concerns the positive or negative validation of actors, their performance and their claims by external authorities that can enhance or reduce the role of a specific actor
Attribution of opportunities/rewards and threats	Explains why policy entrepreneurs respond with intense efforts to situations where they perceive that the window of opportunity may open and more generally help explaining the actions pursued by an actor
Bandwagon effect/threshold effect/herding effect (diffusion)	People act in accordance with signals from others about the likely value or necessity to act. The success of a practice resides in the number of participants adhering to it. Threshold effects point to the level at which actors perceive participation as beneficial and explain commitment to a programme
Blame avoidance	Protect and legitimate actors and/or organisation reducing risks of blame
Brokerage	A mediating unit (group or individual) links two or more previously unconnected social sites
Encoding and decoding	Mechanisms that manage the communication and interpretative processes about innovations inside and outside organisations
Cognitive heuristics (using or avoid)	Mechanisms based on cognitive shortcuts can help innovative principles to spread along the partnership and other subjects involved in projects
Vivid examples and success stories Anchoring	Success stories are more relevant in influencing actors than equally important but less striking stories  Anchorage: when an innovation is anchored to a major
	problem/challenge of the organisation or the community (or to a major target)
Representativeness	Representativeness refers to the tendency to draw disproportionate conclusions from a limited empirical basis, like short-term trends, some successful cases, etc.
Compensating feedbacks	Designed to accelerate or enhance the expected outcome, output, behaviours or against the normalisation of deviance
Communities of practices	Mechanism used to sustain the exchange of innovative practices and beliefs about innovations
Competition	Contest between individuals, groups, organisations for resources, goods, etc.
Control/monitoring/evaluation systems	Mechanisms of feedbacks, monitoring and correction directed to ensure the completion of a certain action and the avoidance of risks (control by mutuality, police patrol, fire alarm). Feedbacks – positive or negative – force actors to discuss about the course of actions and the opportunity to modify or not interventions
Coordination (rules of)	They improve the capacity to anticipate moves, enhancing self-coordination by the actors towards an agreed objective. Different rules and modes can be defined: hierarchy, reciprocity, deferential adjustment, positive and negative coordination, voting, repeated interactions

(continued)

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Causal mechanisms	Brief definition
Focusing events	Support the salience of a certain issue, entering and climbing the policy agenda
Framing	Entails the creation and maintenance of a shared view: it helps communication and the simplification of complex issues
Identity shift	Inside an organisation, alteration in shared definitions among actors of vision, goals, rules, practices and of relations derived from that alteration
Integration processes	System of cross-functioning and of collective responsibility to increase cooperation and coordination
Issue expansion (mobilisation of criticism, selective retention, focusing events, etc.)	Facilitates the adoption of innovation and the maintaining of certain standards and modes of conduct for gaining the acceptance of partners, stakeholders and the general environment
Legal accountability perception	Increasing reputation on institutional capacity to compliance and responsibility
Lesson drawing/policy transfer	Policy transfer and extrapolation strategies using second-hand experiences
Mechanisms of hope	The goal is defend the principles of innovation and reforms against implementation difficulties
Metarules	Rules which define how to make rules and define future behaviours. Increasing cooperation and future commitment through the definition of rules about how to decide (how to work together), what the goals (what are the objectives of working together) and eventually what the sanctions of de-commitment
Naming and shaming	When authorities make known to the public the names of actors that have broken the rules (or have failed expected performance) for a particular activity. Used as sanctions against defection or free riding about a programme
Normalisation of deviance	Once an organisation accepts the first technical/social anomaly, it continues to accept more and more, normalising this deviance from previous accepted principles/rules/standards. Social normalisation of deviance means that people within the organisation become so much accustomed to a deviant behaviour that they do not consider it as deviant
Performance feedbacks (fire alarms)	Entails the production, handling and interpretation of information about efforts and outcomes, in the light of previously established aspirations and goals
Participatory evaluation	Increases opportunities for partnership increasing via mutual observation and learning
Path-dependency effects	
Positive/negative feedbacks	With positive feedbacks, an action or choice creates positive externalities when that same choice is made by other people
Increasing returns	Increasing returns means that the more a choice is made or an action is taken, the greater its benefits are

(continued)

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#### (continued)

Causal mechanisms	Brief definition
Self-reinforcement	Self-reinforcement means that making a choice or taking an action puts in place a set of forces or complementary institutions that encourage that choice to be sustained
Lock-in effect	Lock-in means that one choice or action becomes better than any other one because a sufficient number of people have already made that choice
Perception of effectiveness, cost-effectiveness perception	Increasing reputation on the institutional capacity to implement policies and projects
Public disclosure	Mechanism that reinforce (external) accountability and feedbacks
Repeated interactions	Mechanism that sustain, through deep/thick interactions and exchanges, mutual comprehension, mutual adjustments and learning
Stick and carrots	It refers to the attribution of incentives and penalties in order to induce change in agents' behaviour by acting on their structure of preferences
Strategic planning	Processes of analysis, monitoring and correction directed to ensure knowledge about external environment dynamics, with goal to take advantages and avoid risks
Strategic precommitment	It structures future events and discards other options. It favours anticipated commitment to results and prevents procrastination tendencies
Targeting customers and stakeholders	Define and classify the beneficiaries of policies to improve in public officials a customer/stakeholder orientation and commitment to services quality and improve in customers and stakeholders' expectations about standards and motivation to voice
Trial-and-error processes	Mechanisms based on learning-by-doing and experiment, where action is followed by reflection and errors are not an occasion for blame or punishment (within stated rules)

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# Chapter 19 Do Urban Time Policies Have a Real Impact on Quality of Life? And Which Methods Are Apt to Evaluate Them?

