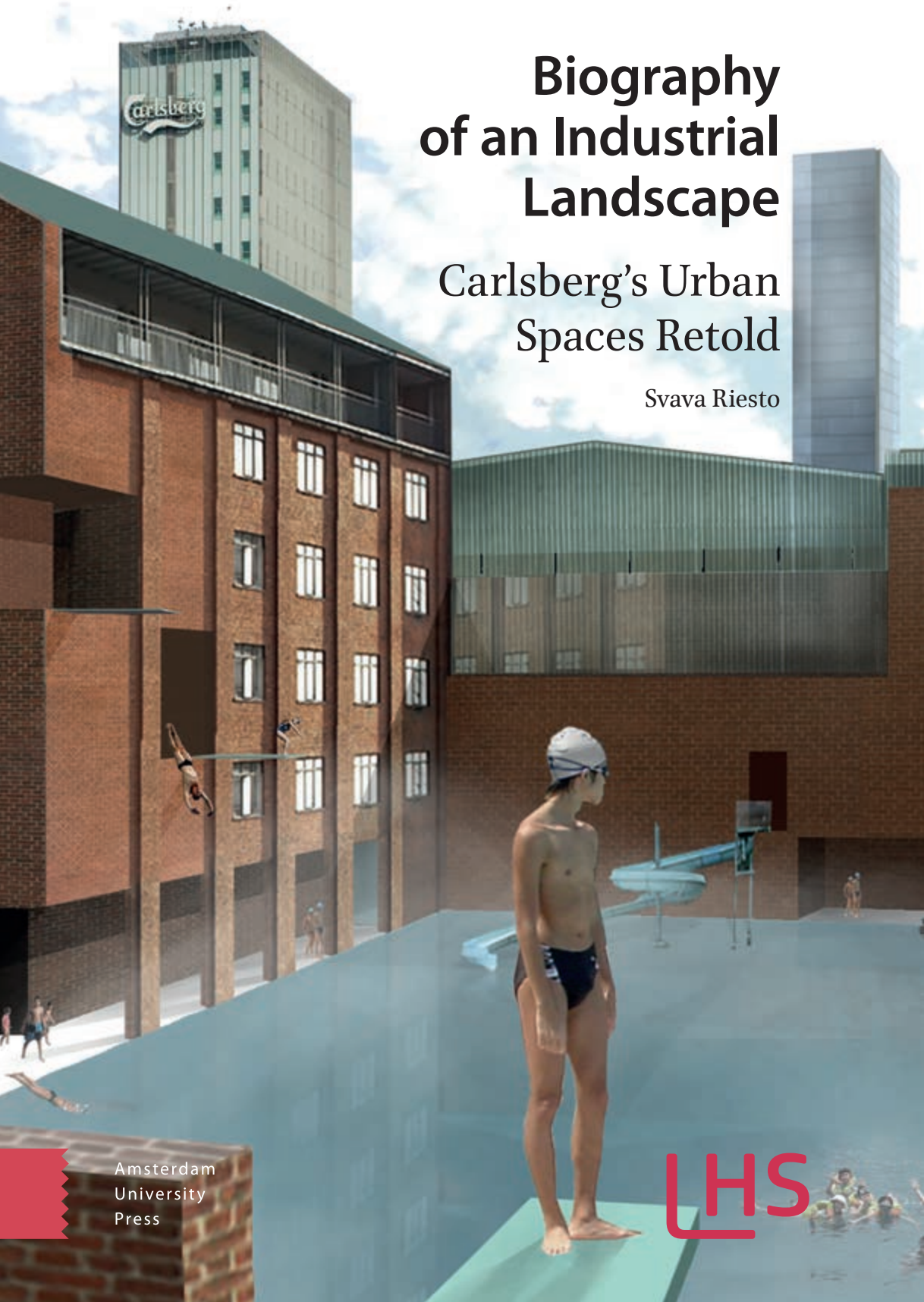


Biography of an Industrial Landscape

Carlsberg's Urban Spaces Retold

Svava Riesto



Biography of an Industrial Landscape

Landscape and Heritage Studies

Landscape and Heritage Studies (LHS) is an English-language series about the history, heritage and transformation of the natural and cultural landscape and the built environment. The series aims at the promotion of new directions as well as the rediscovery and exploration of lost tracks in landscape and heritage research. Both theoretically oriented approaches and detailed empirical studies play an important part in the realization of this objective. The series explicitly focuses on:

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- the conceptualization and musealization of landscape as heritage and the role of ‘heritagescapes’ in the construction and reproduction of memories and identities;
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Introduction

‘Life must be lived amidst that which was made before.’

– Donald W. Meinig¹

‘[H]eritage in fact has very little to do with the past but actually involves practices which are fundamentally concerned with assembling and designing the future.’

– Rodney Harrison²

When we attempt to shape the city of tomorrow, starting from a blank sheet of paper is doomed to failure. Urban planning and design are not, as some modernists may have dreamt, invention in an empty space but rather imply intervening in existing urban landscapes. Such a premise raises fundamental questions about value: What aspects of the urban landscape do we deliberately want to retain or strengthen and what to change and leave behind in striving to meet what we believe will be tomorrow’s needs and desires? What kind of a reading of the existing landscape, inherited from the past, underlies such choices?

