Planning Disaster, Successful Event, and Uncertain Future: The Twin Cases of the World Expo 2015 and Innovation District in Milan

Débâcle d'urbanisme, événement de succès et future incertain: les cas jumeaux de l'Exposition universelle de 2015 et du quartier de l'innovation à Milan

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Introduction

1   The widespread aspiration of cities to become global network nodes and, therefore, to capture growth potentials (both positionally and reputationally) unfolds, among other processes, in the bidding to host mega-events.[2] However, hosting mega-events can be a gamble in some remarkable ways, given for instance, the uniqueness of the multiple challenges that such events entail for local governments,[3] as well as the multi-faceted risks that expected benefits never materialise and new conflicts arise.[4] Enthusiasm for successful bids often comes with bitter criticism by actors who fear that a planning disaster might occur. Several past examples show that failure is not an uncommon outcome, either regarding the mega-event itself or its urban legacy.[5] In recent times, concerns are growing along with the rise of environmental and social sensibility, pushing citizens in some cases to oppose bids for sporting, commercial, cultural and other mega-events,[6] which are usually accompanied by substantial urban and infrastructural redevelopment. Citizens denounce the touristification of cities as a threat to housing affordability, to public investments in local services, and to life quality.[7] Overall, the reputational advantages for host cities are increasingly harder to achieve, with repercussions affecting the image of mega-event organisers at both the local and international levels.[8] For this reason, non-governmental promoters of mega-events such as the International Olympic Committee (IOC) are incorporating

environmental sustainability, social inclusion, heritage preservation, and compliance with local planning strategies into their guidelines as requirements for bids.[9]

2 Despite criticism, cities frequently embark on the long journey from bid to delivery and legacy with confidence and disregard of risk. The competitive mechanism behind the selection of host cities drives a kind of imaginative planning by which cities either pretend to match the event's vision and values better than their competitors, or promise a strong commitment to transform accordingly.[10] Bidding for a mega-event thus stimulates and sometimes imposes a redefinition of urban agendas and the branding of new urban identities as gateways to higher or more specialised rankings. However, current economic, environmental and social trends challenge a development model based on urban spectacle and related mega-projects, urging to take into account multiple local issues besides global competition.[11]

3 This article investigates the planning and development of the exhibition area that hosted the World Expo 2015 and its post-event redevelopment as the so-called Milan Innovation District (Mind), which is still ongoing. Moreover, the article interprets these urban projects as two connected episodes within a longer-term process of the city's transformation and repositioning,[12] whose assessment should be unitary.

4 Milan submitted its candidature in 2006 under the auspices of a strong partnership among the national, regional and local governments. The chosen theme — Feeding the planet, energy for life — was crafted in a clever and timely manner. Through a diplomatic campaign, Milan gained support from many developing countries, whose delegates cast their ballots against the competitor city of Izmir in the 2008 general assembly of the BIE. However, what followed Milan's nomination may be described on several counts as a planning disaster, meaning "any planning process that is perceived by many people to have gone wrong."[13] The city, to say the least, seriously risked a revocation of the permission to host the event. Up until late 2011 — more than three years after the nomination and around four years before opening day — no planning permission had been issued for the exhibition site, and only little infrastructural work had begun to improve its accessibility. Furthermore, the statutory city plan approved in the same year by Milan Municipality showed no connection between citywide planning strategies and the mega-event, nor did the plan address the exhibition site's future, thus abdicating in favour of a planning agreement that was specific to the Expo site and its post-event transformation.

5 It was only after 2011 that preparation works began to progress frantically and, also due to controversial emergency procedures,[14] were almost completed on time. The exhibition turned out to be successful, attracting over 20 million visitors to the site, favouring the Milan Charter on food policies to be signed by over 200 cities, granting the city international prestige, catalysing other cultural and infrastructural investments, and accelerating the implementation of other urban projects. Nevertheless, after the exhibition closed its doors in October 2015, the Expo site was left in a state of abandonment and uncertainty. Two years elapsed until the multinational property company Lendlease took over the task of redeveloping this 100-hectare area as an innovation district, including leading public functions (a hospital, a scientific university campus, a centre for advanced biomedical research) and private developments (corporate headquarters, offices, retail, residential units).

6 The article contributes to this journal's special issue on failed projects by analysing a case in which failure and success intertwine in multiple ways from a spatial planning

perspective. The authors aim to verify the hypothesis that failure and success are not always mutually exclusive when assessing an urban project. This idea does not correspond to statements of partial success or 'glass-half-full'. On the contrary, it suggests that both failure and success can be predicated of the same project at different stages of its development and from plural viewpoints. This contention requires considering the Expo 2015 and Mind as Siamese twin projects, which are inseparably tied together and span over alternate periods of crisis and recovery, stagnation and acceleration, disorientation and confidence. The spatial and organisational legacy of one project conditions the other so that their development should be considered as a single uninterrupted process. Thus, the main theoretical challenge at stake is how to assess an urban project that unfolds through well-differentiated, albeit interconnected stages, instead of moving straightforward from planning to implementation and operation according to a blueprint. To address this challenge, the nexuses between earlier and later development stages must be discerned on the background of discontinuities that dominate official and media discourses. The authors argue that land-use regulation and layout design have, to a large extent, led to the transition from Expo to Mind, despite the lack of a credible legacy masterplan. Planning rules and design solutions for the exhibition site have proved to be irreversible and influential beyond the intentions of the institutional, corporate and professional stakeholders involved in the process. However, such planning rules and design solutions were developed aside from Milan's statutory plan and without the support of a vision for the metropolitan area, unlike other host cities.

7 Based on scholarly references on mega-events and urban change, as well as analyses of planning documents[15] and interviews with policy-makers,[16] the article aims to address the questions evidenced in this introduction through the following steps. Section 2 reviews the planning process and solutions that have driven the development of the Expo site and its spatial legacy, focusing on the failure due to intermediate inaction and internal strife among stakeholders, as well as on the success in putting a complex urban project back on track. In Section 3, the offstage role of land-use regulation and landscape design in driving this project is discussed on the basis of planning schemes and designers' ideas. In Section 4, the competitive and sometimes conflictual relationships between Mind and other metropolitan projects and functions are explored. In Section 5, an interpretation is proposed according to which Milan manages urban projects on a case-by-case basis through variable coalitions of public and private stakeholders. In this polyarchic system of urban governance, spatial planning is not used as a selection process based on a declared and accountable strategy but rather as a conflict mediation process.

Lights and shadows of two Siamese urban projects

8 This section provides a synthetic reconstruction and examination of different but interconnected phases of the urban transformation involving Milan's Expo area since its candidature to the 2015 World Fair through the ongoing implementation of its post-event redevelopment. Considering the alternate accelerations and decelerations of the planning and implementation process, six different phases can be recognised: three occurring before the Expo opening and the other three after the Expo closing.

9   The first phase (2006-2008) corresponded to the successful candidacy of the city when, in a context of international competition, the Expo's bidding and awarding were promoted and achieved through the support of a bipartisan coalition: from right-wing local authorities (at that time, the Milan municipality and the Lombardy regional administration) to left-wing institutions (at that time, the Milan provincial administration and the Italian Government). During this phase, the key planning document was the Bidding Dossier, including a masterplan for the exhibition site and new infrastructures connecting it to the city. The selected area was a privately-owned greenfield (around 100 hectares) located at the north-western edge of the urban core, between Milan and Rho municipality (see Fig. 7 at the end of section 4). However, no evidence is available to justify the site selection based upon comprehensive planning considerations.

