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What is This?
Land Financialization as a ‘lived’ process: The transformation of Milan’s Bicocca by Pirelli

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Abstract
Contributing to an emerging debate that brings the mobilization of land rent as a financial asset to the heart of urban analysis, this article offers a narrative of land financialization as a ‘lived’ process. Focusing empirically on Bicocca (a post-industrial area north-east of Milan that traditionally hosted the activities of Pirelli, one of Italy’s most successful companies), the paper shifts the focus of enquiry on land financialization from global capital flows and real estate aggregate data to a qualitative analysis of the alliances and struggles between the elites and workers who animated the traditional manufacturing sector. Centring the analysis on these previously neglected actors permits an understanding of land financialization as a ‘lived’ and socially embodied process, and offers a complementary perspective to the discussion on the role of land rent in the making of financialized capitalism. First, it reveals the struggles and alliances between industrial elites, workers’ unions, and local governance as key protagonists in the way land became mobilized as a financial asset, was subsequently embedded in practices of urban renewal, and finally contributed to an epochal change in urban capitalism. Second, it shows how mobilizing industrial land as a financial asset performed not just a coordinating but also a transformative role in the transition from industrial to financial capitalism as it enabled traditional elites to launch into a financialized phase of transnational competition. Third, it reveals changes in urban governance to be as much responses to the needs of local traditional elites as they are responses to the demands of global financial elites.

Keywords
Capital switch, governance, industrial elites, land, financialization, land rent, Milan, Pirelli, real estate, urban transitions, workers’ unions, imaginary

Introduction
David Harvey (2012) has recently argued that the 2008 financial crisis is an urban crisis, offering theoretical contextualization and grounding to proliferating popular references to ‘toxic mortgages’, ‘real estate collapse’, and ‘mortgage-backed financial derivative products’. Yet, the actual socially embodied and lived historical geographical mechanisms that animate this allegedly intimate relationship between the dynamics of urban change and the
growing dominance of a financialized global economy, the details of how exactly the enrolment of urban land rent into global financialized circuits of capital is socially enacted, are rarely examined. The social embodiment of the process through which the flows of capital ‘onto and through the land’ (Harvey, 1982: 361) transmit ‘the effects of economic changes on space’ (Haila, 1988: 79) under a now fully financialized global economy remains largely unexplored (Swyngedouw, 2011), despite the growing political and economic importance of foregrounding the actors that animate this process.

Indeed, whilst research on financialization focuses mainly on the analysis of global capital flows and macro-economic data, urban research on the production of rent and the financialization of land assets has focused foremost on either the role of gentrification as structured through the dynamics of the urban rent gap map (Hammel, 1999; Lees et al., 2008; Smith, 1996; Uitermark and Loopmans, 2012; Weber, 2010), or the importance of institutional changes in urban governance regimes that turned declining industrial sites into trendy business centres or residential hubs for the new ‘creative’ classes (Engelen and Musterd, 2010; Kazepov, 2005; Moulaert et al., 2002; Swyngedouw, 2005; Van Gent, 2012; Vicari Haddock, 2009, 2010; Wyly and Hammel, 1999). More recently, the debates on financialization and urban change became more closely knitted when scholars turned their attention to the relationship between financialization and the mortgage sector (Aalbers, 2008, 2012; Hall, 2011; Smart and Lee, 2003) and the role of financial intermediaries in nurturing urban development projects (Moulaert et al., 2002; Moulaert and Nussbaumer, 2005; Moulaert and Sekia, 2003).

However, with a few notable exceptions (Bauregard and Haila, 2008; Haila, 1991, 1997, 2000, 2007; Moulaert et al, 2002; Rousseau, 2009; Wood, 2004), the proliferating literature on urban change still falls short from offering detailed historical–geographical accounts of the embodied strategies, and the shifts in conflict and alliances between social actors through which the financialization of urban land and its insertion in globalized financial capital circulation unfolds. The article focuses precisely on this neglected dimension of the political economy of urban transformations, and explores how the socially embodied mobilization of land as a financial asset acted as a catalyst for the ‘capital-switching’ process from the ‘real’ urban economy of goods and service production to a fully financialized form of global accumulation.

Following recent calls to bring into dialogue the previously disconnected debates on financialization and urban development (Pike and Pollard, 2009; Rutland, 2010) and to challenge finance-centred or governance-centred accounts of urban change (Haila, 2000; Moulaert et al., 2002; Warf, 1994; Wood, 2004), the analysis here departs from the dominant focus on the ‘usual suspects’ of land financialization and urban renewal (i.e. developers, urban governance, and the real estate and banking sectors), and focuses instead on a set of social actors that have been previously overlooked as significant contributors in shaping the process of land financialization, namely traditional local industrial elites and workers’ organizations. The fact that these agents were thus far considered to be of a ‘more parochial sort’ (Molotch, 1976: 317), we argue, has led to underestimating the significant role that they have played in the transition to new ways of producing urban space and new forms of managing cities.

The article attempts to bring theory home by detailing the changing relationship between an industrial giant (Pirelli) and its land assets (at Milan’s Bicocca) as the former was struggling to morph into a finance-led conglomerate. Bicocca is an area north-east of Milan that, since the early twentieth century, has been the main site for the industrial activities of Pirelli, one of Italy’s oldest and most emblematic companies (best known for its tyre production and annual calendars). Bicocca, once a hub of workers’ anti-fascist resistance during the Second World War, and a hotbed of militant labour action during the 1960s, was reinvented more recently as the playground for Milan’s ‘creative class’. By following the closely knitted histories of the Pirelli family, Pirelli’s workers, and Pirelli’s industrial land at Bicocca, we tell a ‘lived’ story about land financialization, drawing up a narrative that foregrounds the importance of struggles and strategic alliances over the social mobilization of land between industrial elites, workers’ unions and local governance.
The historical–geographical narrative structure of the article permits us to examine the rather abstract and arcane notion of financialization as a lived process, leading to a number of complementary insights. The case study of an emblematic space that signals the intricate historical–geographical dynamics of the Pirelli–Milan assemblage furthers the debate which foregrounds land financialization as one of the key levers for enacting urban change in three distinct ways.