One of the key tasks of contemporary urbanism is to address the urban landscapes that were shaped for industrial purposes.³ In the last decades former industrial production and distribution facilities in many European and North American regions have closed due to changing global and local economic, political and social processes. Finding out what roles former plants and distribution landscapes should have in the city is a new challenge in many metropolitan areas and this task is entangled with questions about if and how to transmit the inheritance of industrial cultures of the past. Post-industrial landscapes mutate without authorized uses and official plans; materials decay, people enter without official permission, trees penetrate built structures and different human sub-cultures and faunas evolve. Those landscapes later or never become sites for explicit plans, turning them into museums, cultural centres or loft apartments, or – as is the focus of this book – comprehensive urban redevelopment plans may seek to transform

1 Meinig, *The Interpretation of Ordinary Landscapes*, 44.

2 Harrison, ‘Beyond “Natural” and “Cultural” Heritage’, 35.

3 See e.g. Kirkwood, ed. *Remanufactured Sites: Rethinking the Post-Industrial Landscape* and Braae, *Beauty Redeemed*.

larger industrial plants into urban districts, seeking to combine multiple urban functions such as housing, retail or cultural institutions. Such urban redevelopment often happens in regions characterized by economic and demographic growth or with aspirations to grow. Urban redevelopment projects are complex inter-disciplinary processes, which always involve processes of re-reading and re-imagining the industrial landscape while seeking to convert it to something new.

Among the key professional voices in urban redevelopment projects are architects, landscape architects, urban designers, urban planners and experts in cultural heritage. People from those fields are central actors in surveying the present situation and proposing what should be changed or preserved, reused and altered in order to best accommodate what is identified as desirable futures. Although designers, planners and heritage experts sometimes present their surveys and proposed actions as more or less self-evident – as in ‘we just take care of the most indispensable values’ or ‘we change what obviously has to be changed’ – their choices are all but innocent. Rather, the people that are professionally involved in urban redevelopment make active choices that rely on certain lenses that allow them to see and value some parts of the existing urban landscape, while leaving others in blind spots or rejecting them. While such selective lenses are a condition – no one has access to the totality of a landscape – they are not always laid open, which often hinders an open discussion and narrows the spectrum of possible ways of imagining both the pasts and futures of a post-industrial redevelopment site.

This book seeks to articulate such lenses and to discuss the more or less hidden assumptions and narratives that they rely upon in the context of contemporary urban redevelopment of former industrial production sites. By unfolding urban redevelopment as a cultural practice, I want to contribute to a critical discussion about how we value and change post-industrial landscapes during their redevelopment planning. If we accept the possibility that there is more than one answer to the question of what are the aspects of landscapes shaped by industrial production and distribution worth retaining or strengthening, we need to stimulate an explicit debate about the values that underlie our actions – especially those values and thought-frames that are taken for granted in daily practice. Potentially, it is my hope, an open discussion about values and narratives can create a richer ground of possible interpretations on which we as a society can decide how we manage change in industrial landscapes.

The redevelopment of post-industrial landscapes increasingly brings people from many disciplines together. Spatial planning and heritage making

Image 0.1 What aspects of industrial urban landscapes do we deliberately want to retain or strengthen and what to change and leave behind in striving to meet what we believe will be tomorrow's needs and desires? Demolition of former bottling building at the Carlsberg Breweries in 2013.



are more and more intertwined in processes that seek to use heritage as an asset for the planning process. This means that experts from different fields that work with heritage management, spatial planning and design increasingly work in interdisciplinary processes. Yet, trained in different disciplinary traditions, which have historically had much less contact with each other than in the present, professionals sometimes use methods, lenses and knowledge that seem inaccessible to people from other fields. I want to unveil and discuss the different positions that planners, designers and heritage managers use in their evaluations of industrial landscapes during redevelopment. My idea is that such an articulation of positions can help substantiating future negotiation processes and to contribute to the knowledge-migration across disciplinary borders.

This book studies a specific location and transformation process: Carlsberg in Copenhagen, a former brewery and a significant urban redevelopment site in northern Europe at the start of the twentyfirst century. As I write,

Image 0.2 Carlsberg is located within the dense city of Copenhagen. Aerial photograph of the site prior to the urban redevelopment project, when the Carlsberg site was a mix of buildings of different sizes, groups of metal tanks, paved surfaces and gardens.



Carlsberg is in transition from gated production plant to urban district, as it has been during the decade that this book explores, namely from 2006 when Carlsberg announced that the site would be transformed from brewery to urban district and to 2016, when the first new buildings opened (0.2, 0.3). In this period, the Carlsberg site was surveyed multiple times in the context of cultural heritage, urban planning and design projects. Especially in the intense planning period between 2006 and 2009 fundamental premises for the ongoing development were created. I will scrutinize the heritage, design and planning acts to ask: *How have heritage professionals, planners and designers understood and assessed the Carlsberg breweries during its urban redevelopment? Which underlying values, assumptions and narratives do these assessments rely upon and how?*

Image 0.3 Prospect of Carlsberg's urban district in a visualization by Entasis Architects from 2009. The 30 ha brewery is planned to become a dense urban district of 3-5 storey city blocks that create narrow streets and trapezoid city squares, combined with high rises that serve as new landmarks when seen from afar. The new district is planned for housing, commerce and cultural institutions.



