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# THE ROUTLEDGE HANDBOOK OF ARCHITECTURE, URBAN SPACE AND POLITICS, VOLUME I

For architecture and urban space to have relevance in the 21st Century, we cannot merely reignite the approaches of thought and design that were operative in the last century. This is despite, or because of, the nexus between politics and space often being theorized as a representation or by-product of politics. As a symbol or an effect, the spatial dimension is depoliticized. Consequently, architecture and the urban are halted from fostering any systematic change as they are secondary to the event and therefore incapable of performing any political role. This handbook explores how architecture and urban space can unsettle the unquestioned construct of the spatial politics of governing.

Considering both ongoing and unprecedented global problems – from violence and urban warfare, the refugee crisis, borderization, detention camps, terrorist attacks to capitalist urbanization, inequity, social unrest and climate change – this handbook provides a comprehensive and multidisciplinary research focused on the complex nexus of politics, architecture and urban space. Volume I starts by pointing out the need to explore the politics of spatialization to make sense of the operational nature of spatial oppression in contemporary times. The operative and active political reading of space is disseminated through five thematics: Violence and War Machines; Security and Borders; Race, Identity and Ideology; Spectacle and the Screen; and Mapping Landscapes and Big Data.

This first volume of the handbook frames cutting-edge contemporary debates and presents studies of actual theories and projects that address spatial politics. This Handbook will be of interest to anyone seeking to meaningfully disrupt the reduction of space to an oppressive or neutral backdrop of political realities.

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THE ROUTLEDGE HANDBOOK  
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VOLUME I

Violence, Spectacle and Data

*Edited by Nikolina Bobic and Farzaneh Haghighi*

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# THE SOCIOCULTURAL CONSTRUCTION OF URBAN WASTELAND

## Mapping of the Antwerp Southside

*Cecilia Furlan and Manola Colabianchi*

### Introduction

Maps are often considered as tools of territorialization.<sup>1</sup> They embody landscape variations in a specific moment and represent each component of the dense surface of the earth (for example, urbanization, infrastructures and agricultural land). Contemporary urbanism and landscape disciplines consider territory as an element in continuous transformation enduring interruptions, cycles of abandonment and crisis of former structures, followed by new phases of territorialization, in which the material and immaterial resources constantly assume new meanings.<sup>2</sup> Maps, as inclusive tools of information,<sup>3</sup> register instant frames of these processes of territorialization. However, as Brian Harley and Paul Laxton stated, maps are constructions of reality embodying intentions and consequences that can be observed in the societies of their time.<sup>4</sup> Indeed, the association of maps with neutrality and objectivity, supported by technical skills and topographical symbols, in the transcription from the structure of the world is “the cartographic illusion.”<sup>5</sup> Maps are far from being apolitical, they are tools of measure and supervision; “like books, they are the products of both individual minds and the wider cultural values in particular societies.”<sup>6</sup> The choice of elements to be represented, and the simplified manner in which the act of mapping is performed, allow the cartographer to have a significant level of control and manipulation of how others should perceive that space. As affirmed by Chandra Mukerji, maps were increasingly used as capital goods to facilitate land classification and consequently the pattern’s reorganization of political control, as state formation progressed.<sup>7</sup> Land classification departs from the illustration of the terrain to describe its uses and occupation.<sup>8</sup> In map-making, land classification involves the use of symbols, words, colors and abstract patterns to represent different typologies of soil, vegetation or human practices. The systematic use of these graphic symbols follows a hierarchy, which establishes clarity and description and simultaneously translates the social interpretation of the landscape into a drawing. Therefore, the act of mapping not only depicts the space, but it also reshapes this space and the way we perceive it. Space is indeed a social product, a complex social construction that affects spatial practices and perceptions.<sup>9</sup>

This chapter specifically examines the representation of a contested landscape: urban wasteland. The text aims to understand, through historical cartographic explorations, how the concept of the wasteland has shifted and been simplified according to the construction of spatial value. By observing the cartographical language of the past, this contribution focuses on the evolution of interpreting fundamental issues, namely time, processes and changes of land representation in relationship to the concept of urban wasteland. We consider urban wastelands as abandoned spaces of modernity,<sup>10</sup> resulting from a social–cultural value construction that only exists in temporary and relative terms related with the society of the time. In maps, wastelands are either interpreted as polluted, overregulated sites or as untamed marginal areas – although always classified as an unproductive spatial element.<sup>11</sup> Hence, by understanding maps as a representation of social, cultural and technological intention on the territory,<sup>12</sup> this chapter addresses how the notion of wasteland transforms accordingly with the technological and cultural concept of productivity. The cartographic analysis of a specific case study in Flanders (Belgium) intends to reveal and exemplify the cumulative change of a western European perception on wasteland and political–cultural intention on land classification. In densely populated and highly industrialized areas, such as Flanders, where since the 18th Century, the transformation of the ancient landscape structures has been devastating,<sup>13</sup> land classification is a tool that strongly affected the territorial transformation in the *enclosure of the commons*<sup>14</sup> by landed elites.

To achieve this aim, the chapter is divided into three main sections. The first section introduces the shifting meaning of wasteland according to the transformation of the productivity understanding, agricultural first and then industrial. The time subdivision has been chosen according to similar studies developed by Sabine Barles, Vittoria Di Palma, Susan Strassen and Mira Egler, where wasteland is manifest as: (1) wild, untamed and unproductive nature; (2) industrial waste disposal area; (3) brownfield and blank space. Furthermore, through the observation of wasteland representation in the territorial portions of 15 × 15 km of the Antwerp Southside in Flanders, the second section shows how an active historical analysis of cartography is inquiring about societal changes. Lastly, the chapter discusses the limitations and benefits of the active historical cartography analysis, fostered by the case study results.

### Wasteland: A historical paradigm

The development of the concept of *wasteland*, the genealogy of the word and its representation are inseparable from each other.<sup>15</sup> The ancient English precursor of the term wasteland was the Saxon word *weste*, or more commonly *westen*. It was initially used as an adjective to indicate an inimical place for human life characterized by desolation, lack of temperate climate and lack of sustenance.<sup>16</sup> Around the 13th Century, the ancient English word *weste* was replaced with the word *waste*. The term *waste* derives from the old French terminology *wast* (in ancient French *gaster*), which means devastated, damaged and spoiled. While *westen* referred to the current status of the land, the new term, *wasteland* (*waste* + *land*), was adopted to indicate the character of land resulting from a natural or human demanaging action.<sup>17</sup> Slowly, the connotation of wasteland was replaced, or merged, with the idea of a place of depletion and became associated with waste matter.<sup>18</sup> This perception led to wasteland being considered as part of the landscape of fear.<sup>19</sup> Landscape of fear referred to the ancient Roman culture where everything and everyone not related to the urban and agricultural lives, were considered beyond logic, frightening and untamed.