Ulrich Mückenberger

Abstract Time-policy measures, under current 'industrial relations', regularly focus on the workplace-limited time interests of employees. In service societies, however, these time interests frequently conflict with time interests of other stakeholders – e.g. of users, of services and of citizens. The contribution discusses, both theoretically and empirically, how such 'time conflicts' can be solved, and are actually solved, in a fair manner. Case studies of time measures in childcare and other service institutions investigate three issues: Do these time measures take into account the 'time stakes' of both users and providers of services? Do they have a real impact on quality of life of both groups? Do gains in quality of life of users go at the cost of quality of life of employees (or vice versa)? This chapter concludes that mindful time policies lead to gains in quality of life and 'win-win constellations' between users and providers of services. It underlines the conditions of fair solutions of time conflicts. It thus outlines 'work relations' (as opposed to 'industrial relations') which are adequate to service societies.

**Keywords** Urban time policies • Evaluation • Working-time policies • Implementation • Impacts • Comparative study • Time policies

This chapters draws on two articles of the author: one in German (Mückenberger 2010) and one in French (Mückenberger 2011c). The full report on the research project this chapter is based upon was published in 2012 (Mückenberger 2012). Theoretically my chapter refers to earlier studies on time policy: See Mückenberger (2004, 2011a, b), Läpple et al. (2010).

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#### 19.1 Introduction

In current industrial relations, time regulation predominantly concentrates on time interests of employers and workers. Within the service society, however, such time regulation often affects other stakeholders and their temporal interests (e.g. users). This chapter analyses both theoretically and empirically how these new time conflicts can be understood and solved. With regard to in-depth case studies of time-political measures in kindergardens and service institutions, three issues are assessed:

- 1. Do these measures properly take into account the time interest ('stakes') of both users and employees?
- 2. Which effects on quality of life of these two groups can be identified?
- 3. Is there a trade-off between life quality gains of users and employees in that quality-of-life gains of users systematically go at the cost of quality of life of employees (or vice versa)?

The contribution gives evidence for the assumption that time-policy measures can lead, and under certain conditions actually lead, to 'win-win constellations', i.e. life quality gains of both parties of service provision users and employees. It equally points out the preconditions of such fair solutions of time conflicts thereby hinting at a modernised system of work relations which seems more adequate to serve the needs of a service society than the old-fashioned 'industrial relations' system.

## 19.2 Time Conflicts in the Service Society: Is There a Case for Win-Win Solutions?

The origins and the *rationale* of local time policies (see Bonfiglioli and Mareggi 1997; Eberling and Henckel 1998; Boulin and Mückenberger 1999; Mückenberger 2011b) are well known and need no further specification here. Structurally, the conditions of everyday life – particularly working time and their reconciliation with temporal conditions in other spheres of life – have fundamentally changed in the post-industrial, knowledge-based service society which involves a new volatile character of lifetime and new risks and chances connected with flexibilisation in the use of time. Substantively, new value perceptions and human needs have emerged within society calling for gender equality, ecologic sustainability and quality of everyday life – value perceptions and human needs often conflicting with the old Fordist, let alone the new post-Fordist time regimes. Procedurally, new participatory forms of local governance are required when everyday-life conditions are at stake. Temporal everyday-life conditions cannot be handled via

mere bureaucratic procedures or market transactions, like financial everyday-life conditions can. They require, in order to be regarded as legitimate by the citizens, stakeholder involvement and multi-stakeholder local pacts.

These three reasons for local time policies (structural, substantive and procedural ones) are well known. One aspect makes time policies still more urgent in a service society (as opposed to industrial society) and is less in the light of public interest: the *uno-actu*-principle governing many service activities. Particularly person-oriented services frequently take place under the constraint that the provider and the user of the service have to act as such in copresence (*uno actu*), one delivering and the other consuming the service. Often the success of the service provision (watch services in the care, educational or medical domains!) depends on a close interaction between provider and user. It is true that service providers try hard to 'decouple' service provision from the copresence of service provider and user (via media and new ICTs). But the bulk of intensive, person-oriented services will not be able to be depersonalised and rationalised such way. They will remain, despite all countermeasures, characterised by the *uno-actu*-principle.

This fact creates time constraints (mobility, availability, preparedness, attention of the stakeholders involved) in the service society which were unknown to industrial society (cars can be stored till the client has time to pick them up!). The *uno-actu*-principle, however, equally creates chances. As many services can be regarded as a 'co-production' between provider and user, the quality of the result can be improved by an improvement of the co-operation between the two sides. For employed workers in the services sector, this can provide the opportunity of 'unalienated' work. Equally for the users this can imply a more 'self-determined' way of consuming. This is not purely wishful thinking. This will be demonstrated later in this chapter – there I deal with kindergardens and the way how employed carers when delivering their care service co-operate with direct (children) and indirect users (parents) of their services.

Particularly local time policies emerge under the auspices of these reasons and background conditions. Local time-policy projects have been observed and analysed over the last two and a half decades or so, in different European countries. However, a valid methodological tool to assess the empirical impact of these projects on quality of life of the people involved has not yet been developed. Can we assess, and measure, whether or not local time-policy projects lead to an increase in quality of life which implies a new participatory local governance and which does not go at the cost of parties involved (e.g. firms, employees, citizens)? This is what I want to deal with in this chapter. I describe the results of a research project which evaluated German cases of time-policy projects according to the mentioned question. The project had a double focus: one methodological (How to assess and measure quality-of-life effects in the studied cases?) and one substantive (Are there such quality-of-life effects, and if so, is there a trade-off between the quality-of-life gains of the involved groups of stakeholders?).

