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Channeling Politics:
Shaping shorelines & cities in the Netherlands, 1990-2010

By

Kimberley A. Kinder

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Abstract

Channeling Politics: Shaping shorelines & cities in the Netherlands, 1990-2010

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Water-oriented real estate development has emerged as a leading urban investment strategy over the past few decades. But business interests are only part of the story, and the political possibilities created when soil is turned into streams and lakes or when land-based construction is given an aquatic focus are vast. As this study of water politics in Amsterdam shows, bringing water back to the forefront of urban planning today is creating an entirely new spatial terrain of action in the city where ideas of class, nature, sexuality, and security collide in tenacious, sometimes troubling, and often inspiring ways.

This study of changing land-water relationships in and around Amsterdam between 1990 and 2010 accomplishes two objectives. First, at the empirical level, I tease out the many significant and surprising ways that water-oriented urban development has become a hotbed of political maneuvering. Shoreline debates cut through some of the most contentious issues of the day, from welfare restructuring and anti-gay violence to monument preservation and global warming. I explain that, while these shifts are partially emerging through professionalized planning sectors as expected, they owe much to the elusive and quotidian interaction of residents, activists, and passers by with houses, vistas, parties, relics, cameras, and neighbors that, by happenstance or design, have recently begun circulating through the watery spaces of town. And I show that long-overlooked institutional and cultural dependencies stemming from bureaucratic specializations and urban lore significantly shape the opportunity structures surrounding water, a phenomenon that helps explain the high degree of informal water-oriented investment taking hold in Amsterdam as elsewhere.

Second, from a theoretical perspective, this empirical study of water politics in Amsterdam shows that these re-appropriations of water in urban life are radically altering some of the most fundamental expectations about the essence, meaning, and import of cities, both as a lived reality and as an epistemic category. Long-standing assumptions about the places of freedom in the city, the embodied casings of urban history, and the relationship between town and country no longer hold. The empirically rich chapters in this book explore these three issues in turn and, in so doing, explain how, why, and to what political ends watery spaces in the city once thought dangerous, degrading, and irrelevant have come to appear habitable, luxurious, and profitable, or vice versa.

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INTRODUCTION

Chapter 1

“PANDORA’S BOX”

Making water, making cities

... it can never be overemphasized that the period between 1550 and 1650, when the political identity of an independent Netherlands nation was being established, was also a time of dramatic physical alteration of its landscape. In both the political and geographical senses, then, this was the formative era of a modern, Dutch, nationhood. In the subsequent historical consciousness of that people, those two processes were inseparably linked together. (Schama 1987:34)

It has been said that God made the land, but the Dutch made Holland. Histories of the Netherlands almost invariably open with descriptions of a wet and marshy landscape, and of the shovels and pumps that turned this mud to gold. If you believe what you read, this multi-millennial process of conquering land from sea is central to the emergence of Dutch nationalism, democracy, and imperialism. Mid-20th century schoolbooks celebrated these heroes of the polders alongside their cousins, the merchant captains of the high seas. This watery past remains an important symbol of Dutch identity on the international stage. The American-invented story of little Hans Brinker with his finger in the dike, the miniature windmills and wooden clogs sold to tourists by the boatloads, and the 17th century landscape paintings displayed in museums around the world; these water-inspired elements stand in to outsiders as caricatures of quintessential Dutchness.

But is this fact, or is it fiction? “Water identity has had its day, and it’s not today.” Sociologist Justus Uitermark (2009) expressed sentiments shared by many academics and cultural critics. As he told me, the folklore connecting water and Holland is an invented and relatively young tradition. Conquering-the-sea narratives carried more weight in the 1950s as the final curtain fell across the Dutch colonial empire than it held in the 1650s at Amsterdam’s imperial peak. And these narratives carry even less weight today. “Few people in the Netherlands have an articulated idea of water,” he said. “It’s probably important, but only at a subconscious level. People don’t think about it.” Poldering, a landscape technique used to reclaim salt marshes in the region, remains common practice. But Uitermark describes it as trivial, uncontroversial, and culturally insignificant. Managing water, he said, is a practical affair, not an ideological commitment. “Water folklore doesn’t determine the identity of the Netherlands anymore” (Uitermark 2009).

Despite such declarations, asking Amsterdammers about water today opened a Pandora’s Box of political intrigue. In recent years, national climate change policies put technologies of flooding and floating center stage. Sustainable development visions twinned wetland mitigation with metropolitan ascent. Water amenities heavily influenced real estate profitability and regional competitiveness. Proposals to change water’s route through town pitted neighbors against each other in near-violent class conflicts. Central city canals became prized spaces for collective engagement. And the growing popularity of

living afloat displaced old-timers from their self-built homes. Despite assertions of irrelevance, evidence of water's continuing social import in the Netherlands abounds.

This study of the legality, historicity, and materiality of water in the Netherlands explores the role surface water is made to play in ongoing political debates about Amsterdam and Amsterdammers. As with all relational spaces, cities are constantly in transition. Discourses of sustainability, information economies, and individual responsibility are popular planning tropes guiding urban development today, alongside austerity, inequity, and informality. Within this regeneration matrix, as the following chapters will show, water wears many hats. It is a hydrological force carrying the consequences of global warming and ecological degradation into people's living rooms. It is a highly prized real estate commodity but also a deeply feared agent of community disruption. And it figures as a fiercely guarded, quasi-regulated frontier holding out promises of marvelous profits that can only be realized at high social prices.