10   The second phase (2008-2011) coincided with a period of economic crisis and uncertainty regarding the mega-event's governance. Arm-wrestling began between Mayor Letizia Moratti and the regional president Roberto Formigoni. On the one hand, the mayor aimed to obtain land for the Expo site through a free-of-charge lease agreement with its private owners to return as a buildable area upon termination of the event. On the other, the regional president wanted the area to be expropriated for public use and sold to private developers in the post-event era. Political and economic tensions and conflicts thus emerged, resulting in deep and long delays in both the mega-event and post-event planning and development, which were no longer possible to recover.

11   After more than three years of inaction, which can be interpreted as a planning disaster, the third phase (2011-2015) saw the implementation of necessary works. This was a period in which the accumulated delays were recovered, but which also saw growing criticism with regard to the emergency management of works. The election of the new mayor (Giuliano Pisapia, in June 2011) contributed to unlocking the political stalemate. The governance was consolidated with the creation of the Arexpo company,[17] which bought the private land with the post-event mission of reselling it to private investors. Consequently, the specific planning agreement for the Expo site was signed,[18] providing a change in land use from agricultural to non-agricultural uses and enabling the final layout design. However, the first auction for selecting a private investor for the post-event redevelopment failed, as no offers were submitted (November 2014).

12   From May to October 2015, the Expo was a surprising success for both the event and the city. On the one hand, the exhibition site opened on time and attracted more visitors (21.5 million) than expected. On the other hand, the city renovated and repositioned itself at both the local and global levels, increasing the quality of its infrastructure, public spaces and services, becoming more attractive for national and international investors and tourists, but also enlarging gaps with the rest of the country.[19] The Expo accelerated and branded an urban change process that was already ongoing. At the same time, Milan itself contributed to the event's success.[20] The traditional pluralism of the city (institutional and civil) contributed to the flourishing of new cultural initiatives,[21] and to reinvigorating a long-term tradition of hosting events.[22]

13   In the fourth phase (2015-2017), the Expo effect was obscured by difficulties encountered in planning and designing the post-event transformation of the exhibition site. Whilst the first auction for selecting a private investor failed, discussions about the necessary reorganization of the post-event governance, land ownership, planning and

design solutions, and funding programs were long delayed. These difficulties can be considered as consequences of the Expo site location in a peri-urban enclave accessible by supra-local road and rail infrastructures, though not functional to urban development.[23] The site was left in a state of semi-abandonment with most pavilions to be dismantled, the only exception being the temporary use of some spaces for the 21st exhibition of the Milan Triennale (in 2016) and music events (in summer 2016 and 2017), mainly aiming to draw attention from the media.

14   It was only during the fifth phase (2017-2019) that the post-event transformation of the Expo site was unlocked. This was also due to the national government's contribution to the reconstitution of the Arexpo company[24] and the catalysation of new interests through the selection of public functions working as drivers: the Human Technopole research centre (specialised in predictive medicine), the new Galeazzi hospital, and the new campus of the State University. As a consequence of this revision, the project is now called Milan Innovation District (Mind). The decision to further invest public funds in an area of the city where huge public investment had already been promoted[25] and in an area of the country that is privileged from an economic and social viewpoint is controversial and debated,[26] as it risks to broaden existing disparities. In any case, this choice was a kind of spark that enabled the organisation of a new international auction, leading to the selection of the multinational company Lendlease as a private partner (in 2017) for the preparation of the post-Expo masterplan and its implementation (ongoing). Accordingly, the 2011 planning agreement evolved in the 2020 planning permission.[27]

15   In the current phase (2020-2021), it is hard to predict times and outcomes for the completion of the Mind project. As the construction of the Human Technopole and Galeazzi Hospital is ongoing, the construction of private buildings is supposed to gradually start as of summer 2021, when the demolition and refurbishment of the Expo's remaining buildings and infrastructures are planned to be completed. However, the development of the new university campus is subject to revision, which should be confirmed in the next two years.

16   The development of the masterplan is continuing without repercussions from the Covid-19 pandemic, also with positive dynamics and trends of Milan's real estate market, and despite the fact that the construction phase of the private components of the project has not yet started.[28] The public-private cooperation has been, until now, quite efficient on the basis of the long-term negotiation that, in different phases from 2006 to 2017, had enabled multiple public and private actors to share their interests around this intervention.[29] The lease agreement signed by Arexpo and Lendlease, which excludes further public costs for the implementation of the private sector of the masterplan, relies on the flexibility of the land-use mix, which could favour the adjustment of the project to future demands and trends determined by oscillations of the real estate market.[30] The flexibility of the land-use mix could be an opportunity for the project's resilience to current social and economic uncertainties. However, such flexibility (and the fragmentation of the planning permission into multiple sub-units) entails the risk of postponing choices by private investors, thus reducing the capacity to control the solutions and timing of the project by the public administration.[31]

17   The turning-off of the spotlights on the area, and the multi-faceted uncertainties produced by the pandemic in terms of economic, social and cultural activities, do not allow to build previsions. However, these uncertainties enable us to reflect on the

correlations between the lights and shadows of Expo 2015 and Mind. These can be confirmed as Siamese projects according to the connections among their planning and implementation phases: from the selection of the area to the conflicts around their expropriation or lease; from the consequent delays in planning to the change of governance arrangements; up to the land use delays and design issues analysed in Section 3.

Figures 1 & 2. The Expo site in 2015, during the event celebration

Source: authors.

Figures 3 & 4. The Expo site in 2016, after the conclusion of the event

Source: authors.

The offstage role and durable legacy of land use regulation

18 After considering the planning process's lights and shadows, this section centres on the joint projects' spatial aspects to draw further attention to their connection. Discussing the design pattern is complementary to understanding which regulative and

morphological continuities have structured the exhibition site and the innovation district.

19   The area designated as the Expo site by the Bidding Dossier was enclosed within a densely built infrastructural network near the recently opened fairground complex. After the event awarding in 2008, the masterplan for the exhibition area was revised as the "planetary garden". With the help of five international architects,[32] this innovative design concept aimed to gather the rich cultural diversity of food production and preparation in a setting with very minimal built structures. Carlo Petrini, founder of the Slow Food initiative, inspired the concept of a place where agricultural and food products are associated with farmers' practices. The planetary garden would remain a legacy for the city, envisioning flexible post-event development for the west side of the area, closer to underground and rail facilities, and preserving the east side as a thematic park.[33]

20   This masterplan divided the longitudinal and irregularly shaped area by two orthogonal axes called *cardus* and *decumanus*, tellingly referring to Roman surveyors' ancient practice of measuring and dividing agricultural land. The resulting four sectors were subdivided into regular rectangular strips with a short side facing the *decumanus.* Each strip would be allocated to a participant country through a "democratic approach". Poor and wealthy countries would have the same frontage on the main axe. As the site was a flood-prone area, a surrounding canal was also designed to divert water to a waterway connecting the site to the city centre. Whilst the waterway was soon cancelled following fierce opposition by green activists, the canal was dug and served as a security moat, and excavated land was used for landscaping purposes on-site.