Wasteland locations, often marginal in respect to urban centers and its various landscapes, have nurtured the idea of impenetrable spaces inhabited by obscure presences.<sup>20</sup> Wasteland included different kinds of landscapes that can be reduced to roughly three main conditions:

wetland, heathland and peatland.<sup>21</sup> These three conditions similarly stand in opposition to ideas of a benevolent and traceable nature. Without being wholly abandoned or desolate, they harbored vegetation or life forms resistant to domestication or that impedes vast and systematic agricultural activities. Wetland, heathland and peatbog areas were condemned as wasteland because of their inefficient agricultural productivity, challenging the meaning of *productive use* of the land. This perception remains such until the productive shift introduced by the Industrial Revolution first and by the rise and spread of environmental sensibility afterwards.

Since the 18th Century, transformations induced by the Industrial Revolution supported fast urbanization processes, causing radical changes in the concept of production and in the use of the land.<sup>22</sup> Early descriptions of the phenomenon of industrialization emphasized it as the “great inventions.”<sup>23</sup> The principle of mechanization was at the core of this innovation, producing an identifiable change in economic structure and growth: the shift from a society mainly based on an agricultural economy toward a manufacturing/industrial one. However, although industrial innovation has facilitated land-use transformations, it was not the driving agent. It was the interaction among state power, expanding economic demand (expressed by integrated market logics), population growth and technological development that shaped the consumption of resources and transformed the use of land.<sup>24</sup> Land use shifting over time is not a new phenomenon in Western Europe, which has occurred in several waves, causing changes in the landscape that have profoundly influenced and interfered with the traditional rural lifestyle.<sup>25</sup> The speed and magnitude of landscape transformations depended proportionally upon technological innovations, developments and cultural changes.<sup>26</sup> According to John F. Richards,<sup>27</sup> land use and its appearance changed dramatically between 1700, 1850 and 1950, showing an increase in surface occupation by urban tissue and agriculture, as well as the growth in scale of timbering and industrial activities. Rapidly, the necessity to allocate the new industrial activities to (cheap) available land in close proximity to existing infrastructures and resources emerged in time. Thus, many regions adopted a specific approach: the reclamation of hectares of former wetland and heathland areas, still considered as wasteland.<sup>28</sup> If, as shown by Martina De Moor and until mid-19th Century, wasteland in Belgium was mostly common land used for pasturing, cutting peat and turf,<sup>29</sup> then the reclamation supported the *de-commoning* process. The reclamation processes, associated with modifying land productivity and use, have changed land value and its market demand. In a context where market and land speculation have been the main drivers of a densely built territory,<sup>30</sup> the ‘enclosure of the commons’ by Belgian landed elites is not a surprise. The combination of reclamation and privatization of former wastelands with industrial technological development led to improved, more organized and salubrious living conditions.<sup>31</sup> Salubrity and recovery of wasteland indeed went hand in hand. However, as Barles<sup>32</sup> highlighted, industrial technological developments did not simply improve the living conditions but also transformed the western society from a *user* of fuel, raw materials and even land to *consumer* of the same – due to overuse. In many western European countries, processes of urbanization and industrialization had indeed strong environmental consequences. Waste and pollution have exceeded nature’s ability to effectively absorb them.<sup>33</sup> Historically, waste has always been an integral part of urbanization processes; by being constantly reintegrated in the (de/re) construction cycles of cities and urban territories.<sup>34</sup>

The industrial technological development was powerful enough to break these self-renewing cycles and change them. Due to the production of industrial goods and materials, industrial waste disposal became an urgent issue that needed to be addressed. Waste was an element that needed to be immediately disposed of and gotten out-of-the-way, buried or sunk in specific areas, notably wastelands. The few documents addressing this argument consider wasteland as a waste disposal area and as a matter out of place, as defined by Mary Douglas.<sup>35</sup> For Joel A. Tarr,

wasteland was detected as an unproductive space that needs to be restored to the natural world where *waste* apparently did not exist.<sup>36</sup> So what we can deduce from the literature, with the Industrial Revolution until the first half of the 20th Century, is that wasteland was conceived as a temporary space in which an absorption of waste by natural agents was expected.<sup>37</sup> However, the necessity to dispose of large amounts of industrial waste and the associated soil contamination revealed the fixed condition of this new type of wasteland in the western industrial society of the 20th Century. Since then, areas close to industrial sites were designated as dump sites for metals, rocks, slag from coal extraction and polluted water. By trying to graphically imitate the characteristics of the territory and the displaced materials, these lands took on distinct forms, names and patterns on maps and cartographies.

The second half of the 20th Century marked a radical shift in the western cultural perception of landscape and consequently on wasteland. According to Hall, up until the 1960s wasteland was demonized.<sup>38</sup> The ecological movement recognized the opportunity of restoring the essential role of nature, by protecting it against the rampant processes of industrialization and urbanization. Moreover, the movement gave a new interpretation to the current western system of values toward wild vegetated areas, wetlands and heathlands, suggesting a new relationship with and perception of nature and the built environment.<sup>39</sup> Finally, this new perception of the environment has imbued untamed, uncultivated land with a new wealth of meaning. Modern ecological perception justifies agricultural unproductivity and sees ecological characteristics as societal values by recognizing untamed environments as necessary, if not essential, to the maintenance of the ecosystem as a whole.

