

The University and the City

Changing and Challenging Geographies in the Milan Urban Region

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Abstract: Drawing from the results of a recent research project, this article seeks to reconstruct the logic and effect of the ongoing relocation processes of strategic urban functions, such as the university, within the specific spatial, social, economic, and institutional context of the Milan region. The paper argues that it is possible to interpret the new geographies of the city–university relationship as both the cause and effect of an emerging post-metropolitan condition (Soja 2011). At the same time, it shows that this relationship, although challenged and stressed over time, has nevertheless remained significant and indeed has played an important role in the production and reproduction of forms of "cityness" (Sennet 2007) and urbanity (Keil, Addie 2012).

1 Introduction

Drawing from the results of recent research conducted by the authors since 2010, this article illustrates and discusses the changing spatial geographies of the university in Milan's contemporary urban context. The authors aim at addressing the challenging problem posed by the editors of this special issue: "... to link theoretical conceptualizations of changing periphery to concrete and practical developments in different cities" (see introduction to this issue). From this perspective, the article will seek to reconstruct the logic and effects of the ongoing relocation processes of a strategic urban function, such as the university, within a specific spatial, social, economic, and institutional context and discuss these facts as one central argument to try and interpret the overall process of the transformation of the city into an urban region (Balducci, Fedeli, Pasqui 2011) over the past thirty years.

The central hypothesis is that it is possible to interpret the new geographies of the city–university relationship as both the cause and effect of an emerging post-metropolitan condition, conceived, as Soja maintains, as a "shift from a distinctively metropolitan model of urban development to an essentially regional urbaniza-

tion process" (Soja 2011). At the same time, it is argued that the city–university relationship, although challenged and stressed over time within this "endless city" condition (Burdett, Sudjic 2007), has remained significant nevertheless and indeed has played an important role in the production and reproduction of forms of "cityness" (Sennet 2007) and urbanity (Keil, Addie, forthcoming).

Section Two presents a critical reading of the city of Milan as part of a broader urban region through the discussion of selected data and characteristics, along with an examination of the transformation processes that have produced complex spatial agglomerations over the last three decades. A review of the Italian literature will explore some important hypotheses developed locally to interpret this change within the international debate.

Section Three reconstructs more specifically the current city–university geographies in Milan and its broader urban region, interpreted in relation to the processes described above, showing how and to what extent the spatial relationship between the city and the university has been reformulated during the last two centuries as an outcome of the interaction between the internal logic of the university as a specific function – with a peculiar trans-scale institutional nature in the Italian context – and external urban and social dynamics. Drawing from original research conducted in 2010, the article proposes a reconstruction of these processes into three main phases whose outcomes will be also described using original maps.

In Section Four, the article presents some conclusions that will seek to overcome the traditional center–periphery contraposition in the conceptualization of the contemporary city by exploring the spatial geographies of universities in Milan. It will also argue that not only have university relocation logic and rationales consistently bypassed this contraposition, producing new forms of "urbanity" (Keil, Addie, forthcoming), but also that universities, among others, have played a central role in producing a new post-metropolitan urban condition (Soja 2011), in many cases triggering more promising decentralization processes than similar

ones fostered by a number of public policies over the past thirty years. These conclusions will be discussed in relation to the debate on the changing nature of cities in a knowledge-based economy.

2 The Milan Urban Region: A Common and Temporary Outcome of Individual and Collective Choices and a Space of New Forms of Spatial Agency

Over the past twenty years, Milan has been described and conceptualized as part of a broader urban area in which the central city, while still defined by its administrative boundaries, can no longer be neatly distinguished from the surrounding urbanized region strictly related to the center through economic, social, and cultural relationships. Milan has clearly moved beyond not only municipal boundaries but also provincial and regional ones. The issues at stake in this active debate can be condensed into five main research questions.

1. What has happened in the last two decades?
2. What kind of social, economic, political, institutional processes have transformed Milan into such a complex urban agglomeration and what are the consequences?
3. What kinds of actors have produced, directly or indirectly, this new urban configuration?
4. How can this new urban form be described and analyzed in appropriate ways?
5. To what extent are the traditional institutions able to understand and face this new urban condition and to what extent can other emerging or alternative subjects have a new active and innovative role?

This section will present a critical reconstruction of the current conditions, proposing some useful elements to try and deal with these central questions. This will produce a background for the introduction of the specific case of the university.

According to 2000 census data, with its 3839216 inhabitants, the Milan provincial area was one of the most heavily populated areas in Italy and in Europe (1982 inhabitants per square km). 41% of the population of the Lombardy Region lived there, although the Province of Milan accounted for just 8.3% of its territory. Six of its towns hosted more than 50000 inhabitants and another 30 had a population of more than 20000 people. It has been – and still is – one of the wealthiest areas in Italy as well as Europe: 336593 businesses in 2005 generated

over 10% of Italy's GDP. Milan still stands as the core of the province and the broader region: Even though it has lost population in recent decades, it remains the central city in terms of its role in wealth, innovation and culture on the local and national levels (producing 4.7% of the national GDP by itself) and being differently and intensively used by diverse populations, students, workers, city users, etc., who still value its strategic centrality and unique functions. Nonetheless, and different from the past, this central role can no longer be understood or explained, as we have argued in several papers (Balducci 2005; Balducci 2011), without framing it in the dynamics of a larger urbanized area that includes ten provinces (Milan, Lodi, Piacenza, Pavia, Novara, Varese, Lecco, Como and Bergamo, some belonging to other regions), almost 8 million inhabitants and 700000 businesses (OECD 2005).

The reasons for this spatial re-configuration can be traced to 19th century growth as well as the post-WWII economic boom (see Dalmaso or De Carlo in the 1960s; Balducci 2005; Bolocan 2007, 2009; Fedeli 2011, 2012). This topic has been explored by several authors, e.g., the book *Il territorio che cambia* (The Changing Territory) by Boeri, Lanzani and Marini (1993) as well as Lanzani (1991) who was among the first to highlight a number of new, visible and powerful processes of reorganization of the spatial relationship between the central city and its broader regional context. Using a new analytical-interpretative scheme, the authors focused on the necessity of re-framing this new spatial form as a “diffuse city” (*città diffusa*) – a new urban form and space of, and for, new social and economic practices, behaviors and lifestyles that largely transcended and re-interpreted the historic form and idea of the city and a metropolitan area. Referring to important socio-spatial transformations, the book underlined the importance of understanding and facing the presence of new vast and highly interconnected urban forms, questioning their consolidated spatial organization, reinventing “cityness,” proposing new and complex urban questions, and producing new spatial phenomena, such as the location of new urban amenities, the production of new centralities, the construction of new environmental networks, the modification of the mobility of people and goods and the related need for new public transport systems and infrastructure, the transformation of open and built spaces and typologies, a changing economic structure moving beyond Fordist models to produce an interconnected

pattern of small and medium enterprises together with new tertiary and commercial specializations, etc. Subsequent works, also at a national level, Clementi, Dematteis, Palermo (1996), Palermo et al. (1997), and Secchi (1999, 2005) in particular, put forward similar views as ways to move from the most oversimplifying images of the metropolization of peri-urban or suburban areas to introduce a more problematic vision of a “plural territory” in which the urban area is differentiated and heterogeneous, an outcome of a multiplicity of settlement principles and socio-economic landscapes, distributed and defined in space and in time. In this territory, new emerging relationships and increasing autonomy could potentially challenge the apparent unity and traditional supremacy of the metropolitan concept, while redefining the image of a strategic region with its outreaching connections and relationships.

More recently, we have argued that three determining factors were central to this process: “movement, fragmentation and the construction of new distance communities” (Balducci 2005). These three phenomena are closely related and must be seen from two interacting perspectives, the first focused on the transformation of the central city and the second on the transformation of the polycentric region in which the city is located. From the central city perspective, greater possibilities for movement and increased flows of people, goods and information triggered, either directly or indirectly, the displacement of traditional forms of social and spatial organization. Younger generations moved outside the central city in search of affordable housing, reacting to pressure from the real estate and housing markets, and supported by the development of private automobile transport. This produced a substantial loss of permanent residents in the central city, which was only partially cushioned by the growth of immigrant and temporary populations, who use the central city as a platform for individual and collective practices.

Typical urban functions followed people outside the city in a more or less planned process. During the 1990s, the crisis of the Fordist manufacturing city produced a proliferation of businesses and complex worker mobility. Signs of polarization and social differentiation appeared in the 1990s and the beginning of 2000s, especially in the central city, with destabilizing effects on the middle classes who were affected by the reorganization of employment and changes in family and social structure, with a growing number of small families and the parallel age-

ing of the population. From a regional perspective, the historic polycentric form of small and medium towns or neighborhoods underwent social, economic and political change similar to what had come about in the central city.