21   The planetary garden, echoing the concept introduced by landscape architect Gilles Clément,[34] was quickly set aside because of the organisers' pressing requests to build national pavilions instead of light temporary structures. The rationale for minimising durable infrastructures was consistent with Mayor Moratti's idea of leasing the land. Accordingly, after the mega-event, all public-funded improvements would be inevitably transferred to private landowners. Not surprisingly, soon after the regional president's rival strategy of purchasing the land prevailed, the masterplan changed again in order to allow exhibitors to build pavilions. The orthogonal axes were preserved, changing their meaning from ordering a sizeable agricultural space to facilitating land subdivision for further urban development.[35]

22   This meaningful change came about in two steps, which are worth considering. First and foremost, a 35 meter wide concrete slab was laid out below the two orthogonal axes to contain all the energy, telecommunications, and water distribution systems. This decision not only kicked-off construction work in the area and provided the basic infrastructure, but proved irreversible for future development due to the value of the equipment incorporated into the platform.[36] In 2017, when Arexpo company launched an international auction to lease the land and select a developer for the post-event redevelopment of the site, the guidelines made clear that the expected masterplan would preserve the axes together with other morphological elements.[37] The latter are the perimetral canal and the hill, as well as an old farmstead (Cascina Triulza, then transformed into Arexpo's headquarters), the Italian pavilion and the "tree of life" iconic sculpture.

23   The awarded design concept submitted by Lendlease with Studio Ratti further modifies the axes' meaning. According to the new masterplan, they are used to separate the private functions, located south of the *decumanus*, from the public functions to the north. This choice redirects the masterplan implementation from the original west-to-east toward the current north-to-south orientation. Public functions substantiate the claim of creating a hub for biological research in several respects. Potentially attracting thousands of researchers, medical staff, professors and students — with the prospect of accommodating part of them on-site —, public functions take advantage of state funds allocated to financing relocation projects. Furthermore, they increase the area's reputation as a destination for corporate companies in a country where suburban business parks are not the favoured office development model. However, the spatial pattern resulting from the orthogonal axes inherently influences the development process, not least by making the priority of the north-south orientation unclear.

24   A north-to-south development pattern is at odds with the original concept of a compact agronomical park laid out on the site's eastern and least accessible part: an idea incorporated in the area's land-use plan approved in 2011 that is still in effect. This land-use regulation, that enforces preservation of the orthogonal axes as a legacy, allows a substantial amount of development[38] and designates half of the area as green. In the Italian planning system, this kind of area land-use plan is legally binding for landowners, albeit not detailed and mostly needs implementation programmes to be operational.
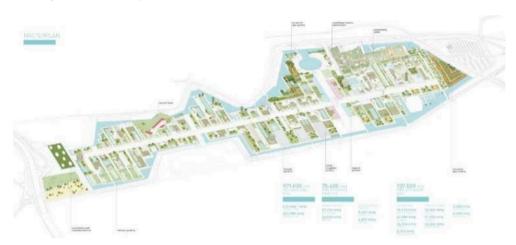
25   The masterplan compromises with land-use regulation by working at the crossroads of compliance and adaptation. The combination of high building ratios with generous public spaces is achieved by making the ground level beneath private buildings fully open to pedestrians and public use. That is the so-called "common ground" concept. Green areas are not envisioned as a unified park, although they meet the required size. Smaller and specialised gardens flank the main buildings and partly cover the orthogonal axes.

26   A functional mix aims to satisfy residents and workers' needs in a car-free environment, which would be active after working hours and during weekends. The area retains its insular character, which is determined by existing transport infrastructures (providing supra-local accessibility but separating the site from its local context) and is reinforced by the perimetral canal. A tension undeniably remains between the developer's ambition to create an almost self-sufficient centrality on the one hand, and the public stakeholders' propensity for openness and integration with nearby communities on the other.

27   This tension surfaces regarding the university campus relocation from a dense central district (Città Studi) to Mind. In the Italian experience, university life is eminently urban, and most campuses are fully integrated into the urban fabric. Besides clear advantages in clustering biomedical research centres around a project of national importance, issues of urban isolation and long commuting distance are part of the discussions in the academic community. Among other considerations, the latter issues have a bearing on the university's redefinition of its operation from sheer relocation to a more complex scientific endeavour regarding life sciences. The new campus is being imagined in close digital connection with the old one, where the departments of mathematics and information technology will continue to be based, to pursue a transdisciplinary convergence of life sciences with computational sciences.[39]

28   The location of the new campus in the north-east sector of the masterplan, in combination with the uncertainty of a future railway station to service this sector of the site, raise concerns in regards to the one-kilometre walking distance to the existing underground and railway station, located at the western end of the area.

29   The technological service platform, readily available for reuse, has made it possible to begin construction works soon after the demolition of pavilions in the north-west sector. Here, the Galeazzi hospital is expected to be operational by early 2023. Waiting for final decisions around the university campus in the north-east sector, demolition works continue in the south-west sector to prepare the land for private development. The masterplan fluctuates between prioritising public functions as anchors for private sector investment and the need to prioritise more accessible land plots.

Figure 5. The masterplan for the Expo site, called "planetary garden", proposed by the Architectural Advisory Board for the Expo 2015

Source: Stefano Boeri with Herzog & de Meuron, Ricky Burdett – London School of Economics, William McDonough + Partners, 2009.

Figure 6. The definitive masterplan for the post-event redevelopment of the Expo site, named Mind

A – GALEAZZI HOSPITAL

B – HUMAN TECHNOPOLE

C – UNIVERSITY OF MILAN

Source: Arexpo in cooperation with Comune di Milano, Lendlease, Systematica, and Carlo Ratti Associati, 2020[40].

Competitive relationships with other projects and centralities

30   In order to complete the analysis of the outcomes and impacts so far produced by Expo 2015 and Mind, this section focuses on the relationships between these two Siamese projects and the metropolitan area. These relationships are often competitive and sometimes conflictual, though they could also generate synergies.

31   Milan's post-Fordist transition strongly relies on the productive background of a multi-scalar territorial context, extending from the urban core to the Lombardy region, up to the North-Italy city-region.[41] Within the current pattern of urban change, that gradually started in 1980s-1990s and accelerated in 2000s-2010s, two consolidated vocations have high development potential: the ecosystem integrating art, culture and creative production, and that of life sciences.[42] These are the ecosystems that Expo 2015 and Mind refer to, confirming them as two pieces of Milan's broader redevelopment process.