Taken together, these cultivated intersections between water, nature, economy, and liberty connect water management decisions to many of the most potent urban redevelopment dynamics shaping cities at the turn of the 21st century. As the lines between wet spaces and dry ones are reconfigured, new paradigms of personal freedom, collective heritage, and environmental health come into being. These linkages mean that questions about water are rarely benign. Rather, as this study shows, water narratives in the Netherlands over the past two decades sliced through the heart of political discussions over environmental health, market competitiveness, and community vitality. But by debating these political issues through the language of water, partisan social agendas of many different stripes appeared natural and inevitable.

Tracing these watery discourses denaturalizes the political work water has been made to do. Many of the development visions unpacked here are ones that I support despite what might at times seem like an overly critical assessment of the supporting arguments in their favor. My intention is not to denounce green urbanism, neighborhood expansion, or spatial regulation outright. Rather, in showing the utility of water in these discussions, I hope to encourage people to debate these initiatives on their political merits rather than on seemingly self-evident yet misleading hydrological technicalities.

Methods overview & chapter overview

Methodologically, I trace the productive dynamics shaping water in order to show how the making of watery essences can facilitate urban regeneration and social reform. This strategy builds on similar approaches used to study spatial politics in geography, sociology, and anthropology. For example, Chandra Mukerji (1997) and David Harvey (2003) used similar approaches to show that monarchs engaged in environmental transformation – and not just military campaigns or legal reforms – to consolidate governing authority in 17th century France and to perpetuate it two centuries later. Similarly, Timothy Mitchell (1988) and Donald Moore (2005) show that streetscape layouts and land provisioning systems in various African contexts helped pull reluctant colonial subjects into imperial systems of rule. I take these insights to heart and, in applying their theoretical approaches to this study of water in Amsterdam today, I bring their valuable insights to bear on North Atlantic societies in the present day where similar territorial strategies of authority have long been undervalued or ill-conceived.

In constructing the chapter narratives that follow, I polarize my analysis into three thematic but overlapping topics. I look first at jurisdictional divisions of labor and associated opportunities for informal behavior along Amsterdam's central city canals. I then analyze links between water's heritage value and its marketability in the city's real estate industry. Third, I investigate mobilizations of water's biophysical characteristics in relation to emerging city building trends in Amsterdam and nationwide. For purposes of clarity, Parts 1 through 3 of this study roughly correspond to these thematic divisions. But the seeds of each topic are present throughout and should not be interpreted as separable and autonomous from one another.

Empirically, I base this analysis on a widespread collection of written government documents, press materials, and interest group paraphernalia surrounding urban expansion, water management, and social politics. Although at times I discuss my findings through a national or historical lens, the bulk of my data comes from Amsterdam-focused documents published between 1990 and 2010.

I culled the government documents referenced in this study from several administrative levels and branches, as well as from several external government-related knowledge and service provisioning agencies. Within this mix, two sources of information proved especially useful: I draw extensively from the public records of the national Ministry of Transport, Public Works, and Water Management (*Verkeer en Waterstaat*), and I rely heavily on publications and archives associated with the Amsterdam City Council's Physical Planning Department (*Dienst Ruimtelijke Ordening*) and its various affiliated agencies.

Several of the press materials of interest come either from news bulletins or interviews associated with these governmental offices, but even more come from independent agencies, residents, and experts in the form of newspaper reports, letters to the editor, self-published commentaries, and advertising campaigns. In addition to many incidental sources, much of my press-related evidence comes from targeted, systematic searches of four leading Dutch-language newspapers: the national, business-oriented *NRC Handelsblad*; the Amsterdam-focused, centrist *Het Parool*; the widely-circulated, left-wing *de Volkskrant*; and the slightly-conservative, Christian *Trouw*.

I also used these edited sources, combined with a snowballing pre-interview technique, to identify several interest groups engaged in water-related activities outside official state and market channels. These groups include prominent environmental societies, heritage watchdog organizations, underground artist collectives, quasi-anarchist houseboat associations, and fledgling civil liberty associations. Pamphlets, leaflets, letters, reports, and interviews from these groups provide critical insights into the diffuse and creative ways people with little or no interest in water management or urban policy per se have nonetheless been able to use their quotidian interactions with canals, boats, fish, and the like for political gain, shaping water and cities in the process.

Select interviews with a couple dozen local history, water, and culture experts, as well as conversations with key leaders in several of the interest groups referenced throughout the study, played a small but critical role at the outset of this study, directing my research path and ruling out false starts. The individual chapters contain more detailed, topical information about the sources and methods employed in the various sub-sections of this study.

In the rest of this introductory chapter, I sketch out a theoretical and historical framework for the empirical examples that follow. I begin by situating the key claims of this study in context with other geographical inquiries of water, nature, society, and cities. Using this literature as a starting point, I explain how shoreline typologies are changing and the implications of these shifts on urban form and thought. I then provide an all-too-brief overview of some cultural and economic trends at work in the Netherlands today to help readers unfamiliar with this part of the world make sense of the chapters that follow. I conclude with a discussion of the similarities and differences between water management expectations in this country and those in other North Atlantic cities and especially those in the United States.