Small and medium-sized cities consolidated their economic roles not only on the local scale, but more broadly on the national scale, developing into specialized clusters. Socially, they also grew increasingly similar to the central city due to their greater urban complexity as places for the creation of new networks of relationships. At the same time, businesses, which had become increasingly smaller, formed networks that allowed them to compete on different scales. Families and individuals formed new ties through the Internet and telephone networks, but also through the general redefinition of spatial hierarchies, which became widespread throughout the new highly urbanized living conditions.

This double movement, generated by both the central city and other regional urban poles, interacted with the significant changes in the political and institutional spheres. The crisis in the historic political parties that began at the end of the 1990s and still continues today, provided space for new political subjects, some of which have been particularly representative of this socio-spatial reconfiguration. Political parties like the Northern League and the Lombardy League (*Lega Nord, Lega Lombarda*) have given voice to the expectations and interests of a population residing in what had once been defined as the suburban condition, and which has progressively been represented as a new urban condition fraught with new political demands and issues.

The challenging character of this new socio-spatial form was visualized in a major exhibition at the Triennale di Milano in 2004, where it was conceptualized and represented as the “infinite city” (*città infinita*) (Bonomi, Abruzzese 2004), characterized not only by the negative dissolution of urban form, but also by the reinvention of spatial and organizational principles and the emergence of “infinite complexity” in opposition to the idea of sprawl as a simple “trivialization” and repetition of low-density urbanization and fragmented social communities and ties. The idea of the “diffuse city” (Boeri, Lanzani, Marini 1993; Secchi 2005; Tosi, Munarin 2001), which focused on a city at the crossroads between individual and collective rationalities as conceptualized in the Italian literature, sought to overcome the negative bias towards the simplified interpretation of growth

in terms of sprawl, acknowledging the necessity to truly embrace its challenges as a “sign of a radical mutation of the contemporary condition” (Secchi 2008). In particular, it questioned the fact that the diffuse city could be read in simplistic ways either as a space in which proximity was no longer important and in which social cohesion was reduced or as a space of major or inferior environmental congestion and of greater or lesser intensity of flows as compared to the compact city.

At the same time, it stressed the negative interpretation of the occurring processes in terms of suburbanization, reclaiming the necessity to take care of this new form of the urban as an expression of new ways of life and as a field of demand of a new right to the city. In fact, we might describe the contemporary urban condition in the Milan urban region as the result of the individual and collective behaviors of families, businesses, and institutions with different needs and different rationalities. They have been co-producing a new spatial mode, characterized by what might be defined as the shrinking of the central city and the explosion in the surrounding provincial space and as a process of the development and increasing complexity of a polycentric system of settlements and local societies.

In this perspective, especially over the last decade, we have highlighted the need not only in the field of research, but also in the field of policies to develop descriptions that can help to further address the trans-scalar challenges produced by the emerging urban region (see Balducci 2005) conceived as a space of interaction among interconnected urban forms having specific features, centralities, settlement principles and inhabitant–territory mobility relationships, which can no longer be defined by the metropolitan area concept. In fact, for almost thirty years, Milan’s socio-spatial and economic processes refute both the traditional interpretation of the hierarchical relationship between the city of Milan, traditionally indicated by the terms peripheries and hinterland in the 1960s and thereafter, as well as its more recent conceptualization as a metropolitan area provided by a law from the beginning of the 1990s that also provided space for the institution of metropolitan governments in Italy. Along with the missing implementation of the law, though recently re-launched, it has become increasingly clear that these conceptualizations must be abandoned in favor of new ones that interpret the current urban condition as an urban region in which traditional administrative boundar-

ies or institutional models no longer represent the social, economic and political complexity of the multiple and interrelated centralities and socio-spatial forms in play.

In this respect, within the framework of a strategic planning process promoted by the Province of Milan and involving the University to try and shape a new interpretation and vision of the current situation, we proposed to conceptualize this emerging urban region as a “city of cities” (see Prov. Milano-DiAP 2005 and Indovina 1999): A city made up of plural and differentiated urban spaces, but also a “city of different populations” (Martinotti 1993; Prov. Milano-DiAP 2006; Pasqui 2009), of flows and fragments, of new plural and intermittent connections and relationships between inhabitants and places, that raises new urban questions. An urban fact that deserves a new policy approach and agenda, together with a new governance model, and that local and national institutions still seem unable to foresee and propose.

The hypothesis is that this and other re-conceptualizations could help dispose of the normative supra-determination of uses and forms in order to move towards the redefinition of the urban realm as an *open city* (Jacobs, quoted in Sennet 2007): A city open to new flexible and plural hierarchies and projects that abandons traditional ones and rejects a supra-deterministic approach to urban planning. It is the city as a space of new emerging agencies and subjects, practices, behaviors, lifestyles, and identities that must be acknowledged, explored and taken into consideration when determining public policy and designing planning frameworks and strategies.

3 The University in Milan: Quite a Recent Actor with a Changing Relationship to the City

With this conceptual framework in mind, this section will focus on the specific changing role and geography of a quite traditional strategic urban resource, the university, which is also a very *sui generis* urban actor. As argued on other occasions, in fact, the “agency” of the university is quite a contested issue in the urban sphere. The university in Italy has had important roles in the historical development of many urban contexts, nevertheless, the conditions under which the university can play a specific role in the urban sphere are quite particular and should be mentioned before introducing the specific case. The Italian university, according

to Article 33 of the Italian Constitution, is a body with *functional* autonomy; where autonomy is related to the specific field of action linked with its role: that of “producing high-quality training, research and innovation”. The laws no. 168/1989, and 341/ and 537/1993 have recognized the statutory autonomy of the university in relation to teaching, research, organization, finances and accounting. This opened a new season in the recent history of the university in Italy, allowing unprecedented spaces of agency, partially confirmed by a recent reform in 2010 (*Riforma Gelmini*, the reform promoted by the National Minister Maria Stella Gelmini). Nevertheless, up until recently, the historical original and hierarchical relationship between the National Ministry of University and Universities has deeply affected the way in which universities have acted since they became part of the National Education System (after the unification of the country in 1861 and later in 1929 with the *Riforma Gentile* and in 1939 with the *Riforma Bottai*, from the names of the two min-

isters in charge at that time). In other words, if for centuries, universities had had a strong relationship with local contexts, after the unification of the country and the “nationalisation” of the university, this relationship has been consistently mediated by the powerful, and sometimes overwhelming, role played by the State.

This short overview can help introduce the readers to the peculiar case of Milan, which ranks second today in terms of attraction for university students (Ufficio Statistica MIUR 2009) and is one of the most appealing in Italy for international students. The city plays an important role, along with Rome and Naples, in Italy’s higher education system. Over the past two centuries, this role has offered the city the possibility to attract young people and talent and to generate income and innovation in many fields. Ten Athenaeums and three institutions of higher education generate almost 200 000 people using the city because of the presence of a university (including students, teachers, and permanent and temporary staff): a real “city

Fig. 1: The geography of the university system in the city of Milan: university and university seats. (Source: DASTU 2011)



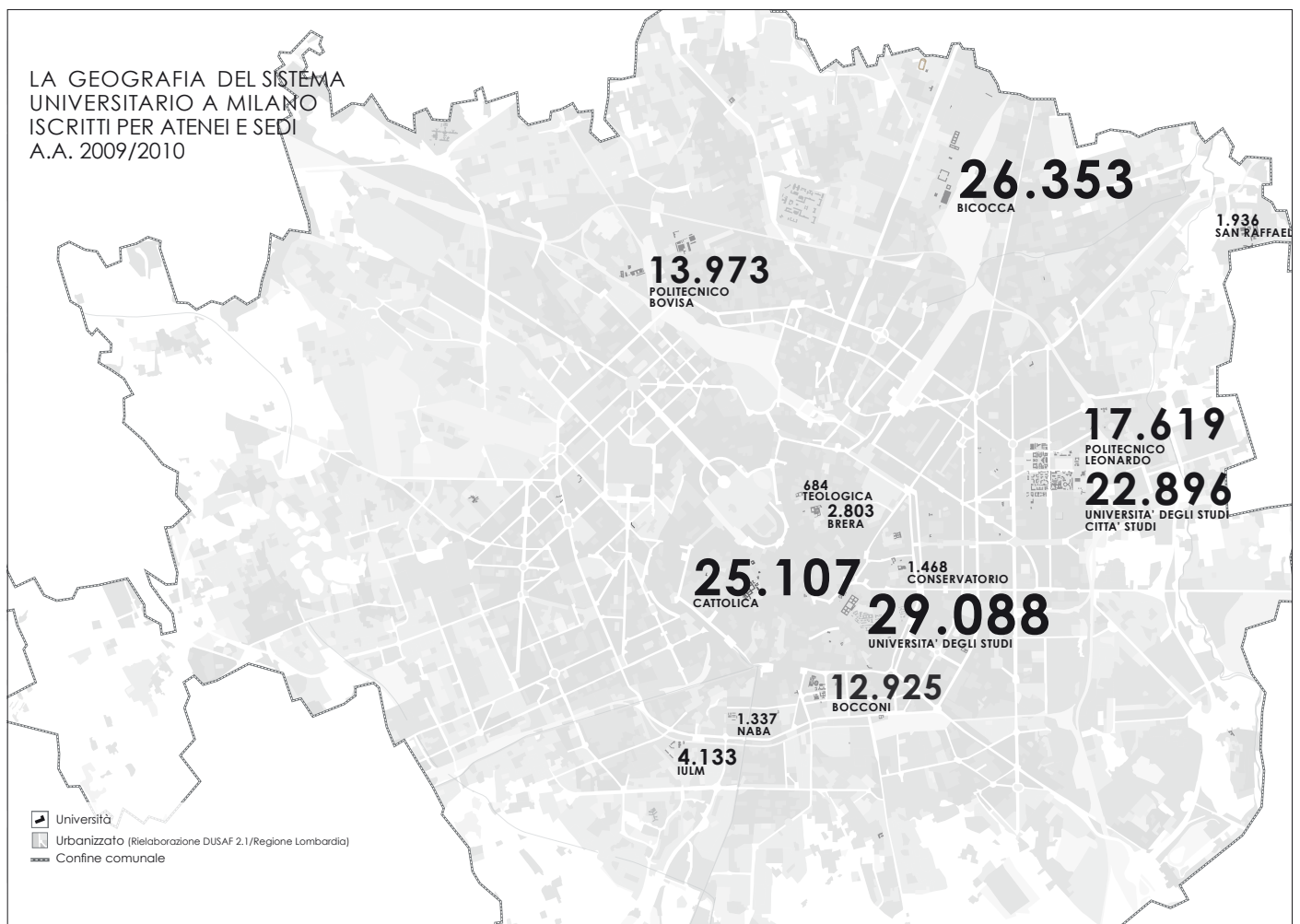
within a city". However, the idea of Milan as a university city is not rooted and accepted in the minds of the citizens, political and economic actors and the local administration and it is actually quite difficult to find this representation of the city in the local imagination.

