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Seeking polycentric post-suburbanization: a view from the urban region of Milan

Lorenzo De Vidovich ^{a,b} and Greta Scolari ^c

^aDepartment of Architecture and Urban Studies, Politecnico Di Milano, Milan, Italy; ^bDepartment of Political and Social Sciences, University of Trieste, Trieste, Italy; ^cDepartment of Sociology and Social Research, University of Milan-Bicocca, Milan, Italy

ABSTRACT

The traditional conception of metropolis has been challenged by the emergence of city-regions and large agglomerations. Most of the different conceptualizations share the key feature of polycentricity. Besides, several theories today enrich the study of urban transformations. Introduced by a brief overview of polycentrism, the paper advances a reflection on Milan urban region to discuss features and functions of polycentrism, by questioning whether the shift from monocentric to polycentric patterns is capable of observing the contemporary complexities of urbanization. On such basis, the paper stresses how processes of densification, complexification and diversification of the urban in-between, resulting from multi-scale and multi-topological rationales, can be construed in a perspective of “polycentric post-suburbanization”. The ultimate aim of the paper is to bridge the knowledge gap between polycentrism and contemporary urbanization.

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Introduction

Traditionally considered as the Italian capital city of economy (Dalmaso et al., 1972), Milan today is a global city that is experiencing the most significant urban transformations of the country since the beginning of the 21st century. Once a successful industrial city located in the northern part of Italy, Milan has grown into the core of a wider industrial metropolitan region that is home to more than 7 million people (OECD, 2006). In 2020, this territory represented the epicenter of the coronavirus pandemic in Italy, and it has informed Europe about the magnitude of COVID-19 contagion at great length, but also about the new planning solutions to be sought for a sustainable post-COVID-19 urban livability (such as the adaptation strategies, the increase of urban bike lanes, and the design of “15-minutes neighborhoods”). The first Italian outbreak was identified in Codogno, 50 km south of Milan,¹ in the Province of Lodi, bordering the Metropolitan City of Milan (i.e. the former Province) from a jurisdictional viewpoint, but engulfed in its larger urban region from a contextual and relational viewpoint. Then, coronavirus spread across the highly urbanized Lombardy region,² hitting particularly the settlements

CONTACT Lorenzo De Vidovich  l.devidovich@gmail.com; lorenzoraimondo.devidovich@polimi.it  Department of Architecture and Urban Studies, Politecnico Di Milano, Milan 20133, Italy.; Department of Political and Social Sciences, University of Trieste, Piazzale Europa 1, Trieste 34147, Italy.

of extended urbanization across several Provinces (such as those of Bergamo, Brescia and Cremona), thus stressing that COVID-19 proliferates in extended forms of urbanization (Biglieri et al., 2020; Connolly et al., 2020). An increasing theme of relevance concerns the centrality of these areas in the understanding of global phenomenon characterizing ongoing urbanization (Keil, 2017a). The paper draws on such reflections to unfold and support novel perspectives through a glimpse on the urban region of Milan, seen as a pivotal Italian observatory to study contemporary urbanization and suburban spatial expansion.

In particular, this contribution focuses on the understanding of Milan urban region at a time of proliferation of theories and critical perspectives. While considerable attention has been devoted to the main nodes of urban systems, as well as to their interlinkages and their role in defining urban regions, the broad periphery emerged from extended urbanization – identified with suburban, peri-urban settlements, and in-between cities – look overshadowed. By using the lenses of post-suburban approach (Phelps et al., 2006, 2010; Teaford, 1997) through a focus on Milan urban region, the paper discusses polycentrism at a time of extended urbanization, shifting the gaze to the intra-regional structures. The aim is to debate the increasing relevance of post-suburban landscape when addressing urbanization, albeit such peripheral settlements suffer from a marginal condition in metropolitan agendas. Furthermore, morphological patterns and typologies of post-suburban areas have been largely addressed, whereas lesser attention has been paid to the processes behind. The analytical shift from the centrality of settlements to the centrality of processes enables to grasp the significance of the urban in-between in redefining regional urban systems. With an analytical view from Milan urban region, it is questioned whether the shift from monocentric to polycentric patterns is capable of observing the contemporary complexities of urbanization. The paper stresses how processes of densification, complexification and diversification of the urban in-between (Charmes & Keil, 2015), resulting from multi-scale and multi-topological rationales (Hamel & Keil, 2016), can be construed in a perspective of “polycentric post-suburbanization”.