The official plan for the envisioned city district of Carlsberg follows a particular approach that puts a strong focus on making publicly accessible urban spaces, which are seen as a key value to attracting people to the formerly closed production site. The plan presents urban spaces as a key to successful urban development and gives detailed directions as to how such spaces should be structured to stimulate 'urban life'.⁴ Yet, while creating new urban spaces was so key in the redevelopment of Carlsberg, it is striking how the outdoor areas that were already present in the former brewery went largely unseen, despite of the intense site-surveys that were made

⁴ Entasis Architects, 'Vores Rum,' winning proposal to the international ideas competition 'Carlsberg Vores By' in 2007. The competition entry laid the foundation for the officially approved municipal plan: Copenhagen Municipality, 'Lokalplan 432, Carlsberg II.'

during the redevelopment phase. Outdoor spaces were treated as blank spaces during most of the entire decade of planning that we will study here. Carlsberg's industrial open spaces remained unnoticed, unnamed and their stories untold in heritage surveys and planning documents, thereby slipping explicit discussion during the decision-making. In this period, the brewery is changing by densely built areas, which was an easy operation since little or no value was ascribed to the existing open spaces. I will critically discuss how architects, landscape architects and urban designers as well as planners and heritage professionals contributed to the meaning-making processes during Carlsberg's redevelopment, which was strongly driven by economic motives.

The gap between what got attention during Carlsberg's redevelopment and what did not, between what was deliberately kept and what was removed without much discussion, is an inspirational starting point for this book. It encourages me to add to the understanding of Carlsberg by putting particular emphasis on its post-industrial 'open spaces', which will be used here to denote all outdoor spaces; paved and green, gardens, parking lots, roads, stairs and more, while the broader term 'urban landscape' means all of the physical environment without separating between built and unbuilt or more or less urban or rural parts of the territories. In studying Carlsberg's open spaces, I draw from some of the counter-voices in the redevelopment process, expressed in unbuilt design proposals and heritage surveys that failed to influence the decisions. Some of these did examine the post-industrial open spaces of Carlsberg explicitly and even associated them with certain values worth retaining or strengthening in the future, yet for utterly different reasons. By examining these and by adding on with new counter-stories I want to show that Carlsberg, like any other urban landscape, has multiple potential values. This book thus explores how we can reappraise open space as a widely overlooked, yet constitutive, aspect of Carlsberg as an industrial landscape and seeks to contribute to a more explicit consideration of its characteristics and potentials. I ask: *What characterizes Carlsberg's open spaces and how did they come to be this way?*

This study presumes that industrial landscapes are not indistinct. All aspects of those landscapes – and that includes seemingly anaesthetic or insignificant parking lots and roads – have specific characteristics, shapes and textures. Industrial open spaces did not occur randomly, but reflect certain formation processes, which relate to shifting modes of production, distribution, different social orderings and more. This formation is not only what happened when they were planned, but also what happened after; industrial open spaces may carry distinct social histories of people

Image 0.4 The Carlsberg plan connects much hope with creating good urban spaces, such as this one showing middle class families and other people with an urban lifestyle populating markets and cafés between tall buildings. The image was part of the winning design project for the international ideas competition ‘Carlsberg Vores By’ 2007, by Entasis Architects.



who have worked in them and shaped them over time, of the adaption to different hydrological conditions and more. It is thus not enough to perceive open spaces in a static way or to merely study their physical characteristics. Rather, I propose to study open spaces as participants in layered social, ecological and cultural processes by drawing on an emerging research tradition called landscape biography.⁵ This is not a fixed method, but a

5 The variety of methodologies and research questions in this scholarship is outlined in the anthology *Landscape Biographies: Geographical, Historical and Archaeological Perspectives on the Production and Transmission of Landscapes*, edited by Jan Kolen, Johannes Renes and Rita Hermans, the introduction of which examines the pedigree and key topics in landscape biographical research: Kolen and Renes, ‘Landscape Biographies.’ My own use of the concept in the study of Carlsberg and its relation to this strain of landscape biographical research has

Image 0.5 The gap between what we give attention and what not, between what we deliberately keep and what we remove without much discussion, is the starting point for this book. Take, for example, the iconic Elephant Gate, built in 1901. This is located at the prominent entrance to the Carlsberg site and is highly valued in the public and professional discussions about Carlsberg.



loose cluster of research activities that has been established in archaeology, cultural history and landscape studies since the 1990s. With landscape biography, we can discover how industrial landscapes 'live' and how they constitute the lifeworld of multiple groups and individuals, as well as how people shape and use landscapes, and interact with them in different ways. Biographical perspectives can play a fruitful double role in studying landscapes that – like Carlsberg – undergo significant change in the present; research can at once provide critical observations of contemporary

previously been outlined in the article 'A Biography for an Emerging Urban District: Discovering Open Spaces in the Former Carlsberg Breweries' in the same book, and elaborated in the first chapter of this book.