There are many different reasons for this lack of interest and vision, a fact that might appear problematic today when cities compete in a knowledge-based economy. Analyzing them can be useful in introducing some thoughts concerning the spatial geographies of universities. This is what the authors of this article did during a research project conducted in 2010, together with Francesca Cognetti, published by AIM, *Associazione Interessi Metropolitan*, a local civic association founded in the late 1980s in order to spur innovation in the public agenda and public discussion in the city. The research was aimed at observing the relationship between the city and its universities and, in particular, to reconstruct a qualitative and quantitative updated picture of this relationship. At

the same time, the research project integrated contributions of relevant actors in the local university world (through interviews with rectors, scholars in the field, and urban actors) and wanted to highlight the effects that this new representation of the phenomena could produce in the formulation of the public agendas, local and national, in the belief that there is a lot of space to invest in the university and its role, but also that the university can be, and in fact already constitutes, a multifaceted resource for the city.¹

The historical reconstruction of the university-city relationship has shown that the presence of higher education institutions in Milan is relatively a recent fact if compared with other cities in Italy, as well as a peculiar one. The roots and underlying reasons for the presence of the university in the city are essentially linked to the role that economic forces and processes played during the second half of the nineteenth century, a period of deep economic change that required new skills and knowledge.

Fig. 2: The geography of the university system in the city of Milan: students; university; university seats for the academic year 2009/2010. (Source: Balducci, Cognetti, Fedeli 2010)



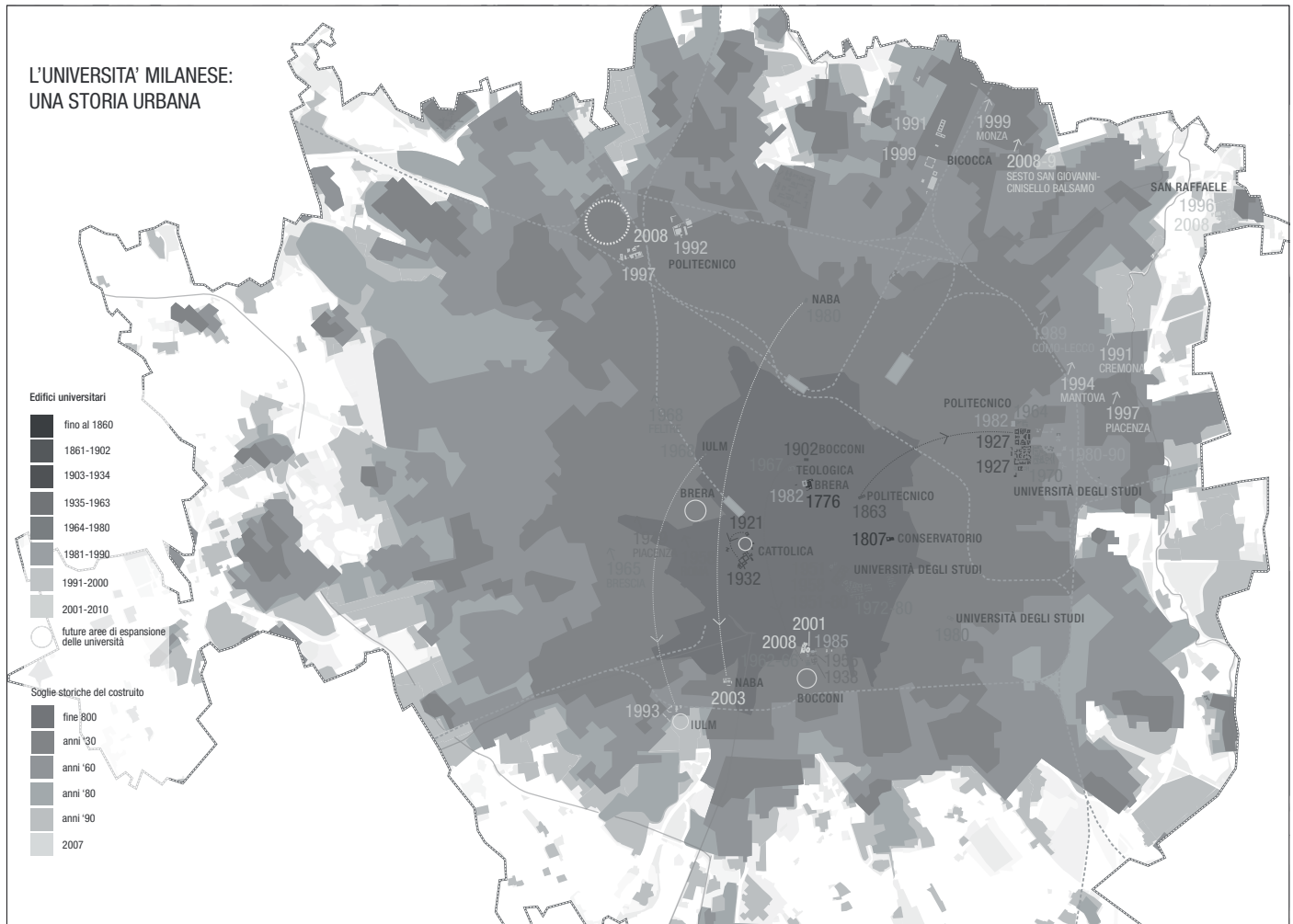


Fig. 3: The urban history of the university system in Milan. (Source: Balducci, Cognetti, Fedeli 2010)

At the time, private and public actors played central roles in promoting universities in order to shape a new workforce that could meet the needs of a changing economy and society. This strong interconnection provides the basis for the specificity of the Milan case in which the relationship between the university and the city was a fundamental element in the construction of the “modern city” and was far from the traditional Medieval or Renaissance concept. In a few words, we might say that both the modern, contemporary city and the university formed at the same time and have been evolving at the same pace.

Secondly, as the research argued, in Italy, the quintessential Italian university towns are small or medium-sized historic cities that have created their urban economies and much of their social organization around their universities, so much so that their names are often unquestionably associated with their universities

(Pavia, Urbino, Bologna, etc.). Milan is very different insofar as it is a global city with a multifaceted profile and important roles in different fields and networks on different scales. Therefore, it is neither simple nor useful to identify such a differentiated economy with a single sector. At the same time, the university in Milan is a plural presence, a mosaic of private and public institutions in different disciplinary sectors and with different histories. This makes it almost impossible to identify the city with a single university and difficult to identify the role the university plays in the local economy.

Keeping these two special conditions in mind, we concluded that, in Milan, the relationship between the city and the university (Bagnasco 2004; Perry, Wiewel 2005) is a complex one; both terms (and along with them the interpretive framework in use) appear blurred and confused. Nonetheless, this relationship has been shaped through a recent, but at the

same time, long process in which at least three different phases can be identified, showing clear interactions with the processes of urban transformation over the last two centuries.

Phase one: The capital city calls for a university

In the middle of the 19th century, before the foundation of the national state in 1861, Milan had become a central node in the development of the entire nation. At that time, the university was not yet present in the city. In fact, Pavia was the principal higher education pole in the Lombardy Region due to its long tradition consolidated during the Napoleonic period. But in the context of the intense economic transformation and modernization that anticipated unification, the presence of university functions in a central node in the economic transformation, like Milan, suddenly became a strategic asset for the local context. In fact, the development of the university in the city must be read within the framework of strong interactions and relationships with the emerging local society and new economic demands.