First, by highlighting the pivotal role of relatively neglected actors in the social mobilization of land rent as a financial asset, our contribution shows that the renegotiation of historical alliances over industrial land between workers’ unions and industrial elites with the mediation of urban governance is a key component of the financialization of urban economies. Second, by detailing how land financialization enabled local traditional elites not only to survive crises but, more importantly, to launch themselves into a new financialized phase of urban capitalism, we show that mobilizing industrial land as a financial asset performed not just a coordinating but also a transformative role in the transition from industrial to financial capitalism. Third, by documenting changes in urban governance arrangements to be a response not only to the needs of disembodied transnational elites and abstract ‘global’ forces, but also — and arguably more importantly so — to the needs of locally embedded traditional elites that desperately try to re-imagine their role and explore new forms of capital accumulation, we affirm that, although real estate may now be embedded in global capital markets as a financial asset (Rutland, 2010), its value is still produced at the local level (Jessop, 2001; Wood, 2004: 119).

The research on which the paper draws was conducted during five extensive field visits (between 2007 and 2012). The fieldwork involved interviews with Pirelli managers, trade union leaders, architects, leading Italian academics, 20 Pirelli workers, 20 residents of the ‘new’ Bicocca, and 20 students attending the new University of Bicocca. The research findings are also based on extensive archival research at the Istituto per la Storia dell’Età Contemporanea (ISEC); Archivio Storico Pirelli in Milan (ASP); Archivio Civico in Milan (ACM); Biblioteca Sormani; Biblioteca dell’Università Commerciale Luigi Bocconi; Biblioteca del Politecnico of Milan; and newspaper archives of Il Corriere della Sera, La Repubblica, Il sole 24 ore, and L’Unità.

City of industry

The City of Factories rises: land as a condition of production and contested site of social reproduction

The industrial history of the city of Milan and the history of Pirelli go hand in hand. Pirelli today is a multinational giant with diversified production in a wide range of sectors (not in the least in finance and real estate development), which totals net annual global turnover of the order of 4.8 million euros (2010, Pirelli Annual Report). But the first Pirelli plant for manufacturing tyres and rubber products, which was founded by Giovanni Battista Pirelli in 1872, operated from a modest building adjacent to the Pirelli family home in Milan, and employed 40 blue-collar workers and five managers (Colli, 2001; Pirelli, 1946). GB Pirelli was amongst the first European industrialists to pioneer Taylorist and later
Fordist production methods and to promote his products through iconic international advertising campaigns, and soon Pirelli’s market grew strong in countries as diverse as Austria, Argentina, Belgium, France, and Great Britain (Bolocan Goldstein, 2003a; Colli, 2001; Dalmasso, 1970). The company’s growth went hand in glove with GB Pirelli’s increasing involvement in Italy’s economic, social, cultural, and political life. In 1877, he was elected member of the town council of Milan (1877–1889), in 1895 he became a member of the board of directors of Il Corriere della Sera, Italy’s oldest and most popular newspaper, and in 1909 he was elected Senator at the Senato del Regno d’Italia (Ciuffetti, 2004; Colli, 2001; Montenegro, 1985; Scotto di Luzio, 2001: 358). Since those early days, the fates of the city of Milan and of Pirelli were weaved together in a tight and mutually supportive relationship.

By 1917, Pirelli’s production outgrew the original factory site and the company decided to expand through the acquisition of a 200,000 m² site at Bicocca, an area north-east of Milan. Soon thereafter, more industries located around Bicocca and the broader area became known as ‘The City of Factories’ (Irace, 1997). In the early 1920s, and in collaboration with the Istituto Autonomo per le Case Popolari (IACP), Pirelli embarked on the development of Bicocca into its own workers’ village, the Borgo Pirelli (Galdo, 2007; Pirelli, 1986). The Borgo became Pirelli’s own signature miniature city (Figure 1) where the principles of scientific management met those of industrial paternalism (Benenati, 1999: 49), and where managing industrial space was combined with managing behaviour in schools, factory shops, hospitals, and recreation grounds (Bigazzi, 1996; Einaudi, quoted in Galdo, 2007: 11). By the time fascism was established as a ruling regime, Bicocca had granted Pirelli the status of both innovator and benefactor (Benenati, 1999; Bolchini, 1967).

Pirelli thrived during the Second World War, mainly thanks to the eradication of its European competitors (fascism confiscated the plants of Michelin, Pirelli’s key competitor in France), the ‘social tranquility’ secured by fascist authoritarianism and the increasing demand for Pirelli’s cable and tyre products for military operations (Bolchini, 1967). As the numbers of workers at Bicocca increased, so did class homogeneity, and the spaces that had been created to mitigate labour–capital conflict now fostered class consciousness and solidarity, and became spaces for workers’ expression and congregation. During the war years Bicocca became a hub for resistance against fascism (Benenati, 1999; Bigazzi, 1996; Luciani, 1976), and after the end of

**Figure 1.** Borgo Pirelli. Pirelli’s workers’ village at Bicocca, at the beginning of the twentieth century. Source: Archivio Storico Pirelli (ASP).
the Second World War, when Piero and Alberto Pirelli fled to Switzerland, compromised by their alleged collaboration with the fascist regime, Pirelli’s workers, in synergy with the anti-fascist Comitato di Liberazione Nazionale (National Liberation Committee), played an important role in running the factory (Anelli et al., 1985). When Piero and Alberto Pirelli returned in May 1946, they resumed full ownership and management of the company and Pirelli quickly recaptured the growth it had achieved during the war years, thanks mainly to state protectionism, indirect subsidies, and the state-assisted expansion of the national tyres market. By the end of the 1950s, Pirelli joined other Italian enterprises in a period that became known as Italy’s post-war ‘economic miracle’, the institutionalization of Italy’s own brand of Fordism (Ginsborg, 1989).

However, Pirelli’s state-assisted economic miracle was short lived (Bertelè, 1993). Between 1971 and 1975, the company’s output fell by 22,000 tonnes (20% of the company’s production total) and its financial liability increased from 268 to 403 billion lire (Bolchini, 1985: 71; Pirelli SpA, 1976). Leopoldo Pirelli, who succeeded his father Alberto and uncle Piero in 1965, put the blame for the lack of ‘production recovery’ on ‘widespread conflict’, which had ‘compromised the company’s efficiency and ability to function in a normal manner’ (Pirelli SpA, 1971: 5). Indeed, as authoritarian management practices, lower wages and redundancies prevailed during the late 1960s and 1970s, Pirelli’s workers (now totalling more than 12,000) drew upon the considerable experience they had amassed during the resistance against fascism, and turned Bicocca into a laboratory for radical forms of class struggle (Dell’Agnese, 2005). By the end of the 1960s, Bicocca and the entire industrial area north-east of Milan (the City of Factories) was known as ‘Italy’s Stalingrad’, and had became a constitutive part of Italy’s radical operaismo movement (Foot, 1999; Luciani, 1976).