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## 19.3 The Empirical Study: The Cases – A Trade-Off of Quality-of-Life Effects?

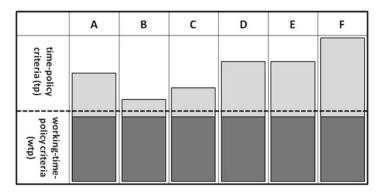
In order to assess the particular results of time-policy projects, we compared measures within a pure working-time project ('wtp') with those within a time-policy project ('tp'). In our understanding both measures of wtp and tp are characterised by two common elements: They have an objective temporal impact on employees and users of a service institution; they pursue the temporal quality of life of employees. Tp's, however, contrary to wtp's, equally pursue the improvement of the temporal quality of life of users (and, in both cases, make use of external experts, hearings, effective participation). And they lead to mutual recognition of providers and users of services via increasing mutual knowledge, reciprocity of perspectives, negotiation and search for consensus between the two groups of stakeholders (Table 19.1).

In order to enable us to evaluate quality-of-life effects, the cases to be studied had to meet the following criteria. They imply an innovative in-plant time reorganisation. The measures taken are linked with the *uno-actu*-principle. A substantial number of cases are tp's (not only wtp's). The projects were concluded some time before our inquiry started in order to allow the measures being evaluated with a view to their effects. We preferred cases with trade union participation in order to be able to study the type of industrial relations. The services studied contained different forms and degrees of intensity of care and motivation to work, and the establishments or administrations involved showed different participation cultures.

Based on these criteria a set of six cases was identified and selected for indepth case studies. Out of the six cases, three were kindergardens (cases A, B and C) – with intensive person orientation and often intrinsic work orientation of the employees. The other three cases were service institutions with a lower degree of intensity of person orientation – one department store (D), one in-plant sickness insurance provider (E) and one citizens' service centre (F). In addition to these cases, a couple of tp's were investigated, however, on a smaller basis of interviews (expert interviews only).

<b>Table 19.1</b>	Time-policy	measures (t	tp) and	working-time-	policy	measures (	(wtp)	)
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Measures			
Cr	Criteria		wtp
1.	Measure with objective temporal impact on employees and users of a service institution	X	X
2.	Measure pursuing temporal quality of life of employees	X	X
	Via external experts, hearings, effective participation	X	
3.	Measure pursuing temporal quality of life of users	X	
	Via external experts, hearings, effective participation	X	
4.	Measure leading to mutual recognition of employees and users	X	
	Via mutual knowledge, reciprocity of perspectives, negotiation and consensus	X	



**Fig. 19.1** In practice, a mix of criteria (*upper part*, time-policy criteria (*tp*); *lower part*, working-time-policy criteria (*wtp*))

The following measures were evaluated. In case A, a private kindergarden where the public services trade union had already experimented with time policy (see Mönig-Raane 2005), the daily opening hours were extended till 7.30 pm, and, simultaneously, the working hours of the care employees flexibilised in order to meet clients' temporal needs. Case B was a public kindergarden. The measure was purely working time-related: An extension of opening hours till 8.30 pm was a reaction on external flexibilisation of hours. Case C, a firm-oriented private kindergarden, in a time policy-oriented manner, provided for the introduction of flexible care-time patterns and the rights of firms to draw places and share them with other firms. In case D the department store introduced, in a purely working-timeoriented way, group-autonomous working-time planning in order to meet clients' frequencies and, simultaneously, individual time needs of employees. Similarly in case E, an in-plant sickness insurance, the measure taken was purely working-timeoriented: Management adapted the opening hours of the service to in-plant clients' needs and introduced a new 'trust working-time' arrangement for employees. Case F, a public citizens service centre, was clearly time policy-oriented. Opening hours were extended to 53.5 h per week (Saturday morning opening) combined with a retraining and flexible manning scheme for the employees.

The cases did not fit into an 'either-or' distinction between 'wtp's' and 'tp's'. All six were working time-related. And all six met, if to a varying degree and due to different reasons, time policy criteria: most in case F and least in case B. Nevertheless, the set of cases allows for tentative results concerning the relationship between time-policy measures and quality of life (Fig. 19.1).

The methods applied were multifold. On the basis of explorative document analysis and expert interviews, the proper empirical work of evaluation consisted in open, partly questionnaire-guided interviews, on the basis of theoretical sampling, with management and employee/trade union representatives plus users (five to seven per case) and group discussions with employees and users (tests of quality-of-life

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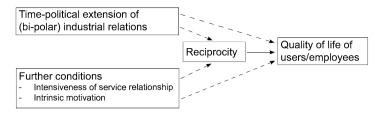


Fig. 19.2 Assumed factors leading to an increase in quality of life

criteria and quality-of-life effects of the evaluated measure). Two time policy-evaluation-specific methodological innovations consisted in:

- A 'cross-evaluation' of reciprocity
- A 'counterfactual input' about measure effects (I will come back to them later).