The first official university dates back to 1863, when the Politecnico di Milano (Polytechnic Institute of Milan) was inaugurated as the Regio Istituto di Perfezionamento after a long and complex founding process based on the integration of several pre-existing research institutes (Canadelli 2008). In 1875, with the support of both the municipality and the province, a first network was constituted from the polytechnic institutes to create a consortium for higher education made up of a number of historic autonomous cultural institutions such as the Osservatorio Astronomico di Brera and others. A second network was created by an equally important and complex group of clinical specialization schools to create the first scientific schools of what would later become the State University in the first decades of the twentieth century. On the basis of the collaboration between these two networks, not only were the first public universities established in Milan, but the first spatial nucleus of what is now called the Città degli Studi (city of learning), which is a special urban neighborhood devoted to new university functions in the eastern part of the city, and a peripheral area at the time.

Land owned by the city (approximately 150 000 square meters) was offered to the Consortium for Higher Education in order to create a “city of science” where proximity among scholars and establishing roots in the develop-

ing urban space were fundamental and shared principles (the area was located in a zone indicated in the city’s spatial plan as an area for growth and development). Città degli Studi, initiated in 1915 and concluded in 1927, was slowly settled, intersecting the process of the creation of a state-run system of higher education promoted by the fascist government. In this sense, the settlement of this new dedicated urban sector can be seen as the final outcome of a strong relationship between the university and the local context, as well as the beginning of a new season, characterized by the partially reduced but still active role of local society in supporting higher education in Milan. The nationalization of higher education introduced new elements into this local relationship: the State was to become a central actor in the more hierarchical and vertical structure of this relationship.

Nevertheless, the same strong ties with the local economy and society in Milan can also be read in the founding of two of the most important private universities in Italy just a few decades later. In 1902, the first private business school was founded by entrepreneur Luigi Bocconi just outside the Hispanic Walls in the southern sector of the urban development plan. In 1921, in a more central and historic site, Father Agostino Gemelli and others founded the Catholic University with the intention of contributing to the promotion of Italian culture based on a strong religious and civil engagement. Both events represent a follow up of the vision shared by local elites of providing the city with the new strategic function of education and research, conceived as part of the process of “city-making”.

This general process, promoted by both private and public actors, had clear spatial implications and effects on the urban fabric. Universities, initially often located in small historic buildings in the city center, were, in fact, being rapidly relocated in the most important areas for new urban development, strongly integrated with the growing city and its urban planning acts. The physical growth of the city in the twentieth century is clearly marked by these new university settlements, which are strategic elements in the production of the modern city.

Phase two: An expanding university occupies space left free by the industrial crisis

The second phase began at the end of a long period characterized by some general stability in the geography and organization of universities in the city, but also by great urban change.

As in other countries, there was a comprehensive reform of the educational model within the university here, however, despite much debate about and within universities, the 1960s saw very little tangible innovation in the local context.² More generally, the city was already experiencing the post-WWII era and a second industrial boom accompanied by great quantitative growth as well as by the availability and development of manufacturing sites within the urban landscape. The effects would become rapidly visible just a few years later. In fact, due to the economic and demographic boom, an increased demand for education in the 1970s, and the new organization of the higher education system after the 1960s reform, universities began to experience great pressure and growing spatial problems. Areas built up at the beginning of the century could no longer host the increasing number of students or fulfill the new teaching models. Because of this problematic situation, the university expressed a need for new tools and resources for their expansion; this led to the approval of the national 1991–1993 three-year plan and a series of specific laws. This legislation allowed universities with more than 40 000 students to split up and generate new autonomous institutions.

In Milan, both the State University and the Polytechnic Institute had reached these conditions and both sought solutions to the problems of overcrowded classrooms and outdated infrastructure. In accordance with the new laws, they chose different and differentiated strategies with a new regional perspective in a changed relationship with the central city, even if one institution sought to maintain unity and the other was more interested in separation and autonomy. The State University decided to establish a new autonomous state university in the northern part of the city in the decommissioned Bicocca area, the former Pirelli manufacturing site. The Polytechnic Institute, in contrast, opened a new urban pole in an eastern part of the northern sector of the city, as part of the same institution – again in a decommissioned area in Bovisa.

At the time, Milan had already nearly concluded a cycle of powerful economic change. De-industrialization had produced a large number of brownfields and the city had initiated a tertiarization process, in which abandoned industrial sites were made available for new uses, became particularly problematic in terms of their possible re-use. The universities intersected these decommissioned landscapes and higher education was identified, also by the

city administration, as a possible function to be located there in order to trigger urban regeneration processes. In this perspective, both the Polytechnic Institute and the State University underwent processes in which their needs again met the needs of local society. But, in contrast to the past, both the universities and the city seemed to be lacking clear strategies and it seemed that the university had become more of a victim than the main agent of change. While universities were looking for new space (with partial awareness of its potential and role), the city (and often the economic actors outside of these processes) supported the university resettlement processes in limited ways, merely seeking one possible function among the many that could trigger complex transformation processes that would otherwise remain blocked for years. This was particularly true in the case of the foundation of the new State University in Bicocca, and less so in the case of second pole of the Polytechnic Institute in Bovisa where, due to a number of factors, the university had more of a chance to choose its space and play a more active role in driving the transformation.

In this phase, being “urban” was also an important condition for universities, albeit in a implicit way. While the central city administration and local actors treated the university in a non-strategic way; the universities were also too late in understanding their potentially leading role in urban transformation. Nevertheless, they continued to consider the city to be their natural environment, however, they were also used, implicitly or explicitly, to feed a weakened urbanity during a strong economic restructuring phase. In fact, in both cases, the new university settlements produced a consistent urban change, somehow strategic for the urban sector or even the entire city.

Phase three: The expanding university looks for new space outside the central city and local territories try to attract universities in competition with the central city

Almost in the same years, a new orientation started taking place, even if still in a weak and unclear form: in 1993, the State University opened new branches in Como and Varese, destined to become the new autonomous University of Insubria, while the Polytechnic Institute initiated its decentralization policy and opened new poles in Como, Lecco, Cremona, Mantova and Piacenza as part of its integrated regional network. The construction of these new poles, in contrast to autonomous universities, was ini-

tially considered by the then Polytechnic Institute's governing board as a way to consolidate historically decentralized and minor seats in those cities by renovating them and provide some help in de-concentrating students from central cities campuses. But slowly, in the mind of the rectors, these new branches in medium-size cities became opportunities to conduct specific courses dedicated to territories characterized by economic specialization with a demand for particular skills.

Other cities also began to compete for universities, becoming aware of the potential of a larger regional user-base within a new local and global spatial dimension and becoming at the same time new central places in the Italian economic system. This new trend became increasingly visible in the late 1990s and the start of the new millennium when the regionalization of the university became increasingly widespread. Small and medium-sized cities in Lombardy, as well as in other Italian regions, become more active in trying to compete for a university presence. In just a very few years, the number of new poles multiplied with impressive effects: from 1999–2007 the number of municipalities hosting universities grew by 26.5% (Censis 2008), inevitably drawing users from the major national cities by producing widespread offerings within the above-mentioned regionalization process. In Milan, the effects of this process were particularly evident from 1995–2005 (Balducci, Cognetti, Fedeli 2010), while afterwards they seemed to decrease.

This phenomenon can be interpreted and explained in light of more general urban and regional processes along with the social and economical transformation described in the first part of this article. On the one hand, it might be argued that students chose, at least at the outset, to remain near their homes, most likely to reduce costs (MeglioMilano 2004; see Frenette 2007). The Canadian case (discussed by Keil et al., forthcoming) reminds us that “regional branch campuses have improved access for low-income and non-traditional students, and there appears to be an important geographical bias to the experience, function and success of such expansions.” If, in fact, tuition is more or less the same in all public universities, the costs of living and travelling to and from Milan are quite high (IRER 2009). Universities encouraged this trend by opening new local poles throughout the region, in order to reduce the pressure on the historical seats in the city. This can be read as the outcome or expression of simple individual needs (both by students and athenaeums). Nev-

ertheless, in the most interesting cases, universities sought to reinforce their relocation processes by building upon the new demand and interest coming from local societies and economies (the so-called *città infinita* resources) to shape new courses and research for developing new strategic resources that could compete on the regional and national scales. The Milan urban region is a very paradigmatic case of what universities, together with other actors, have brought about (Bonomi, Abruzzese 2004) as agents of spatial and social innovation and as part of local coalition networks.