In Western Europe, environmental sensibility increased alongside the closure and the consequent abandonment of industrial activities due to mainly technological and economical shifts. After almost two centuries of industrial expansion, the last third of the 20th Century was marked by a rupture and breakdown of industrial production.<sup>40</sup> The exposure to internationalization, technological development, changes in energy supply, the higher competition for private investments and the consequent relocation abroad of the manufacturing industry generated the decline and, in some cases, the disappearance of larger industrial manufacturing based on the Fordist model of production.<sup>41</sup> The majority of western European countries were affected by this phenomenon of deindustrialization, which profoundly changed their industrial activities without completely erasing them. According to Albert Schweinberger and Jens Suedekum *deindustrialization* is defined either as a fall in the share of industrial output in GDP or the share of industrial employment in total employment.<sup>42</sup> Historical studies instead describe deindustrialization as a series of processes that permit the shift from a society constructed on manufacture and resource extraction industries toward a society whose economy is based on the advanced tertiary sector.<sup>43</sup>

Across Western Europe, the closure and resulting abandonment of given industrial sites processes were not homogeneous: they developed in different periods of time and according to regional territorial structures. Although very specific, the processes of deindustrialization have left a shared legacy, which includes the decommissioning and abandonment of structures previously integrated with the built environment.<sup>44</sup> Old industrial, textile manufacturing, mining, steel and chemical works that for decades symbolized “technological progress,” once abandoned, started to be considered as wastelands.<sup>45</sup> Western European countries initially looked at the industrial wasteland as one of the collateral effects of the deindustrialization processes, which constituted a rift or an exception in the built environment. However, abandoned industrial structures soon became the structural elements of a different urban condition of living and working in proximity.<sup>46</sup> Despite the widespread presence of disused industrial structures, no formal or standardized definition of industrial wasteland exists.<sup>47</sup>

The concept of wasteland is often associated with various descriptions of objects, structures and surfaces that perform effectively during the industrial period and afterwards lose their original functions or are abandoned. Besides, the rapid turnover of properties leads to difficulties in obtaining an accurate account of the abandoned structures. This leads to a lack of reliable, comprehensive information, meaning that the data censused does not give a precise measurement of the divestiture or abandonment, hence showing the impossibility of representing wasteland as an objective spatial category on a map.

Many Western European countries, like Belgium, Germany, the UK and France, adopted the brownfield category in the official land-use cartographies to indicate industrial wasteland especially.<sup>48</sup> Specifically, this category includes abandoned polluted industrial sites, hostile to any human activity.<sup>49</sup> However, not all the maps present brownfields as spatial categories. Philippe Vasset observed that western topographical cartographies tend to represent abandoned land, industrial ruins and unused infrastructures either under their former uses or as white undefined space.<sup>50</sup> Sara Marini adds that in ancient maps, “white symbolises the color of fear, and often this fear and this color coincide with something we know little about, the unknown.”<sup>51</sup> Blank spaces on maps represent the emptiness and a void in the land use system of classification, where every plot is depicted with many symbols, colors and patterns symbolizing either the type of occupation or the land characteristics. However, these lands are far from being unoccupied spaces. They correspond to unconventional, transitional spaces, covered with ruderal vegetation which also perpetuates the misunderstanding about property rights. In the lack of conventionality, white spaces mark the antithesis of a fully consolidated urban condition.

The sequence of the three main categorizations highlights the social and cultural transformation of the conceptual perspectives of spatial usefulness (agricultural and industrial), related to the historical and social construct. The development of these different categorizations principally follows alternate waves of production and consumption, firstly agricultural and secondly industrial. This alternation was either intentional or otherwise.<sup>52</sup> By reconstructing wasteland alternations, three main observations can be deduced. Firstly, wasteland, as a landscape element, has been simplified through time. With action over land classification and regulations as cadaster maps, tax proceeds, lists of land ownerships and land records, society simplified wasteland characteristics. Secondly, the attitude toward what is meant by wasteland changes according to the changing and contradictory relationship between land use, productive activity and the user-consumer. This for instance reveals the conflict of economy versus ecology that we can observe today. Since the increase or decrease in wasteland is closely linked with the performance of the economy in general as we have seen above, several successive periods of decline and growth can be discerned.<sup>53</sup> Lastly, despite being a well-known concept and a land classification, wasteland has never been represented as such. Izabel Gass affirms that the changes around the ways in which wasteland is defined and interpreted reveal the cultural relationship between society and the environment, in which wasteland simultaneously represents our environmental consciousness and a terrain of contestation.<sup>54</sup> However, an in-depth observation of different historical cartographies helps us to explore how maps register the sociocultural understanding of wasteland and landscape in general.

### **Active historical cartography analysis as an approach**

The analysis of active historical cartography consists of a selective observation of historical contemporary maps associated with a historical understanding of societal changes. In this chapter it is adopted as a research tool to make visible the social practices and spatial patterns and their interactions in space. By interpreting the maps, we collected latent data, each map

is in fact a fragment of data used to make the invisible (or the obvious) visible. According to Di Palma, each action on the territory leaves traces, and we “cannot wish them away.”<sup>55</sup> In a particular way, and at a specific moment in time, maps depict these traces. If wastelands are traces of spatial opposition to transformation and change, maps have registered, altered, justified and absorbed these conditions.<sup>56</sup>

Exploring the concept of wasteland through the ‘language’ of mapping permits the analysis and comparison of wasteland forms within sites and between sites. The task is ambitious because it concerns the exploration of a large portion of a territory and covers several centuries. Thus, the active historical cartography analysis is conceived as a systematic inquiry of specific portions of the examined regions in which each section adopts distinctive techniques to observe wasteland in the cartographies. The use of distinct techniques reflects the awareness of the study about the different intentions and logic behind the construction of each chosen map. As Franco Farinelli maintains, the cartographic reason depends on: (a) the primary goal to be achieved (military, land use, topographical, cadastral representations); (b) the correspondence between “things” and signs (conventions); and (c) the reduction of the complexity of the reality to a phenomenal form.<sup>57</sup> Here, maps are conceived simultaneously as an instrument to conquer a territory, a tool of power, an agency of knowledge and a means of interpreting the systemic relationship between signs.

### *Case study*

The active historical cartography analysis is tested here on the wasteland representation within a specific case study: the Antwerp Southside (*Zuidrand*, Belgium). The Antwerp Southside is a peri-urban area that belongs to eight municipalities located in the Metropolitan fringe of Antwerp and was defined in 2012 with reference to the Landscape Park Antwerp Southside (*Landschapspark Zuidrand, LZ*) project. Its boundaries are defined by the external borders of the eight municipalities involved, and it has a total surface of 10.674 ha – of which 54.7% (5.845 ha) are open spaces – and a total population of approximately 121,388 inhabitants, as stated by the Flemish Spatial Plan (STATBELG).<sup>58</sup> The site is selected for its relevant presence of open spaces in a regional context of diffuse urban sprawl and for being representative of what Peter Rowe calls “middle landscape.”<sup>59</sup> At the same time, the frame dimension of 15 × 15 km seems to be an optimal dimension to observe different interpretations of wasteland’s representations manually. The case study is investigated by framing the theoretical understanding of wasteland interpretation within the Flemish sociocultural context and how it changed over time. Simultaneously, this framing is compared with a systematic analysis of pattern, signs and colors adopted in three different and emblematic sets of historical cartographic representations of the selected area.