Image 0.6 What roles can post-industrial sites have in the future city? Many redevelopment projects seek to inspire new users to connect to former production sites in new ways and welcome playful activities. Picture from the Île de Nantes in France, where people can discover the former ship-building area and its transformation by riding this mechanical elephant that was built for the project.



practices while also contributing with ‘depth, nuances or alternative stories’ that can fuel new thinking and action in landscapes.⁶ This paradoxical, yet potentially productive double-role is the position of this book; at once written by the critical observer and an active participant in the narration and valuation of Carlsberg’s living landscape in the context of its ongoing and future reconfiguration.

While previous landscape biographical research has often focussed on rural regions and different urban situations, the potential of such an

6 Roymans et al., ‘Landscape Biography as Research Strategy.’

approach towards open spaces is still to be fully explored.⁷ To start such an exploration, I will draw on philosopher Henri Lefebvre's notion of space as constantly produced.⁸ In his view, space emerges in the interaction of the material, the discursive and the practiced sphere, and this interplay will form the lens through which I engage with Carlsberg as a case study, exploring more closely how this interplay produces industrial open space, starting with the present-day redevelopment process, but also studying how this interplay has worked in the past and can guide alternative futures. The third research question thus concerns the very act of doing this research: *What heuristic strategies can be used to study industrial open spaces in the context of urban redevelopment?*

This book is written out of a strong belief that words and images matter to how we value existing landscapes and thereby also influence how we choose to manage their future changes. To study the past and present of an industrial landscape and to propose scenarios for its future are not separate activities. Rather, studying, knowing and changing are inter-related; a certain reading always implies valuation and a certain action is based on a particular perception of a landscape. Architect and urbanist Manuel de Solà-Morales captures the indivisibility of design projects and site surveys with the following statement: 'To draw is to select, to select is to interpret and to interpret is to propose.'⁹ In this interpretative process, stories are a powerful tool, because they are a vital part of how we make sense of the world.¹⁰ I will examine the narratives that were operative in determining Carlsberg's plans and I will provide new, alternative stories that can broaden and deepen the understanding of this landscape. In fact, the act of deepening becomes quite literal at the end of the book, where I examine what is quite physically underneath Carlsberg's open spaces – telling the story of its sub-terrain anew.

The following chapters are not a plea for retaining every bit and piece of former industrial landscapes. The belief here is not that preserving existing open spaces is necessarily good per se, for example, because it strengthens local people's sense of community or of belonging. Neither should the following be understood as an attempt to find an exact model for the city of tomorrow by excavation into the industrial past. Rather, when we imagine

7 An example research using the term 'landscape biography' in relation to industrial sites is Veldhoven, 'Post-Industrial Coal-Mining Landscapes'. In Kolen, Renes, Hermans eds. *Landscape Biographies*.

8 Lefebvre, *The Production of Space*.

9 Solà-Morales, 'The Culture of Description,' 18.

10 Mattingly, 'Narrative Reflections on Practical Actions.'

what the city can become we always relate back to something that is already known; human creativity evolves in dialogue with previous solutions and phenomena. Knowing the physical environment that is actually here better, then – and that includes seemingly insignificant industrial spaces – can thus give us as a society a broader spectrum of possibilities for how we imagine the future – both as to what can be worth retaining and to imagining the aesthetics, uses, meanings and experiences of tomorrow's city.

The issue has become increasingly important during the last five to six decades, when industrial activities of harbours, mines and factories in many European regions and beyond move to locations that are seen as more profitable, leaving the then abandoned sites open for change. Some of the fastest and most encompassing transitions happen when developer-driven urban development projects treat derelict plants as commodities

Image 0.7 Like most other parts of the Carlsberg Brewery that were shaped in the late twentieth century, this space was rarely appreciated and its transformation not explicitly discussed during the urban redevelopment process.

This space was situated on a plateau that gave it a view of the city and an open feel with a lot of sky, as seen here prior to the construction of new buildings on this space.



with new housing, cultural centres, shopping and other urban purposes. The Carlsberg redevelopment was initiated by the global beer company itself, which retained the ownership of the property for the first years of the urban project.¹¹ Carlsberg Ltd's purpose in doing so was dual: it wanted to sell off the 30 ha/80 acre property piece by piece once built and also to use the future Carlsberg City as a signpost to beer customers and tourists¹² – a signpost in which certain narratives were more wanted than others. I will present new layers and alternatives to the existing storying of Carlsberg, inspired by philosopher and landscape architecture scholar Sébastien Marot's observation that 'a tale cannot be challenged, except with another tale'.¹³

Reconfiguring industrial sites is a complex process involving multiple economic, ecological, political and social challenges. Yet, it also always concerns how people imagine the future, while being situated in the present and, with reference to geographer Donald W. Meinig at the epigraph of this introduction, never free of traces of the past. This cultural dimension is the focus of this book. I will consider traces from the past broadly; as physical remains like buildings, roads and parking lots and as intangible traces like names, practices, and social memories. Such traces are not reflecting a linear development or hierarchical order, but rather exist in a mesh of multiple temporalities that are often referred to as *layered landscapes* – a strong, yet often vague metaphor that is frequently used in design and heritage practice and research.¹⁴ This study explores the temporalities in which Carlsberg's open spaces have emerged, and proposes three ways of understanding landscape change in the concluding chapter.