In other words, if, in some cases, the development of new poles was the result of a simple process of decentralization driven by internal university needs, in many others, universities played a pivotal role within their regional contexts (see the case of the *politecnico a rete*, in which the Polytechnic Institute of Milan decided to fund new seats in other cities that are part of the same athenaeum, resulting in a network of regional campuses. (Balducci, Cognetti, Fedeli 2010)). If we construct the histories of these new centers, it appears that they are often the visible outcomes of new relationships between the university and other cities in a vast urban region. While charismatic local leaders and associations of actors and interest groups played an important role in promoting these cities as new locations for universities, universities perceived these cities as windows of opportunity to promote new research and education facilities based on a specialized relationship with local economies (Arbo, Benneworth 2007). The most interesting of these cases were the result of a brand new interest by the economic and social actors emerging in those years in the northern part of the country.

These were mainly small and medium entrepreneur protagonists of a model of development alternative to the previous economic phase that began in those years to realize the strategic relevance of higher education training for the development of their businesses in terms of leading innovation. In this sense, the relationship between the city and the university multiplied its forms and nature by “hybridizing” models and forms of interaction. This was the result of a process of change that affected both the central city and the regional context, reflecting the changing role of the capital city, as well as the emergence of a new economic system (the so-called third Italy, Bagnasco 1977) polycentric and “polyarchic”, producing a multi-polar urban region: university in this sense was a strategic function to host and attract and could become a central actor to

consolidate the new economic model and support growth across scales (Drucker, Goldstein 2007; Etkowitz, Zhou 2006; OECD 2007).

In conclusion, this phase generated a new university geography and a plural and complex relationship between cities and universities in the broader Milan urban region where new centers and universities interacted with historic universities (see figure 4). As a result of these changes, at the end of the nineties, one could identify the following networks, which are outcomes of the overlapping of the three phases:

- The “politecnico a rete” is made up of the seats funded by the Polytechnic Institute of Milan in the last decade, Lecco, Como, Piacenza, Cremona and Mantua, and the two Milan urban campuses (Leonardo and Bovisa).
- Università Statale Network, generated at the end of the nineties with the creation of the new State University Bicocca in the city and fostered by the creation of new schools in Como and Varese, which then became autonomous in Varese as Insubria University. More recently, expansions

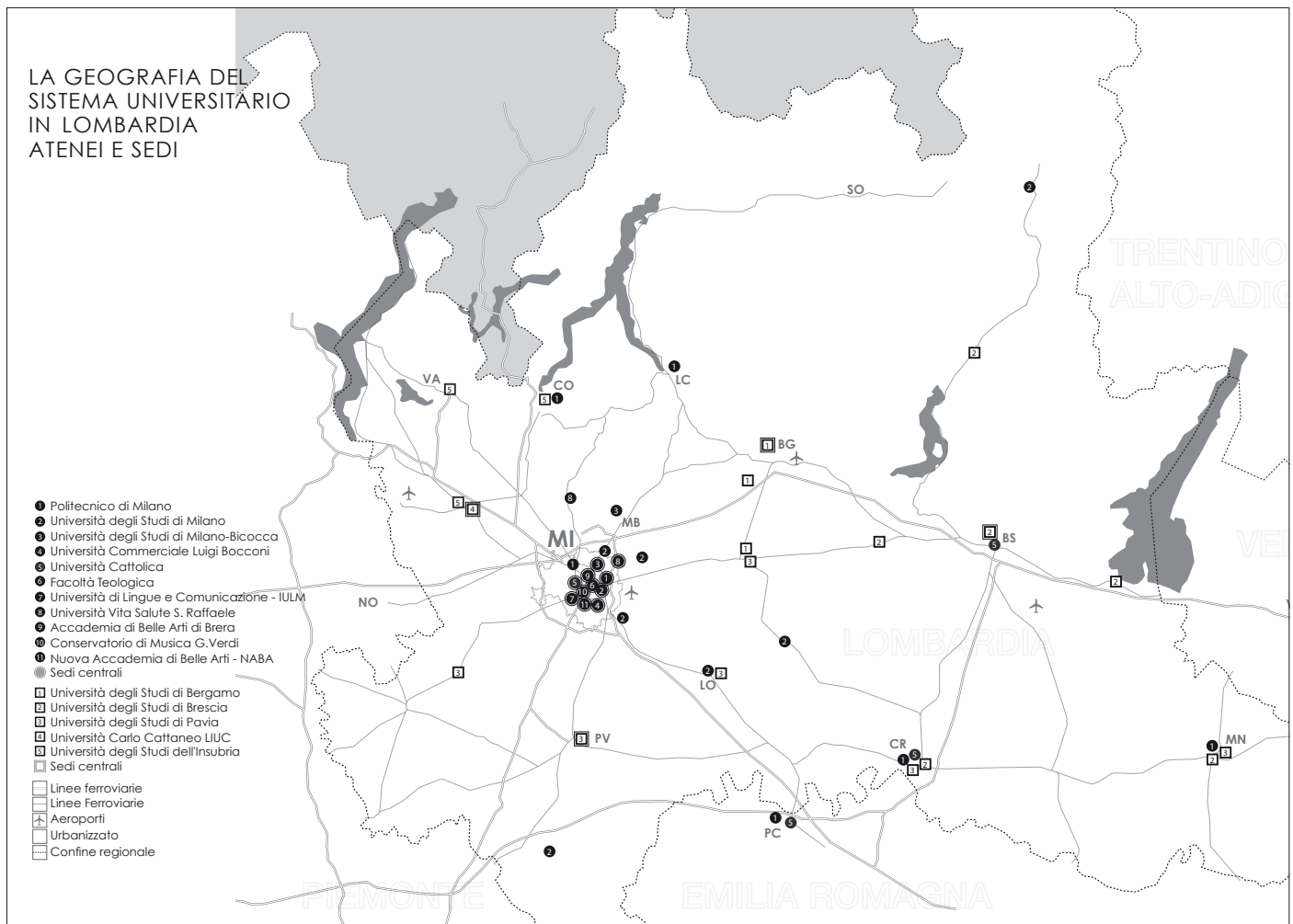
have developed in the first ring municipalities next to Milan (Monza and Sesto San Giovanni) and in more distant regional territories, as in Bosisio Parini, Crema, Edolo and Lodi (where the Veterinary School has relocated to a strategic context given its agricultural specialization).

- The historic network generated by the Catholic University between Milan (1921), Piacenza (1952; 1997) and Brescia (1965).

- New micro-regional networks generated in Cesano Maderno, by the private medical university Vita e Salute San Raffaele (opened in 1996 and recently closed), after the foundation of a seat on the Milan municipal border, and in Castellanza (VA) by the LIUC university, near Varese strongly supported by strong and wealthy economic clusters.

- The recent network generated by the historic Pavia Athenaeum that now has seats throughout the southern part of the region in Lodi, Cremona, Mantova and Bergamo; by the University of Bergamo that has opened seats in Dalmine and Treviglio, in places character-

Fig. 4: The geography of the university system in the Lombardy Region: university and university seats.
(Source: Balducci, Cognetti, Fedeli 2010)



ized by strong manufacturing specialization; by the University of Brescia, which is now located in Mantova, Cremona, Chiari, Esine and Desenzano sul Garda).