But workers’ militancy was hardly the only reason behind Pirelli’s decline. Moving into the 1970s, the company was faced with increased international competition (Michelin re-emerged as Pirelli’s main European competitor), and significant hikes in the international price of rubber (Bolchini, 1985). There was urgent need to invest in new technologies, and enter the growing sector of retreads (tyre recycling). In an effort to improve the company’s share in the international market Leopoldo Pirelli pursued a merger with the British rubber company Dunlop in 1970, which would produce the third largest tyre company in the world, with an annual turnover of more than 1300 billion lire, and 180,000 employees (Bolchini, 1985; Cercola, 1984; Colli, 2001). However, the partnership collapsed in 1981, leaving Pirelli short of options and in need of a survival strategy and a radical re-orientation of its activities.

**City of Finance**

*The ‘Eureka!’ moment: the revanchist act of ‘discovering’ land as a financial asset*

Strapped for cash and with a financial and technological crisis added to the company’s labour crisis, Leopoldo Pirelli had little room to manoeuvre after the collapse of the Dunlop venture. It was during this moment that Leopoldo turned to Bicocca’s land in search for a solution. The land that had functioned originally as a condition of production, subsequently as a means of mitigating social conflict and later morphed into a social/political space for Pirelli’s workers, would once again become the catalyst for change. In the early eighties, Leopoldo Pirelli launched a programme for redeveloping Bicocca into a Technocity. It was a strategy that aimed to eliminate two evils with one strike. First, it would claim back Bicocca’s land from militant workers and their autonomist practices. Moving production elsewhere would be an act of revanchism that would sever workers from the land that had become not only the hub of their industrial and political activity, but their social and community space as well. Second, the land rent that Pirelli would potentially yield from TechnoCity would raise capital for reinvestment in new technologies (Perulli, 1986). This was the first moment that Pirelli’s administration considered mobilizing land as a financial asset. Giovanni Nassi, who played a leading role in planning and delivering Bicocca’s transformation as CEO of Progetto Bicocca, recalls with great
enthusiasm the ‘Eureka!’ moment, when he (and through him, Pirelli) realized that land is not just a condition of production, a dead weight and a cost burden, but could become instead a means of accumulation in itself, a growth engine for a troubled company.

Up to that moment, the industrial world in Italy … held this rather stupid logic. Whenever a piece of land with a plant on it was no longer valuable as industrial land, the land would be considered paid off, and they would say: ‘let’s sell the wretched thing away for quick money’ (‘vendiamola: pochi, maledetti, e subito’). Dunlop, by contrast, calculated [their abandoned plants] at market value in their balance sheets, and not at zero value, which is what we used to do at Pirelli. Well, I started to use Dunlop’s very interesting logic and decided to create a ‘real estate within’ … which would enable me to make the maximum profit in the long term.

(Giovanni Nassi, Interview, 22 February 2007)

By shedding its traditional practice of treating industrial land as a condition of production and as an investment that depreciates over time, Pirelli reinvented its land as a ‘pure financial asset’ (Harvey, 1982: 347) that could now be brought into the company’s balance sheets according to the rent it would potentially yield in the real estate market. This imported ‘accounting’ tactic would soon be turned into the centrepiece of a radically new corporate strategy that would redefine Pirelli’s relationship to both urban space and local governance in decisive ways. The opening salvo of this new strategy was fired in 1987, when Pirelli established a ‘daughter company’, Progetto Bicocca S.p.A. In 1991, the ownership and management of Bicocca’s land was transferred internally to Progetto Bicocca for a price of 159 billion lire. The sale figure was made up of two parts (see Table 1): first, the value of industrial ‘Land and Buildings’ that would be retained as production sites, estimated at 46.4 billion lire; and second, the value of ‘Fixed Tangible Assets’ (i.e. land and buildings that would be developed as part of the TechnoCity project), estimated at 113.5 billion lire (Pirelli SpA, 1991a: 70). The value of ‘Fixed Tangible Assets’ was calculated purely on speculative grounds, based on the potential land rent each plot could yield on the basis of: ‘the permissible land use and Gross Floor Areas specified for this plot in the Master Plan’ (Pirelli SpA, 1992b: 3). Pirelli literally turned the rent gap, which was itself co-constituted by planning and related regulations, into ‘real’ prices, thereby significantly enhancing the balance sheets of the company.

Table 1 shows how, until 1987, Pirelli treats industrial land and buildings in its balance sheets the same way as industrial equipment (i.e. its value depreciates every year, until it is eventually considered to be ‘paid off’). In 1987, within that logic, all land and buildings owned by Pirelli SpA in Italy (including Bicocca, and other sites in Milan) was valued at 67.3 billion lire. By 1991, however, when Bicocca’s land was brought into the accounts as a financial asset, its value jumps on speculative grounds, i.e. on the basis of its potential future real-estate yields. In 1991, the value of Bicocca’s land alone appears in the balance sheets (under Progetto Bicocca S.p.A’s ownership) at the staggering value of 159 billion lire. This figure is 2.36 times higher than 67.3 billion lire, i.e. the value at which the same land plus all other Pirelli’s

<table>
<thead>
<tr>
<th>Financial year</th>
<th>Pirelli S.p.A</th>
<th>Progetto Bicocca S.p.A</th>
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</thead>
<tbody>
<tr>
<td>Land and buildings</td>
<td>35.6</td>
<td>34.7</td>
</tr>
<tr>
<td>Plants and machinery</td>
<td>9.2</td>
<td>9.0</td>
</tr>
<tr>
<td>Fixed Tangible Assets</td>
<td></td>
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land holdings in Italy had been calculated four years earlier. From 1991 onwards, the speculative value of Bicocca’s land featured in Pirelli’s balance sheets as a new financial asset that helped shore up the company’s accounts and its potential financial leverage.