11 Carlsberg Ltd formerly was the sole owner of the site until 2012, when it was sold to a consortium in which the share of owners were the Charitable Trust Realdania (25%), Carlsberg Ltd (25%), PFA Pension (20%), PenSam (15%) and Topdanmark Insurance Company (15%). In 2017, Realdania left the consortium. See: Development Company Carlsberg Byen, 'Realdania Sælger sin Andel af Carlsbergbyen,' and Development Company Carlsberg Byen, 'Carlsbergbyen Får Nye Ejere.'

12 Ulvemann Explorative and Carlsberg Ltd Properties, 'En kvalitativ undersøgelse vedr. image af Carlsberg og Apollo.'

13 Marot, *Sub-urbanism and the Art of Memory*, 3.

14 For a discussion of this metaphor, see Renes, 'Layered Landscapes.' For examples of how the term is used in heritage discourses, see Roymans et al., 'Landscape Biography as Research Strategy.' In the design disciplines the concept 'layeredness' has multiple uses, for example, in establishing analytical approaches to landscape that emphasize ecology; see McHarg, *Designing with Nature*, and in urban morphology, see, for instance, Solà-Morales, 'The Culture of Description.'

Carlsberg – A multifaceted case study

Carlsberg's urban project has involved a broad range of international and local experts and its urban plan has received multiple international distinctions.¹⁵ Especially, the international ideas competition 'Carlsberg Vores By' (Carlsberg – Our City) to create a plan for the future Carlsberg redevelopment in 2006-2007 with over 200 design teams from more than 30 different countries provides a rich source into how designers read and value urban landscapes in the context of urban redevelopment. I will use these competition entries together with other design projects that were commissioned before and after and the multiple heritage surveys of Carlsberg, to discuss ways of reading and assessing Carlsberg's industrial landscape.

The competition brief emphasized that the Carlsberg brewery site is recognized as a 'national treasure that contains valuable Danish cultural heritage'.¹⁶ This 'treasured' brewery was to be developed into an urban district, combining housing, commerce and cultural institutions to form what the commissioner envisioned as a 'dense, vibrant and pulsating city district [...] in a setting that is both historical and contemporary'.¹⁷ This outspoken goal of reconciling conservation with development makes the Carlsberg case interesting, especially since it is a complex agglomerate of industrial architecture, some of it dating back to 1847, built on former agricultural properties, but with continuous extensions and reorganization until the 1990s. With this spatial heterogeneity in mind, it is remarkable how the decisions about what parts of Carlsberg might be worth preserving was reduced, quickly and almost without discussion, to a few old, built artefacts and representative gardens. The existing landscape of Carlsberg seems to have escaped the standard lenses that were used for survey and valuation and suggests that we need to develop new ones.

As I began researching the Carlsberg brewery site in 2007, everyone from planners to neighbours and artists were highly fascinated by the visionary urban project that turn the former brewery accessible to the public and turn it into a hotspot in the city's cultural and public life. The Danish public was generally sympathetic towards Carlsberg Ltd and its founding site in

15 The winning entry in the Carlsberg competition (of which the urban plan is a further elaboration and continuation) has won several international prizes (e.g., for the 'World's Best Master Plan' at the World Architecture Festival (WAF), Barcelona, in 2009) and has been included in various international exhibitions, such as 'Green Architecture for the Future' at the Louisiana Museum of Modern Art in 2009.

16 Petersen, 'Invitation', in Carlsberg Ltd Properties, 'Vores By Carlsberg,' 3.

17 Ibid.

Copenhagen was well-known for its remarkable historicist architecture with its rich ornamentation and sculptures of historical personalities and Greek gods. In the early phase of the redevelopment project, its stated aim was to build upon the uniqueness of Carlsberg and to 'reinforce' the 'spirit of the place'.¹⁸

A decade later the emerging Carlsberg urban district is increasingly criticized in the public, expressing a sense of loss of the former brewery's 'industrial atmosphere', 'edginess' and openness to reuse for public and cultural functions.¹⁹ The financial crisis in 2008 meant that the expected investors in the new Carlsberg urban district did not arrive and the planned construction was postponed. The large industrial halls and open spaces that had been planned for demolition to give way for new buildings were now instead used for exhibitions, concerts, temporary playgrounds and cultural events in what the owner, Carlsberg Ltd, conceived as a waiting time (0.8). Thereby new groups of users – cultural entrepreneurs, young artists and students, families with children – became familiar with those parts of the brewery that had been planned for demolition and began to appreciate exactly those spaces. Yet, decisions about the future of this part of the brewery had been made years before according to economic rationales, but also cultural heritage thinking and urban ideas that this book will unpack.