Firstly, a portion of the Ferraris map (1770–78) is analyzed which reflects the detailed state of the southern Netherlands just before the start of the Industrial Revolution and the end of the *Ancien Régime*. The map was produced by Joseph de Ferraris in response to a request by Prince Charles Alexander of Lorraine for a systematic, large-scale cartographic representation of the northern Austrian empire. The topographic survey was performed on a territory corresponding to today’s Belgium and Luxembourg as well as some parts of German and Dutch territory, includes 275 sheets and was drawn up to a scale of 1/11.520. The realistic representation of the Ferraris map reflects a general cartographic process toward a vertical vision of the object and utilization of geometrical signs. This process, developed during the 18th Century due to the development of topographic works commissioned from military engineers, was the first to be conditioned by the ‘new’ geo-mathematical method.<sup>60</sup>

### *The sociocultural construction of urban wasteland*

Secondly, a topographical map of the Nationaal Geografisch Instituut (NGI Belgie-ING Belgique) is considered. The cartography is located in the Belgian historical archives of the Royal National Library in Brussels. It is drawn on a scale of 1:20.000 and exemplifies the situation between 1881 and 1904, despite being completed in 1939. Since the end of the 19th Century, NGI Belgie-ING Belgique maps were developed to create, collect and disseminate maps of areas of military interest. Since 1848, due to their scientific precision, these maps have provided information on topography, land use, field patterns, settlement patterns and infrastructure.<sup>61</sup> Topographic maps constructed illustrations of a portion of the earth's surface, showing distribution of physical features, in which each element corresponds to an exact geographical position, following a fixed scale and projection.<sup>62</sup> In a topographical map, every element is symbolized by lines, colors, patterns and their conventional signs. These elements are codified and readable through the use of a legend.

Lastly, a more recent topographical map from Nationaal Geografisch Instituut (NGI Belgie-ING Belgique), relative to 1989, is considered. This model features the digital landscape model with a precision of 1 m. It contains all vector information in color for producing topographic base maps at 1:25 000, such as networks, buildings, woodlands, setpoints, agricultural lands, etc. Written text, symbols and abstract patterns help the reader to understand spatial quality and specific elements better.

The three maps are selected as representative of different historical periods, each characterized by specific political and socioeconomic patterns. The Ferraris map represents the Napoleonic era when Belgium was still under French rule, and the economic structure was mainly agricultural. Until the mid-1800s, the use of space was mainly organized using techniques of private law.<sup>63</sup> Around 1800, however, local governments – triggered by the Napoleonic urge to enforce the French legal system – promoted a campaign of reclamation and land de-commoning.

The second map represents the period after the Industrial Revolution, when the liberal practices of privatization (or commodification of the common land) and the arrival of machinery and factories decisively changed the Belgian territory in favor of economic growth. The need for a workforce forced many peasants to migrate to the industrial towns, the urban tissue grew and the farmlands decreased. The last map depicts the period after WWII and the shift in Belgium from heavy, large industrial production toward small and medium enterprises. The shift from the large industrial production model appeared in the saturation of the basic market of durable industrial goods. In addition, the oil shock produces a crisis of resources: the increase in the price of oil has shown that the inputs of the production system are not inexhaustible, and their abuse creates irreversible environmental consequences.

### **Unfolding wasteland in the Antwerp Southside**

This section presents the results of the active historical cartography analysis of the Antwerp Southside area. Three cartographic representations within a specific interpretation of wasteland – common unproductive land, industrial waste disposal area and blank space – are considered.

#### ***Wasteland as common uncultivated land***

Starting from the 1660s until the Industrial Revolution (1860), wasteland was generally associated with unproductive agricultural space managed in a collective way and used for pasturing, cutting peat and turf and digging loam. In 1770, almost 15% of the national territory of Belgium was wasteland, in the form of heathland, wetland and peat bogs.<sup>64</sup> The official commons' classification – mapping and counting – became necessary due to the Belgian government's

interest in promoting wasteland clearing. The necessity to map wasteland came with the need for new arable lands. From local initiatives of the religious congregations to governmental ones, several campaigns were promoted to transform uncultivated land from wasteland areas to areas of productive use. Between the 16th and the 19th Centuries, these actions were registered in the landscape through a broader set of agricultural changes, bearing witness to the quest for land through land reclamation.<sup>65</sup> The decree of 25 June 1772, established the private acquisition of common/uncultivated land within the first six months and the sequential “development” within the following two years.<sup>66</sup> However, a conservative reaction of local municipalities, economic considerations and heavy resistance of local inhabitants prevented the ordinance from having significant results. A few years later, the *Décret concernant le mode de partage des biens communaux* (Decree on the method for dividing communal property, 1793) assigned common land ownership directly to Flemish municipalities.<sup>67</sup> Consequently, local authorities were greatly stimulated to sell and turn these spaces into productive areas. As Pieter Van den Broeck argues, the central government has played an active role in the history of the common land, starting with the “naming the common land as *res nullius* (no-man’s land) instead of *res communis* (common land), expropriating it and giving it to the private sector or selling it at low cost.”<sup>68</sup>

The dissolution of commons that led to the partition of land and privatization not only radically modified the landscape and the property regime but “hit not only rural collective property but also other forms of collectivities.”<sup>69</sup> The cooperatives took the form of guilds in the urban context and “communal land tenure arrangements” between communities of users/producers in the countryside.<sup>70</sup> These latter were systems for collective use and management of land or other natural resources, such as water or forest wood, where the commoners defined the modes of use and production, distribution and circulation of these resources through horizontal and flexible forms of governance. According to Daniel R. Curtis and Michele Campopiano, commoners aimed to keep the agricultural system in balance, limiting risks and costs. In fact, they limited the impact of crop failures due to unpredictable weather conditions, floods or disease, while saving on investments – for example, in fences and drainage systems. Property institutions, and the commons in particular, created social security provisions for their members, as can be seen in the guilds’ provisions for widows and orphans. The cooperative strategy allowed the members to share the costs that arose from uncertainty, but when “abundance turns into scarcity” common lands started being threatened with privatization.<sup>71</sup> As claimed by De Moor, there is a clear link between these cooperatives, land privatization and evolution of the European market economy from 1100 to 1800.<sup>72</sup>