32   In variation to the urban plan approved by Milan municipality in 1980 (Piano Regolatore Generale), and aside from small but widespread regeneration and gentrification processes, large brownfields were transformed, replacing mono-functional industrial enclaves with mixed-use projects integrating private and public spaces.[43] The urban plans approved by Milan municipality in 2012 and in 2019 (Piano di Governo del Territorio) opened a new course, characterised by the reduction of

building rights, the increase of social housing, and a new focus on the urban quality of neighbourhoods. This new course has been framed by policies aimed at economic innovation, social inclusion, and regeneration of peripheral areas.[44] Nonetheless, the 2012 and 2019 urban plans confirmed large redevelopment projects such as seven former railyards.[45] In addition, large transformation areas are under implementation, at different stages, in the metropolitan area: among others, the former Alfa Romeo car plant in Arese,[46] and the former Falck steel-mill in Sesto San Giovanni.[47]

33   The overabundance of spaces to transform could be a critical issue for the Milan metropolitan area. The competitive balance between functions to relocate and areas to re-functionalise might face crises, thus affecting the post-Expo redevelopment project. The increase in functional mixing has been leading to the development of new centralities and geographies, mainly connected to the growth of the knowledge economy: that is, cultural facilities, headquarters of institutions and companies, university campuses, and hospitals.[48] However, large sectors of several projects have not yet been completed for multiple reasons (accessibility of the area, cost of land reclaiming, bankruptcy of private investors, and decline of 'public anchors').[49] In other cases, also due to the size of the areas, the implementation has been slowed down or postponed because of the economic conjuncture determined by the Covid-19 pandemic.

34   With potential risks of real estate market saturation, both at the local and national levels, such alternative 'scenarios' might occur during the implementation of Mind. Moreover, this uncertain context could be exacerbated by the recent shift in political and media attention to other projects, such as the redevelopment of the former railyards and the 2026 Winter Olympics. However, Milan so far remains attractive for international investors. At the same time, in comparison with other projects, the development stage of the post-Expo innovation district is more advanced, and its functional program and urban design solutions are more innovative, despite the lack of public transport infrastructures to access the east side of the area[50] and the worries around the private component of the project (due to the conjuncture).[51]
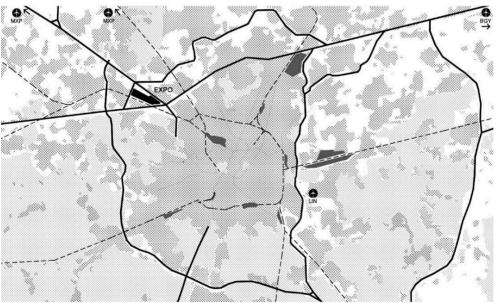
35   Besides the catalyst functions provided by the three 'public anchors', Mind benefits from previous public investments, which have upgraded transport and technology infrastructures of the area on the occasion of Expo 2015.[52] Beyond the rhetoric around scientific and technological parks, the concept of an innovation ecosystem that inspired the masterplan unfolds at multiple levels (e.g. functional mix, building technology and mobility). The Fondazione Triulza (that is placed in the homonymous farmhouse in the former exhibition site and is one of the main legacies of the World Fair) represents another important lever, playing the role of a hub for local associations.[53]

36   Mind could produce positive effects on the socio-economic and spatial dynamics of the contiguous municipal area of Rho. The innovation district could be a driver for the redevelopment of surrounding industrial areas characterised by low quality and vacant spaces, contributing to inverting current trends of recentralization towards Milan's urban core.[54] However, the decentralisation of urban functions risks reproducing conflicts with central and consolidated areas of the city, which gradually lose essential activities for their local economies and communities. As it has already occurred with other transformation areas, this is the risk involving the surroundings of the existing Galeazzi Hospital and Città Studi campus of the State University.

37   Following protests by local and scientific communities around the first proposal for the relocation of the State University to the innovation district, the new proposal for a multipolar expansion of the university is ambitious. In parallel to the new campus, it aims to redevelop the historical campus by partly relocating its humanities' departments and schools, expanding its student housing, and promoting a new polarity for digital biomedical research. To support this polarity, the State University aims to attract the interests of public institutions and pharmaceutical companies and to consolidate the cluster with existing hospitals, Besta and Istituto dei Tumori, which are located in the area. Besides the uncertainties due to the still-lacking financial support for this operation,[55] the challenge is twofold: the coordination between Mind and Città Studi (placed in opposite sectors of the urban area), as well as with the large ongoing project of the "City of Health" in the Falck brownfield, where the two hospitals mentioned are planned to be relocated.

38   The complexity of involved actors and interests that require a long time for the consolidation and development of this scenario highlights some critical issues of Milan's Expo and post-Expo planning process. The mega-event has been a driver for the acceleration of urban change. It has provided the city and the whole country with a chance to reflect upon its infrastructure, facilities and spaces in the frame of the knowledge economy. The selection of the Expo site without the support of wider-scale and longer-term planning strategies has generated the potential for further redevelopment and repositioning of the city, but also extraordinary costs, uncertainties of solutions, and an unresolved coexistence with other major projects and centralities: not only at the city level but also at the metropolitan level.

Figure 7. The location of the Expo site in relation to the main infrastructures and re-development areas of Milan urban region

Source: map elaborated by Fabio Lepratto[56]

Milan as a metropolis by project

39   The analyses of the previous sections support more general reflections on the project's governance, and on various criteria to assess planning failures and successes.

40   Despite contrary appearances, key planning rules and design decisions made in 2011 regarding the post-event legacy currently shape the innovation district. Land-use regulation and design solutions have structured the development process through repeated waves of failure, success and uncertainty by articulating invariable elements with functional flexibility. Based on land-use control and primary urbanisation works for the site, "good old" urban planning rules are the driving force behind a rutilant masterplan that was presented to the city in the guise of three-dimensional renderings. However, the project runs on the track of planning rules for the area, approved before the mega-event took place and specifically for it, outside the framework of citywide planning strategies and without a vision for the metropolitan area.

41   As for other Milanese urban projects,[57] the Expo/Mind transformation can be considered a result of the strategic interaction among institutional, economic, and social stakeholders who cannot agree on a unitary planning strategy for the metropolitan area. Expo/Mind confirms Milan's tendency to refrain from unequivocal support for comprehensive planning frameworks in selecting urban projects, being a city with a pluralist power structure embedded in its past and present history.[58]

42   Besides statutory planning, Milan's growth can be considered as the result of a competitive contest among coalitions of actors promoting their sponsored projects in a mutual process of partisan adjustment.[59] This kind of urban governance does not privilege a single unitary vision but moves in multiple directions simultaneously, according to the opportunities provided by projects. It builds variable coalitions and strategies commensurate with each transformation's peculiarity, mixing up the coalitions of actors and the aims of projects based on a broad spectrum of local powers, with a cautious opening towards outsiders.[60]

43   As a city with robust institutional and civil pluralism, Milan has been managing for decades a case-by-case pattern of post-industrial transformation through variable coalitions of public and private stakeholders. Expo/Mind corroborates the traditional polyarchy and character of a "metropolis by project", where urban planning does not aim to select projects on the basis of wider strategies but to provide mediation to conflicts. The assessment of a project's performance shall consider this aspect.

44   On the backdrop of a lacking metropolitan vision, delay in planning the future of Expo did not depend on the absence of urban planning rules for the site but on the problematic aggregation of a coalition capable of mobilising enough resources, consensus and attention. The risk inherent in this mode of governance increases when the blanket becomes short, i.e. when a project feeds on resources that other parts of the city claim for themselves. This is the case of the scientific faculties currently located in Città Studi, whose transfer causes the academic community and the neighbourhood's population to engage in discussion. The most probable solution to this problem is the aggregation of a further coalition, which puts an end to the conflict by placating the concerns where they are most acute and imagining a new piece of the urban mosaic with its rules, projects, and local strategies.