The Carlsberg redevelopment is in many ways innovative in terms of rethinking how heritage can be defined and actualized in a strategic, urban context. Two strong actors that operated at Carlsberg, the Heritage Agency of Denmark²⁰ (national authority) and Carlsberg Ltd's property department (the owner of the premises and commissioner of the urban project until 2012 and thereafter co-owner), decided to collaborate closer than ever before.

Rather than fighting over protection versus development as Carlsberg and the heritage authorities had done a decade earlier²¹, they attempted to combine the defining of heritage and urban planning and to leave several decisions open until after a vision had been created with the international ideas competition. The Heritage Agency of Denmark explored a new role for itself when it co-wrote the brief for the international ideas competition

18 Carlsberg Ltd Properties, 'Vores By Carlsberg,' 6.

19 Rosenvinge, 'Jeg drikker aldrig mere en Carlsberg'; Holst and Jacobsen, 'Visionen der forsvandt.'

20 During an institutional change in January 2012, the Cultural Agency of Denmark changed its name to the Danish Agency for Culture.

21 Carlsberg Ltd. 'Carlsberg: Fredning er bureaukratisk og erhvervsfjendsk'; Heimann Olsen. 'Carlsberg Bryggerierne imod fredning af sine gamle bryggerier.'

Image 0.8 Carlsberg Ltd attempted to make sure the site became attractive for users, tenants and potential investors despite the pause in planning caused by the recession in 2008. In 2010, along with two foundations and Copenhagen Municipality, Carlsberg commissioned three urban space projects to last for approximately five years.



‘Carlsberg Vores By’ in 2006, which asked designers to come up with ideas on where and how dense to build, what and how to keep and reuse and what to change.²² After the competition, Carlsberg Ltd Properties invited the winning designers together with the municipal planners and heritage authorities to a five-day on-site workshop in which they negotiated on how the new urban plan could encounter the existing landscape. Standing at selected sites in the breweries, they negotiated about how specific buildings

²² The brief asked: ‘How can the distinct structures in the area be integrated and reused? What rate of utilization would be acceptable in the area?’ (Carlsberg Ltd Properties, ‘Vores By Carlsberg,’ 45).

and gardens should or should not change as part of the conversion.²³ The interdisciplinary collaboration requested the different experts to explain their rationales and concepts much more than many of them were used to from other contexts.

Carlsberg is at once an exceptional and a typical industrial site, but this case study does not claim that it is instrumental to all other industrial landscapes undergoing transformation. Rather, inspired by planning researcher Bent Flyvbjerg, I propose that in-depth case studies are helpful to achieve specific and contextualized knowledge about the 'many-sided' and 'thick' character of each situation.²⁴ I will present Carlsberg's landscape biography through stories, attempting to make sense of it, but also to keep the possibility open for readers to make sense of it in their way.²⁵

Discovering post-industrial open spaces

Some parts of industrial architecture – such as adorned brick factories – are quite likely to be thought of as valuable in contemporary urban redevelopment, while others are more or less intentionally discarded. To me the most valued elements are not always the most interesting to discuss. Rather, I direct attention towards those parts of the industrial urban landscape whose value is characterized by tension, or which go unnoticed in urban redevelopment projects, in particular those industrial facilities that are planned after 1945.²⁶ Quite typically, the official designations of listing or preservation of Carlsberg's built heritage show how the youngest parts of this landscape were automatically much less likely to be seen as valuable than the oldest ones. The heritage survey focussed on the largest and most adorned buildings by famous architects that were already canonized in historiography and critique (0.9). These criteria seldom applied to the youngest