Our findings underwent internal and external triangulation. Interviews were transcribed and evaluated using the MAXQDA coding system. From a theoretical point of view the project concerned the evaluation of the quality-of-life effects of local time-policy measures, and the evaluation was summative (not formative), qualitative (not quantitative), explorative (not representative) and hypothesis-based (not grounded theory).

The theoretically guided cognitive interest consisted mainly in two questions which then were broken down into literature-based questions:

- Do time policy projects create a significantly higher positive effect on (particularly users) quality of life than working-time projects do?
- Is there a built-in trade-off in that the increase in quality of life of users goes at the cost of quality of life of employees? Or is there (under conditions to be specified) a case for win-win or win-neutral (instead of win-lose) effects?

There were two sets of hypothetical assumptions – one about the impact on an increase of quality of life, of the type of industrial relations, the other about the corresponding impact of the type of service delivered. First set of hypotheses: Where industrial relations in the service establishment have been opened from a bipolar towards multipolar type, a positive impact on quality of life of recipients can be expected. The reason is that a time-political approach leads to a multipolar instead of a bipolar communication and thus to increased chances of reciprocity of perception and perspectives between service providers and users. Second set of hypotheses: In the case of body-oriented and long-term service provision with high autonomy in employees' work and a high degree of their intrinsic motivation, a positive impact on quality of life of recipients can be expected. The reason again is increased chances of reciprocity of perception and perspectives between service providers and users. In both sets of assumptions, the increase in quality of life of users does not necessarily go at the cost of service providers; it can even coincide with quality-of-life gains on their side (Fig. 19.2).

It is becoming quite clear that 'reciprocity' is a crucial filter for the achievement of an increase of quality of life through service provision. This holds for both the concept and the notion of reciprocity. It has different meanings in different languages and scientific understandings. We understand it as the capability and preparedness of interacting subjects:

- To perceive, in an empathetic manner, the temporal stakes of others.
- To contextualise them, i.e. to put them in a relation with one's own temporal stakes.
- To look, in case of a time conflict, for a fair negotiation-based solution. In this meaning, we assume reciprocity is a fundamental prerequisite of time-political service provision. It goes without saying that subjective reciprocity has crucial objective prerequisites mainly on the side of employees they have to have enough time for their service provision, independence from bureaucratic control, expertise and education to fully understand their counterpart, etc.

#### 19.4 Temporal Quality of Life: How to Operationalise?

During our research, we were able to achieve two time-political research innovations. Before presenting some results of the evaluation study, let me introduce the theoretical and methodological tools required by a quality-of-life effects analysis in the context of time policy:

- What concept of quality of life is required in the context of time policies, and which kind of indicators can be applied?
- How can we methodologically cope with 'time policy typical' actors constellations?

Generally speaking, we need a time policy-specific concept of quality of life in order to evaluate time policy effects. However, we cannot 'deduce' quality of life objectively; instead we need a hybrid notion with objective and subjective ingredients. It seems that at present the capability concept of Amartya Sen (1999, 2000), Sen and Nussbaum (1993) and Martha Nussbaum (1999), the discretionary time concept of Robert Goodin (Goodin et al. 2008) and the quality-of-life reflections of the Stiglitz/Sen/Fitoussi report (2009) give rise to such a hybrid concept. In addition to that, empirical research working with semi-structured questionnaires

<sup>&</sup>lt;sup>1</sup>Due to a lack of space, I cannot develop the theoretical implications of the quality-of-life concept used here. Two publications, however in German, provide closer information. The 2011 conference of the Deutsche Gesellschaft für Zeitpolitik dealt with 'Time welfare'. My introductory paper 'Zeitwohlstand. Eine aktuelle Debatte und ihre Wurzeln; das Konzept von Bob Goodin und seine zeitpolitischen Implikationen' (Time-welfare. A current debate and its origins; the concept of Bob Goodin and its implications for time policies) gave a historical and theoretical overview. It can be downloaded from the Internet (www.zeitpolitik.de). Further analyses in Mückenberger (2012).

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allows to refine the hybrid concept of quality of life while applying it to interview situations

In practical terms, the hybrid concept of temporal quality of life was broken down according to five indicators – concrete enough to test them in interviews and group discussions. The five indicators for temporal quality of life are:

- To be able to self-determine one's use of time
- Not to be discriminated against in the use of time
- Not to feel one's times socially devaluated
- To be able to develop a proper time culture
- To have opportunities for shared/collective times

These five aspects of temporal quality of life were proposed in our interviews and group discussions. However, they were up to modification by the interviewees.<sup>2</sup>

## 19.5 Temporal Reciprocity and Their Impact on Time Policy Effects: How to Measure?

However, we cannot avoid explaining two methodological innovations discovered throughout the empirical work done in this evaluation project. Both have to do with the time policy properties in empirical research on the effectiveness of certain measures.

#### 19.5.1 Method 1: Counterfactual Input

Subjective evaluation of the effects on one's everyday-life situation and the corresponding change in temporal quality of life and of temporal measures normally require a 'before/after' assessments (comparison between the everyday-life situation before the evaluated measure with the one after the evaluated measure) by the same probands. The user side in urban time policy, however, is frequently anonymous and dispersed. This is why identity of probands over time will rarely be achieved.

We bridge this gap by the counterfactual input: 'Imagine the temporal measure we assess here did not exist: How would that impact your everyday-life – your temporal quality of life?'