45 The analysis of the Expo/Mind process, projects, and territorial context provides additional insights regarding coordination. Particularly in Milan, any project analysis should include a survey and interpretation of the competitive territorial context of the city and its metropolitan area: not only to determine the property market dynamics but also to explain the interrelated domino effects of a project on other parts of the city, existing or new. Furthermore, urban dynamics and spaces should be considered at multiple scales: from single projects to connections with other interventions and effects on other districts.

46 A systemic vision by the public partners of Arexpo could frame, support, consolidate and spatialise the development trajectories of a knowledge economy at multiple levels (from Milan North-West axis to the urban region and the whole country): for instance, incentivising more sustainable planning and design solutions, as well as coordinating infrastructural connections and developing synergies with other projects, centralities and functions.[61] Despite specific lights and shadows, this was the case of Barcelona and London with the 1992 and 2012 Olympics respectively, of Turin with the 2006 Winter Olympics, as well as of Lisbon and Zaragoza with the 1998 and 2008 Expo respectively.[62] In these well-known cases, the mega-events and the transformation of hosting metropolitan areas have been addressed as interrelated planning processes.

Conclusions

47 Unlike other international case studies, where mega-events contributed to accelerating the implementation of metropolitan visions planned long before by host cities, Expo/Mind have sped up the urban change process of a "metropolis by project", emphasising the strengths as well as the weaknesses of this model. The contradictions are multiple. The most innovative planning and design solutions for the event were not developed (e.g. the planetary garden) or distorted (e.g. the orthogonal axes). The potentialities of the public anchors and the common ground for the post-event project are in contrast with the enclave effect of the location, the high building density, and the implementation uncertainties. The lack of a long-term vision harms the improvement of transport infrastructures, the acceleration of other projects in the metropolitan area, and the city's national and international repositioning boosted by the World Fair.

48 Expo 2015 was a successful event with an uncertain future as an innovation district on the background of an initial planning disaster. Critical outcomes unfold in the competition between Expo/Mind and other large projects (often in crisis) in the urban and metropolitan area. Critical discussions arise in neighbourhoods where activities targeted for relocation are sited and inside the scientific community on the role of universities as urban developers.

49 The alternation between success and setback draws readers to reflect on potential approaches to deal with urban projects that incorporate failure dynamics into multiple stages of their development and, at the same time, keep going. Failure and success are not mutually exclusive categories in the analysis of projects developed under conditions of strategic uncertainty regarding duration, stakeholders, and competitive environments.

50 In the specific context of a pluralist metropolis, the article confirms the need for further reflection on the potential role of planning strategies, tools and mechanisms at

the metropolitan scale, considering competition and cooperation between large projects, and among large projects and existing districts. This reflection is urgent in a context of severe sanitary and socio-economic uncertainties, where tensions between centralisation and decentralisation processes, in-presence and on-line working and teaching, and changes of international tourism routes[63] inevitably affect the implementation of large projects. On the other hand, the article calls for more research on design solutions that articulate structural stability with functional flexibility in dealing with the legacy of mega-events in the post-Fordist urban transition.

BIBLIOGRAPHY

Andrea Arcidiacono, Laura Pogliani L. (a cura di), *Milano al futuro. Riforma o crisi del Governo Urbano*, Milano, Et Al, 2011.

Arexpo, "Linee guida del piano strategico di sviluppo e valorizzazione di Arexpo", Milano, Arexpo, 2016, [on line] [https://www.arexpo.it/wp-content/uploads/2021/01/2016-12-12-arexpoguidelines-ita.pdf], accessed on 04.03.2021.

Arexpo in cooperation with Comune di Milano, Lendlease, Systematica, and Carlo Ratti Associati, "Mind – Progetto di rigenerazione urbana per uno sviluppo urbano sostenibile. Programma Integrato di Intervento – Proposta definitiva", Milano, Arexpo, 2020, [on line] [https://www.arexpo.it/mind/piano-integrato-di-intervento-2020/], accessed on 30.07.2021.

Simonetta Armondi and Stefano Di Vita (eds.), *Milan: Productions, Spatial Patterns and Urban Change*, London/New York, Routledge, 2018.

Alessandro Balducci, "I territori fragili di fronte al Covid", *Scienze del Territorio*, special issue "Abitare il territorio al tempo del covid", Firenze, Firenze University Press, 2020, pp. 169-176.

Matteo Basso, *Grandi eventi e politiche urbane*, Milano, Guerini e Associati, 2017.

Stefano Boeri, Michele Brunello and Sara Pellegrini (a cura di), *Biomilano. Glossario di idee per una metropoli della biodiversità*, Mantova, Corraini, 2011.

Matteo Bolocan Goldstein, "Post-Geographical Scenarios", *Urbanistica*, 155, Roma, INU Edizioni, 2015, pp. 118-122.

Matteo Bolocan Goldstein and Bertrando Bonfantini (eds.), *Milano incompiuta: intepretazioni urbanistiche del mutamento*, Milano, Franco Angeli, 2007.

Matteo Bolocan Goldstein, Silvia Botti and Gabriele Pasqui (eds.), *Nord-Ovest Milano: uno studio geografico operativo*, Milano, Electa, 2011.

Anne-Marie Broudehoux and Fernanda Sánchez, "The Politics of Mega-Event Planning in Rio de Janeiro: Contesting the Olympic City of Exception", in Valerie Viehoff and Gavin Poynter (eds.), *Mega-Event Cities: Urban Legacies of Global Sport Events*, Farnham and Burlington, Ashgate, 2015.

Matthew J. Burbank, Greg Andranovich and Charles H. Heying, "Mega-Events, Urban Development, and Public Policy", *Review of Policy Research*, 19(3), Hoboken, John Wiley & Sons, 2002, pp. 179-202.

Simone Busetti and Bruno Dente, *EXPOst: le conseguenze di un grande evento*, Bologna, Il Mulino, 2018.

Gilles Clément, Claude Eveno, *Le jardin planétaire*, La Tour-d'Aigues, Éditions de l'Aube, 1997.

Comune di Milano, Assolombarda, *Osservatorio Milano*, Milano, Comune di Milano, Assolombarda, 2019, [on line] [https://www.osservatoriomilanoscoreboard.it], accessed on 08.02.2021.

Francesca Coppola, Francesco Daveri, Valeria Negri and Stefania Saini, "Revamping growth in an advanced country: the case of Milano", *Background working paper for the World Development Report 2019 – The Changing Nature of Work*, 2018, [on line] [https://www.assolombarda.it/centro-studi/the-case-of-milano-report-completo], last access 22.02.2021.

Marie Delaplace and Pierre-Olaf Shut (eds.), *Hosting the Olympic Games: Uncertainty, Debates and Controversy*, London/New York, Routledge, 2019.

Stefano Di Vita and Corinna Morandi, *Mega-Events and Legacies in Post-Metropolitan Spaces. Expos and Urban Agendas*, Basingstoke, Palgrave Macmillan, 2018.

Stefano Di Vita and Davide Ponzini, "Milan Expo 2015. The Spread of Cultural Events in Historic Places and Beyond", in Davide Ponzini *et al.* (eds.), *Mega-Events and Heritage: The Experience of Five European Cities*, Krakow, International Cultural Centre, 2020, pp. 58-101.