Revolutionizing the way it perceived and ‘accounted’ for its real estate assets marked the beginning of Pirelli’s ‘journey of perpetual search for enhanced future ground rents’ (Harvey, 1982: 368). The historical moment was also opportune, since Milan was morphing into an international finance and service centre, and, as Figure 2 shows, Bicocca had become integrated, both physically and cognitively, into this landscape (Bolchini, 1967: 23–24). Moreover, the fact that Milan’s economy was becoming increasingly internationalized meant that land rent in and around Milan could now potentially be determined no longer at the local, but at the regional, national or indeed international level (Haila, 1988). This way, the urbanization of land around Bicocca and the internationalization of Milan’s economy acted as what Haila (1988: 92) terms a ‘stimulus condition’ that prompted landowners, including manufacturing-based corporations, to treat their land as a pure financial asset. The trajectory of the TechnoCity project shows precisely how the mobilization of land as a financial asset unfolded. And this is what we shall turn to now.

Land financialization as a local affair: Bicocca’s TechnoCity as a tripartite negotiation between industrial elites, workers’ unions and local authorities

In pursuit of Leopoldo’s vision for a TechnoCity, Pirelli drafted a comprehensive planning proposal, which promised to provide ‘guarantees for sustaining Milan’s industrial competitiveness’ by ‘stimulating and diffusing new trends in technology and production. […] and matching job needs’ (Regione Lombardia, 1985: 1). The building programme included research centres, universities and businesses, as well as Pirelli’s own research and development
laboratories (Bolocan Goldstein, 2003b; Nepoti, 2003; Regione Lombardia, 1985: 3).

Unsurprisingly, however, Pirelli’s enthusiasm for a post-industrial future for Milan was not shared by the company’s workers. Pirelli’s trade unions were not convinced that relocating industrial production and ‘freeing’ up (or rather emptying out) Bicocca’s land for the TechnoCity development would be performed in both the city’s and the workers’ best interest. The production of Bicocca as a financial asset therefore became a highly contested process, since emptying the area from the militant workers, who had appropriated it as their own space, was a precondition for the success of the scheme. It took Pirelli four years (1981–1985) of intense negotiations with workers’ unions, in which the local authorities (Local City Council, Provincial Council and Regional Authorities) played a key mediating role (see section 2.3), eventually to convince trade unions to sign the Schema di Protocollo di Intesa. This three-party agreement between local authorities, trade unions and Pirelli’s management set the terms and conditions for the relocation of production away from Bicocca. The Protocollo guaranteed employment for between 1500 and 1700 of the original 2000 Bicocca workers. It also stipulated that cable production would remain at Bicocca, and that any new tyre plant had to be located within a radius of 25 km from Bicocca (Regione Lombardia, 1985: 2–3).

Around the same time that Pirelli was negotiating relocation, the Italian government issued an incentives package for new investment or relocation to the Mezzogiorno (Gazzetta Ufficiale della Repubblica Italiana, n. 317, 17 November 1984; Suppl. Ordinario n. 61, 14 March 1986). There could not have been better timing for Pirelli. Taking advantage of the incentives package for new investment or relocation to the Mezzogiorno (Gazzetta Ufficiale della Repubblica Italiana, n. 317, 17 November 1984; Suppl. Ordinario n. 61, 14 March 1986). There could not have been better timing for Pirelli. Taking advantage of the incentives, Pirelli relocated the production of diversified products to the South of Italy (Perulli, 1986). Following the Protocollo, Pirelli did keep some of the original production lines at Bicocca. Nevertheless, the redevelopment of the land dealt a decisive blow to both the imaginary and the reality of Bicocca as the workers’ social and political space (Murray, 1983). The invention of a new imaginary (Kaika, 2010) for Bicocca’s land became the catalyst for local capital to recapture its position of power, and instituted a new relationship between capital and land. Land was no longer a condition of production, or a means to mitigate capital–labour conflict; instead, it had to be produced as an asset, and realize its full accumulation potential.

‘Planning by Projects’

Not only did the transformation of Bicocca’s industrial land into a financial asset demand the expulsion of local workers/residents, it also necessitated revising the traditional terms of the relationship between local institutions and local capital. This mutually beneficial relationship that had been firmly established under industrial paternalism, thrived under fascism, and sustained during Milan’s Fordist years had to be reaffirmed in order to launch Milan’s elites and the Milanese economy into a post-Fordist globalized era. Promoting Milan as the ‘European capital of the advanced tertiary sector’ necessitated a revision of institutions, planning tools and regulations (Bolocan Goldstein, 2002: 90). However, the complexity and bureaucracy of local institutions (Healey, 2007: 92), which also accounted for the inability to ‘identify US style growth machine dynamics’ (Vicari and Molotch, 1988, 1990) prevented swift institutional changes and impeded the development of a comprehensive plan and a clear vision for a post-Fordist Milan. This meant that the city’s redevelopment was, in effect, pursued through ad hoc decisions for specific development projects, a process which Balducci (2003: 64) denotes as ‘planning by projects’ (see also Balducci et al., 2011; Bolocan Goldstein, 2002; Bolocan Goldstein and Pasqui, 2003).

Originally, the Bicocca did not feature in any of Milan City Council’s project-led plans. Indeed, Milan’s declining north-east industrial axis was completely ignored (see Figure 3) in the 1984 White Paper (Documento Direttore Progetto Passante), which demarcated instead the north-west/south-east axis for real estate development around the construction of a new rapid transit line (Boatti, 2011; Bolocan Goldstein, 2003b, 2007; Bolocan Goldstein and Bonfantini, 2007; Comune di Milano, 1984: Healey, 2007; Riganti, 2003, 2007; Secchi, 1984; Vicari and
Figure 3. Pirelli’s influence on the changing geographies of Milan’s post-Fordist development.

1984: The Documento Direttore Progetto Passante ignores the north-east axis and prioritizes the north-west/south-east axis for development around a new rapid transit line.

1988: After Pirelli’s TechnoCity proposal, the Bicocca is identified as an Area for Strategic Transformation (Area di Transformazione Strategica) in the Documento Direttore delle Aree Industriali Dismesse.

2000: The Bicocca is assigned key priority development status, as part of the ‘Reversed T’ double axis, in the Documento di Inquadramento delle Politiche Urbanistiche Comunali.