It is true that a counterfactual reflection of the interviewee cannot replace his or her practical experience of his or her everyday-life situation before the evaluated measure was taken. But as this prior experience of the interviewee is normally not accessible, we have to make use of the 'second best' solution. Actually many

<sup>&</sup>lt;sup>2</sup>For example, in our evaluation project aspect no. iii was never taken up by any participant, possibly due to the fact that neither unemployed nor elderly people were among the interviewees.

probands were able and prepared to 'reconstruct' their everyday life under the premise the evaluated measure would not have been taken and to tell us in which time constraints they would have entered, how they would have tried to cope with them and what that would have meant for their temporal quality of life.

The counterfactual input, therefore, seems to be a feasible and valid tool in case of the non-availability of 'before/after' statements, by the same probands.

#### 19.5.2 Method 2: Cross-Evaluation

I explained earlier that reciprocity plays a very important role in time policy projects ('crucial filter') and that we have good reasons to assume that the practical effects, on quality of life of both users and providers of services, of time policy measures depend much on the existence or non-existence of reciprocity. This is why we need an evaluative tool to make reciprocity visible, along with its origin and its impact.

The tool we used is 'cross-evaluation'. Both our interviews and our interpretation of the interviews systematically focussed on reciprocity in a threefold manner:

- We did not only observe how each stakeholder (individual or group) expressed their own temporal stakes and experiences.
- We equally focussed on whether and how each stakeholder viewed and expressed the (assumed) temporal stakes and experiences of those stakeholders they are confronted with, their counterparts during the service provision.
- And we tried to sort out whether and how each stakeholder felt his/her own temporal stakes and experiences viewed and recognised by their counterparts. We observed the interviewees under the perspective: How does he/she assess to be viewed and recognised with his/her time stakes by the other with potentially conflicting stakes or interests? When interviewees did not mention this perspective, we hinted at it.

Due to the method of cross-evaluation, we got important insights into the relationship of reciprocity with both the type of industrial relations and the type of the service delivered.

#### 19.6 Practical Results: Time Policy Effects on Quality of Life

On the basis of this project design and evaluation methodology, the case studies were performed and the results assessed. The quality-of-life effects of working-time (wtp) and time policy measures (tp) were collected and systematised, separately according to the groups of employees and users. In this way the double research interest of the evaluation project (significantly higher quality-of-life effect of tp-measures and the possibility of a trade-off between temporal interests of users and those of employees) was met. For the following graph four constellations are possible.

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Quality-of-life effects			
Case	Users	Employees	Constellation
A – Kindergarden	+	0	Win-neutral
B – Kindergarden	+	0	Win-neutral
C – Kindergarden	+	+	Win-win
D – Department store	0	+	Neutral-win
E – In-house health insurance	0	+	Neutral-win
F – Citizens service centre	+	+	Win-win

Table 19.2 Quality-of-life effects; win-win and win-neutral constellations

- Win-win (+ +) means both groups face quality-of-life gains due to the measure.
- Lose-lose (--) means quality-of-life losses for both groups.
- Win-neutral (+ 0 or 0 +) means one groups wins, while for the other there is no quality-of-life effect.
- Win-lose (+ or +) means one group wins and one loses.

The latter constellation can see both groups either as winner or as loser. This is the trade-off case. When it occurs it makes the measure problematic because one's gains in quality of life go at the cost of another stakeholder (Table 19.2).

For the cases we studied, we could, first, give clear evidence that there is a positive impact on quality of life of all measures studied here. Particularly in the cases with a service relationship implying high reciprocity (cases A, B and C), an increase of users' everyday quality of life can be found. The cases with lower reciprocity (D, E and F) show quality-of-life gains for employees, but only in one case (F) equally for users. Tp-measures (A, C and F) as compared to wtp-measures (B, D and E) show clear advantages for users. Two tp-measures (C and F) even indicate the optimal and politically interesting win-win constellation between employees and users.

Secondly we could demonstrate no loss of quality of life at all has been observed, neither for users nor for employees. This means that there was no room for the problematic win-lose constellation. Despite the diversities of labour relations and participation cultures in the six cases, we can provide evidence the introduction of user-friendly service hours does not structurally go at the cost of the service employees involved.

#### 19.7 Time and Work Policy Conclusions

It was stated earlier that a study with such a small number of cases is far from offering representative results. Our study was explorative in kind. Nevertheless, it prepared the ground for further studies with a more representative character. The methodological tool developed throughout our project work can give some support to the evaluative research on the effects of time-policy measures to come.

Notwithstanding these reservations, our findings indicate the plausibility of certain assumptions the validity of which we wanted to test in our project. I would like to wind up with three conclusions for the further debate:

- 1. Time policies do matter: They have a real positive effect on quality of life of service users and/or providers. The effects are the more remarkable, the more a culture of reciprocity between all stakeholders involved in the process of co-production of the service prevails. It has to be kept in mind, however, that reciprocity has prerequisites in working conditions of service employees, in multilateral communication structures and capabilities and in a climate of skilled co-operation.
- 2. User-friendly service hours do not go structurally at the cost of service employees. This is why a general suspicion or hostility vis-à-vis time policies and time policy projects based on the wish to better protect workers are ill-informed. It is true that time policy requires good and intelligent working conditions and a type of industrial relations which does no longer remain bilateral (capital labour), but which opens itself to the 'third party' (citizens, users, men and women). Given these prerequisites time policies can thus become a source of societal prosperity and solidarity.
- 3. In order to meet users' and citizens' time stakes and interests, it is therefore not necessary to liberalise and deregulate, in conformity with the market and market rules, the temporal interests of employees. What is necessary, however, is to provide for an intelligent and fair system of co-operation and networking between the stakeholders who, in a service society, simultaneously depend on a humane and sustainable way of delivering services: an interactive 'co-production' of services by managements, service employees/trade unions and service users/citizens on a level playing field.