In the Flemish context, productivity turned out to be the main parameter with which to establish land value. Settled cultivation and urbanization upon lands became the defining feature of the passage from a state of land use “efficiency” to a state of land lying “waste.”<sup>73</sup> Moreover, productivity not only influenced the administrative status of the land but also what kind of vegetated spaces should be represented in the cartographies and how this should be done. As exemplified in Figure 27.1, land use cartographies of the 17th Century differentiate ‘efficient’ functional spaces, such as agricultural lands, productive forest and water infrastructures from unproductive lands, namely heathland, wetland and peat bogs. In the Ferraris map, “all three categories are represented just as they are,”<sup>74</sup> painted with a color gradient technique that seems to underline their variable and inconsistent character. A realistic representation is indeed adopted, with conventional symbols and color patterns commonly used in 18th Century map-making. Landscape features were meant to be easily readable and clearly provided information on productivity and land use. In Ferraris map several categories for land are defined, namely fields, prairies, moors, swamps, marshes, polders, dunes, orchards, vineyards, parks, heathland and ponds, to name a few. In particular, heathland tended to be constituted by soil with low

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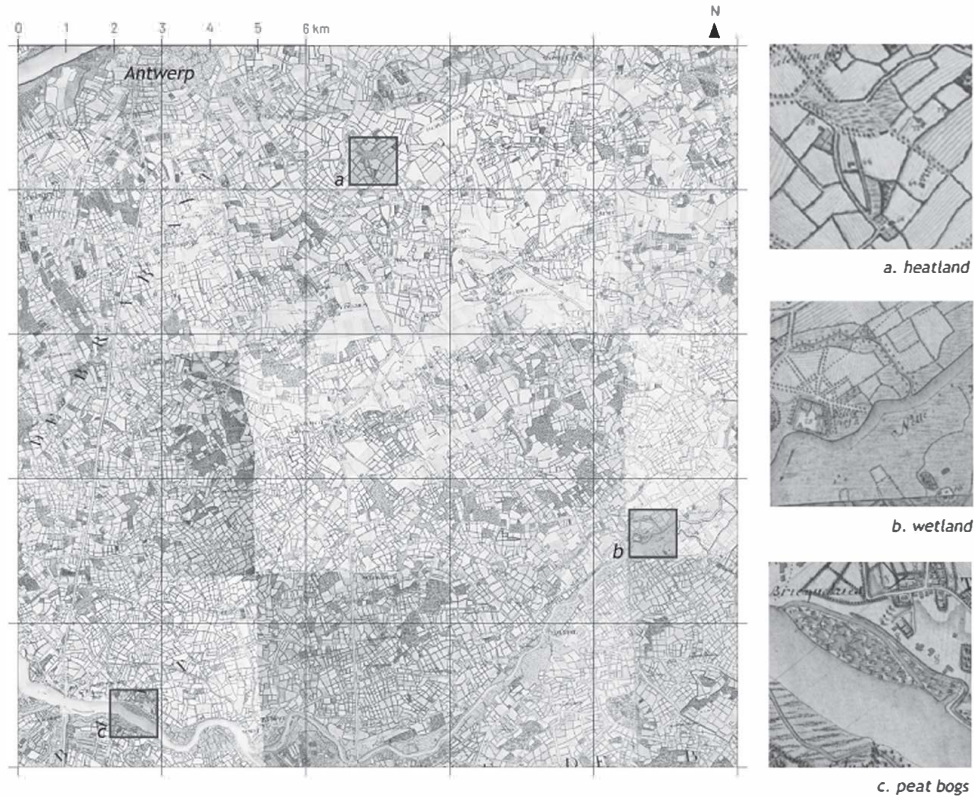


Figure 27.1 Historical cartography analysis of Antwerp Southside through the Ferraris map (1770–1778). Source: Historical map database © Public domain.

fertility and low pH.<sup>75</sup> This type of land was characterized by low grassland, mixed with calluna flowers and by sandy soil. Due to the low-quality soil condition, heathland could not be cost-effectively cultivated, urbanized or afforested, and thus it was considered wasteland. However, on such meager types of soil, flower or fruit vegetation could thrive – though not for long and not without human intervention.<sup>76</sup> Wasteland was not a stable denomination to identify greenfields, but more a phase in a succession of vegetation, which would eventually result in wild afforested lands, characterized by oak and birch. In the Ferraris map, heathland is drawn with undulating lines simulating grass, on a brown and yellow background to indicate the type of soil. Wetland was perceived as a space in which the water does not seem to flow and spreads out in marshy pools over the immense stretch of wasteland and is sometimes characterized by small bushes.<sup>77</sup>

The ambiguity of the soil condition, neither ground nor water, neither solid nor liquid, together with the unproductive character, influenced the perception of wetland as wasteland. Indeed, wetland was often located at the margins of urban conurbations, becoming one of the ideal habitats for criminal, poor and diseased populations, and consequently by the moral connotations related to it.<sup>78</sup> “A place for outsiders,” as David Sornig says of West Melbourne Swamp, where “uncanny, liminal quality” persists as it transforms from fertile wetland to modern-day docks.<sup>79</sup> Therefore, wetland is either illustrated with thick short vertical lines, on a colored base where hues of light gray gradually transitioning to dark gray (or black) to indicate the varying degree of water’s presence (Figure 27.1). Bog areas or peat bogs are represented using

vertical irregular short lines, portraying tussocks, indicating the presence of wild vegetation with a brown and green pattern, reproducing the marshy condition of the soil. Each of the cases mentioned above is presented (Figure 27.1). Cartographers considered wasteland as land devoid of intellectual values, characterized by an absence of human ‘rationality’ and, simultaneously, land on which to act in case of necessity.<sup>80</sup>