The paper is organized in three parts. First, it provides an overview of the contemporary debate on polycentrism. Second, it illustrates and navigates the most recent conceptualizations around the Milan urban region. Third, according to such overviews, the paper discusses whether and how it is possible to recast and reconsider polycentrism at a time of post-suburbanization, by highlighting polycentric post-suburbanization as a valuable theme for further researches across the globe.

Polycentrism reconsidered

Polycentricity is a shared core-characteristic of large urban agglomerations defined with different terminologies, such as global city-region (Scott, 2001), multi-core metropolis (Hall, 1999), polycentric urban regions (Kloosterman & Musterd, 2001), megapolitan areas (Lang & Dhavale, 2005) and mega city-regions (Hall & Pain, 2006). As suggested by Hall (2001), contemporary global city-regions are characterized by an extremely complex and sophisticated internal geography that is “quintessentially polycentric”, as also indicated by studies in energy distribution between a polycentric delivery on large-scales and local organizations (Moroni & Tricarico, 2018). Despite the production of insightful

literature reviews (see Natalia & Heinrichs, 2020; Roca Cladera et al., 2009), a well-established theoretical framework for polycentrism still looks incomplete, as the efforts to operationalize the term have been rather diverse (Kloosterman & Musterd, 2001). According to Burger et al. (2014) polycentrism has featured prominently as a normative strategic planning concept, with a little conceptual development of its analytical construct. Zhang and Derudder (2019) argue that the identification of polycentricity and its effects depends upon an operational definition of a “center”, and a specific scale of analysis. Davoudi (2003) identifies three scales: polycentricity: the intra-urban scale (i.e. the internal structure of the city); the intra-urban scale (the urban region); the inter-regional scale (or macro level). Furthermore, Burger et al. (2014) divides into a morphological approach, focusing on urban nodes in terms of size (population, activities, etc.), and a functional approach based on the connectivity of goods and people. Also, it is noteworthy that in a polycentric system, the urban centers are relatively equal in terms of importance (Kloosterman & Lambregts, 2001). However, as the concept of polycentricity is highly scale-dependent, a system which might be polycentric at one scale, might be rather monocentric at another scale. Likewise, a system might be polycentric in functional but not morphological terms (see Hall & Pain, 2006). As a result, polycentric development remains one of the most versatile and “fuzzy” concepts around (Burger & Meijers, 2012; Markusen, 2003) making empirical investigations in city-regions a challenging task, insofar as different disjointed approaches focus on a variety of aspects of polycentricity and their underlying causes.

According to this framework, a further element of tension may be identified when studying polycentrism through a reflection based upon the post-suburban perspective. At the inter-urban scale, polycentrism has been addressed mainly in functional terms (i.e. facing interlinkages among nodes), to detect the functional relations among the main dense nodes within the regional system. However, when studying contemporary urbanization, such an approach might “obfuscate socio-spatial differentiation, especially in the ubiquitous suburban spaces between the hypervalorized central city, exurbs and ascendant regional hubs” (Keil & Addie, 2015, p. 892). As Sieverts (2003) states, the classification of cities in accordance with a hierarchical criterion of central places subscribes an idealized principle of order without considering that the city structure is extending into the surrounding countryside losing its familiar historical character and the reassuring legibility between the poles of center and periphery. On such basis, the concept of “in-between city” (*Zwischenstadt*) depicts the type of built-up area that is between the old historical city center and the open countryside, which is “neither city nor landscape, but which has characteristics of both” (Sieverts, 2003, p. 3). In this view, the in-between landscape (Sieverts, 2003, 2011; Young & Keil, 2014; Young et al., 2011) presents a more networked-like structure, where numerous functionally diversified centers supplement each other and, when assembled, make up the essence of the city.