Shaping shorelines & cities in the Netherlands

As recent scholarship has demonstrated, the reconfiguration of the places and modes where land and water meet is part of a larger and growing disillusionment with nature-society dualisms internationally since the 1970s. Jamie Linton (2010), in his book on the historical processes shaping water since the Enlightenment refers the pre-1970s Modernity era as an age of extraordinary landscape reconfigurations. The physical construction of dams, aqueducts, drainage, and plumbing systems at unprecedented scales during the 19th and 20th centuries symbolized a sense of hydrological triumphalism. Yet despite the magnitude of these physical transformations, Linton stresses that, “perhaps the greatest hydrological accomplishment in the modern world has been to construct an idea of water as something apart from the broader social context in which it occurs” (Linton 2010:xvii-xviii). In other words, the scientific-ized process of abstracting water into H₂O – a supposedly uncomplicated, universal, and un-encumbering chemical equation – seemingly disentangled notions of hydrology from those of society. This ideological polarization, Linton says, is what made the physical projects to contain and tap water thinkable and justifiable.

Maria Kaika’s water politics analysis (2005) illustrates the urban development possibilities created by this abstracted and polarized way of thinking. From this perspective, urbanization figured as a Promethean project to liberate society from nature’s whims. In the case of urban water, this feat was to be accomplished by regularizing the flows of water in and out of the city. Embanking streams, culverting rainwater, and piping sewage made freely circulating water firmly inaccessible, leaving in its stead only cleaned, tapped, monitored, and commodified water appearing on demand from faucets in the most private rooms of the domestic sphere. Expectations of nature-society dualisms, then, helped give rise to an attempted landscape of hardened land-water lines across much of Europe and North America. As just a few examples, the London Thames, Roman Tiber, and Los Angeles River were straightened, walled, and locked in place, not to mention the perhaps thousands of smaller streams channeled and buried across rural and urban areas, especially in the United States (Gumprecht 1999; Oliver 2000; Rinne 2010). These changes were said to rationalize the land for agriculture, industry, and shipping investments benefitting from uniform, predictable, and privately owned topographies. Through these interventions, even as water continued to circulate through inhabited spaces, it was made to stay out of sight, on the inside of pipes and the outside of walls.

But, as Linton, Kaika, and others explain, this polarized “Modern Water” mentality entered a state of crisis in the 1970s as water threatened to burst through the concrete,

steel, and ideological seams once built to encase it. Critical failures sometimes took the form of infrastructural collapses, as when dams dissolved or levies cracked. In other instances, it was manifest in troubling ecologies of habitat loss, species extinction, drought persistence, and dead zones. Critical failures also played out through cultural expressions of disconnection from romanitized icons of life-giving hydrology. Theorists, especially those working in the Science and Technology Studies vein, have used these examples to expose ongoing and inevitable nature-society intermingling, co-constitution, and inseparability (Illich 1985; Reisner 1993; Swyngedouw 2004; White 1995).

These safety, environmental, and cultural crises, in the context eroding faith in nature-society divides, led directly to a parallel breakdown in attempts to polarize wet spaces from dry ones. In urban contexts, this change has taken several forms. Perhaps most prominent are the restored streams and re-vegetated shorelines in dozens of North Atlantic cities, a move touted as a U-turn in thinking, bringing long-banished water from the subterranean sphere back into surface topography (Pinkham 2000; Desfor & Keil 2004; Kibel 2007). Concurrently, the growing use of infiltration gardens, rainwater barrels, permeable paving, and so on redistribute the location, pace, and mode of water management, encouraging seepage and infusion rather than collection and expulsion (France 2008; Kemp 2009; www.lowimpactdevelopment.org). These various trends reflect more than a proliferating number of junctures where water and soil are permitted to meet. More fundamentally, these changes represent a qualitative change in the land-water interface. The once-hoped-for stark dividing line is being reworked into a blurred and variable zone where it can be difficult to tell where wetness ends and dryness begins.

This reconfiguration of the water-land divide, which is an outgrowth of disillusionments with nature-society dualisms now 40 years in the making, is the starting point of my study. Building on these insights, this study sets out to accomplish two tasks.

First, by analyzing the paths that this land-water reconfiguration is taking in Amsterdam, this study reveals a series of innovations suggesting that this shift may become more pervasive and significant than previously anticipated. As the following chapters will explain in detail, the physical shoreline reconfigurations underway in Amsterdam reflect a rationale and scale of change qualitatively different from their older and more tentative precursors in the United States. These undertakings exhibit significant and as yet under-addressed institutional and cultural dependencies. And while these shifts are partially emerging through professionalized financial, governmental, environmental, and planning sectors as expected, they also owe much to elusive and quotidian interactions of residents, activists, and passers by with houses, vistas, parties, relics, cameras, and neighbors that by happenstance or design have begun to circulate through the widened landscape band of soggy grays.

Second, the ensuing chapters reveal an unexpected and surprising outgrowth of this shoreline reimagining trend: the land-water reconfiguration is radically altering some of the most fundamental expectations about the essence, meaning, and import of cities. Because of this boundary re-conceptualization, and within its larger political-economic context, long-standing assumptions about (1) the places of freedom in the city, (2) the embodied casings of history, and (3) the relationship between town and country no longer hold. As a result of these three conceptual alterations, many spaces once thought to be dangerous, degrading, and irrelevant now read as habitable, luxurious, and profitable, or vice versa. This study explores these three questions in turn, explaining the often surprising ways that

that land-water divides are being reconfigured and the way these shifts are enabling a reconstitution of the urban, both as a lived reality and an epistemic category.