### ***Wasteland as waste disposal area***

After the 1860s, new legal instruments were introduced to encourage wasteland reclamation in Flanders toward a virtuous climate of investment. The law of 25 June 1847 – *Loi sur le défrichement des terrains incultes* (Wasteland Clearance Act) – ordered the forced privatization and reclamation of public-owned wastelands,<sup>81</sup> which in combination with other decrees on irrigation and canalization made possible the sale of thousands of hectares of wasteland in Antwerp’s province.<sup>82</sup> The prices for heathland boomed after the law of 1847, consequently the lands were predominantly bought by non-residents who were not active in agriculture (urban bourgeoisie). High prices and the fact that the heathlands were sold in big portions prevented local peasants from participating in the sale. In the Antwerp Southside, only in a few municipalities, the urban bourgeoisie remained absent because the local council decided to sell in very small parcels, to the advantage of the locals. The implication was that most of the vast common land in the rural outskirts ended up in the hands of families based in Antwerp, who later appropriated the land for recreational purposes, as a retreat from the city. One may consider this as the start of urban infiltration from the city to the peripheral agricultural territory, depriving peasant livelihood of the merits of the land. The possessive individualism is affirmed at the expense of collective properties (commons), and the public-private dichotomy takes form. “The laws of the land are, in this vision, dependent upon the rightful ownership of the soil,”<sup>83</sup> and land ownership becomes the principle of the new social structure.<sup>84</sup> Privatization and industrial development encourage the progressive transformation of uncultivated land. Rapidly, industrial development became the new economic source and the new paradigm for productivity. The majority of industrial companies needed to dispose of waste from industrial production, the ideal place to dispose of industrial refuse was on the few remaining *green wastelands*. At the end of the 19th Century, waste was accumulated on heathland and wetland or dumped in former pits. The process of filling was initially considered an optimal situation, in which unproductive land was unconventionally reclaimed. Furthermore, and in some respect, using agricultural wasteland was contemplated as a way of transforming and inserting fallow lands into the industrial production chain. Thus, wasteland was simultaneously considered as uncultivated green spaces and landfill areas formed from industrial waste or other rejected raw materials.

For about a century, the territorial image of the Antwerp Southside pictured by the Ferraris map (1770–1778) did not radically change. Nonetheless, in 1859 the fort system for military purposes was built. The military structures took their strategic positions outside the city wall and procured other agricultural land expropriation. Only in the last quarter of the 19th Century and in the first of the 20th Century did the beginning of heavy industrialization and mining activities show their effects. On the topographic maps of 1939 of Antwerp Southside, the landscape appeared different, demonstrating how in less than 50 years wetlands and heathlands were reclaimed to host mainly industrial sites and infrastructures. The construction of the dense railway network – including the line from Hoboken to the Rupel stone quarries – aided the factories’ establishment and accelerated the land consumption of the area. In the Antwerp Southside, the majority of the wasteland that bordered the Rupel – a tributary river of the Scheldt River – was progressively reclaimed and transformed into factory sites, sometimes oriented toward mining.

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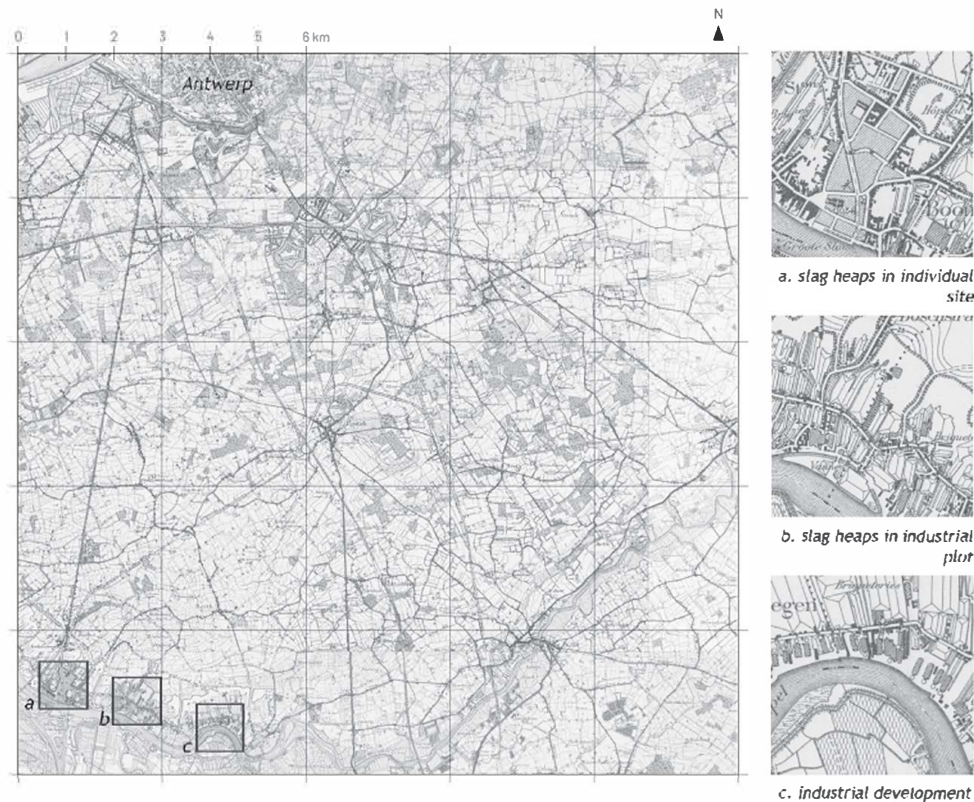


Figure 27.2 Historical cartography analysis of Antwerp Southside through the Nationaal Geografisch Instituut map (1881–1904). Source: Historical map database © NGL.

The industrial areas and mining sites were mapped as white areas surrounded by dashed lines with triangles. Cartographers also introduced contour lines to represent their three-dimensional landscape within the two-dimensional space of a map. Land uses and/or occupants were then identified with standardized graphic symbols, which helped build both a real and perceived image of the territory. Observing the cartography of the Antwerp Southside, the industrial waste disposal areas appear marginal compared to urban centers, however, easily accessible and located in a dedicated site or within the same plot of the factories. In both cases, plot borders are clearly defined in the map with a bold edge (Figure 27.2). This representation marked how cartographers tried not to neglect waste space, but on the contrary, making some first attempts to categorize waste places. Moreover, a cartographic observation allows us to understand the extent and presence of waste disposal areas and their related value within the Flemish society of the time.

### **Wasteland as blank space**

In less than 40 years (1950–89), the Antwerp Southside territory shifted from a mainly rural region to one of the most industrial areas in Europe. Its economic performance has resulted from the internal dynamics of Flanders, the mining extraction of coal and car-oriented manufacture.