Stefano Di Vita and Mark Wilson (eds.), *Downsizing Spectacle: Planning and Managing Smaller (Urban) Events*, London/New York, Routledge, 2021.

Luca Gaeta, Francesco Curci, "I giochi olimpici di Londra e la rigenerazione dell'East End", *Territorio*, 77, Milano, Franco Angeli, 2016, pp. 110-117.

Luca Gaeta, "Il futuro di Expo 2015 in una metropoli a progetto", *Quaderni di U3*, 17, Macerata, Quodlibet, 2019, pp. 41-49.

Christopher Gaffney, "Between Discourse and Reality: The Un-sustainability of Mega-Event Planning", *Sustainability*, 5, Basel, Multidisciplinary Digital Publishing Institute, 2013, pp. 3926-3940.

Paolo Galuzzi, "Un progetto di rigenerazione per la legacy materiale di Expo 2015", *Territorio*, 77, Milano, Franco Angeli, 2016, pp. 80-86.

Richard Gruneau and John Horne (eds.), *Mega-Events and Globalization. Capital and Spectacle in a Changing World Order*, London/New York, Routledge, 2016.

Peter Hall, *Great Planning Disasters*, London, Weidenfeld and Nicholson, 1980.

Graeme Hayes and John Karamichas (eds.), *Olympic Games, Mega-Events and Civil Societies.* Basingstoke, Palgrave MacMillan, 2011.

Harry H. Hiller, *Host Cities and the Olympics: An Interactionist Approach*, London/New York, Routledge, 2012.

Zachary M. Jones and Davide Ponzini, "Mega-events and the Preservation of Urban Heritage: Literature Gaps, Potential Overlaps, and a Call for Further Research", *Journal of Planning Literature*, 33(4), Columbus, Ohio State University & SAGE Publications, 2018, pp. 433-450.

Eva Kassens-Noor, *Los Angeles and the Summer Olympic Games: Planning Legacies*, Springer, Cham, 2020.

John Lauermann, "The Urban Politics of Mega-Events. *Environment and Society*, 10(1), New York/Oxford, Berghahn Books, 2019, pp. 48-62.

Charles E. Lindblom, *The Intelligence of Democracy: Decision Making Through Mutual Adjustment*, New York, The Free Press, 1965.

Andrey Makarychev and Alexandra Yatsyk (eds.), *Mega Events in Post-Soviet Eurasia: Shifting Borderlines of Inclusion and Exclusion*, Basingstoke, Palgrave MacMillan, 2016.

Luigi Mazza, "Milano", in Elio Piroddi, Antonio Cappuccitti (a cura di), *Il Nuovo Manuale di Urbanistica*, Vol. 3, Roma, Mancosu, 2009, pp. 24-45.

Martin Müller, "The Mega-Event Syndrome: Why So Much Goes Wrong in Mega-Event Planning and What To Do About It", *Journal of the American Planning Association*, 81(1), London, Taylor and Francis, 2015, pp. 6-17.

Martin Müller and Christopher Gaffney, "Comparing the Urban Impacts of the FIFA World Cup and Olympic Games From 2010 to 2016", *Journal of Sport and Social Issues*, 42(4), Thousand Oaks, SAGE Publications, 2018, pp. 247-269.

Francesc Muñoz, "Urbanalisation and City Mega-Events. From 'Copy & Paste' Urbanism to Urban Creativity", in Valerie Viehoff and Gavin Poynter (eds.), *Mega-event Cities: Urban Legacies of Global Sport Events*, Farnham/Burlington, Ashgate.

Gabriele Pasqui, "Expo 2015 and Milan: Intertwined Stories", *Urbanistica*, 155, Roma, INU Edizioni, 2015, pp. 106-109.

Gabriele Pasqui, *Raccontare Milano: politiche, progetti, immaginari*, Milano, Franco Angeli, 2018.

Senato della Repubblica Italiana, *Legislatura 17 Atto di Sindacato Ispettivo n° 3-02837*, Roma, Senato della Repubblica Italiana, [on line] [http://www.senato.it/japp/bgt/showdoc/showText?tipodoc=Sindisp&leg=17&id=973061], accessed on 22/02/2021.

Martin Schnitzer and Lukas Haizinger, "Does the Olympic Agenda 2020 Have the Power to Create a New Olympic Heritage? An Analysis for the 2026 Winter Olympic Games Bid", *Sustainability*, 11(2), Basel, Multidisciplinary Digital Publishing Institute, 2019, pp. 1-21.

John R. Short, "Globalization, Cities and the Summer Olympics", *City: Analysis of Urban Trends, Culture, Theory, Policy, Action*, 12(3), London, Taylor and Francis, 2008, pp. 321-340.

Carlos Vainer, "Mega-Events and the City of Exception: Theoretical Explorations of the Brazilian Experience", in Richard Gruneau and John Horne (eds.), *Mega-Events and Globalization. Capital and Spectacle in a Changing World Order*, London/New York, Routledge, 2016.

NOTES

1. The contents of the article are totally shared by the two authors. However, Luca Gaeta is author of Sections 1 and 3; Stefano Di Vita is author of Sections 2 and 4.
2. John R. Short, "Globalization, Cities and the Summer Olympics", *City: Analysis of Urban Trends, Culture, Theory, Policy, Action*, 12(3), London, Taylor and Francis, 2008, pp. 321-340. Richard Gruneau and John Horne (eds.), *Mega-Events and Globalization. Capital and Spectacle in a Changing World Order*, London/New York, Routledge, 2016.
3. Matthew J. Burbank, Greg Andranovich and Charles H. Heying, "Mega-Events, Urban Development, and Public Policy", *Review of Policy Research*, 19(3), Hoboken, John Wiley & Sons, 2002, pp. 179-202. Martin Müller, "The Mega-Event Syndrome: Why So Much Goes Wrong in Mega-Event Planning and What To Do About It", *Journal of the American Planning Association*, 81(1), London, Taylor and Francis, 2015, pp. 6-17.

4. Marie Delaplace and Pierre-Olaf Shut (eds.), *Hosting the Olympic Games: Uncertainty, Debates and Controversy*, London/New York, Routledge, 2019.

5. Christopher Gaffney, "Between Discourse and Reality: The Un-sustainability of Mega-Event Planning", *Sustainability*, 5, Basel, Multidisciplinary Digital Publishing Institute, 2013, pp. 3926-3940. Eva Kassens-Noor, *Los Angeles and the Summer Olympic Games: Planning Legacies*, Springer, Cham, 2020.

6. Anne-Marie Broudehoux and Fernanda Sánchez, "The Politics of Mega-Event Planning in Rio de Janeiro: Contesting the Olympic City of Exception", in Valerie Viehoff and Gavin Poynter (eds.), *Mega-Event Cities: Urban Legacies of Global Sport Events*, Farnham and Burlington, Ashgate, 2015. Andrey Makarychev and Alexandra Yatsyk (eds.), *Mega Events in Post-Soviet Eurasia: Shifting Borderlines of Inclusion and Exclusion*, Basingstoke, Palgrave MacMillan, 2016.

7. Graeme Hayes and John Karamichas (eds.), *Olympic Games, Mega-Events and Civil Societies.* Basingstoke, Palgrave MacMillan, 2011. Harry H. Hiller, *Host Cities and the Olympics: An Interactionist Approach*, London/New York, Routledge, 2012.

