

Chapter 10

From L. Wirth to E. Wirth: Integrating Effects of the Organizational Division of Labour into the Study of Urban Life

Harald A. Mieg

10.1 Introduction

The Chicago school of sociology introduced urban ecology as an approach to study urban phenomena from a sociological point of view. The core idea of urban ecology was to understand cities as environments like those found in nature with a struggle for scarce urban resources and a division of the urban space into niches. In their magnum opus *The City*, Park et al. (1925) – founders of the Chicago school – proposed a concentric zone model of the city, with areas of social and physical deterioration concentrated near the city centre, followed by more prosperous areas in the suburb. The zones are subject to succession by different *social groups*, succession being a term borrowed from plant ecology. This concentric zone model and its derivative are widely used in urban planning until today.

There has been intense research on how specific social groups shape the urban zones. The focus so far has been on ethnic and social segregation; on families and the disadvantaged; on socio-spatial processes such as gentrification or tertiarisation; and last but not the least, on the influence on the urban fabric of specific urban businesses or industries such as, most recently, creative industries. The aim of this chapter is to present a contribution to research on the core factor of urban social differentiation: *the division of labour in large modern urban organizations* such as banks, city administrations, or universities. We would like to know whether the socio-spatial influence of this division of labour goes beyond the obvious commuter problem.

The presented study – called the Planning-Horizons Study – is linked on the one hand to organizational research and on the other hand to the work by Lynch (1960) and others on mental mapping. Mental maps show how people view and make sense of a city. In general, mental maps distort the physical relations of the city's layout: they are both representations and guides of behaviour. The presented study had an experimental character: it tested *whether the abstract, hierarchical organization of*

H.A. Mieg
Geography Department, Humboldt-Universität zu Berlin, Berlin, Germany
e-mail: harald.mieg@geo.hu-berlin.de

work exerts any influence on how work-related neighbourhoods are perceived and used.

Any confirmation would open new pathways for the interdisciplinary study of urbanism. The sociologists Georg Simmel and Louis Wirth revealed the institutional “grammar” of modern urban life, Simmel with a focus on money (Simmel 1903), Wirth on organized social groups (L. Wirth 1938). In a similar vein, the psychologist Stanley Milgram (Milgram 1970) argued that the information overload of a city leads to cognitive and behavioural adaptations such as information selection or the use of institutions. In geography, this approach would create new theoretical connections for the research on the determinants of mental maps and spatial behaviour. As we will see, the geographer Eugen Wirth provided bridging concepts in his theoretical geography (E. Wirth 1979). Our line of argumentation, however, is going to start with his namesake Louis Wirth, a sociologist.

10.2 Louis Wirth – Eugen Wirth

Louis Wirth was one of the representative scholars of the Chicago school. His paper on *Urbanism as a Way of Life* (1938) became a classic in urban sociology. According to Wirth, urbanism defines a way of life based on a high density and heterogeneity of people. Urban life is characterized by the “substitution of secondary for primary contacts” (p. 20). “The contacts of the city may indeed be face to face, but they are nevertheless impersonal, superficial, transitory, and segmental” (p. 12). In general, urbanism results in a reduction of personal interactions and a weakening of traditional ties, and it highly depends on the division of labour:

Characteristically, urbanites meet one another in highly segmental roles. They are, to be sure, dependent upon more people for the satisfactions of their life-needs than are rural people and thus are associated with a greater number of organized groups, but they are less dependent upon particular persons, and their dependence upon others is confined to a highly fractionalized aspect of the other’s round of activity. (L. Wirth 1938, p. 12)

To gain any influence, the urban individual is “bound to exert himself by joining with others of similar interest into organized groups to obtain his ends” (p. 22). Therefore, L. Wirth speaks of “urbanism as a form of social organization” (p. 20).

The geographer Eugen Wirth was interested in the study of spatial processes such as the diffusion of epidemics or the evolution of traffic systems. In his theoretical geography (E. Wirth 1979), he distinguishes three spatial fields or zones:

- (a) The *information field* – refers to areas about which a person or organization has any information
- (b) The *contact field* – refers to areas of daily personal contacts of a person or organization;
- (c) The *interaction field* – refers to areas in which a person or organization exchanges information, for instance, via email or telephone.

In general, the information field is the most expanded field; the contact field, the narrowest one. The contact field is often also addressed as the action area or action field. E. Wirth emphasized the intermediate role of the interaction field. For instance, according to E. Wirth, inner-urban migration is guided by the interaction field – and not by the information field (p. 222). Similarly, industrial exchange and expansion processes follow the paths of an organization's interaction field.