Technological progress, industrial development and strong capital investment were the drivers for modernization and development. This consequently brought monetary wealth to the region and generated one of the most flourishing urban/industrial landscapes in Europe. The 1960s were led by the slogan “100 kilometers of highway per year!” by Minister Jos de Saeger.<sup>85</sup> However, by the 1970s the motorway program also began to be reduced due to the oil shock and the crisis of resources. The economic recessions of the 1970s–1980s forced the Antwerp Southside industrial activities to reduce production, accelerating the decline of Antwerp Southside’s large industrial sector. However, several complex causes influenced this structural change, including the proximity to the residential areas preventing the expansion and renovation of the majority of industrial sites;<sup>86</sup> even if the industrial production was relatively decentralized, the mixed urban condition impeded a fast-track business connection with a modern infrastructural road network.

The 1972 report “The Limits to Growth” by the Club of Rome highlights the consequences of the Fordist model and questions the axiom of the possibility of indefinite growth. An MIT team affirms that “[t]he earth’s interlocking resources – the global system of nature in which we all live – probably cannot support present rates of economic and population growth much beyond the year 2100, if that long, even with advanced technology.”<sup>87</sup> Since the 1960s, in Belgium, many regional and national laws have been passed for environmental regulation, “establishing a wide variety of prohibitions and restrictions.”<sup>88</sup> Federal environmental legislation, for instance town and country planning (1962), nature protection (1973), the management of risks of heavy accidents with certain industrial activities (1987) as well as regional Flemish environmental legislation, such as waste management (1981 and 1994), groundwater management (1984), environmental permits (1985, 1991 and 1995), environmental impact assessments (1989), protection of forests (1990) management of gravel extraction (1993), environmental policy agreements (1994), environmental planning (1995), environmental care at the plant level (1995), soil sanitation (1995) and spatial planning (1996), established a wide variety of prohibitions and restrictions, to name a few. In addition, with the free-trade agreements instituted in the 1980s and 1990s, many industrial companies relocated the production to other countries with much lower wages and lower standards. Belgian environmental legislation intervened in an already largely industrialized and highly urbanized territorial context (in 1995, 97% of the population was considered urban).<sup>89</sup> The early settlement patterns and landscapes, characteristic of the late 18th Century in Flanders, have been erased from the recent urban agglomerations. As stated by Veerle Van Eetvelde and Marc Antrop, the impact of urbanization and transport infrastructure on the traditional landscape – or landscapes of the preindustrial period – is “extreme.”<sup>90</sup>

The environmental issues and the economic recession, therefore, fostered the process of deindustrialization and, as it intensified, empty and polluted areas gradually accumulated in Flanders and Western Europe. Abandoned extraction sites, closed landfills and decommissioned airfields entered into the category of wastelands, conventionally named as *brownfields*. In Flanders, this term is used as a synonym for contaminated land. The Belgian (Flemish) definition of brownfield states it as “abandoned or under-used industrial sites with an active potential for redevelopment or expansion but where redevelopment or expansion is complicated by a real or perceived environmental contamination.”<sup>91</sup> However, the wasteland categorization of brownfield is still ambiguous, due to the lack of a common definition across different western European countries.<sup>92</sup> Consequently, the brownfield categorization is not present in the topographical map from the Nationaal Geografisch Instituut (NGI Belgie–ING Belgique) but only in the 2006 Corine land use representation. However, according to Vasset, within topographical maps wasteland areas are nevertheless presented.<sup>93</sup>

Modern Western European cartography, and in particular Belgian representation, is inclined to represent abandoned land, underused infrastructures and abandoned polluted industrial land

either under their former use or as white space. They are blank because they are unoccupied, unqualified, excluded from the overall design or they are difficult to portray – or they are wasted.<sup>94</sup> This way of representation indicates a degree of simplicity which is far from reality.<sup>95</sup> Indeed, these spaces are often transition zones and dynamic areas. Due to the lack of conventionality, white spaces mark the antithesis of a fully consolidated urban condition, representing free, empty spaces in between building structures as well as identifiable transition zones between public and private properties.<sup>96</sup> According to Vasset, these are not merely empty areas. They are abandoned areas, often of unspecified ownership, whose boundaries have been erased, the fencing torn down, featuring ruins of former industrial structures, often covered by ruderal vegetation.<sup>97</sup> Rather than filling a void, modulation, materials of surfaces, full and empty spaces, structures and natural infiltration of vegetation uniquely shape the wastelands. Using the words of Rem Koolhaas, white spaces on maps are “highly charged with nothingness.”<sup>98</sup> If void is associated with the negative of the built mass, for Koolhaas *nothingness* defines a created urban landscape without the necessity of formal construction. By using the word *nothingness* as the outcome of eliminating architecture from urban space, Koolhaas opens up new possibilities for architectural landscape programs and users. Therefore, the white representation of wasteland embodies simultaneously the lack of definition as well as potentiality of future imaginaries becoming a terrain of design and appropriation from human and nonhuman activity. This is especially true for former developed areas that are now abandoned or underused. Wasteland can indeed be reevaluated and given new life, new meaning achieving a more sustainable urban setting.<sup>99</sup>

The NGI Belgie-ING Belgique map representative of the period between 1961 and 1989 contains morphological colored information relative to natural and built environments. Symbols and patterns help to understand spatial quality and specific elements. However, not all the information is represented, as some areas are left blank, without any written descriptions, color or pattern. By observing three samples of approximately 500 × 500 m in Figure 27.3 we aim to unfold this nothingness of white representation of the NGI Belgie-ING Belgique map. All three coincide with the leftover spaces in between different plots, parts of city construction and infrastructures or industrial zones.<sup>100</sup> Specifically, they are (1) fragments of land with low intensity of land use, (2) underused infrastructures and (3) abandoned industrial land. The latter ones mainly concentrated on the Rupel, the tributary river of the Scheldt River (Figure 27.3).