8. Zachary M. Jones and Davide Ponzini, "Mega-events and the Preservation of Urban Heritage: Literature Gaps, Potential Overlaps, and a Call for Further Research", *Journal of Planning Literature*, 33(4), Columbus, Ohio State University & SAGE Publications, 2018, pp. 433-450. Stefano Di Vita and Mark Wilson (eds.), *Downsizing Spectacle: Planning and Managing Smaller (Urban) Events*, London/New York, Routledge, 2021.

9. Martin Schnitzer and Lukas Haizinger, "Does the Olympic Agenda 2020 Have the Power to Create a New Olympic Heritage? An Analysis for the 2026 Winter Olympic Games Bid", *Sustainability,* 11(2), Basel, Multidisciplinary Digital Publishing Institute, 2019, pp. 1-21.

10. John Lauermann, "The Urban Politics of Mega-Events. *Environment and Society*, 10(1), New York/Oxford, Berghahn Books, 2019, pp. 48-62. Martin Müller and Christopher Gaffney, "Comparing the Urban Impacts of the FIFA World Cup and Olympic Games From 2010 to 2016", *Journal of Sport and Social Issues*, 42(4), Thousand Oaks, SAGE Publications, 2018, pp. 247-269.

11. Francesc Muñoz, "Urbanalisation and City Mega-Events. From 'Copy & Paste' Urbanism to Urban Creativity", in Valerie Viehoff and Gavin Poynter (eds.), *Mega-event Cities: Urban Legacies of Global Sport Events*, Farnham/Burlington, Ashgate, 2015. Carlos Vainer, "Mega-Events and the City of Exception: Theoretical Explorations of the Brazilian Experience", in Richard Gruneau and John Horne (eds.), *Mega-Events and Globalization. Capital and Spectacle in a Changing World Order*, London/New York, Routledge, 2016.

12. Stefano Di Vita and Corinna Morandi, *Mega-Events and Legacies in Post-Metropolitan Spaces. Expos and Urban Agendas*, Basingstoke, Palgrave Macmillan, 2018.

13. Peter Hall, *Great Planning Disasters*, London, Weidenfeld and Nicholson, 1980.

14. Matteo Basso, *Grandi eventi e politiche urbane*, Milano, Guerini e Associati, 2017.

15. The urban plans (Piano di Governo del Territorio) approved by Milan Municipality in 2012 and 2019; the strategic plans (Piano Strategico Metropolitano) approved by Milan Metropolitan City in 2016 and 2019; the Bidding Dossier submitted by Expo 2015 committee in 2007; the masterplans approved by Expo 2015 company in 2009 and 2010; the planning agreement for the Expo 2015 area (Accordo di Programma) signed by involved institutions in 2011; the Guidelines for the post-event redevelopment of the site promoted by Arexpo company in 2016; the masterplans for the Milan Innovation District promoted by Lendlease company in 2017 and 2019; the related planning permission (Programma Integrato di Intervento) agreed with local institutions in 2020.

16. In chronological order (January/February 2021), the Deputy Mayor for Urban Planning of Rho Municipality, Edoardo Marini; the President of Arexpo company, Prof. Giovanni Azzone; the Head of Continental Europe for the multinational property company Lendlease, Andrea Ruckstuhl; the Director of the Urban Planning Unit of Milan Municipality, Arch. Giancarlo Tancredi; the delegate of the State University of Milan's Rector for the new university campus within the Mind project,

Prof. Adriana Maggi; the coordinator of the Architectural Advisory Board for the Expo 2015, Prof. Stefano Boeri, with Maria Chiara Pastore (Politecnico di Milano).

17. In 2011, Arexpo was founded by the Lombardy regional government (34,67%), the Milan Municipality (34,67%), the Milan Fair Trade Foundation (27,66%), the former Milan Provincial Administration (2%), and the Rho Municipality (1%).

18. In 2011, the Accordo di Programma for the Expo 2015 was signed by the Milan Municipal Administration, Rho Municipal Administration, Milan Provincial Administration, Lombardy Regional Government, and Poste Italiane Spa.

19. From 2008 to 2017, the Milan's GDP grew +3.4%, in contrast with Lombardy (-1.0%) and Italy (-4.2%) (Francesca Coppola, Francesco Daveri, Valeria Negri and Stefania Saini, "Revamping growth in an advanced country: the case of Milano", *Background working paper for the World Development Report 2019 – The Changing Nature of Work*, 2018, [on line] [https://www.assolombarda.it/centro-studi/the-case-of-milano-report-completo], last access 22.02.2021); from 2014 to 2018, Milan's GDP grew +9.7%, more than double than all of Italy (+4.6%) (Comune di Milano, Assolombarda, *Osservatorio Milano*, Milano, Comune di Milano, Assolombarda, 2019, [on line] [https://www.osservatoriomilanoscoreboard.it], accessed on 08.02.2021). The city hosts 4,600 of the 14,000 international companies based in Italy, and captures 34.2% of the international investments in the country, leading as its main gateway city; according to the Rothshild Bank's estimates before the Covid-19 pandemic, the investments in the real estate market were around 5 billion euro during the period 2019-2021 (*Ibid.*). Tourist arrivals grew from 3.4 million in 2008, to 5.3 million in 2015, and 5.7 million in 2017 (Stefano Di Vita and Davide Ponzini, "Milan Expo 2015. The Spread of Cultural Events in Historic Places and Beyond", in Davide Ponzini *et al.* (eds.), *Mega-Events and Heritage: The Experience of Five European Cities*, Krakow, International Cultural Centre, 2020, pp. 58-101).

20. Matteo Bolocan Goldstein, "Post-Geographical Scenarios", *Urbanistica*, 155, Roma, INU Edizioni, 2015, pp. 118-122. Gabriele Pasqui, "Expo 2015 and Milan: Intertwined Stories", *Urbanistica*, 155, Roma, INU Edizioni, 2015, pp. 106-109.

21. Simone Busetti and Bruno Dente, *EXPOst: le conseguenze di un grande evento*, Bologna, Il Mulino, 2018.

22. For example, in 2015, the ExpoinCittà side events coordinated more than 46,000 initiatives in more than 1,000 spaces, and attracted 11 million visitors (Stefano Di Vita and Davide Ponzini, 2020, op. cit.).

23. Paolo Galuzzi, "Un progetto di rigenerazione per la legacy materiale di Expo 2015", *Territorio*, 77, Milano, Franco Angeli, 2016, pp. 80-86.

24. In 2016, the new Arexpo company was formed by the Ministry of Economy and Finances of the Italian Government (40%), along with Lombardy regional government (about 25%), Milan Municipality (about 25%), Milan Fair Trade Foundation (about 10%) and, with minor quotas, Milan Metropolitan City and Rho Municipality.

25. The Expo cost around 14.8 billion euro of mostly public funds. In 2015, the national Government decided to invest an additional 1.5 billion euro in the post-Expo redevelopment (150 million euro for 10 years).