Nevertheless, as densification is said to contain economic power, and density is promoted as the best way to reach sustainability, dense nodes attract most of the attention. As Keil (2015) points out, the density–centrality equation is short-sighted, because it does not account for a lot of other factors shaping the urban region, hidden from the fact that low-density in-between areas are said to be unsustainable and costly. Rather, Phelps (2017) notices how in-between areas operate as economic hinges between national and international urban systems sustaining the new urban regional form, as “the

network of relations that come together [...] is the economic and social glue that binds together megapolitan and national economies” (Phelps, 2017, p. 99). In-between territories might be considered the quintessential form of post-suburbia (Charmes & Keil, 2015; Phelps et al., 2006, 2010, Young & Keil, 2010).

The plural, interconnected, contextual and endogenous characters of the (post)suburban (Addie 2019) result in the in-between settlements registered across the globe in various forms and to varying degrees and patterns (Phelps & Wu, 2011). In this respect, it could be questioned if rather than a shift from monocentric to polycentric patterns, we are witnessing a process of polycentric post-suburbanization, characterized by densification, complexification and diversification (Charmes & Keil, 2015) of in-between areas, resulting from multi-scale and multi-topological processes (Hamel & Keil, 2016).

Navigating the urban region of Milan

A number of scholars have deeply investigated history and key issues of spatial planning in Milan (Campos Venuti et al., 1986; Oliva, 2002). Other contributions analyzed the contemporary changes of the city from different angles facing social, spatial and governance transformations (Anselmi & Vicari, 2019; Armondi & Di Vita, 2017; Bricocoli & Savoldi, 2010; D’Ovidio & Ponzini, 2014; Pucci & Colleoni, 2016; Saporito, 2016; Vicari & Molotch, 1990). With reference to the urban region, Milan has experienced an outright process of metropolization since the early 1900s and in the Second postwar period (Balducci et al., 2017), which has few equals in Italy. Between the 1950s and 1960, an inter-municipal masterplan (PIM – *Piano Intercomunale Milanese*) was the first attempt to establish a unitary form of government (Balducci, 2003), by including 79 municipalities around the central cities (although negotiations initially involved only 35 outer municipalities, then extending the area to 94 towns in 1963, before winding down the project). Today, contemporary challenges on a large-scale rationale face economic competitiveness and institutional changes toward metropolization (Balducci, 2003; Del Fabbro, 2017; Gualini, 2003), and Milan represents a pivotal observatory for the construction of metropolitan space. As noticed by Lanzani (2003), many different forms of extended urbanization have crossed the entire Lombardy region since the early 20th century, where the metropolitan core is identified with Milan and its neighboring municipalities.

Studies in polycentrism have been recently addressed with reference to the urban area of Milan. In 2006, the (former) Province launched the program *Città di città, un progetto strategico per la regione urbana Milanese* to grasp problems, opportunities and further challenges for the urban region (see Gasparini et al., 2006). Recently, Colleoni and Scolari (2017) depicted new changing patterns in the localization of multifunctional clusters³ within the administrative boundaries of Milan. The authors identified emerging sub-nodes in peripheral areas, where the divestment of large industrial plants, together with the need to reduce land use consumption, have encouraged a number of urban regeneration projects. Such trends have been described by Soja (2011) as the result of the broader process of polycentric regional urbanization. According to the geographer, while inner urban cores are becoming more unpredictable, they are subjected to processes of city marketing, by using public resources to attract new private investments. Focusing on such broader regional context, Boeri et al. (1993) analyzed the centrality of Milan within

an increasingly complex functional system including the areas of Brianza and the “Alto Milanese” (Gallarate, Busto Arsizio and Legnano), in the urbanized “belt” at the north of the city. In the same vein, Veneri (2010) investigated the growth of metropolitan subcenters, by identifying a rather different pattern involving the towns of Monza, Saronno, Legnano and Como to the north, Pavia, Trezzano sul Naviglio, Crema and Lodi to the south, and Segrate to the east. According to such contributions, and to the overview discussed above, issues of polycentrism gain a particular relevance beyond the administrative boundaries of the metropolitan city, as the urban core looks embedded in a wide, interconnected and urbanized territory (Perulli, 2012).