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## **Chapter 20 Further Research and Policy Perspectives**

Dietrich Henckel, Benjamin Könecke, and Susanne Thomaier

**Abstract** The contribution sums up the role and state of the art of space-time research and practice reflected in this book. The work presented in this volume is based on an exchange of European researchers and practitioners, who collaborate in the ENCiTi network (European Network of City Times). The contributions of this interdisciplinary group have illustrated that the spatio-temporal perspective in urban planning and urban policies can offer new insights for an improvement of the urban quality of life. Each of the authors approaches the topic from a different angle: hence, the book comprises descriptive, analytical as well as normative contributions and theoretical and empirical studies; some authors stress behavioural (temporal) patterns, whereas others emphasise urban structures or policies, shaping urban time spaces; they also differentiate between clock time and experienced time. This final contribution of the book highlights prime fields of further research, which is needed in order to foster the theoretical, methodological, empirical and normative ground of space-time research for it to become a neo-discipline. The following topics are described as possible fields for more in-depth research: rhythm analysis; temporal regulation; temporal efficiency and justice; urban structures, mobility and morphologies; dynamics of temporal changes; actors; time and identity; methods of empirical foundation and evaluation methods.

**Keywords** Space-time research • Neo-discipline • Future development • Overview

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#### 20.1 Why a Spatio-Temporal Perspective?

The book is the result of an endeavour of an interdisciplinary group or researchers, professionals and members of local administrations whose common ground is the time space approach regarding the living and everyday life in the European cities. This group, named ENCiTi (European Network City Time), intends to encourage innovative perspectives in its respective scientific communities, local authorities and private administrations. It seeks to illustrate how new approaches for policies, projects and actions can emerge, allowing for an improvement of the urban quality and liveability for all citizens by focusing on the inhabitants' daily life practices.

The book – which is the outcome of a 2-year exchange between the German and the Italian editors and a collaborative international conference, both funded by the DAAD (German Academic Exchange Service) – gives a selective state-of-the-art report of European urban space-time research and planning. The different contributions revealed the scientific and practical importance of the spatio-temporal perspective. The integration of the temporal perspective into spatial research and planning enhances the understanding on how society and cities are functioning and changing and provides prerequisites for improvements. Despite the fact of the rapid growth of spatio-temporal research and explicit practices in many cities in the last decades (see Mückenberger 2011) – which is documented in the book – we still have to state that space-time research and space-time planning are not yet really well established. We can notice that many 'temporal topics' are rather discussed on an international level than on the level of everyday practices.

It is a rather small community of researchers and practitioners who are engaged in the subject. Space-time research and practice is still more of a niche topic and rather far away from an establishment as a neo-discipline (which has been the claim) (see Chap. 14 by van Schaick in this volume).

This is remarkable because the notion of time policy is by no means new: In Germany the term was first mentioned by Christoph Zöpel in (1988), and Italian publications used the term at least since the same time – in 1987 the famous initiative 'le donne cambiano i tempi' of the women of the communist party took place. The diffusion of the concept of time policy gained momentum over the years, especially in Italy (Bonfiglioli and Mareggi 1997; Zajczyk 2000), which became somewhat of a European role model. Italian legislation made the temporal perspective in urban planning obligatory (Legge Turco 2000). Meanwhile the term time policy can be found in many official statements (state, region or local) all over Europe (e.g. BMFSFJ 2012). Quite a few networks or societies were founded – e.g. the *Deutsche* Gesellschaft für Zeitpolitik (German Society of Time Policy) in 2002 (DGfZP n.d.). The list of examples could easily be extended. Therefore, one could come to the impression that 'ideologically' the concept of time policy is rather well established, but the substance is much lagging behind. This holds true, especially for spatiotemporal efforts. Temporal research and temporal policy in its own right are much better established (see the journal Time and Society since 1992) than the spatiotemporal perspective.

In fact there are rather little well-funded integrated – empirical – research efforts on the topic. The research landscape seems rather scattered and eclectic. Former programmes (like Eurexcter) expired, and the cycle of spatio-temporal research and practice seems to be on the downswing in many contexts. In Italy after a period of close to euphoric developments and diffusions of the concept to other countries, the state now is much more humble. Other examples of the backward development are the closure of the 'Maison du temps et de la mobilité' in Belfort (France), the closure of the 'time office' in Bremen and the reluctance of many Italian cities to deal intensively with temporal aspects despite their legal obligations to do so.

Since time is a very pervasive concept, research on time has to be inter- and transdisciplinary and time policies have to be transversal. But this is in any field of research and political practice easier said than done. Despite the high priority given to interdisciplinarity in official statements, the practice in research and political practice are very often monodisciplinary and rather far away from being transversal. In some way one could compare the debate on time policy with the early debate on environmental policy. New fields of politics emerge when the provision of goods and services taken for granted comes into crisis or conflicts between users and/or providers arise. It took a long way from the first signs of an environmental crisis to an establishment and an institutionalisation of an environmental policy. Taking this as an analogy, one could come to the conclusion that the establishment of a time and especially a space-time policy still needs lots of effort.

But the different contributions of the book provided ample evidence that the spatio-temporal perspective renders new insight into traditional fields of planning research and practice. The different perspective gives rise to the understanding of many conflicts as temporal or spatio-temporal conflicts. With this new perspective new ways of thinking about interventions and solutions come into sight.