Molotch, 1990). However, Pirelli’s 1985 proposal for a TechnoCity entirely changed the position of the Bicocca in the City Council’s cognitive map for a post-Fordist Milan. The ad hoc planning processes and the lack of a clear vision gave Pirelli two distinct advantages in negotiating the TechnoCity project with the local authorities. First, the vision of a post-industrial, high-tech Bicocca resonated with, and gave direction to, the local authorities’ desire to mitigate the consequences of deindustrialization. Second, the TechnoCity plan presented the City Council with the first comprehensive (albeit private) planning proposal for redeveloping a declining industrial area. The local and regional institutions greeted the proposal with great enthusiasm since, in the regional authorities’ own words, it represented ‘the first step towards collaboration between public agencies and the private sector on renovation, job matching, and territorial restructuring’ (Regione Lombardia, 1985: 1–2).

Local institutions did much more than just greet Pirelli’s proposal with enthusiasm; they shifted the institutionalized geographies of Milan’s post-industrial development to accommodate it. In response to the proposal, the previously ignored north-east axis now started becoming part of the City Council’s
cognitive map of a post-Fordist Milan. The 1988 White Paper for the Redevelopment of Abandoned Industrial Areas (Documento Direttore delle Aree Industriali Dismesse) (Figure 3) identified the Bicocca as an ‘Area for Strategic Transformation (Area di Trasformazione Strategica)’ (Bolocan Goldstein, 2002: 97, 2007; Comune di Milano, 1988; Riganti, 2003, 2007). The same year, the city and regional councils approved a modification (variante) of the General Master Plan which granted Pirelli limitless flexibility (see Table 2) to revise land use and increase or decrease at will (within certain limits) Permissible Gross Floor Areas, to accommodate its future plans (Unità Tecnica di Pianificazione Regionale – UTPR, 1988, pp. 42–44; Giovanni Nassi personal archive).

Table 2. Minimum and maximum Permissible Gross Floor Areas (PGFAs) per land use for Bicocca TechnoCity.

<table>
<thead>
<tr>
<th>Land use</th>
<th>PGFA</th>
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<tbody>
<tr>
<td>Industrial production</td>
<td>Minimum 129,400 m²</td>
</tr>
<tr>
<td>Residential</td>
<td>Minimum 60,000 m²</td>
</tr>
<tr>
<td>Administrative functions</td>
<td>Maximum 145,000 m²</td>
</tr>
<tr>
<td>Research</td>
<td>Maximum 297,000 m²</td>
</tr>
<tr>
<td>University and specialist education</td>
<td></td>
</tr>
<tr>
<td>Business services</td>
<td></td>
</tr>
<tr>
<td>Urban green spaces</td>
<td>Minimum 100,000 m²</td>
</tr>
<tr>
<td>Public services and parking</td>
<td>Minimum 80,000 m²</td>
</tr>
</tbody>
</table>


by the deep crisis in which the Milanese political elites plunged, following allegations of bribes (tangenti) that conferred upon Milan the unattractive nickname Tangentopoli during that period (Nepoti, 2003; Vicari and Molotch, 1990). But when the plan was finally approved in July 1992, it gave Pirelli a strong hand in defining the geographical direction for Milan’s future redevelopment (Nepoti, 2003). Indeed, in the 2000 Municipal Urban Policies Framework (Documento di Inquadramento delle Politiche Urbanistiche Comunali), the Bicocca/city centre axis featured as one of Milan’s central development poles (see Figure 3; see also next section on Revanchism and the end of place-loyal capitalism).

Therefore, by pursuing the transformation of Bicocca to a TechnoCity as part of its land financialization practices, Pirelli played a doubly important role in defining the geographies of Milan’s post-Fordist development (Bolocan Goldstein and Pasqui, 2003: 174; Camagni and Gibelli, 1986, 1992; see also Mingione, 1994). First, by being a powerful local player that could design and develop its own land according to its own interests (a position further strengthened by both institutional complexity and traditional relations between local capital and political elites), Pirelli further nurtured the City Council’s unwillingness (or inability) to pursue a comprehensive redevelopment strategy. The same bureaucracies that impeded innovation in planning institutions acted as facilitators for a ‘piecemeal approach’ to planning (Balducci, 2003: 64) where only projects backed up by ‘powerful [local] private actors [who] had a strong motivation and held sites in a single ownership’ proceeded to materialization (Healey, 2007: 93).

Second, by promoting the Bicocca internationally as Milan’s new hotbed for investment, Pirelli took a leading role in global place-marketing (Balducci, 2003, 2010; Bolocan Goldstein, 2007; Bolocan Goldstein and Pasqui, 2003). Indeed, it was not the local government, but Pirelli that acted as the city’s international ‘ambassador’ during this period, communicating to potential international investors the advantages of investing in Milan. Pirelli made international headlines with a design competition for Bicocca TechnoCity, which involved 20 world-renowned architects (including Frank O. Gehry,
Renzo Piano, Vittorio Gregotti and Richard Maier) (Pirelli, 1986: 13) and a highly publicized international exhibition of Bicocca’s designs, which travelled from Milan’s Triennale to Leningrad, London’s Barbican, Brussels’ Royal Museum of Fine Arts, New Jersey’s Institute of Technology, and Barcelona’s Urban Centre (Manca, 2005; Pirelli, 1986).

The central role that Pirelli played as Milan’s spokesperson and in remapping the geographies of Milan’s post-industrial development highlights the important – yet often neglected – role that traditional, place-loyal elites of the ‘parochial sort’ (Molotch, 1976) have played in the transition of local economies. It was the loyalty of local governance coalitions to these place-loyal traditional elites, and not only to some abstract global capital flows that incentivized them to modify plans, and put in place the institutional arrangements that would assist the transformation of the company. Through a combination of flexible zoning and the modification of traditional planning tools to fit Pirelli’s needs, the local political elites granted Pirelli considerable powers to maximize potential rent gaps and thereby open up a process that permitted accelerated financialization of its land assets.