Over the decades, the focus on spatial expansion led to an increasing attention to the processes of regionalization of the urban, by finding in Milan a privileged Italian context of analysis (Ardigò, 1967; Balducci, 2004; Gualini, 2003; Lanzani, 2005; Pastori et al., 1987). The forms and the features of Milan urban region enable to engage with many contemporary critical theories. In a dialogue between post-metropolis (Soja, 2000, 2012) and planetary urbanization (Brenner, 2014, 2018; Brenner & Schmid, 2011), for instance, Milan embodies both theories. On the one hand, the new patterns of homogenization of the urban landscape, erosion of urban–rural boundaries and flattening of urban density gradient typical of regional urbanization are detectable. On the other hand, insights related to planetary urbanization are unfolded by the “explosion” of the central city (not circumscribed to the population spread) and the “implosion” driven by a new attractiveness for Milan and its increasingly dense and connected urban region, capable of luring new dwellers and new innovative sectors (, Balducci et al., 2017a).

Yet, the urban area portrayed today presents nuanced boundaries (Bolocan Goldstein, 2007), as well as a plethora of jurisdictions involved in a large city-region (Camagni & Salone, 1993; Perulli, 2012). In a distinction between a city *de iure* (referred to administrative boundaries) and a city *de facto* (related to the functional inter-municipal relations) (Calafati, 2013; Calafati & Veneri, 2013), Del Fabbro (2019) notices how no administrative jurisdiction corresponds with the city “*de facto*”, as the municipality of Milan is too small, yet the metropolitan city of Milan is too large, whereas the whole Milan urban region is represented as a territory composed by one functional metropolitan core and seven interdependent territorial systems (Lecco, Como, Varese, Busto Arsizio, Vigevano, Pavia, Lodi), identified as “local systems” or “settlement patterns”. However – the author maintains – such systems belong to the administrative jurisdiction of Lombardy region and to subregional entities (Provinces) separated from the metropolitan city of Milan. Furthermore, Lombardy region includes many different geographical systems, of which many are rural and mountain areas not integrated with metropolitan Milan. As demonstrated elsewhere (Del Fabbro, 2017), the territories of Brianza and Busto Arsizio are the only ones that clearly represent “urban geographical systems” in the Milan urban region according to a wide acceptance in the scientific community.

Within such a diversification, the urban region of Milan today is a territory inhabited by more than 4 million people, consisting of many interlinked territorial systems around an urban core (Lanzani, 2003, 2005). Balducci et al. (2017) identify three elements of path-dependency shaping regional urbanization processes in and around Milan: (1) a geophysical North-South divide, as to the North the highly urbanized area of Brianza divides from the Alps whereas to the South the “greenbelt” of *Parco Agricolo Sud Milano*

affects a different form of urbanization; (2) a historical polycentric regional structure made by nodes across the urban region, where mid-towns supported processes of urban and economic growth within the metropolization of Milan; (3) a radiocentric shape model of expansion, communication and connection between Milan and other territories, strengthened by an enduring infrastructural development. This threefold path-dependency involves the flattening of the urban density gradient, the progressive erosion of boundaries between urban and suburban, and an homogenization of the urban landscape resulting from an increasing differentiation of the in-between. Such complexities enable orienting the gaze toward the polycentric dimension of suburbanization while witnessing a proliferation of post-suburban studies.