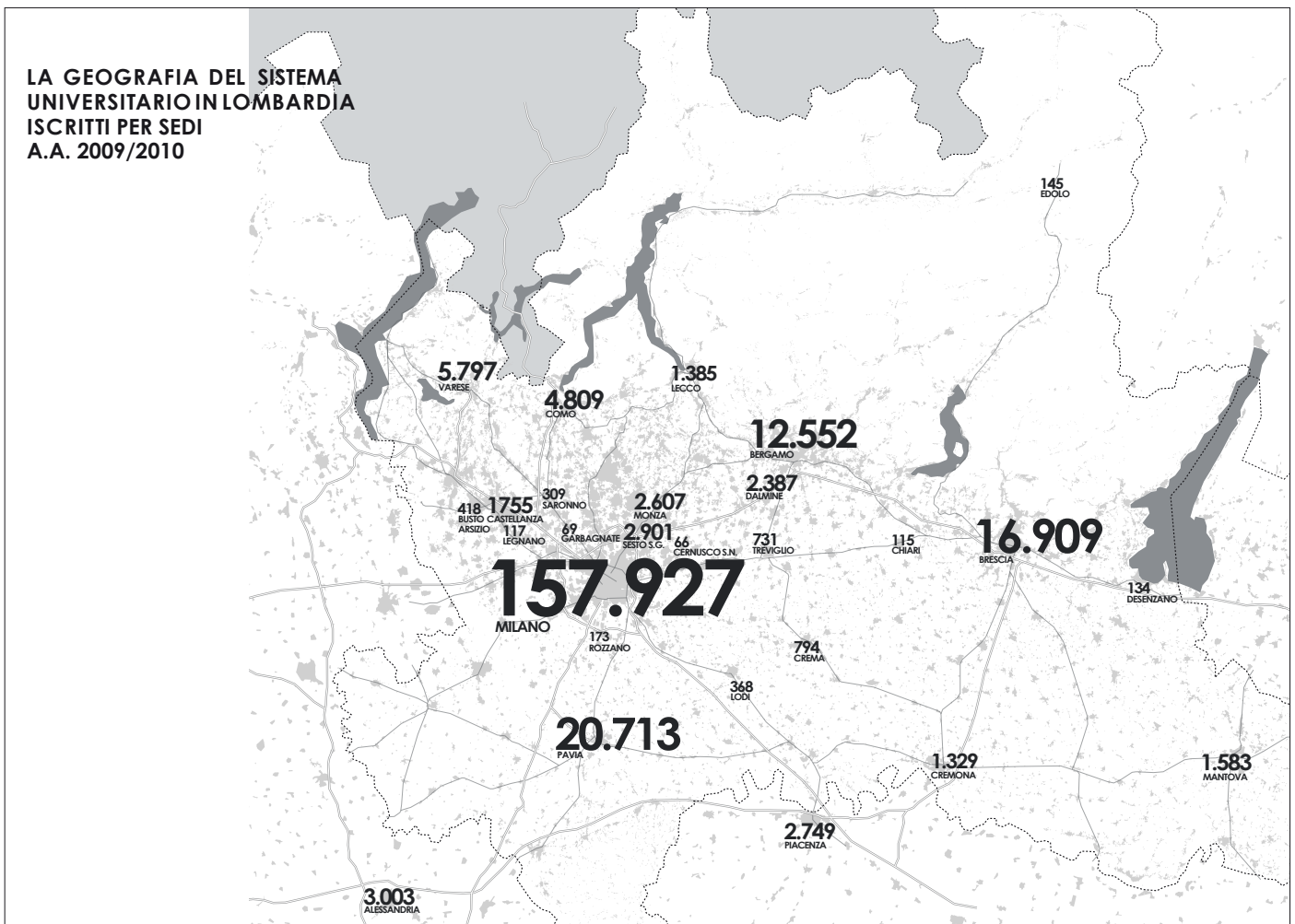
As a result of this reconstruction, logic would have it that if Milan is no longer a city but an urban region, as we stated in the first paragraph, it follows that the university can no longer be regarded as a traditional urban function with a traditional spatial pattern. In light of these processes, at the end of the nineties, the university appears as a complex spatial network, i.e. the outcome of different histories and strategies, stratified in time and space that has undergone consistent regionalization processes. In some cases, entirely new universities developed. In others, they multiplied existing ones; some of them were merely decentralized and peripheral centers: others had their own autonomy and acted as specialized local poles. In these cases in particular, universities have not only acted as new spatial actors outside the traditional urban geographies, they have also,

as research has shown, promoted interesting urban change processes. In this way, they have qualified themselves as sort of complete urban actors, able to mobilize economic development, social change and urban transformations. What is striking, as we will argue in the conclusions, is that this regional network seems to have been more the result of the interaction between the university and the cities rather than a planned public policy outcome. In fact, no clear decentralization plan was ever implemented; some ideas had been proposed during the 1970s and 1980s regarding decentralization to the first suburban ring of the central city, but they were never formally implemented.

Entering the new millennium between the local and the global: the university looking for a new centrality in traditional urban centers and a new plural regional system.

Some additional phenomena have emerged over the last decade that confirm the above-

Fig. 5: The geography of the university system in the Lombardy Region: students; university; university seats for the academic year 2009/2010. (Source: Balducci, Cognetti, Fedeli 2010)



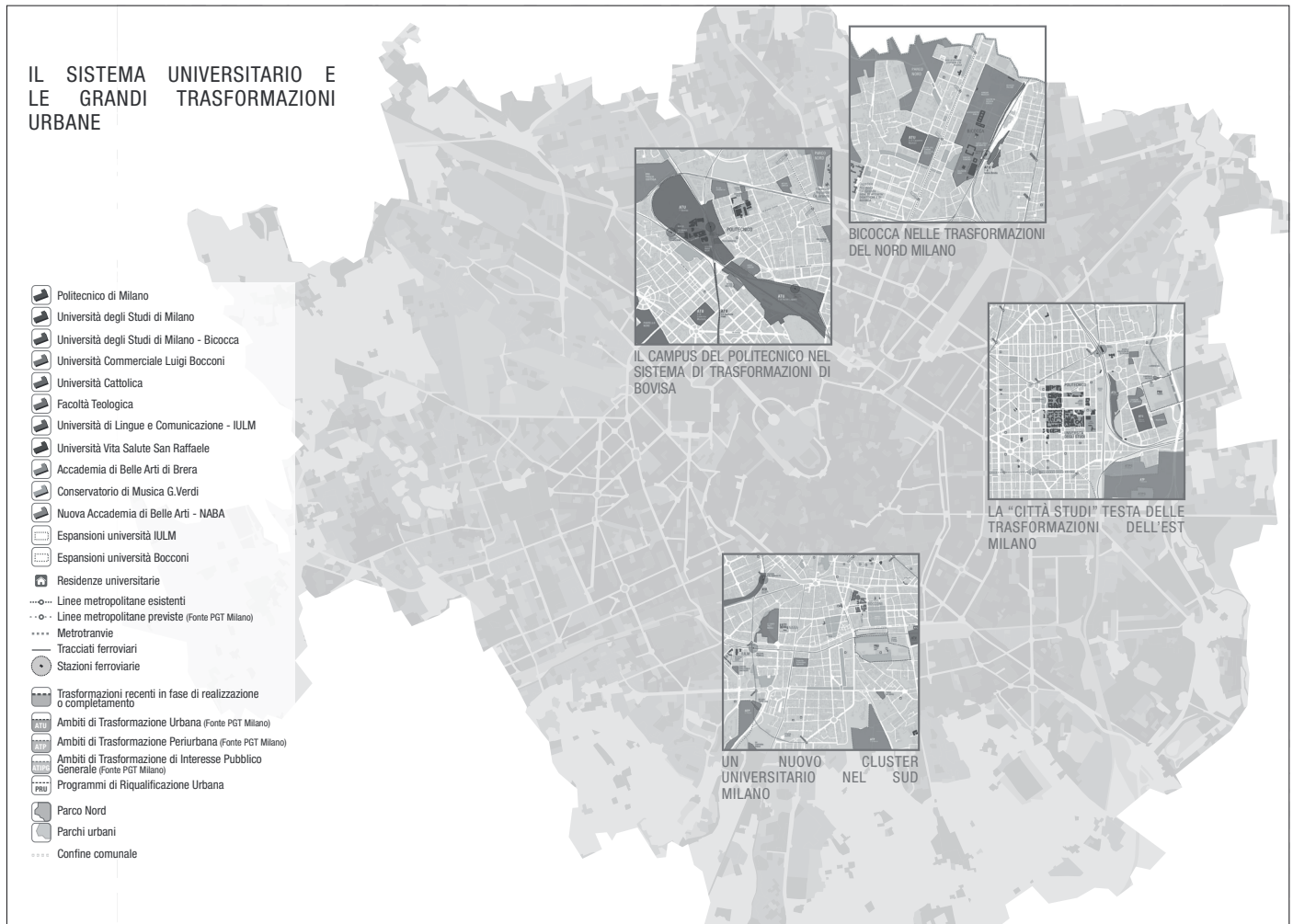


Fig. 6: The university system and its role in urban transformation processes in Milan. (Source: Balducci, Cognetti, Fedeli 2010)

mentioned trends and introduce further elements for reflection. One is the formation of a new urban network in the city's southern sector generated by the presence of the Bocconi University and its progressive expansion (in the middle of the 1990s, then in the middle of 2000s and now again in progress with a project for a large expansion into a former industrial site); it is now intersected by the consolidating presence of other new universities in the same sector. A new *Città Studi* is effectively under construction in the Bocconi area near the IULM, located in a nearby neighborhood and part of a national network based on Milan, Rome and Feltre, made up of the Nuova Accademia di Belle Arti located in the former Sieroterapico areas along with other third-level educational institutions, such as IED, Istituto Europeo del Design, the Scuola Politecnica di Design, and the Scuola del fumetto. Two other historic higher education institutions in the

fine arts and music, recognized by the state as similar to universities, are still located in the city center with significant space management problems; recently they seem to have found new opportunities for expansion into other urban areas. In particular, the first has been developing projects to relocate to the Bovisa area, in strict connection with the second Faculty of Architecture of the Polytechnic Institute.

At the same time, the numbers referring to the internationalization policies developed by Milan Universities show growing complexity, interconnectedness and transcalarity affecting the relationship between the city and the university (Ballarino 2007; Fedeli 2012). In this sense, not only newly constituted supra-regional networks involve the main Milanese centers, for example, the network of PhD schools, but also the Alta Scuola Politecnica linking the Polytechnic Institute of Milan and the Polytechnic Institute of Turin with a special program for

the best master's program students. In addition, a growing number of master's degree courses are being taught in English attracting international students: Bocconi University (economics), Polytechnic Institutes and State Universities in the medical field. Moreover, university seats have opened in other nations, such as the Polimi-Polito campus in Shanghai, while others are currently being planned in India and Brazil.