My analysis proceeds in three parts. I begin in Part 1 by examining jurisdiction and informality on the water in order to show how assumptions about the places of freedom in the city are changing as people use urban water for non-industrial purposes. Canals literally thread through the streets of Amsterdam. But because of matter-based divisions of labor, the governing bodies responsible for housing, public space, and physical planning on dry land have little influence over what happens on the waterways weaving through the city center. The harbor and waterway management agencies regulating activity on the canals have gradually established codes of conduct governing water top behavior that differ from those in force on dry land, which means that a different type of activities and politics are possible on water than in the adjacent streets, squares, and apartment blocks.

My research suggests that these polarized divisions of labor and codes of conduct inadvertently provided residents, revelers, and investors with openings to pursue social activities on water that were less possible on land. For instance, in Chapter 2, I analyze squatters and hippy houseboaters who smuggled do-it-yourself housing onto the canals in the 1960s and 1970s when affordable housing on land was scarce. Then in Chapter 3, I investigate the gay advocates, holiday partiers, and hotel managers who, largely by accident in the 1990s and early 2000s, turned central but underutilized nautical thoroughfares into prominent collective gathering spaces for city and nation. In both instances, the people involved took to the canals because, through trial, error, and coincidence, they learned how to use water-based rules to elude market processes and governmental oversight constraining their ability to live, party, and protest elsewhere in town.

This manipulation of material-based jurisdictional specializations suggests that spaces of freedom in the city are not limited to abandoned buildings, forgotten underpasses, and dangerous peripheries as is commonly believed. Although urban and social theorists have shown that people can use these marginalized spaces as safe havens for counter-cultural activities (Gregory 2005; Hurowitz 2007; Shaw 2005), these studies also confirm that these kinds of places come with significant social risks and spatial disadvantages. By contrast, this study's analysis of living and partying on the Amsterdam canals shows that managerial specialization, and not just the absence of a government or market presence, can create spatial fissures and fault lines enabling countercultural activity even in central, regulated, and prominent urban spaces.

In Part 2, I explore the links between water, history, and real estate in order to demonstrate how changing perceptions and uses of canal and harbor infrastructure are changing expectations about where urban history is thought to reside and what these heritage traces should look like. For many people, Amsterdam came of age as a global imperial city in the 17th century, and although countless noteworthy events shaped the area's physical forms and social customs in the preceding and ensuing eras, the 17th century Golden Age has emerged as a salient historical referent in contemporary strategic planning discussions over how best to cultivate a metropolitan structure and aura enabling Amsterdam to compete with London, New York, Paris, and Rome.

My analysis indicates that water-oriented urban development took root in Amsterdam in large part cloaked in these tropes of 17th century relics. I examine these dynamics first in Chapter 4 through a study of three armature heritage preservation efforts

to excavate lost canals in Amsterdam's city center in the late 1990s and early 2000s. Although these initiatives were never realized, I show that the media-publicized discussions over the projects' merits helped articulate and consolidate a quasi-scholastic narrative linking the presence of water today with the remembrance of a Golden Age past, a narrative that, whatever its veracity, has now become an accepted cultural truth of the city. Then in Chapter 5, I analyze squatters, architects, and boosters who mobilized nautical history tropes in a face-off over a highly successful, mega-scale harbor redevelopment project and, in so doing, helped water-oriented urban development emerge as a dominant city building tactic in a previously anti-water municipal planning culture.

These opportunistic and, at times, antagonistic narratives re-scripted urban water as a historical entity rather than a natural one. Statues and palaces are usually the fodder of heritage while soil and water have traditionally been cast as a-historical pieces of nature, a designation that is as visible in projects to tame water at the turn of the 20th century as it is in efforts to restore lost waterways at the century's close. But this study of water in Amsterdam shows that, in exploiting the links between canal construction, nautical trade, and legacies of global influence, the historicization of water provided a potential way for would-be developers to create new investment opportunities in built-up 17th and 19th century districts. These strategies, while not universally successful, have enabled a fundamental reassessment of the places where cultural heritage is thought to adhere in urban spaces, shifting focus from the bricks and mortar of buildings to the ripples and reflections of waterscapes.

Part 3 of this study examines emerging city building strategies that loop water-related biophysical processes into urban expansion initiatives so as to explain how the relationship between town and country is being reworked. Expectations that nature endangered infrastructure, finance, and human lives helped justify efforts to fill canals and build levies in and around Amsterdam in the late 19th and early 20th centuries. With the rise of the environmental movement in the 1970s, efforts to bring nature back into urban spaces have taken root here as elsewhere.

My research suggests that, with theories of ecological webs and nonhuman actors on the rise, the role and responsibilities of urban planners vis-à-vis nature, as well as the expected contribution of aquatic processes to city building undertakings, is changing. I look first in Chapter 6 at environmentalists and urban ecologists who, since the late 1990s, have been experimenting with the possibility of using new home construction off Amsterdam's northeastern shore to activate latent hydrological, biological, and optical processes in lake ecosystems to spontaneously regenerate an internationally celebrated but struggling avian rookery in Western Europe's largest freshwater lake. Then in Chapter 7, I investigate the architects, engineers, and national cabinet officials promoting floating and amphibian architectural technologies in the hopes of overcoming physical and social obstacles to continued – and some might say sprawling – urban expansion in the face of global warming.