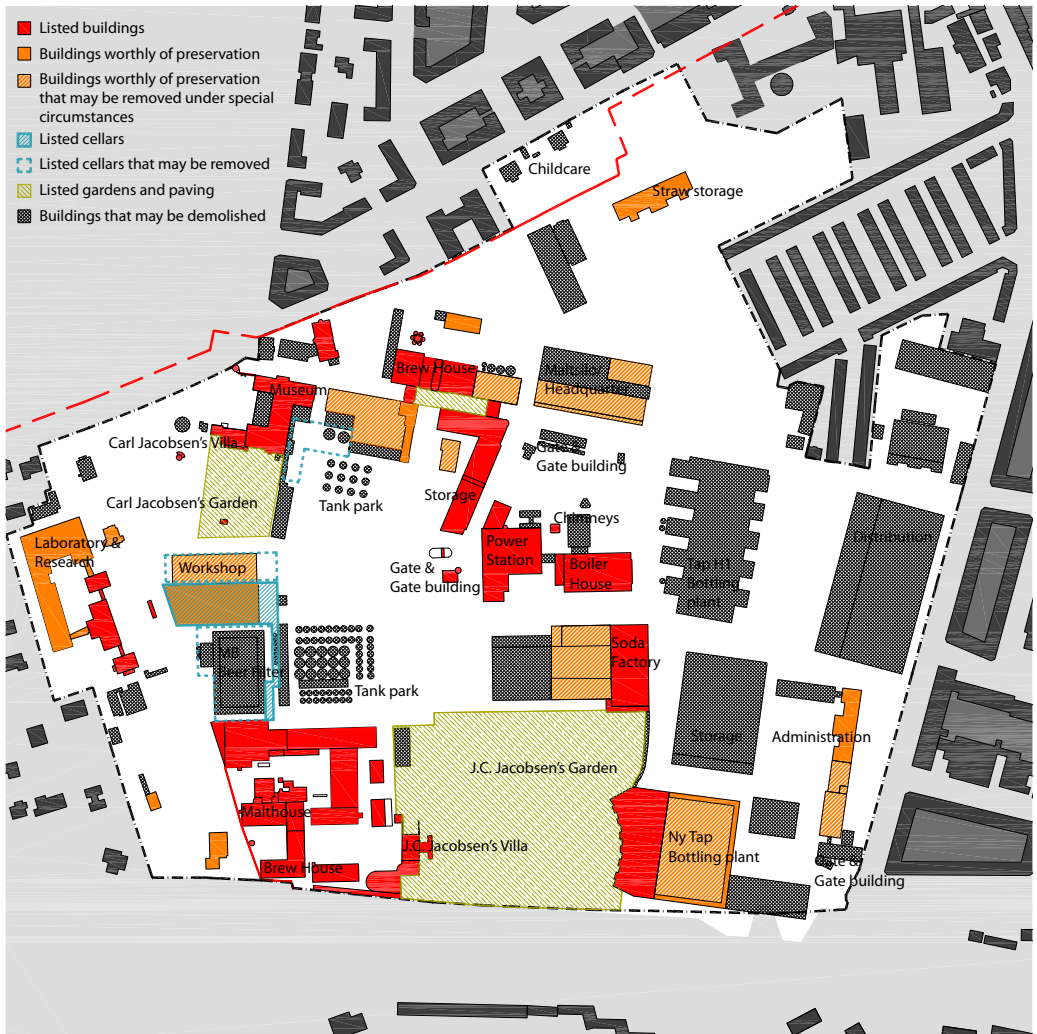
23 In June 2008, a group of key stakeholders in the redevelopment of the Carlsberg brewery site in Copenhagen spent a week on-site sharing observations and discussing and negotiating reuse and heritage. The group included representatives of Carlsberg (Jacob M. Andersen, Petra Hækkerup, Ulla Nymand), Entasis Architects (Signe Cold), the Heritage Agency of Denmark (Lisbeth Brorsen, Jesper Jensen) and the Copenhagen Municipality (Berit Jørgensen, Helle Hagerup) and Copenhagen Museum (Inger Wiene). I participated as an observer.

24 Flyvbjerg, 'Five Misunderstandings about Case-Study Research', 311.

25 *Ibid.*, 238.

26 In Denmark, buildings younger than 50 years are not assessed as a part of the national heritage unless special exceptions are made. This means that recent buildings are automatically excluded from the discussion of national heritage (Danish Agency for Culture, 'How Does a Building Become Listed?').

Image 0.9 Official heritage designation of Carlsberg. Focus is on buildings, while open space is with few exceptions treated as blank space. The strongest preservation status, listing, is reserved for the oldest buildings or those built by canonized architects. Almost all of the post -1945-parts of the brewery (e.g. the tank parks and large grey buildings to the right) are defined as buildings that may be demolished.



Map from 'Lokalplan 432.' 2009. English names by author.

parts of the brewery and expose a limitation in the existing survey methods. What, then, characterizes industrial facilities built after 1945? Architecture historian Jørgen Sestoft's notion *process complexes* can be useful to show how they are often made for industrial flows of energy, material, people and goods through pipes, streets and other connecting devices.²⁷

The Carlsberg breweries were reconfigured numerous times during the last century, becoming a process complex with a network of connecting cellars, pipes and other transportation flows inside and outside of buildings. Carlsberg's process complex, in turn, was connected to larger networks of regional and even global trade, knowledge and production. To assess what is particular about twentieth-century industrial architecture we have to widen the gaze from singular buildings to the larger scale of process complexes and relationships with larger networks. While cultural heritage management has traditionally been oriented around artefacts, open space is an emerging theme in the heritage management of built environments. The Venice Charter from 1964 was a milestone that put focus on the spatial qualities of historical city cores in Europe, many of which were then still war damaged.²⁸ Many countries have since developed concepts, legislation and survey methods for addressing larger environments and open spaces, such as the German concept *Ensembleschutz* and the Dutch *biotope* used in heritage contexts. In Denmark, the SAVE (Survey of Architectural Values in the Environment) method was introduced in the late 1980s and offered a substantial contribution to addressing the interplay between topography, cultural history and architecture.²⁹ SAVE was, however, developed in a time when industrial landscapes were not yet high on the agenda in heritage discussions in Denmark.³⁰ Its methodological breakthrough was crafted in close accordance with those pre-industrial environments that were a big issue then. While open space has emerged as a theme in cultural heritage, the experiences with addressing the outdoor spaces of industry are still cursory, as the Carlsberg case will show.