#### 20.2 Integration of the Different Perspectives of the Book

The book contains a variety of different perspectives on a diversity of spatiotemporal aspects. No wonder the contributions do not form a consistent picture, but give a patchwork of preliminary insights. The diversity of the contributions is due to different perspectives and starting points:

- Some articles are more descriptive, positive and analytical, especially the ones of the first and second part of the book, whereas the contributions of the third part are more normative, giving ideas of how spatio-temporal planning is implemented in exemplary cases, which normative base could be the ground for intervention, and how the outcomes could be evaluated.
- Some articles are more theoretical (Colleoni, Mareggi, Rodríguez, Stabilini/Zedda/Zanettichini) or methodological (Vecchi, Mückenberger), whereas the majority of the contributions rely on empirical case studies under very specific conditions (e.g. Gwiazdzinski, Kuoppa, Eldridge/Roberts) or on a less case study based empirical ground (Pottharst/Könecke, Boulin, Henckel/Thomaier).

- Some contributions describe and analyse individual or group behaviour and practices (e.g. Gwiazdzinski, Kuoppa, Eldridge/Roberts, Miciukiewicz/Vigar, Mückenberger), whereas others put more emphasis on the analysis of structural conditions shaping the urban time space or urban space-time policies (e.g. Colleoni, Mareggi, Boulin, Pottharst/Könecke, Henckel/Thomaier, van Schaick).
- The emphasis put on temporal versus spatial aspects is rather different. Some have their starting point in a spatial analysis (Colleoni, Vilà, Zambianchi, Radoccia), whereas others start with a temporal perspective (e.g. Boulin, Kuoppa, Henckel/Thomaier).
- The implicit notions of time clock time (e.g. Henckel/Thomaier) versus experienced time (e.g. Gwiazdzinski, Kuoppa, Eldridge/Roberts) – are another aspect according to which one could classify the contributions.

The public city is the normative base of the book, the openness of the city to whichever user, the indiscriminative possibilities to use space and time in the city. Therefore, implicitly concepts of temporal and spatio-temporal access and justice are common ground in the debate and call for intervention. But it became also obvious in the contributions that the knowledge base for informed intervention is still rather fable. The conceptualisation of temporal policies, or even spacetime policies, and their embedding in holistic concepts and strategies of welfare (Goodin et al. 2008; Mückenberger 2004, 2011), distributional justice (Henckel 2002), human rights (Mückenberger 2011), quality of living or temporal welfare (Rinderspacher 2004) are still in an infant state. Maybe a bit more developed from a conceptual perspective of urbanism and urban planning are the interventions that are – explicitly and implicitly – under way (Bonfiglioli 1990, 2001; Ascher 2001; Bonfiglioli et al. 2009; Paquot 2010), as the contributions by Radoccia, Zambianchi and van Schaick demonstrate. Nonetheless, the implementation of corresponding approaches is still little diffused in comparison to traditional planning practices, and there is hardly any evaluation of space-time policies and intervention. In this book, Mückenberger gives an empirical example of evaluating an intervention, and Vecchi emphasises the need and the methodology of evaluation.

Therefore, the book opens up a variety of perspectives on the public city and its spatio-temporal use on interventions, normative concepts and analytical tools. By showing this diversity it also provides ample indications for further research.

#### 20.3 Prime Fields of Further Research

The book gave a selective state of the art in European space-time analysis. But it became also obvious that a lot of further research is needed to substantiate the theoretical, methodological, empirical and normative ground. We can pin down only an exemplary range of topics which deserve more in-depth research:

Rhythm analysis: Already in (1988) Michael Young claimed that research on the time print of cities is needed. With the publication of the essay 'Rhythmanalysis', Lefebvre (2004) triggered quite a few publications (e.g. Edensor (2010)). But most of the efforts are either theoretical in nature, looking at individual practices or individual case studies. Especially in a comparative context – be it local, regional or international – there is a lack of empirical studies. Even despite the well-known research by Robert Levine on the different pace of cities and countries (1997) and the book by Mareggi (2011), the notion of Michael Young therefore still holds in our view. We still have rather little empirical comparative results on different rhythms between cities (e.g. extension of times, flexibilisation, acceleration, temporal organisation of urban functions) and the respective pacemakers and impacts within one country let alone between different countries. And even on the local level temporal comparisons between different quarters are rarely available.

Temporal regulation: The pace and rhythm of cities is very much influenced by institutions, legal rules and social practices. There is little systematic work on explicit and implicit temporal regulations throughout the legal and the planning systems within different countries; therefore, also comparisons between the countries let alone analyses of the spatial impact of these regulations are lacking. And – as the contributions have at least indirectly demonstrated – there are quite different types of regulation/regulatory frameworks spanning from informal (e.g. cooperative agreements) to formal regulation, where the formalisation can be of different intensity (e.g. laws, covenants) and institutionalisation (transversality of cooperation between different actors vs. institutionalisation in a time office). And it has to be kept in mind that a lot of important spatio-temporal rules are often not recognisable as such at first sight.