In both instances, hydrological processes are actively being incorporated as tools or agents of urban construction alongside bulldozers, foundations, greenhouses, and laws. The development strategies used here do not overturn nature-city dualisms *per se*, nor are the newly built neighborhoods being sold as a way to bring nature back to the city. Rather, in changing the way sidewalk curbs and living rooms meet water surfaces, planners are devising new ways to turn cities into nature's womb, or the place nature is born before

radiating out into the countryside. And they are forging new opportunities to turn the largest physical obstacles threatening urban expansion into highly profitable opportunities to accelerate city building.

Taken cumulatively, as articulated in Chapter 8, this study of water in Amsterdam reveals an as-yet unarticulated logic propelling a reconstitution of the urban sphere. Taken cumulatively, the study's three parts unravel the jurisdictional, iconographic, and material attributes of water that homebuyers, shopkeepers, demonstrators, pleasure seekers, ecologists, architects, government officials, and many others have mobilized in ongoing projects to remake Amsterdam. These examples illustrate that changing uses, ideas, and shapes of water in cities rework long-standing assumptions about the health, heritage, and freedom dynamics thought to be intrinsic to urban places. The concluding chapter reflects on the theoretical implications of these dynamics in Geography and Urban Planning, and sketches out some potential avenues of future research based on these findings.

Amsterdam in context

A cursory overview of recent political and economic trends in the Netherlands will help readers unfamiliar with the region better understand how water has become so politically lively here, and how the phenomena analyzed in the chapters that follow challenge existing ideas about water in Geography and Urban Planning.

Amsterdam was once an imperial city with 17th century business interests in the East Indies and the Americas. The Dutch government retained colonies in Indonesia, Surinam, Aruba, the Antilles, and elsewhere long after the global ascent of France in the 18th century, Britain in the 19th century, and the United States in the 20th century had eclipsed Amsterdam's cultural, economic, and political influence on the world stage. Today, the Netherlands is just a little larger than the state of Maryland, making it one of the smallest countries in Europe. With the exception of Malta, the Netherlands is also the most densely populated European nation by far with about 16 million people living on 40,000 or so square kilometers of space (Eurostat 2010). This tally of national acreage changes a little almost every year, a rather unusual dynamic that will become a significant feature in Part 3 of this study.

The physical smallness of the Netherlands is something of a mixed bag from a political perspective. On the one hand, a compact footprint may facilitate the deliberative democracy governmental ideal of participation, equity, and consensus within national borders, at least in theory. But on the other hand, history and opportunity structures in the Netherlands are deeply shaped by outside forces. The Netherlands is not a global economic powerhouse. Its countrymen lack the will to be the worlds' policeman or the resources to unilaterally address humanitarian, environmental, or market practices in other countries. Today's Dutch economy is especially dependent on German manufacturing, retail, and business practices, and pollutants from these undertakings flow back into the Netherlands through the Rhine river valley (EC 2000; Kennedy 1995; Zanden 1998).

In this context, several of the political movements analyzed in all three parts of this study were laced with a strong sense of resignation, as though the Netherlands could only respond to seemingly inevitable cultural, economic, and environmental realities shaped by other nations. But at the same time, these initiatives also often contained expressions of pride in the ability to anticipate emerging global trends and to develop practical and

creative adaptation plans of action, leading other nations by example if not always in the desired context.

These tendencies towards resignation and responsiveness are evident in the broad cultural trajectory of the Netherlands over the past half-century. According to historians, in the 19th century and until around World War II, Dutch culture was rather conservative and prudish region by European standards. Then beginning in the 1960s, the nation swung left. Authorities at the time feared that the student riots underway in Paris would lead to violent confrontations in Amsterdam and The Hague. To pre-empt unrest, government officials yielded to seemingly inevitable cultural changes, for instance by legalizing marijuana, prostitution, gay marriage, and sex in public over the ensuing decades (Kennedy 1995; Cotterell 1972). In Amsterdam, this era also coincided with the peak of a century-long social housing movement to provide de-stigmatized affordable shelter to people of all economic classes and ethnic backgrounds (Veer 2009a, 2009b; Veer & Schuiling 2005). In these arenas, Amsterdam stood out as a liberal bastion in Europe during the 1970s and 1980s.

Since the 1990s, the Netherlands has again emerged as a forerunner or extreme variant of European cultural shifts, this time with more conservative overtones. For instance, concerns about homophobia and xenophobia have been on the rise over the preceding decade. And media debates in 2010 covered a newly implemented municipal ban on squatting, proposed legislation to crack down on domestic drug consumption, and rumblings to reign in sex worker industries. These dynamics are especially relevant to Parts 1 and 2 of this study. These trends resonate with similar patterns elsewhere across the continent, but many analysts assert that these trends are taking especially stringent form here (Buruma 2006; Pontusson 2005; Sterling 2010; Vinocur 2010). Alongside these changes, an explosion in recent years of academic, government, and commercial studies of Dutch history, literature, cuisine, folklore, and geography bespeak widespread domestic interest in reviving or inventing a celebratory set of “native” Dutch values (Dewulf 2008; Joppke 2004; Uitermark *et al.* 2005). The rising interest in Amsterdam and its waterways analyzed here are part of these larger, quasi-nationalist trends.