We can therefore conclude that the Milan urban region map of higher education institutions is based on a new territoriality in which different cities play a role in the geographies of university development. Even if medium-sized cities sometimes have strategically intercepted universities relocated from the central cities, the central city, which is also a platform for globalised networks, still plays a strategic role. In both cases, what can be noted is that, with few exceptions, all cases confirm a strong, even if not a unanimous and homogenous, relationship between the city, the university and local contexts. No non-urban campus was ever really promoted, as happened in other countries in Europe and abroad, as well as some Italian contexts, and most of the new centers in Milan and, in particular, in the other regional cities, are characterized by deep connections with their social and economic milieus, but also by a strong urban tradition. These strong connections are evidenced by the fact that, despite the economic crisis and the proposed national reform to govern the proliferation of the new centers all over the country, a limited number of these new regional seats have been closed – as opposed to what has happened in other regions in Italy.

In our understanding, the reasons for this condition can be found in the special urban nature of this regional context. This essentially vast urban region is based on a strong interaction between the central city and other regional cities and socio-economic systems. Widespread conditions of urbanity and cityness can be recognized in this context, thus casting aside the simplistic traditional contraposition between center and periphery. According to Lazzeroni (2004), within the challenges posed by a knowledge-based economy, there are four possible functions of a university:

- As a knowledge factory
- As a human capital factory
- As a technology transfer factory
- As a territorial development factory.

If this is taken into consideration, we could conclude that for the universities in the Milan urban region, the urban condition has re-

mained a significant factor in deploying these functions. Despite the fact, or because of the fact, that this urban condition has experienced important changes and pressures.

4 Conclusions

As described in the previous paragraphs, the relationship between the city or urban region and the university or universities has been undergoing important changes in recent decades, as has the role of the university in relationship to the city.

First, the university acted as a fundamental spatial *actor*, generating processes of urban growth and development, then urban renewal, transformation and redevelopment both in the city of Milan and in other cities throughout the region. To date, it has produced new, important and transcalar higher education networks and geographies intersecting the local, regional, national, and sometimes global spheres. In this sense, it has consistently contributed to reshaping the relationship between the central city and the regional context, moving beyond the traditional center–periphery concept. In this perspective, the university has been one of the central actors to produce urbanity and take advantage of it in its different contexts, thus fostering the contemporary condition of “cityness” that characterizes the Milan urban region. In this article, we have argued that one key reason is the specificity of the university function and the essentially urban dimension that it has maintained over the centuries in the Italian context and, in particular, in the Milan context.

The *urban* university (Bender 1998) has been acting in different ways in both the central city concept and in the urban region concept. It was generated in the central city as a result of the modernization process stimulated by economic factors in order to support the city's new ruling class as well as the specialized working class in a developing manufacturing economy. The university was more or less traditionally involved in urban development and real estate processes, both in central and fringe areas, and on the regional scale, following the logic and rationale of urban development strategies, intersecting traditional decentralization policies in the second part of the twentieth century and expressing a new post-metropolitan perspective more recently. Finally, it became a central asset in the construction of a knowledge-based economy, first for the service-based city of Mi-

lan, and more recently as a place to build innovation and competition in the broader urban region (Deiaco, Hughes, McKelvey 2012; Huggins, Johnston, Steffenson 2008; Kitagawa 2004), which is now undergoing an economic shift towards the knowledge-based economy similar to what Milan experienced in the 1980s (MeglioMilano 2005).

What is more, not only has the university been an *urban* university, it has also functioned as a *metropolitan* university (Bender 1998) and as a complex “urban” subject on multiple scales. Since its origins, the university has interacted with its local context – from direct interaction between the university and political life in Milan to the more recent relationships in different local regional contexts where it has often become not only a strategic resource for cultural and social development, for example, a think tank for local institutions seeking innovation, but also a central player in innovating networks and developing coalitions. In this perspective, we might conclude that it has qualified the production of the urban region, becoming, in many respects, a new “urban” subject in which the definition of “urban” brings with it and contains all the possible challenges relating to an unstable and plural space in a transcalar dimension whose governance has become increasingly complex. As such, and as this article has attempted to illustrate, the role that universities play in transforming the urban condition can be central.

At the same time, the relationship between the city and the university is a valuable observatory for the ongoing urban transformation processes that produce new spatial configurations in the contemporary city. In fact, we might observe the significant decentralization process producing the relocation of a strategic urban function more as the outcome of a multiple set of actions rather than a clearly planned and implemented public policy goal. Nonetheless, it is effective and powerful in terms of its effects and future potential.

In this sense, what is particularly interesting is that this decentralization process over the last thirty years has proved to be more fruitful than other processes generated by public-driven spatial policy and planning initiatives. Its effects can be seen as the outcome of complex and changing interactions between the city and the university that are different from the relationships between the city and other strategic functions. At the same time, this can be related to the reverse question, as mentioned by Keil et al. (2012), with Morgan (2004) whether “learning

and innovation are organic and self-activating or if they can be consciously induced through collective action”, which is not the central focus of this article. Nevertheless, as we have argued, this process has actually come about in quite a silent and sometimes implicit way, often with limited awareness by both the city and the university and can be attributed to the fact that the university’s role is mainly defined by the Italian constitution as a functional autonomy linked to the exercise of its “core business.”

Several authors regard these new phenomena as forms of innovation in defining the role of this special actor, which crosses traditional forms of hierarchical and territorial jurisdictions and autonomies (Dente 2010). On the contrary, according to other scholars, these phenomena have become obstacles to universities becoming actors (see, in this perspective Rota 2006; Cognetti, Fedeli 2010) whose spaces and territories of action remain conflicting and contested. According to Keil et al. (2012: 19), “There is a tendency for policymakers and commentators to overestimate universities’ agency as rational, monolithic and capable actors, while regional engagement is only one of many HEI [High Education Institutions] agendas, and the region just one of several scales over which universities operate [...] (Christopherson, Kitson and Michie, 2008; Uyarra, 2010)”. As this article has attempted to demonstrate, in both cases, there is still much research to be done on the emergence of new forms of agency that are currently playing important roles in the production of the contemporary city.

Acknowledgement

Figures 1, 2, 4 and 5 by Emanuele Garda; figures 3 and 6 by Anna Moro.

Notes

1 In order to contribute to an updated representation of this still unexplored relationship in the literature, researchers have produced different materials, collected and published them in a book edited by Alessandro Balducci, Francesca Cognetti and Valeria Fedeli, *Milano, città-università. Storia, geografia e politiche delle università milanesi*, AIM, Milano 2010.

• *A quantitative and qualitative picture*: a) a collection of data and production of maps with a quantitative approach to the representation of the phenomenon, with special attention to the selection and production of some indicators for the assessment and description of the multidis-

ciplinary nature of the university system (seats, students, staff, courses, internationalization, etc.); b) a collection of data and images for a qualitative approach. In order to describe some dimensions of the phenomena, research investigated the practices and actors of the university world within the city. In addition to that, they collected qualitative data with a survey involving students of all main Milan universities.

• *Case studies of innovation processes in the relationship between cities and universities:* The research project has produced a series of short case studies on the main Milan universities, with four main research focuses, regarding the role played by universities in the local context with respect to the production of knowledge and human capital, technology transfer, internationalization, and urban transformation. Cases explore the universities strategies and rationales, the processes they are engaged in and with what results. Short texts produced by university rectors or delegates comment upon the above-mentioned research questions with regard to the current strategies and histories of their institutions.

• *Emerging key issues and challenges:* The research project is completed by a series of insider perspectives produced by different Italian experts in the field or locally relevant actors, who have been asked to produce critical contributions, or main stakeholders who raise critical contributions with respect to the changing relationship between cities and universities, with reference to the Milan case, but also in a broader perspective.

- 2 Only one new private university was founded: the IULM (*Istituto Universitario di Lingue Moderne*) in 1968 as a modern language institute in order to satisfy the growing demand for such skills on the job market.