To summarize: whereas L. Wirth stated the important role of the *organized* individual within modern urban life, E. Wirth conceptualized interactions as the principle determinants of this socio-spatial organization. The fact that E. Wirth's field concept has lacked wider recommendation might be due to the success of the network concept since the study by Granovetter (1973). However, L. Wirth's field concept shows a certain elegance in explaining spatial processes. For instance, we can ask for the comparative influences of the information and interaction fields on the contact field. The study presented will profit from the conceptual work of L. Wirth and E. Wirth.

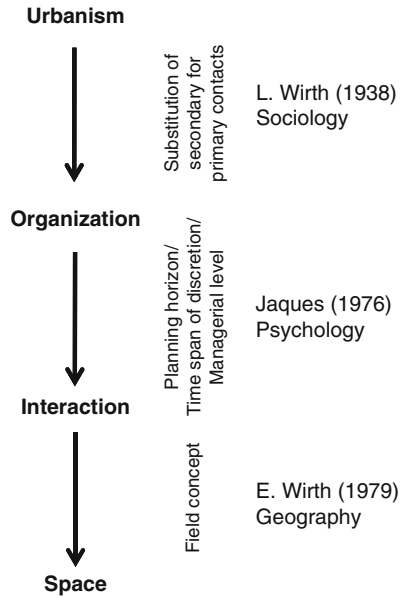
10.3 Core Assumptions and the Hypothesis of the Planning-Horizons Study

The reported study was intended to assess work-related planning horizons and their relation with the contact field. This conceptual outset is based on the following assumptions:

1. Role of work: Everyone (who is working) has a work-related interaction field (besides his/her private interaction field).
2. Division of labour: There are basic differences in the structure of the work-related interaction fields that correspond to different managerial levels.
3. Impact on contact: These differences in interaction fields result in different work-related contact fields.

The second assumption can be explicated within the organizational theory by the psychologist Eliot Jaques (1976, 1988). He claimed that the management of any considerable organization is based on a hierarchy of levels of abstraction with a rising number of organizational units and more and more extended planning horizons. The core factor is the increasing organizational complexity that requires abstract governance structures and increasing time spans for discretion. For instance, the work of a typical teller or clerk in a supermarket has a time span of one day, which means the following: by evening, his/her ordinary work has to be completed and it restarts the next day. The time span of discretion of a regional manager of the supermarket group might count in months: this is the minimum time span we have to wait until his/her typical decisions (e.g. range of goods, reorganization of single stores) might turn out successful or not. The time span of discretion of the owner of this supermarket group might count in years or decades. Figure 10.1 sketches the conceptual bridges between L. Wirth, Jaques, and E. Wirth.

Fig. 10.1 Conceptual bridges



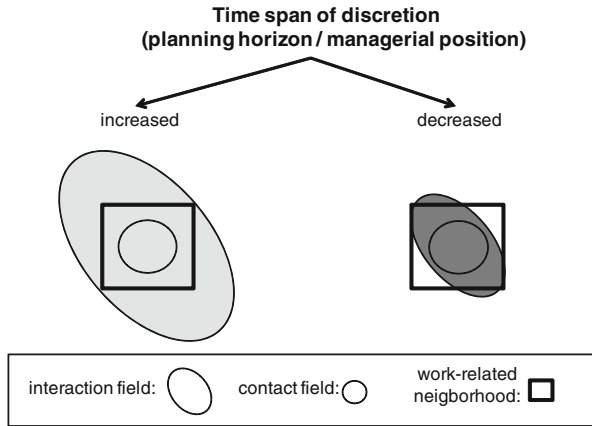
The resulting test hypothesis reads as follows: *The higher the managerial position, the more reduced the use of the work-related contact field.* Explanation (see also Fig. 10.2): Higher managerial levels imply more extended planning horizons with a more and more reduced resolution for a given geographical place. The reference site for the test is the location of the employing organization and its neighbourhood. We expect that managers make less use of the opportunities of the working neighbourhood as to shopping and leisure than “ordinary” employees – the reason being the higher organizational complexity managers have to manage (Jaques 1976). The resolutions of the mental maps differ, depicted as a more or less dark interaction field in Fig. 10.2. The managerial levels are assessed via the associated planning horizons (or time spans of discretion). The reason is twofold, firstly, because there is no standard definition for managerial positions used by different organizations. Secondly, the driving cognitive factor – the complexity of planning – should be emphasized.

10.4 The Planning-Horizons Study

The study was held as a part of the Research Training Group program on Urban Ecology¹ and focused on the Adlershof Science and Technology Park that is located in the South-East of Berlin and comprises several institutes of the Humboldt-

¹The project, including data collection, has been conducted by Hadia Köhler. Data collection took place in 2007.