These cultural shifts are connected to a series of economic transformations, which again are strongly tied to the erosion of welfare states across the North Atlantic. The 1970s global economic recession was severe here by European standards. Urban, blue-collar, and ethnic communities were especially hard hit, leading to significant hardship for many Amsterdammers and a near-decade lag in the city’s overall fiscal recovery vis-à-vis neighboring regions and townships. Harbor and manufacturing sectors did not rebound, and Amsterdam’s contribution to national economic performance over the past two decades has remained relatively small, despite the rise of financial and business service sectors in the city (Entzinger *et al.* 1993; Kloosterman 1994; Manshanden & Lambooy 2001). Nevertheless, as the national cultural capital and the Netherlands’ strongest Global City candidate, Amsterdam has become the target of extensive economic, metropolitan-wide development campaigns.

Market liberalizations are seen as a key component propelling post-1970s economic growth in the Netherlands. Declines in service provisioning and increases in wage inequity over the past three decades have dramatically outpaced European averages (Pontusson 2005). European Community mandates accelerated the deregulation of communication and transportation infrastructure (Faludi 1994; Pistor 1994). And new urban development

sensibilities in Amsterdam emphasizing competition for trans-national elites has helped measures to scale back and privatize social housing gain popular support (Dodson 2006; Kempen & Priemus 1999; Veer & Schuiling 2005). These housing and growth strategies significantly influenced the politics of urban water analyzed in this study.

Dutch politicians, academics, and commentators often describe these changes as driven by the demands of newly affluent residents thriving from the government's successful programs to overcome the 1970s-era depression. But the lived experience of such reforms has not always been rosy. Affluence surged over the past two decades, it is true, but this wealth emerged alongside the official rediscovery of poverty and homelessness (Beaumont & Nicholls 2007; Deben 2003; Pontusson 2005). Former political allegiances to unions and churches have broken down, giving rise to volatile swing voting patterns and emotionally charged – some might say exploitive – electoral campaigns (Buruma 2006; Peper 2002; Zanden 1998). And in contrast to the universal provisioning ideals of previous decades, today's policy makers often see differential access to transportation, domestic, and ecological spaces as the means to enhance general prosperity. Many residents now fear that, without strong policies in place, classed and raced ghetto-ization may be on the rise.

These concerns about opportunity structures, social forms, and one's place therein are the fodder through which the discussions about space, water, and cities examined throughout this study have gained traction and influence in Amsterdam.

The peculiarities of Amsterdam water

It has been said that water and Amsterdam belong together. The city was founded in the 13th century as a fishing village at the mouth of a river. By the 16th century, water in some circles was seen as unhealthy and odorous, but water-based Baltic trade bolstered Amsterdam merchant revenue streams, laying the financial foundations for global nautical exploration, exploitation, and influence (Arrighi 1994; Cotterell 1972; Schama 1987). The money earned through these shipping activities underwrote the city's technological innovations and spatial development. By draining, pumping, and channeling the landscape, mucky marshes were stratified into inter-weaving yet distinct wet and dry zones. These practices enabled the canal-style construction that boosters in recent years have repackaged and peddled as a prototypical icon of the authentic Dutch city.

According to historians and preservationists, despite these accomplishments, Amsterdam by the mid-19th century was a curiosity in Europe, a place where time had stood still for two centuries while other areas industrialized. Foreigners noted the city's technical backwardness, but praised its beauty. The contrast of narrow streets against broad canals was of special interest, as was the so-called picturesque decay of impoverished working and ethnic neighborhoods amidst narrow, mean, and substandard waterways (Brinkgreve 2004:107-9). However lovely these areas might have seemed to outsiders, water-borne illness was dire. And with the rise of industrial-scale land reclamation technology in the 20th century, older canal-style construction methods were abandoned in favor of large drainage lakes and mechanized pumping stations on the fringes of vast tracts of dried land. These building technologies have not weathered well over time, leading to problematic ground subsidence, basement flooding, and maintenance expenses that has given canal-style development patterns renewed appeal today.

This most recent chapter of water management history closely parallels 20th century trends in other North Atlantic cities, but with a few notable anomalies that give the study of water in Amsterdam a unique flavor. In contrast to places like New York, Chicago, or Los Angeles, water in Amsterdam never fully disappeared. Older water management techniques persisted through the 20th century. Water flowing through canals that interwove city streets persisted citywide, not just in one linear and shrinking band of town. This widespread prevalence and persistence of water, combined with its longer-standing couplings with heritage and symbolism, gave water here an especially intense and innovative air for which existing geographical and urban planning frameworks rarely account.

Three political consequences of special interest for this study arise from this anomalous state of affairs. First, by virtue of water's persistence, water in Amsterdam could be re-appropriated using less capital intensive means than was possible in other locales. Urban water in the United States, for instance, had largely been eliminated by the early 20th century, either buried entirely or rendered inaccessible behind steep concrete embankments and razor-wire fences. While much of Amsterdam's water was filled in as well, much of it remained visibly prominent and physically accessible through the years. This water was not necessarily attractive or safe. Nevertheless, some households used the canals for drinking and sanitation water until the 1950s, a few people lived on slum boats, and most residents could see boat traffic flows from their living room windows or bicycle seats.