So, although redeveloping Bicocca was an enterprise that aimed to capture revenues from an emerging global real estate market, the production of Bicocca Technocity, and the success or failure of the project owed at least as much to the specificities of the local labour–capital, capital–governance and labour–governance relations, as it did to global capital flows (Wood, 2004). The locally produced land rents would be enrolled in circuits of global financial capital and assist struggling traditional elites to launch themselves as transnational players in a globalized finance-based economy. Subsequently, these locally produced rents would become embedded in global capital markets as financial assets and would attract the now well-documented new waves of transnational capital and transnational elites to old industrial centres, thereby producing radically new forms of urbanity.

Pirelli’s publicity campaign for Bicocca TechnoCity implicitly explored this dialectic between local and global in the necessity for capital to renew its terms of engagement with its local alliances in order to compete globally. The campaign was Janus-faced, promoting the image of Pirelli as a place-bound, place-loyal company at the local level, and as a footloose global player at the international level. When addressing a Milanese elite audience, Leopoldo Pirelli would emphasize his commitment to ‘do good’ for the city and its people, and compare his ‘contribution’ of a TechnoCity to Milan to ‘his father’s contribution of the Pirelli skyscraper to the same city’ (Pirelli, 1984: 5). In contrast, when addressing an international audience, the image of Pirelli as a place-loyal elite would morph into that of an aggressive global player embarking on a new path of strategic capital investment.

**Revanchism and the end of place-loyal capitalism: finding land’s proper role as pure financial asset and redefining the relationship between capital and the city**

At the time when Pirelli was masterminding the TechnoCity project, the tyre sector had become a restricted global oligopoly, with 80% of global production shared amongst only six companies. Pirelli featured in the fifth place, but lagged considerably behind the leaders – Michelin, Goodyear and Bridgestone – with a market share of just 7.5% (Anelli et al., 1985; Sicca and Izzo, 1995). In spite of the failure of the earlier experiment with Dunlop, Leopoldo Pirelli insisted that a strategy of mergers and acquisitions was still the best way forward, and in the early 1990s pursued the acquisition of his German competitor, Continental (Nepoti, 2003; Zanetti, 2003: 15; Turani, 1992a). However, the acquisition that was expected to ‘create a company with a 16% global market share and an annual turnover of 10,000 billion lire [approx. 5 billion euros]’ (Pirelli SpA, 1991b: 6) triggered the deepest financial and managerial crisis in the company’s history. A clause in Continental’s statutes, which had been overlooked by Pirelli’s advisors, decreed that, despite acquiring 50% of the company’s shares, Pirelli could not take control of Continental’s operations (Sicca and Izzo, 1995).
By December 1991, at the aftermath of the Conti affair (as it became known), Pirelli SpA reported a total deficit of 670 billion lire (of which 350 billion was linked directly to the failed acquisition) and was placed under the guardianship of Mediobanca, a major Italian investment bank (Pirelli SpA, 1992a; Sicca and Izzo, 1995: 119). Mediobanca imposed radical changes in the operations, management and structure of Pirelli, ranging ‘from the redefinition of core businesses and activities, to rethinking the company’s identity’ (Sicca and Izzo, 1995: 88; Zanetti, 2003: 32). The restructuring included the separation between ownership and management. Although Leopoldo Pirelli was keen to maintain his position as the company’s manager, he was ‘strongly advised’ by Enrico Cuccia, director of Mediobanca, to step down and offer his position as chief executive officer to Marco Tronchetti Provera Turani (1992b). Tronchetti Provera had been a partner to Pirelli for many years, and was Leopoldo’s former son-in-law. The new management’s strategic vision was quite different to Leopoldo’s. It included shelving the pursuit of a quantitative leap in the tyre sector, concentrating production in fewer and smaller units, reducing drastically the workforce and selling ‘non profitable’ activities’ (Bertelè, 1993: 65; see also Pons, 2008; Fumagalli and Mocera, 2007; Zanetti, 2003). The reductions in workforce and the sale of key production lines were welcomed by global financial markets, and had an immediate effect on the group’s balance sheets. Although still making significant losses (154 billion lire), the company’s net operating results increased by 100 billion in one year (Anonymous, 1994).

However, it was neither redundancies nor the sale of key production lines that saved Pirelli from bankruptcy. It was what was delivered by its daughter company, Progetto Bicocca, through the completion of the first TechnoCity land redevelopment project, that saved the day, further entrenching the ‘capital switching’ from industrial production to the production of land rent and its financialization. When the first TechnoCity project for seven office buildings on a site of 75,000 m$^2$ was completed, the economic return it yielded was so impressive that it prompted Pirelli’s new management to have a closer look at further potential in using land as a financial asset. Therefore, although the Bicocca TechnoCity project started out as a strategy to overcome problems with outdated infrastructure and militant labour (Bolocan Goldstein, 2003a), the unexpectedly significant financial returns of the first redevelopment phase led to the realization that, if properly managed, the plant closures could prove instrumental for launching Pirelli into a new era of speculative capitalism.

The [company’s new management] was eager. They said: ‘bring us more ideas to redevelop the remaining 680,000 m$^2$ of the land’.

(G. Nassi, former Progetto Bicocca CEO, interview 22 February 2007)

To realize the full potential of Bicocca’s land, Pirelli’s new management regrouped Pirelli’s real-estate activities (including Progetto Bicocca) in 1992 under a new company, Milano Centrale Immobiliare (MCI) (Memo, 2007). In 1993, the sale of 74% of Progetto Bicocca’s shares yielded over 190 billion lire on a purely speculative basis (Sicca and Izzo, 1995). By holding on to the remaining 26% of the shares, MCI controlled the management of the Bicocca project (Figure 4) and maintained an ‘exclusive and mandatory role as the planning, administrative and commercial coordinator of the project’ (Pirelli SpA, 1993: 6).