Fig. 10.2 Planning-Horizons Hypothesis



Universität. Table 10.1 presents details about the samples and variables. The time span of discretion was measured as work-related planning horizons.² The main dependent measure was utilization of the work-related urban environment. It was assessed in 3 categories and 20 subcategories (leisure: 7 subcategories; services: 10 subcategories; and shopping: 3 subcategories). As we see, the groups do not substantially differ in the types of utilization, except for an increased use of services by the employees of the companies of the Adlershof Science and Technology Park. What else can be seen is that among all groups, the offers in the city centre location are clearly more used than those in Adlershof.

Table 10.1 also shows more long-term management with the university than with the companies, which are in general quite young and small – the whole Adlershof Science and Technology Park being founded after 1990. How about the Planning-Horizons Hypothesis? For the employees, the result was a significantly negative correlation between long-term planning and utilization of the work

²The planning variable: The time span of discretion was measured as work-related planning horizons: “How much time does it usually take your direct employees to complete their work?” Five different time spans could be selected: less than 3 months; 3 months to 1 year; 1 year to 2 years; 2–5 years; more than 5 years. The definition of the time spans follows the organizational model by Jaques (1976). The students were asked how long in advance they plan their exams. In general, each time horizon was assessed by a different variable. To arrive at a single planning variable, the inter-correlations of the different time horizon variables were analyzed. This analysis revealed at least two factors: a factor of short vs. long term planning and a factor for mid-term planning (but not long or short term). For the student’s sample, the planning variable has been created by identifying the short- vs. long-term factor in a principle component analysis. This would also have been the ideal method in case of the employees’ samples. However, due to statistical restrictions and the many missing data that would have unduly reduced the sample, a different method was chosen: in this case, the planning variable is defined by subtracting the very short term variable (up to 3 months) from the 2–5 year long term variable. The differentiation of long-term vs. short-term planners in Figure 10.3 is based on dividing the planning variable in three thirds: the upper third comprises the top long-term planners, the lower third the top short-term planners.

Table 10.1 Results of the Planning-Horizons Study

	<i>Established organization</i>	<i>New organization</i>	<i>Control group</i>
	Humboldt-Universität (Berlin-Mitte and Campus Adlershof)	Companies of the Adlershof Science and Technology Park	Students (Humboldt-Universität: Berlin-Mitte and Campus Adlershof)
N	559 (employees)	144 (employees)	335 (students)
Planning horizon: content	Management (guiding employees)	Management (guiding employees)	Exams
Planning horizon: weeks (up to 3 months)	63%	76%	65%
Planning horizon: months (up to 1 year)	23%	15%	27%
Planning horizon: 1–2 years	8%	5%	7%
Planning horizon: 2–5 years	5%	3%	1%
Planning horizon: more than 5 years	1%	0%	–
Mean utilization of Berlin-Mitte (city centre)	30%	–	30%
Mean utilization of Campus Adlershof	19%	21%	19%
Mean neighbourhood utilization: leisure	35%	28%	37%
Mean neighbourhood utilization: services	12%	20%	13%
Mean neighbourhood utilization: shopping	35%	28%	37%
Planning-Horizons Hypothesis	Confirmed	Not confirmed (effect is too weak)	Not confirmed (not applicable?)

neighbourhood ($r = -0.26$; $N = 146$; $p < 0.01$). The negative correlation between planning horizon and neighbourhood utilization even increases when we check for variables connected to neighbourhood utilization, such as gender, number of children, hours of work, and campus (city centre vs. Adlershof). For the control group of students, the correlation was positive ($r = 0.29$; $N = 189$; $p < 0.01$). This, however, is not a reliable finding, as the correlation is clearly reduced when checking for campus and other variables and might even be reversed in subsamples (as seen in Fig. 10.3). Figure 10.3 depicts the results for the Adlershof campus. Here, the short-term planners always utilize the campus more than the long-term planners.

10.5 Discussion, Conclusion

The presented analysis is based on a “one-shot” study. The core Planning-Horizons Hypothesis could be confirmed; however, there are so many assumptions made (cf. Fig. 10.1) that it would be easy to construe alternative explanations. We might, for instance, refer to time geography (Hägerstrand 1953); then, restricted time budgets for long-term planners might be a general explanation for reduced local neighbourhood utilization – the Planning Horizons Study statistically controlled at least the