These historical differences became especially significant attributes in the post-1970s context of harbor downsizing, pollution control, and rising international interest in urban water as a leisure amenity. In cities like Toronto, Providence, and San Antonio, sizable federal and corporate investments were needed to physically exhume water from the concrete walls and tubes encasing it. These procedures were expensive, and so they were most often carried out as part of profit-oriented downtown revitalization processes turning unearthed water into spectacle backdrops for passive consumption in quasi-private and policed retail centers. Given the persistence of water in Amsterdam, however, barriers to entry were much lower, resulting in different modes of spatial appropriation and political opportunity. As Part 1 of this study elaborates, residents, partiers, and small-scale entrepreneurs were able to access existing open waterways using improvisational, uncoordinated, and short-term activities involving minimal or negligible financial outlays. Through these actions, water in Amsterdam became a seized gathering space for squatting and celebrating, a zone of political action and social commentary very different from the passive market plazas popular in the United States. Regulatory and capitalist interests have followed, to be sure, but these interests came late to the game and have been slow to gain the upper hand.

A second phenomenon unique to Amsterdam is that early water-oriented urban investment frameworks here emphasized water as an historical rather than an ecological entity. Most of today's prominent U.S. cities came of age and took their form during an era espousing total water management by way of complete water elimination from the surface area of the city. Narratives of earlier water-society relationships were generally associated with images of pre-modern dwellings or indigenous settlements, both of which were emphatically under-valued in Modernization discourses. The post-1970s surface water

revival in these places has likewise often been cast in an ecological lens with new shorelines valued for their dragonflies, tadpoles, and vegetation.

But in Amsterdam, surface water has different connotations. Instead of seeing pre-industrial era water as an element of nature or natives, it reads as a product of political organization and technological innovation. Water was given shape through settlement expansion, nautical activity, revenue streams, and infrastructure construction. These traces of the past were not always valued, especially as water became associated with disease, industry, or disuse. Even so, restoring water routes and shorelines in Amsterdam did not logically fit Arcadian frameworks even if such undertakings had known ecological dimensions. Rather, water-oriented investment gained traction through heritage discourses. As Part 2 of this study explains, water entered urban planning paradigms as a site of history and folklore, a relic of past social accomplishments rather than the revival of pre-human nature.

A third atypical political dynamic explored here is that, where the water-environment rhetoric has taken hold in land use and urban planning circles, it has been based on more expansive frames of reference than is common in the United States. Instead of looking at stream restoration and pollution mitigation measures as responses to regional economic development with local ecological import, similar undertakings in Amsterdam focus on continental- and global-scale phenomenon, such as arctic-to-equatorial bird migration patterns and climate change related atmospheric shifts, storm intensities, and sea levels. The city-building frameworks developed through these frameworks accord value to projects that incorporate green and blue amenities into urban neighborhoods. But as Part 3 explains, various environmentally oriented neighborhood construction projects are also peddled as a means to generate nature at a continental scale and to mitigate dangers of national and global importance.

Despite these differences, water in the Netherlands functions as a naturalizing agent much as it does in the United States, not because it is an element of seeming pre-human nature but because it is tied up with the use customs, historical legacies, and biophysical properties just noted. These characteristics of water, rather than conceptions of pristine nature, became the couplings that made water-oriented redevelopment appear desirable, natural, and apolitical.

These local differences in the way water has been mobilized as a public space, restored landscape, and biophysical phenomenon give water in the Netherlands a different political gloss than in other regions. Nevertheless, these trends are variations on an urban water theme, not incommensurable categories. As the chapters in this study show, the changes in Amsterdam's land-water relationships currently underway share significant common ideological and economic ground with similar undertakings in the United States. And the insights emerging about where people can find freedom, history, and nature in the city, and the uses to which these spaces can be put, travel easily to more distant shores.

It is my hope that the kaleidoscopic portraits that follow will help unravel the tangible, narrative, and embodied dynamics that make water matter both in terms of social justice and in terms of spatial meaning. Water is not simply found and channels are not morphologically given. Rather, people create the shorelines, worldviews, and investment patterns that turn water into a seemingly natural, ancestral, or institutional phenomenon. The resulting topographies and ideologies became mechanisms by which officials, activists, artists, homebuyers, and many, many others who lack the resources, and sometimes even

the will, to engage in comprehensive social or spatial reconstruction nonetheless shape shorelines, cities, and society in tandem.

Part 1

WATER, JURISDICTION, AND INFORMALITY

“THE LAST FREE BITS OF TOWN”

Water, boats, and dwelling in Amsterdam’s legal shades of gray

A newspaper article from April 2005 paints a humorous picture of homeowners teetering on the edge of sanity (Wall 2005). One man climbs onto his roof every so often to shout profanities at passers by. Another man recites sightseeing scripts in four languages, saying the words haunt his dreams. A third person complains that angry neighbors pelt her with water balloons when she leaves her home. What do these people have in common? They all own houseboats moored on Amsterdam’s canals.