Temporal efficiency and justice: In some fields – especially in traffic research – analyses of the distribution of accessibility and its spatial and social distribution are increasing. But still we are quite far away from a systematic perspective on these spatial and social distributional issues. So far only sketchy and anecdotal evidence and empirical foundation are available. Research on the normative implications is mostly lacking. If the notion that time is going to be at the centre of the second stage of the welfare state, the base for that policy is still rather weak. Despite the important book by Goodin et al. (2008) on the discretionary time and the importance of the respective national frameworks, there is – as far as we can see – no research in the specific spatial impacts. Taking the task to make time and spatio-temporal access as a crucial point in welfare policy, a lot of open research fields come into sight, i.e. the normative base for designing and implementing (distributional) policies. The debate on temporal rights (see Rodríguez in this volume), the right to one's own time as an extension of the human right (Mückenberger 2011) and temporal justice as an integral part of the just city is in its infant stage.

*Urban structures, mobility and morphologies*: Some of the articles showed already that on the one hand the morphology and the urban structure, also the right to mobility, are crucial for possible and realised time patterns and for the temporal use

of the urban fabric. On the other hand, they also illustrated how the change of the inhabitants' use of time and space allows for a different space-time configuration (Zedda 2009) and creates a new demand for liveable spaces and accessibility of services. But still, rather little is known about the causal relationships and degrees of freedom, of behavioural or structural adaption. In this context also the changes in technical infrastructure, its structural change and its change in organisation and provision (privatisation, unbundling (Graham and Marvin 2001; Graham 2007)) have to be taken into account with respect to the temporal and spatio-temporal implications. Technical infrastructure might contribute to integration and the just city but also to social and spatial discrimination and splintering urbanism (Graham and Marvin 2001).

Dynamics of temporal changes: Due to cultural and technical changes, there is a continuous change of time patterns. These dynamics are especially high in times with a quick diffusion of new technologies and cultural changes (Rifkin 1987). No doubt that the dynamics of globalisation enhance the dynamics of temporal changes. Even if the temporal aspects were well observed – which is at least questionable – the specific spatial and spatio-temporal impacts on the different spatial scales (global, international, national, regional, local) are far from being well researched and understood.

Actors: As indicated by the necessity of transversal policies, the range of actors, who have to be involved in a space-time design of the public city deserving the name, is wide but not at all clear. The necessary constellations have to differ according to the specific local needs, the specific problems of legitimacy and the institutional framework in the different countries. Also the specific resources of the actors regarding space-time design are quite divergent. There are quite different conceptualisations in various European countries with respect to temporal or spatio-temporal policies. To give only one example: What could be conceptualised as a temporal policy in its own right – e.g. the change of opening hours of public administrative services – like in Italy, is one part of another political concept in Germany, the modernisation of the public sector.

Time and identity: Time structures contribute to the temporal structure of a society and are therefore always part of the political debate (Castells 1997; Edensor 2006; Rifkin 1987; Zerubavel 1981, 1985). These cultural dimensions of time have also a spatial representation. But these relationships are rather out of focus in recent debates of space-time design in the city. The seminal book *What Time Is This Place*? (Lynch 1972) seems to be rather forgotten, but this perspective deserves a new emphasis.

Methods of empirical foundation: Due to new technological methods and tools for information processing on the one hand and the availability of new data sets (e.g. mobile phone data, data from social networks, data from telecommunication networks, traffic surveillance techniques) on the other hand, there is ample ground for new empirical foundation of urban rhythms and time structures. Even though it has to be considered that these data and the methods of collecting them are

sometimes problematic in terms of data privacy – to say the least – they provide new options for research. Examples of these kinds of analysis are the production of isochronic maps for local public transport systems and maps of flows of people and goods (e.g. Wehrmeyer n.d.; Walkscore n.d.; Senseable City Lab n.d.; MATSim n.d.) – rather often the data sets and the tools are private; therefore, the possibilities to use them are sometimes restricted. But it would be highly worthwhile to systematically integrate these new methods and data sets into the urban space-time research and design.

Evaluation: As shown in the book, there is a need for much more evaluation of space-time design, especially if the number and range of interventions are increasing. The Italian case is interesting in this sense, because urban time planning was made obligatory by law and even funded by the central state or the regional governments, but no steps were taken to evaluate the outcomes systematically. But even theoretically there is ample ground for further endeavours, because the evaluation criteria (outcome, efficiency, process) are not yet well described.

#### 20.4 Further Perspectives

The contributions show a broad range of ongoing research, but still there is a limited public awareness for spatio-temporal problems and the space-time design of the public city. This field of political action is – despite differences between the different European countries – not yet well established and has seen already upswings and downswings in importance (see Chap. 14 by van Schaick in this volume).

But nonetheless there are a lot of hopeful signs: The body of – even scattered – research is steadily increasing. Due to new available data and new methods especially temporal aspects are gaining ground. Increasing temporal conflicts evoke public awareness – especially times of change and conflict facilitate political debate and new policy arrangements. Since time and temporal practices are deeply rooted in different cultural contexts, the establishment of urban space-time policies and the provision of institutional, legal and financial frameworks are and probably will be especially different between countries, regions and even cities.

Other achievements like the legal framework in Italy, the foundation of several networks, have been already mentioned. A very remarkable fact for the entering of the political agenda by temporal and spatio-temporal issues is the Council of Europe's recommendation 295 and resolution 313 (2010) under the title 'Social time, leisure time: which local time planning policy?' It is the first time that an international body makes local time planning an integral part of a recommendation and resolution asking the member states and local authorities to take the concepts of time welfare, right to time, temporal quality of life and policies on times of the city systematically into account. And it calls for systematic awareness of temporal and spatial changes, to encourage networking and the development of new tools, to promote research and even 'time laboratories'. All researchers and practitioners should take this as an encouragement.

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