In November 1992, MCI became the exclusive Italian representative of Knight Frank and Ruteley, two major global real-estate companies (Anonymous, 1992). On 3 June 1993, it was floated on the stock market, yielding another 110 billion lire for Pirelli & Co., which was subsequently used to finance further development projects at Bicocca (Modolo, 1993). This time, however, the redevelopment of Bicocca was not even linked to any broader, long-term strategy of reinvestment in industrial innovation. By now, the venture had turned into a self-propelling real-estate carousel in its own right, an opportunity for diversifying the company’s activities (Nepoti, 2003) whereby capital and land were tightly knit together in intricate and mutually reinforcing speculative circulation processes.
Within this new logic, the project to develop Bicocca as a TechnoCity with the social investment it entailed was deemed too demanding in technical expertise and economic resources and was abandoned in 1993 in favour of a new plan for redeveloping Bicocca as a ‘Historical Centre in the Suburbs’. Bicocca’s land was reinvented anew as a luxury residential area, with cultural and entertainment facilities and limited office functions. The fantasy of the TechnoCity that still included an imaginary articulated around innovation, new forms of manufacturing and creative high-technology production was abandoned and replaced by an imaginary of a ‘new urbanity’, centred on speculative real-estate ventures and the production of rent. Vittorio Gregotti, the chief architect of both ‘Bicocca Technocity’ and ‘Bicocca Historical Centre’ recalls:

The programme moved towards something resembling urban design; it included a theatre, a university, and apartments, and I redefined it with a slogan as ‘a historical centre in the periphery’; a place where historical social and physical characteristics blend seamlessly with high culture functions.

(V. Gregotti, interview, 14 November 2007)

Once again, Bicocca’s new mutation as Milan’s emblematic urban project could not have happened without the collaboration of Milan’s local authorities. Despite the fact that the new plan was distinctly different in scope and aims to the TechnoCity project, the favourable and ‘flexible’ planning regulations that were essential to maximize potential rent production were kept in place. Moreover, when the State University of Milan was authorised to create an ‘offspring’ university campus for 35,000–40,000 students, Pirelli jumped at the opportunity and proposed Bicocca’s land as an ideal site. At the same time, new national legislation decreed that at least 25% of the funds required for real-estate development related to university functions should be provided by national insurance and social security institutions (Legge 498/92), thereby enrolling public funds into the real estate–finance capital nexus. The City Council of Milan, loyal to its special relationship with local industrial (transforming gradually into financial) elites, chose Bicocca as the site for the new university.

All this facilitated morphing the old Bicocca plan and TechnoCity project into the new large urban project. In 1994, the University of Milan acquired around 40% of Bicocca’s land and buildings and established the Milano Bicocca University, which became a flagship project for the area. The subsequent location of another emblematic project, the Arcimboldi theatre (a lyrical theatre with 2400 seats), added further kudos and connectivity to Bicocca, and increased the speculative value of the subsequent residential and office developments. Soon after its inauguration, the Arcimboldi theatre was chosen for the relocation of Milan’s main opera productions in
2002, when the Teatro alla Scala (popularly known as ‘La Scala’), Milan’s most prestigious opera house, closed for renovation. The relocation of the opera productions ‘forced’ the Milanese bourgeoisie to visit Bicocca and witness the transformation of an area that was, up to that moment, linked in their cognitive maps to industrial activity, left activism, and working-class residences only. Tronchetti Provera, CEO of Pirelli, was member of the board of directors of the Teatro alla Scala at the time. Around the same time, the importance of Pirelli’s plans for Bicocca in directing Milan’s post-industrial development culminated with the 2000 Framework for Municipal Urban Policy (Documento di Inquadramento delle Politiche Urbanistiche Comunali). As Figure 3 shows, the Framework demarcated the Bicocca/Milan City Centre as a new priority development axis, alongside the north-west/south-east axis, which links Milan’s two airports (Balducci, 2003; Bolocan Goldstein, 2002: 97, 2007: 177; Bolocan Goldstein and Pasqui, 2003; Comune di Milano – Assessorato allo sviluppo del territorio, 2001; Healey, 2007; Salzano, 2002).

The New Urban Policy Framework, combined with the two flagship projects, signalled the submission of Bicocca’s land to radically new forms of urbanity. Pirelli’s real-estate activities soon yielded such high profit margins that Pirelli decided to turn real estate into core business. Through important acquisitions (Unim) and further exclusive agreements (Morgan Stanley Real Estate Funds), MCI became one of the most important Italian real estate companies during the second half of the 1990s, and was renamed Pirelli RE (Pirelli Real Estate). Bicocca became Pirelli RE’s showcase, and the company commissioned Vittorio Gregotti to design its iconic headquarters building there. The spectacular design engulfs Bicocca’s old industrial cooling tower inside a new oversized glass cylinder (Memo, 2007). Pirelli RE was making a statement. The building that dressed dead industrial capital with a glittering new glass structure became an eloquent signifier of the strategic role that real estate played in the Cinderella-like transformation of Pirelli from a manufacturing company to a real estate and financial giant, and the irrevocable transformation of Bicocca from ‘City of Workers’ to ‘City of Finance’, a speculative, rent-driven urban development venture. In the architect’s own words: ‘There, both Pirelli’s past and present coexisted harmoniously’ (V. Gregotti, interview, 14 November 2007).

However, the new incarnation of Bicocca as a historical suburb demanded a further revision of the special terms of the relationship between Pirelli and local institutions. As we have seen, Leopoldo Pirelli’s earlier TechnoCity project had gained enthusiastic support from the local authorities, partly because it offered a direction for Milan’s post-Fordist development. Moreover, it was granted the reluctant support of Pirelli’s workers on the grounds that it was expected to ‘combine ethical principles with the logics of profit and industrial efficiency’ (Leopoldo Pirelli, interview, La Repubblica 27 October 1999, p. 39). But abandoning the TechnoCity project in favour of speculative real-estate development marked the end of a long era when each new venture from the part of place-loyal elites would be accompanied by a promise for delivering a matching social project that assumed a certain ethical responsibility for the city and its citizens. Bicocca’s new development announced a more cynical phase of capitalism, which instituted a new rapport between capital and local governance. In this particular case, the local government acted de facto as facilitator to Pirelli’s strategies by creating and maintaining flexible planning rules, and facilitating the location of central functions at Bicocca, all of which enhanced the value of Pirelli’s real-estate ventures. These ‘facilitating’ acts were in line with the long-standing history of the reciprocal relationship between capital and local government. The difference was that, this time, the government’s enabling strategies were performed with no guarantees for returns in welfare or other provision from the part of the company, only with the vague expectation that some of the benefits of good corporate performance would somehow trickle down to the local community. As Vicari Haddock put it: ‘Whilst the public sector was pushed to create an attractive pole, Pirelli just ripped the benefits of the valorization of land at Bicocca’ (interview, 15 November 2007).
Producing new forms of urbanity

The switch from family-owned to corporate capital and the irrevocable changes it brought to the terms of engagement between capital and the city had profound effects on the type of urbanity produced. Indeed, the new Bicocca represents a rupture in physical and social space (Figure 5), which is perceptible not only from bird’s eye view, but also at the level of the human eye. Bicocca’s master planner, Vittorio Gregotti, explains that his ‘neutral’ and ‘modular’ design aimed to produce a ‘socially adaptable architecture’ that would ‘leave space open to those who live the area, and let the district be moulded [by its users]’ (V. Gregotti, interview, 14 November 2007).