### **Reflections and conclusions**

Reflecting on meanings and manifestations of the wasteland, this chapter questions how processes and changes in land cartographical representations are the results of sociocultural, socioeconomic and military constructions. The observation of three different historical maps of the Antwerp Southside territory reveals how the concept of wasteland was always present as a spatial element and its meaning–representation relationship changed over time. Before the Industrial Revolution, urban-type wasteland engendered a variety of responses, ranging from delight or indifference to forms of fear and hostility.<sup>101</sup> Afterward, the wasteland concept slowly shifted from the idea of ‘wild nature’ toward the complexity of human interactions with surrounding environments. It became a by-product of age-old land use of industrial abundance, an unproductive spatial element yet to be understood.<sup>102</sup>

The sequence of wasteland categorizations – common uncultivated land, disposal waste area, blank space – highlights the social and cultural transformation of the conceptual perspective of spatial usefulness in terms of economic productive value of space. The development of these different concepts principally follows alternate waves of production and consumption, first

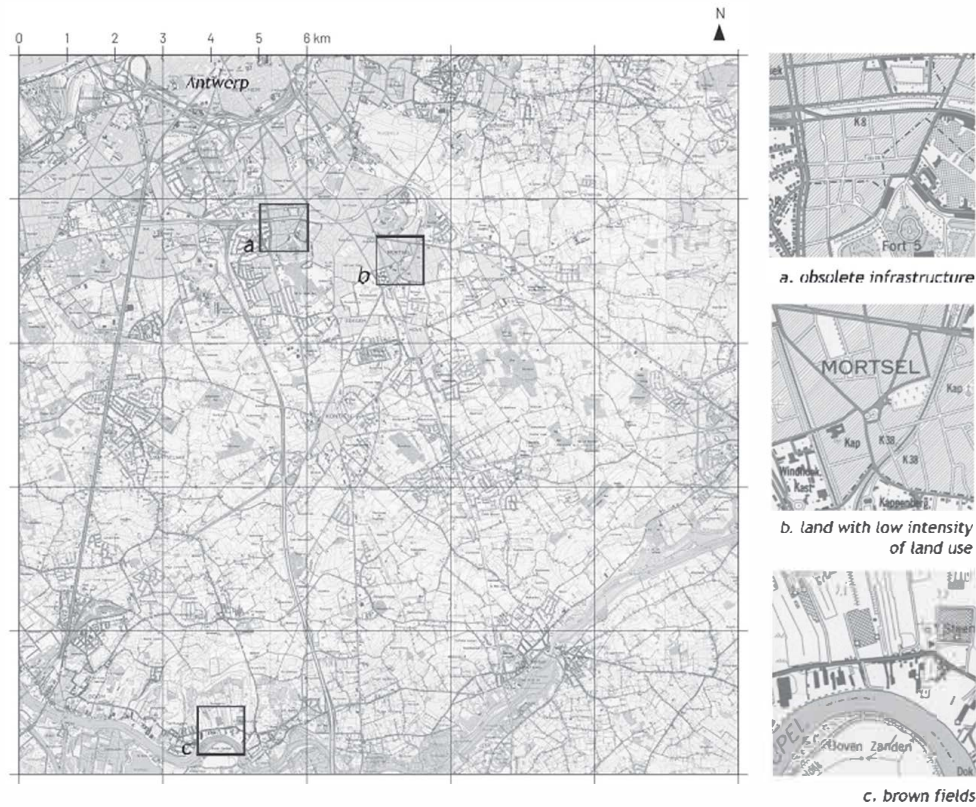


Figure 27.3 Historical cartography analysis of Antwerp Southside through the Nationaal Geografisch Instituut map (1961–1989). Source: Historical map database © NGI.

agricultural and afterward industrial. The Flemish territory has been affected by suburbanization for more than 50 years. As shown in the Antwerp Southside, this process includes land fragmentation, persistent privatization and a significant decrease in open land.<sup>103</sup> Land and its use rights are also being increasingly commodified in Belgium as elsewhere in Europe. Land is increasingly privately owned and sold; it has turned into a global asset and an object of speculation.<sup>104</sup>

Unfolding wasteland and land classifications through a cartographic analysis allows for the perception of maps as constituting synthetic devices that measure the territory, make its qualities readable and embody the interpretation of the society toward landscape.<sup>105</sup> This cartographical study discloses the metamorphosis of the sociocultural and planning perception of wasteland, describing not only the spatial value transformation but by understanding the processes whereby spatial value is constantly being created and destroyed.<sup>106</sup> As André Corboz highlights in one of his famous texts, representing the territory already means mastering the same.<sup>107</sup> Yet, this study highlights how the obtained representation is not a cast, but a construction. You make a map first in order to gain knowledge, to subsequently act upon it. The operation of reconstructing the discourse on wasteland through maps was not conceived as a way to identify a *true* perspective but as a way toward understanding the diverse positions that coexist and as a way toward highlighting alternative meanings and values. As Denis Cosgrove and Peter Jackson affirm, the alternation of meaning and value highlights how wasteland is an expression of political, cultural and social value construction made upon the landscape and mirroring the history of the society

that produced it.<sup>108</sup> Society changes, and consequently the meaning given to wasteland also transforms.

The current policies and initiatives for a socioeconomic sustainable transition (for example, European Green Deal) of EU countries encourage a rethinking of the territory including attentive environmental protection to avoid other consumption of green and agricultural land.<sup>109</sup> However, as Alan Berger affirmed, focusing on wasteland with a projective eye does not mean envisioning a world without wasteland.<sup>110</sup> Envisioning means imagining – first generally and then with increasing specificity about what one really wants.<sup>111</sup> It implies divesting all the constraints of assumed ‘feasibility,’ of doubt and past disappointments, allowing one’s mind to conjure up and imagine the most uplifting scenarios, counterbalancing the same with all due skepticism. Nevertheless, envisioning is useless if it does not lead to the development of new forms of collective management of goods, assets, services and lands, mostly bottom-up. As for the land, the 21st Century form of wasteland – abandoned and polluted former industrial sites and infrastructure – is once again gaining new attention. Due to its undefined, vague status within the contemporary urban environment, wasteland is once again seen as land of possibility, a common good.

In conclusion, this chapter shows how the way in which society labels certain spaces as *wasted* can be considered questionable, leading to an oversimplification of the complexity of land and territory, without considering its quality as a landscape form. Accepting wasteland as a form of landscape also means accepting the passing of time and the changes it inevitably brings. In its form, shape, structure and materials, wasteland narrates the story of something that has been lost as well as something that has possibly yet to be, in which the past and future coexist in terms of the life cycle of natural environments, people and space. By opening the door to the possibility of seeing wasteland not merely as a blank space but as a bearer of numerous values, and accepting its role in our everyday urban landscape, the potential of the urban territories would be considerably increased.

### Acknowledgment

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