26. For instance, the role of the Italian Institute of Technology in the Human Technopole was critically debated (Senato della Repubblica Italiana, *Legislatura 17 Atto di Sindacato Ispettivo n° 3-02837*, Roma, Senato della Repubblica Italiana, [on line] [http://www.senato.it/japp/bgt/showdoc/showText?tipodoc=Sindisp&leg=17&id=973061], accessed on 22.02.2021).

27. In February 2020, the Programma Integrato di Intervento was signed by Arexpo, Milan Municipality, Rho Municipality, Lombardy Region, and the Mind private partners.

28. According to the Deputy Mayor for Urban Planning of the Municipality of Rho, and the director of the Urban Planning Unit at the Municipality of Milan.

29. According to the Head of Continental Europe for Lendlease.

30. According to the President of Arexpo.

31. According to the Director of Milan Municipality's Urban Planning Unit.

32. The Architectural Advisory Board for the Expo 2015, comprised of Stefano Boeri, Ricky Burdett, Joan Busquets, Jacques Herzog and William McDonough.

33. Stefano Boeri, Michele Brunello and Sara Pellegrini (a cura di), *Biomilano. Glossario di idee per una metropoli della biodiversità*, Mantova, Corraini, 2011.

34. Gilles Clément, Claude Eveno, *Le Jardin planétaire*, La Tour-d'Aigues, Éditions de l'Aube, 1997.

35. According to the conversation with Prof. Stefano Boeri and Maria Chiara Pastore.

36. In 2011, the auction base for the contract of the technological platform was 272 million euros.

37. Arexpo, "Linee guida del piano strategico di sviluppo e valorizzazione di Arexpo", Milano, Arexpo, 2016, [on line] [https://www.arexpo.it/wp-content/uploads/2021/01/2016-12-12-arexpoguidelines-ita.pdf], accessed on 04.03.2021.

38. The masterplan developed by Lendlease plans a total gross floor area of 475,000 sqm for private development, including offices, houses, retail, hotels and productive activities (but excluding 30,000 sqm gross floor area for student housing). The amount of office space (305,000 sqm) risks to be disproportionate in comparison to other functions. The urban density is high, if further 35,000 sqm gross floor area for Human Technopole, 95,000 sqm gross floor area for Galeazzi Hospital, and 187,000 sqm gross floor area for State University campus are taken into account.

39. According to the delegate of the State University of Milan's Rector.

40. Arexpo in cooperation with Comune di Milano, Lendlease, Systematica, and Carlo Ratti Associati, "Mind – Progetto di rigenerazione urbana per uno sviluppo urbano sostenibile. Programma Integrato di Intervento – Proposta definitiva", Milano, Arexpo, 2020, [on line] [https://www.arexpo.it/mind/piano-integrato-di-intervento-2020/], accessed on 30.07.2021.

41. Gabriele Pasqui, *Raccontare Milano: politiche, progetti, immaginari*, Milano, Franco Angeli, 2018.

42. Comune di Milano, Assolombarda, 2019, *op. cit.*

43. Considering only the biggest projects, more than a total area of 5,700,000 sqm has been involved, and more than 3,200,000 sqm gross floor area has been planned (Matteo Bolocan Goldstein and Bertrando Bonfantini (eds.), *Milano incompiuta: intepretazioni urbanistiche del mutamento*, Milano, Franco Angeli, 2007. Andrea Arcidiacono and Laura Pogliani (a cura di), *Milano al futuro. Riforma o crisi del Governo Urbano*, Milano, Et al. Edizioni, 2011).

44. Gabriele Pasqui, 2018, *op. cit.*

45. Total amount of 1,037,000 sqm total area, and 675,000 sqm gross floor area.

46. Total amount of 1,773,000 sqm total area, and 656,000 sqm gross floor area (Matteo Bolocan Goldstein, Silvia Botti and Gabriele Pasqui (eds.), *Nord-Ovest Milano: uno studio geografico operativo*, Milano, Electa, 2011).

47. Total amount of 1,400,000 sqm total area, and 1,000,000 sqm gross floor area (*Ibid.*).

48. Simonetta Armondi and Stefano Di Vita (eds.), *Milan: Productions, Spatial Patterns and Urban Change*, London/New York, Routledge, 2018.

49. Matteo Bolocan Goldstein and Bertrando Bonfantini, 2007, *op. cit.*, Andrea Arcidiacono and Laura Pogliani , 2011, *op. cit.*

50. See Section 3.

51. According to the Director of Milan Municipality's Urban Planning Unit.

52. According to the Head of Continental Europe for Lendlease.

53. According to the President of Arexpo.

54. According to the Rho Municipality's Deputy Mayor for Urban Planning.

55. A crucial problem is that of the 173 million euros required to finance the shift from relocation to multi-polar expansion of the University (according to the delegate of the State University of Milan's Rector).

56. In Stefano Di Vita and Corinna Morandi, 2018, *op. cit.*

57. Matteo Bolocan Goldstein and Bertrando Bonfantini (eds.), 2007, *op. cit.*

58. Luigi Mazza, "Milano", in Elio Piroddi, Antonio Cappuccitti (a cura di), *Il Nuovo Manuale di Urbanistica*, Vol. 3, Roma, Mancosu, 2009, pp. 24-45.

59. Charles E. Lindblom, *The Intelligence of Democracy: Decision Making Through Mutual Adjustment*, New York, The Free Press, 1965.

60. Luca Gaeta, "Il futuro di Expo 2015 in una metropoli a progetto", *Quaderni di U3*, 17, Macerata, Quodlibet, 2019, pp. 41-49.

61. According to the managers of the Arexpo and Lendlease companies.

62. Luca Gaeta, Francesco Curci, "I giochi olimpici di Londra e la rigenerazione dell'East End", *Territorio*, 77, Milano, Franco Angeli, 2016, pp. 110-117. Di Vita Stefano and Corinna Morandi, 2018, *op. cit.*

63. Alessandro Balducci, "I territori fragili di fronte al Covid", *Scienze del Territorio*, special issue "Abitare il territorio al tempo del covid", Firenze, Firenze University Press, 2020, pp. 169-176.

ABSTRACTS

More than five years after the closing of the Milan 2015 World Fair, this article examines the two projects for the Expo site and its post-event redevelopment into an innovation district. The article interprets these projects as two connected episodes within a long-term process of urban transformation and repositioning. Accordingly, their failure and success need to be measured against the backdrop of alternate periods of action and inaction. Spatial planning has determined the elements common to both projects, although apart from planning strategies for the metropolitan area. This contradiction did not prevent the development of potential; however, it has accentuated criticalities and uncertainties, which call for reflection in urban planning studies.

Plus de cinq ans après la fermeture de l'Exposition Universelle de Milan 2015, cet article examine les deux projets pour le site de l'Expo et sa transformation post-événement en quartier de l'innovation. L'article interprète ces projets comme deux épisodes connectés dans un processus à plus long terme de transformation et de repositionnement urbain. En conséquence, l'échec et le succès doivent être mesurés dans le contexte de périodes alternées d'action et d'inaction. Des règles d'urbanisme ont bien déterminé les éléments communs aux deux projets, quoique ces derniers ne soient pas encadrés dans des stratégies d'aménagement métropolitaines. Cette contradiction n'a pas empêché le développement de potentiels. Cependant, elle a amplifié des criticités et des incertitudes qui exigent une réflexion dans le domaine de l'urbanisme par projet.

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