References

- ARBO, P.; BENNEWORTH, P. (2007): Understanding the regional contribution of higher education institutions: A literature review. Paris: OECD.
- BAGNASCO, A. (1977): *La terza Italia. Problematiche dello sviluppo economico italiano*. Bologna: Il Mulino.
- BAGNASCO, A. (2004): Città in cerca di università. Le università regionali e il paradigma dello sviluppo locale. *Stato e Mercato*, 3, pp.455-474.
- BALDUCCI, A. (2005): Una visione per la regione urbana milanese. In MAGATTI, M. et al., *Milano nodo della rete globale. Un itinerario di analisi e proposte*. Milano: Bruno Mondadori.
- BALDUCCI, A.; FEDELI, V. (eds.) (2007): I territori della città in trasformazione: tattiche e percorsi di ricerca. Milano: FrancoAngeli.
- BALDUCCI, A.; FEDELI, V.; PASQUI, G. (2008): In movimento, Confini, territori e pratiche delle popolazioni milanesi. Milano: FrancoAngeli.
- BALDUCCI, A.; FEDELI, V.; COGNETTI, F. (2010) (eds.): Milano: la città degli studi. Storia, geografie e politiche delle università. Milano: AIM ABITARE SEGESTA.
- BALDUCCI, A.; FEDELI, V.; PASQUI, G. (2011). Strategic Planning for Contemporary Urban Regions. City of Cities: A Project for Milan. Aldershot: Ashgate.
- BALLARINO, G. (2007): La Porta Universitaria Milanese. In MAGATTI, M. et al., *Milano globale e le sue porte*. Globus et Locus, Camera di Commercio di Milano.
- BENDER, T. (1998): Scholarship, local life, and the necessity of worldliness. In VAN DER WUSTERN, H. (ed.), *The Urban University and Its Identity*. Kluwer Academic Publishing, pp. 17-29.
- BENNEWORTH, P.; CHARLES, D.; MADANIPOUR, A. (2010): Building localized interactions between universities and cities through university spatial development. *European Planning Studies*, 18, pp. 1611-1629.
- BOERI, S.; LANZANI, A.; MARINI, E. (1993): *Il territorio che cambia. Ambienti, paesaggi, immagini della regione milanese*. Milano: AIM Segesta.
- BOLOCAN GOLDSTEIN, M. (2009): Geografie milanesi. Rimini: Maggioli.
- BOLOCAN GOLDSTEIN, M. (2007): Confini mobili. Sviluppo urbano e rapporti territoriali nel milanese. In BOLOCAN GOLDSTEIN, M.; BONFANTINI, B. (eds.), *Milano incompiuta. Interpretazioni urbanistiche del mutamento*. Milano: FrancoAngeli.
- BONOMI, A., ABRUZZESE, A. (eds.) (2004): *La città infinita*. Milano: Mondadori.
- BRENNER, N. (1999): Globalisation as reterritorialisation: the re-scaling of urban governance in the European Union. *Urban Studies*, 36, pp. 431-451.
- BRENNER, N. (2000): The Urban Question as a Scale Question: Reflections on Henri Lefebvre, Urban Theory and the Politics of Scale. *International Journal of Urban and Regional Research*, pp. 24-2, 361-378.
- BURDETT, R.; SUDJIC, D. (eds.) (2007): The endless city: the urban age project. By the London School of Economics and Deutsche Bank's Alfred Herrhausen Society, London: Phaidon.
- CANADELLI, E. (2008) (ed.): La rete del grande Politecnico. Milano: Sironi.
- CENSIS - CENTRO STUDI INVESTIMENTI SOCIALI (2008): 42° rapporto sulla situazione sociale del paese, Milano: FrancoAngeli.
- CLEMENTI, A., DEMATTEIS, G., PALERMO, P.C. (eds.) (1996): *Le forme del territorio italiano*. Bari: Laterza.
- COMUNE DI MILANO (2009): Statistiche dell'Istruzione 2007-2008: Comune di Milano-Settore Sistemi Integrati per i Servizi e Statistica.
- DALMASSO, E. (1972): Milano capitale economica d'Italia. Milano: FrancoAngeli.
- DE CARLO, G. (1962): La Città Regione. In ILSES, Relazione del seminario. La nuova dimensione della città. Stresa, 19-21 gennaio 1962, Milano: ILSES.

- DEIACO, E., HUGHES, A.; MCKELVEY, M. (2012): University as strategic actors in the knowledge economy. *Cambridge Journal of Economics*, 36, pp.525–541.
- DENTE, B.; LO SCIAVO, M. (2010): La partecipazione ai processi decisionali. *Impresa e Stato*, 57, Camera di Commercio, Milano.
- DRUCKER, J.; GOLDSTEIN, H. (2007): Assessing the regional economic development impacts of universities. A review of current approaches. *International Regional Science Review*, 30, pp.20–46.
- ETZKOWITZ, H.; ZHOU, C. (2006): Triple helix twins: Innovation and sustainability. *Science and Public Policy*, 33, pp.77–83.
- FEDELI, V. (2011): About “Governance” in Urban Regions: When Territory, Sovereignty and Citizenship do not match. In BALDUCCI, A.; FEDELI, V.; PASQUI, G., *Strategic Planning for Contemporary Urban Regions. City of Cities: A Project for Milan*. Aldershot: Ashgate, pp.75–89.
- FEDELI, V. (2012): Milán, retos sin solución de la ciudad europea contemporánea. In BALBO, M. (ed.), *Europa: La ciudad central en el sistema urbano*. Quito: Olacchi.
- FEDELI, V. (2012): Università come porta: Milano città universitaria, tra locale e globale. *Urbanistica*, 149, pp.19–23.
- INDOVINA, F. (1990): *La città diffusa*. Venezia: Daest.
- INDOVINA, F. (2005): La metropolizzazione del territorio. In INDOVINA, F.; FREGOLENT, L.; SAVINO M., *L'esplosione della città*. Bologna: Editrice Compositori.
- IRER – ISTITUTO REGIONALE DI RICERCA PER LA LOMBARDIA (2009): *La mobilità degli studenti in Italia. Un'indagine empirica*. Working paper n.12. Milano: Guerini.
- KEIL, R.; OLDS, K.; ADDIE, J-P. (2012): Mobilizing New Urban Structures To Increase The Performance And Effect Of R&D In Universities And Beyond, SSHRC Knowledge Synthesis Grant Leveraging Public Investments in HERD.
- KITAGAWA, F. (2004): Universities and regional advantage: Higher education and innovation policies in English regions. *European Planning Studies*, 12, pp.835–852
- LANZANI, A. (1991): *Il territorio al plurale*. Milano: FrancoAngeli.
- LAZZERONI, M. (2004): Geografia della conoscenza e della innovazione tecnologica. Milano: FrancoAngeli.
- MAGATTI, M. et al. (2005): *Milano nodo della rete globale. Un itinerario di analisi e proposte*. Milano: Mondadori.
- MARTINOTTI, G. (1993): *Metropoli. La nuova morfologia sociale della città*. Bologna: il Mulino.
- MARTINOTTI, G. (1999): *La dimensione metropolitana*. Bologna: il Mulino.
- MEGLIO MILANO (2004): Studiare e vivere a Milano. Gli studenti pendolari: accoglienza e spostamenti. Le iniziative per aumentare l'offerta abitativa. MeglioMilano: Milano.
- MEGLIO MILANO (2005): L'impatto delle Università milanesi sull'economia locale. Studiare e vivere a Milano, Milano: MeglioMilano.
- MIUR, Ministero per l'Università e la Ricerca Scientifica, Direzione Generale per lo Studente e il Diritto allo Studio: Rilevazione Studenti e Posti Letto Distribuzione Regionale, A.A. 2007/2008.
- MORGAN, K. (2004): The exaggerated death of geography: Learning, proximity and territorial innovation systems. *Journal of Economic Geography*, 4, pp.3–21
- MUNARIN, S.; TOSI, M.C. (2001): *Tracce di città*. Milano: FrancoAngeli.
- OECD (2006): Territorial Review of Milan and the series of OECD Territorial Reviews on metropolitan regions, OECD Publishing.
- OECD (2001): Innovative clusters: Drivers of national innovation systems. Paris: Organization for Economic Development and Co-operation. Paris: OECD.
- OECD (2007): Higher education and regions: Globally competitive, locally engaged. Paris: OECD.
- PALERMO, P.C. et al. (eds.) (1997): Linee di assetto e scenari evolutivi della regione urbana milanese. Milano: FrancoAngeli.
- PASQUI, G. (2008): *Città, popolazioni, politiche*. Milano: Jaca Book.
- PERRY, D.C.; WIEWEL, W. (eds.) (2005): *The University as urban developer. Case Studies and Analysis*. New York: M.E. Sharpe.
- PROVINCIA DI MILANO AND POLITECNICO DI MILANO – DiAP (2006). La città di città. Un progetto strategico per la regione urbana milanese.
- ROTA, R. (2006): Le “regole” dell'autonomia universitaria. Brevi riflessioni sul cambiamento. *ASTRID – Rassegna*, 35.
- SAVINO, M.; INDOVINA, F. (ed.) (1998): Special issue *Archivio di Studi Urbani e Regionali*, 60–61.
- SECCHI, B. (1999): Città moderna, città contemporanea e loro futuri. In DEMATTEIS, G. et al. (eds.), *I futuri della città. Tesi a confronto*. Milano: FrancoAngeli.
- SECCHI, B. (2005): *La città del ventesimo secolo*. Bari: Laterza.
- SENNET, R. (2007): The open city. In BURDETT, R.; SUDJIC, D. (eds.): *The endless city: the urban age project by the London School of Economics and Deutsche Bank's Alfred Herrhausen Society*. London: Phaidon.
- SOJA, E. (2011): Regional Urbanization and the End of the Metropolis Era. In BRIDGE, G.; WATSON, S. (eds.), *New Companion to the City*. Chichester: Wiley-Blackwell.
- UYARRA, E. (2010): Conceptualizing the regional roles of universities, implications and contradictions. *European Planning Studies*, 18, pp.1227–1246.

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