But Bicocca’s old and new residents and users find this ‘neutral’ architecture impossible to adapt to their social needs; they share the same concern over the area’s lack of character and vibrancy, and the strong presence of security guards and surveillance cameras, which discourage socializing or ‘hanging around’, and make open spaces alienating. A researcher at the University of Bicocca describes the area as:

a space of strictly controlled social activity, a space in which urban design incorporates the fear of the stranger. … Even the benches, alongside other original Gregotti urban furniture, had to be rearranged as they strongly inhibited socializing.

(Interview, 15 November 2007)

The 20 old Bicocca residents who were interviewed for the purposes of this study (around 1000 Pirelli workers and their families still live in the old Pirelli village) regret how the new development eradicated their social spaces and reference points.

I remember an incessant movement of buses that used to stop just in front of my shop and take the workers to the factory, every day of the week, even on Sundays. … The area is desolate now. … Many shops are closing down, and students don’t buy here.

(Old Bicocca resident and shop owner, interview, 2 October 2009).

Although the reinvention of Bicocca’s industrial space as a dehistoricized middle-class suburb (Vicari
Haddock et al., 2005) offered upgrades in infrastructure facilities, it also replaced the spaces and services that had been produced through decades of intense class struggle with a new type of urbanity: a decaffeinated urbanity ‘freed’ from the rich history of alliances and conflicts that had originally produced these spaces; an alienating urbanity, to which access rights are granted on the basis of property rights. Gregotti’s ‘neutral’ design that was supposed to enable residents to mould the area to their social needs, proved instead ‘mouldable’ mainly by Pirelli, as the eradication of the area’s historical memory became key to the project’s economic success (Smoltczyk, 2001: 60–61, cited in Lehrer, 2006: 336).

Conclusion

The analysis of the historical–geographical transformation of Bicocca contributes to an emerging debate that insists on the need to widen the discussion on land rent and bring the mobilization of land as a financial asset to the heart of urban analysis. This debate has, thus far, been limited to the analysis of the socio-economic dynamics of gentrification and, more recently, of mortgage markets, or has been marginalized altogether in favour of discussions around ‘urban cultures’, ‘good’ urban governance, ‘creative cities’, or the effects of ‘neoliberalism’ on global economic change. The article showed how, in the case study, the formation of a thoroughly financialized economy was produced, among other reasons, through the profound restructuring of corporate capital and the development of a new accumulation strategy articulated around the mobilization of land as a fictitious asset. Furthermore, we showed how the reciprocal transformation of corporate and urban governance frameworks is choreographed through particular local struggles that fuse together corporate tactics, urban governance, and changing capital–labour relations.

The historical geography of the production and transformations of Bicocca’s land demonstrated how during each period of crisis or change for industrial capitalism, channelling the flow of capital ‘onto and through land’ (Harvey, 1982: 361) was a recurrent tactic to overcome crisis and nurture new accumulation strategies. In the early twentieth century the redevelopment of Bicocca as a workers’ village became the means to mitigate labour–capital conflict and to introduce ‘scientific management’ practices. During the 1950s and 1960s, the same qualities that had once made Bicocca the showcase of Italian industrial paternalism facilitated the evolution of Bicocca’s land into a hub of radical trade unionism. During the industrial downturn of the 1970s, Pirelli reinvented Bicocca’s land as a TechnoCity (1980s) and turned it into the lever both for reclaiming the site from Pirelli’s militant workers and for saving the company from the decline that many family-owned Italian industries faced during that period. During the 1990s, after disastrous attempts to recover its global share in the tyres sector through acquisitions and mergers, Pirelli turned once again to Bicocca’s land and mobilized it as pure financial asset through a speculative real-estate enterprise for a ‘historical city in the suburbs’ that rescued the company from bankruptcy. Notably, however, Bicocca’s recent transformation as an emblematic urban project also served as the lever for morphing Pirelli from a traditional, place-loyal, family-owned tyre manufacturing company into a transnational holding company and a global player in finance capitalism and real estate. While Pirelli’s attempt to internationalize through corporate industrial strategies largely failed, the financialization of its landed assets during the 1990s achieved the company’s global repositioning, confirming Harvey’s assertion that, at the end of the day, for capitalism, ‘only the kind of land ownership that treats the land as pure financial asset will do’ (Harvey, 1982: 361).

The ‘lived’ dimension of land financialization that was exemplified here through the side-by-side reading of the histories of a company, its workers, and its land, and their relations to local government institutions, offers, we believe, a new dimension, and a new challenge, to our critical understanding of local urban regeneration practices and their role in remodelling the architecture of global economies. We maintain that the stories of post-Fordist regeneration practices that turned declining industrial sites such as London’s South Bank (Baeten, 2009; Imrie et al, 2009) Baltimore’s waterfront (Merrifield, 1993) or Copenhagen’s harbour (Desfor and Jørgensen, 2004) into trendy business, residential, or cultural hubs can – and should – be retold by bringing into focus this
‘lived’ dimension of land financialization and by shedding light on the often neglected, yet prime, role that traditional industrial elites, workers’ movements, and their struggles and alliances over land have played in turning industrial land into a financial asset, and enabling (or not, as the case may be) local industrial capital to launch itself into a new phase of global finance capitalism. Highlighting these social processes, which ultimately shaped in important ways the architecture of a now financialized global economy, asserts the central role of the mobilization of land as a financial asset in urban redevelopment practices, and (perhaps most importantly) asserts the importance of land financialization in choreographing the urban and geographical production of the global financial configuration and its associated crises dynamics. Indeed, financialization is, as Harvey’s opening quote suggests, a profoundly urban process.

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Notes

1. The term is used by Balducci (2003: 64) to describe the peculiarity of Milan’s post-Fordist planning arrangements.


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