For the work of architects, urban planners, landscape architects and urban designers, open space has been a much more explicit theme throughout, although in different ways. In the decades following World War II, many

27 Sestoft, *Danmarks Arkitektur*, 92.

28 The Venice Charter was an important milestone in considerations of heritage at an urban scale. See International Council on Monuments and Sites (ICOMOS), 'International Charter for the Conservation and Restoration of Monuments and Sites.'

29 Algreen-Ussing, Silding and De Wal, *Byens Træk*, and SAVE: *Kortlægning og registrering af byers og bygningers bevaringsværdi og udarbejdelse af kommuneatlas*.

30 Jørgensen, 'The Industrial Heritage in Denmark.'

designers argued that urban space had been diminished in modern planning to a degree that it had to be resurrected.³¹ They promoted the pre-industrial, classical European town square as the model that could restore urban life; a belief that influenced the Townscape movement, New Urbanism and other attempts to resurrect the qualities of premodern cities.³² As the following chapters will show, the critique of modernism has been remarkably present in the decision-making around Carlsberg, where the thinking of the most influential Danish critic of modern planning, Jan Gehl, came to make a strong case against the spaces of twentieth-century Carlsberg. Reassessing the industrial open spaces in fruitful ways thus require a critical discussion of this position.

The structure of the book

Chapter 1 ('A Biographical Approach to Industrial Landscapes') situates the recent changes at Carlsberg in the contemporary 'paradigm of transformation' – a condition in which heritage and design practices are becoming increasingly intertwined in the context of spatial planning, while also new ways of conceiving of both heritage and design emerge.³³ These changes, I argue, call for new research that can begin a discussion about industrial open space both in a perspective of the present, the past and potential futures of such spaces. To substantiate contemporary intervention in post-industrial landscapes, the chapter proposes, we need to understand their open spaces particularly and to do so in a dynamic perspective. That is the reason that a biographical approach can bring in vital knowledge, as the chapter argues.

The three following chapters delve into three of the most significant tensions during the urban redevelopment, in terms of how Carlsberg was valued. I use those tensions to raise more general questions about reading and valuing industrial landscapes undergoing transformation.

31 This critique emerges from within the modern movement in the immediate post-war years as well as from professionals who did not see themselves as part of the modern movement; see, for example, Tyrwhitt, Sert and Rogers, *The Heart of the City*; Cullen, *The Concise Townscape*; Jacobs, *The Death and Life of Great American Cities*; and Ellin, *Postmodern Urbanism*.

32 Ellin, *Postmodern Urbanism*.

33 Kolen, 'Rejuvenation of the Heritage'; Janssen, Luiten, Renes and Stegmeijer, 'Heritage as Sector, Factor and Vector'; Braae, Beauty Redeemed; Braae, Riesto, 'As Found'; Riesto, Søbberg, Braae, 'City of Open Works'.

Chapter 2 ('Site') studies the processes of defining boundaries for the Carlsberg site. I question how Carlsberg was defined as a site – an urban site, an industrial site etc. – during in the redevelopment process, examining how different concepts of unity and diversity, insulation and entanglement were negotiated. Informed by forgotten entries in the design competition and by innovative heritage surveys, I develop new narratives that attempt to nuance and question the standard site definition. The chapter shows that defining site is never self-evident, but rather part of the value-laden choices that are closely tied to decisions in urban redevelopment – both concerning the past, present and future of an industrial landscape.

Chapter 3 ('Space') examines the clash that emerged between the dominating ideas about future urban space and Carlsberg's existing spatial structures. I show how Carlsberg during the first years of the redevelopment became a battleground for critiquing of the modern city, as seen in the open space structure of Carlsberg stemming from the mid- to late twentieth century. The urban planning and heritage survey process also fostered alternative concepts of urban space qualities. Drawing on this urban discussion, I develop new ways of conceiving of Carlsberg's twentieth-century open spaces and their becoming between materiality and imagination, between industrial rationales and the everyday, between soil, water and shifting concepts of beauty.

Chapter 4 ('Sub-terrain') examines Carlsberg's cellars, which came to have a decisive role in Carlsberg's urban plan and its reception. What values did planners, designers and heritage professionals associate with Carlsberg's cellars and why? Informed by the thick discussions that surrounded Carlsberg's cellars I include different voices in the biography of these underground facilities – in new narratives that embrace worker's oral histories and practical jokes, the 19th century novelist Herman Bang's deeply felt visit to the cellars and the role of substances like soil, yeast and ammonia for creating the cellars. The chapter argues that the brewery cellars are just as much technological facilities as they are spaces of human imaginary and it shows how not only contemporary discussions, but also century-old cultural metaphors and words can lurk into our thinking about an former industrial site and ultimately impact on the planning of its future.

The last chapter (Biographical approaches to industrial open spaces') draws general reflections from the study of Carlsberg. I discuss the value of biographical perspectives in terms of surveying and understanding industrial landscapes in the context of urban redevelopment, especially asking about how open space can be understood more closely. I present findings from Carlsberg and reflections about how we can grasp industrial

sites as dynamic, yet beyond standard perceptions of linear development. This part discusses who (or what) has changed the landscape of Carlsberg and how. The chapter ends by proposing that landscape change can be understood as (at least) three different types of processes, which emerge from the study of Carlsberg.