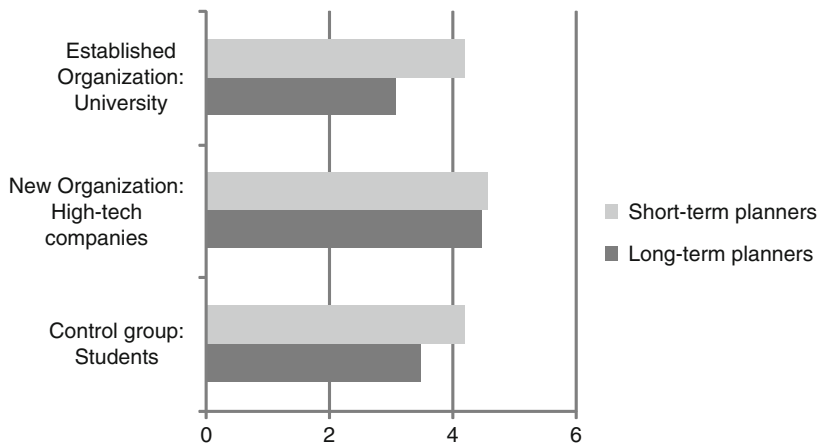


Fig. 10.3 Utilization of the Adlershof campus by the top long-term planners vs. top short-term planners (mean number out of 20 offered categories)

hours of work. Thus, there is still a long way until we know the empirical basis for the underlying assumptions. As Jaques (1976) has theorized, the division of labour in new organizations is not yet elaborated enough to allow for many operating managerial levels; the size of the company and the type of industry do also play a role. The results for the Planning Horizons Hypothesis also underline that the effects are restricted to managerial planning based on division of labour (as conceptualized by Jaques 1976) and do not hold for planning in general (as in the case of students).

The Planning-Horizons Hypothesis provides an explanation why top managers view the work-related neighbourhood of their headquarters in a more abstract, reduced manner – even when staying there as long or longer each day than their employees. This is the reality of the global cities (Sassen 2001) that are hubs in a globalized economy. The business district of global cities becomes globally standardized to keep efficient the work of global professionals and managers of multinational firms. The Planning-Horizons Hypothesis, however, refers to any elaborated organizational division of labour (Mieg 2005): this includes not only multinational companies but also large public institutions such as municipal administrations, federal offices, national professional associations, or universities. In general, these organizations are concentrated in the national capitals or big cities. Thus, the Planning-Horizons Hypothesis is a contribution to metropolitan studies, because it helps understand the determinants of urban life.

The line of argumentation of this chapter started with urban ecology as a sociological endeavour, the terminology being borrowed from biology. Since long, urban ecology has been developed as a project of natural sciences, too. The argumentation of this chapter underlines the bridging function of geography in a now truly interdisciplinary urban ecology (cf. Mieg et al. 2008). Urban ecology provides evidence for the enduring need for geographical theory. The concept

of the interaction field by Eugen Wirth is such a piece of geographical theory building. In our case, it helped translate organizational theory (managerial planning horizons) into socio-spatial effects (neighbourhood utilization).

References

- Granovetter, M. (1973). The Strength of Weak Ties. *The American Journal of Sociology*, Vol. 78, No. 6, 1360-1380.
- Hägerstrand, T. (1953). *Innovationsförloppet ur korologisk synpunkt*. Lund, Sweden: C.W.K Gleerup. [English version: *Innovation Diffusion as a Spatial Process*. University of Chicago Press, 1967].
- Jaques, E. (1976). *A General Theory of Bureaucracy*. Aldershot: Gregg Revivals.
- Jaques, E. (1988). *Requisite Organization*. Arlington: Cason Hall & Co. Publishers.
- Lynch, K. (1960). *The Image of the City*. Cambridge, MA: MIT Press.
- Mieg, H. A. (2005). Die Form der Zeit: Elemente einer Wirtschaftspsychologie der Zeit. *Wirtschaftspsychologie*, Vol. 7, No. 3, 5-21.
- Mieg, H. A., Endlicher, W., & Köhler, H. (2008). Four types of knowledge integration management in interdisciplinary research on cities and the environment. *Cities and the Environment*. URL: <http://escholarship.bc.edu/cate/vol1/iss1/6/> (online-publication).
- Milgram, S. (1970). The Experience of Living in Cities. *Science*, Vol. 167, S. 1461-1468.
- Park, R. E., Burgess, E. W., & McKenzie, R. D. (1925). *The City*. University of Chicago Press.
- Sassen, S. (2001). *The Global City* (2nd ed.). Princeton: Princeton University Press.
- Simmel, G. (1903/1995). *Die Großstädte und das Geistesleben*. In: Ders.: Gesamtausgabe, Bd. 7, Frankfurt am Main: Suhrkamp. [Original 1903]
- Wirth, E. (1979). *Theoretische Geographie*. Stuttgart: Teubner.
- Wirth, L. (1938). Urbanism as a Way of Life. *The American Journal of Sociology*, Vol. 44, No. 1, 1-24.