Conclusion: toward polycentric post-suburbanization

Post-suburbanization refers to the processes of city building and re-building at the metropolitan edges (Keil et al., 2017) through a de-densification (i.e. the classical suburbanization combining non-centric population, economic growth and spatial expansion) converted, inverted or subverted into a process of densification, complexification and diversification of suburbanization (Charmes & Keil, 2015; Phelps & Wu, 2011; Sieverts, 2003). Such post-suburban processes are a constitutive part of regionalization, representing the connecting points and the operative terrain of globalized industrial, commercial and infrastructural activities (Hanlon et al., 2009; Keil et al., 2017). These places do not include only suburban and peri-urban settlements, but also the “mid ex-urban realms” (Lang & Knox, 2009) providing the linkages between regions. Such spaces have largely been ignored both empirically and theoretically, although they epitomize the place where the formation of city-regions is manifest most starkly. In the absence of any real political structures, large city-regions or, drawing on Schafran (2014) the “mega-regions”, are actually created in very specific places, such as urban cores of city-regions, “or most dramatically in the peripheral spaces between existing regions where the massive growth and change occurs” (Schafran, 2014, p. 591). While their changing patterns are obscured by those processes of densification occurring within inner cities, some of the most dynamic growth areas are literally somewhere in-between (Keil, 2015). According to such insights, an inquiry into polycentric post-suburbanization entails a breakup with the traditional conception of “urban centrality”, where dense urban nodes are conceived as the driving force of urban expansion. Rather, post-suburban centrality stems from the fact that processes of polycentric post-suburbanization do not necessarily raise from processes of city growth, but rather, they result from the assemblage of different elements (social, material and political), at different scales (McFarlane, 2011a, 2011b). Therefore, facing polycentric post-suburbanization signifies focusing on the trajectories taken by in-between settlements, and their ability to spatialize multi-scalar and complex relations, playing the role of active agents in contemporary urbanization.

After representing a privileged field of analysis to study global urban trends from an Italian view, the urban region of Milan might be today a pivotal observatory of polycentric forms in post-suburban interstices. Studies in regional urbanization recently steered novel perspectives to rethink the urban question in Italy (Balducci et al., 2017a, 2017b), by identifying the in-between of Milan urban region with the portion of territory located 10–40 km from Milan (Balducci et al., 2017aa). These

spaces are characterized not only by high demographic density but also by a dense profile of urbanization which is fairly different from sprawl. By addressing mobility patterns, Pucci (2017) likewise highlights the active role of Milanese “peri-urban” areas in driving a process of regional urbanization, which is challenging traditional patterns of density, attractiveness and the general conditions of urbanity.

This paper navigated at a glance the proliferation of studies that shaped a reasonable framework for the urban region of Milan over the last years by also revealing the interlinked realm of infrastructures outside the city. In this respect, the overview of such insightful studies might steer for further investigations, set out here with an engagement between discussions in polycentrism and the post-suburban framework. As highlighted by Balducci (2012), what is needed is to rethink Milan urban Region in a new way, through its evolutionary dynamics and its transformation processes. In this respect, polycentric post-suburbanization serves as a concept to acknowledge the emerging relevance of in-between settlements. Furthermore, the urban in-betweenness also inform us about threats and challenges faced by large urban regions. In the COVID-19 crisis, for instance, in-between areas such as Codogno unveiled the first warning signs of the coronavirus emergency for the urban region of Milan, Lombardy region, and the whole Italy. Then, the virus spread across Lombardy hitting the urban in-between (such as the Provinces of Bergamo, Brescia and Lodi) across a polycentric region. In this scenario, Milan, is solely the largest urban node at the epicenter of a contagion affecting the whole region. Against this background, polycentric post-suburbanization is a conceptual tool to nurture views “from the urban outside in” (Keil, 2017b) focusing on the diversity of post-suburbanization in its forms and features.

Notes

1. On 21 February 2020, two outbreak areas were identified in Italy: the towns of Codogno and Vo' Euganeo, a small suburb of Padua, in Veneto Region. The hospital of Codogno hosted the first Italian contracting coronavirus without having been to China.
2. Lombardy region is the administrative regional entity, of which Milan is the capital city. The sub-regional jurisdictional level referred to Milan is the “metropolitan city”.
3. The identification of multifunctional nodes has been investigated using the Simpson index, which takes into account simultaneously the number of workers belonging to a specific productive activity (ATECO), and the relative abundance of such production (based on 2011 census data)

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ORCID

Lorenzo De Vidovich  <http://orcid.org/0000-0001-6818-1176>

Greta Scolari  <http://orcid.org/0000-0003-2249-9167>

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