But why would living on a boat come with such consternation? In this chapter, I assert that Amsterdam’s houseboaters live in the remnants of a self-made borderland skirting the fringes of governmental and market oversight. Houses, streets, squares, and waterways are supposedly autonomous architectural elements within a cityscape, discretely definable and independently manageable. But in Amsterdam’s houseboats, the espoused divisions overlap and careen into one another. The collapse of these boundaries is not merely a linguistic complication. Rather, as this chapter explains, this comingling of spatial entities creates loopholes in regulatory authority and market discipline.

Dwelling in semi-permanent shoreline settlements is, in some respects, nothing new. Until the late-19th century, poor and minority residents routinely relied on open rivers and streams in large North Atlantic cities for drinking water and sanitation services. Risks of flooding and disease along these shores were relatively high, making them too dangerous for large-scale or high-end infrastructure investments. Struggling households with few other options often lived on the cheap in these hazardous but central and useful urban locations. As work by Stuart Oliver (2000), Maria Kaika (2005), and William Deverell (2005) has demonstrated, burying and embanking these waterways hardened and stabilized shorelines, making it profitable to extend private property rights all the way up to (and often overtop of) the hardened land-water edge. Water was bounded off from soil, becoming either a designated transportation space managed by inter-regional shipping authorities or disappearing behind concrete walls and floors. These changes made shoreline slums in much of Western Europe and North America physically impossible by the early 20th century.

Amsterdam’s development history follows these trends up to a point. Given the pervasiveness of water in this region and the expense of eliminating it, canals continued to thread through the streets throughout the 20th century. Yet despite the continuing accessibility of water, matter-based jurisdictional divisions of labor during this era left municipal agencies responsible for housing, public space, and physical planning with little influence over the navigable waterways passing through the city center. But in the wake of shipping industry reorganizations, residents began to view the canals’ edges once again as a potential habitation site. This chapter explains how materially-based divisions of labor built around a presumed irreconcilability of water- and land-based activities inadvertently provided residents with openings to pursue activities on water that were less possible on

the adjacent streets and plazas. Opportunistic residents with few housing options took to the shorelines, playing the rules of land and water off each other to create a new topographical band of dwellings outside established housing- and real estate-oriented capitalist and legislative circuits.

The capacity for opportunistic evasions of this sort stemmed not from water's drinkability or danger as in centuries past but rather arose from institutional structures seeking to polarize ideologically incommensurate but physically contiguous terrains of action: water and land. More recently, with the popularity of water-top housing continuing to rise, policy makers have begun re-scripting water to steer in-between shoreline places into established land use and investment patterns. But the progressing co-optation of this space shouldn't obscure an important finding: that creative uses of space that exploit inconsistencies between institutionally sanctioned visions of reality and biophysical terrains of action can create pockets of autonomy and informality even in finely regulated central urban landscapes.

Methods overview and chapter outline

To study the links between water, jurisdiction, and informality, this chapter dips into the lives of houseboaters who made and perpetuate domestic border-like spaces on Amsterdam's canals between the late-1960s and the mid-2000s. As evidence, I draw extensively on editorials and newspaper interviews written for or against proposed changes to houseboat policies over the past 20 years. These articles were often written during periods of stress or transition and were published in the local daily *Het Parool* and the national business *NRC Handelsblad* newspapers. Additionally, I draw on several other sources to contextualize and evaluate these edited and editorializing sources, some of which are directly referenced in this chapter. For instance, I reviewed several municipal reports from City Council and Physical Planning Department offices and their affiliates evaluating the state of affairs on the water and outlining policy proposals for consideration. I likewise refer to conversations and self-published manuscripts from leading houseboat advocates with the National Houseboat Organization (*Landelijke Woonboten Organisatie*) and the Amsterdam Boat Committee (*Amsterdams Boten Comité*), as well as with vocal opponents of houseboat legalization with the Friends of the Amsterdam Inner City (*De Vereniging Vrienden van de Amsterdamse Binnenstad*).

Within these sources, many of the houseboaters referenced in this chapter are speaking for themselves and not for an official organization, this in contrast to the government officials, event organizers, professional researchers, and so on referenced in other sections of this study. Therefore, even when the full names and contact information of the houseboaters quoted are a matter of public record, I generally refer to them only by their first names out of respect for their privacy.

I analyze these sources using emerging theories of territorial politics in Philosophy and Geography circles. For instance, I draw extensively on Doreen Massey's analytic of spatial multiplicity (Massey 2005) and Donald Moore's work on territorial sedimentation (D Moore 2005). Massey argues that space is not the fixed and lifeless entity that many post-Enlightenment philosophers and politicians imagined. Instead, she encourages methods of describing space that expose the heterogeneous, co-evolving, practiced, power-laden, unsettled, and embodied practices giving space substance. Moore's account of spatial politics similarly illustrates what he describes as a fractal texture of territory that is

irreducible to morphology and that defies experiential universalism. In this chapter, my use of the term “differential porosity” draws on these geopolitical theories. These insights are the starting point of my inquiry into the many temporal practices constituting spaces, as well as the strategic advantages associated with leaving spatial definitions ill-resolved.

For insight into spaces that seemingly fall outside government regulations, I turn to Michel Foucault’s work on governmentality (2007 [1978]) and Raymond Craib’s work on cartographic authority (2004). Foucault’s theories suggest that social regulations and technologies of power embed in spatial milieus of action. He further suggests that relations of power need not presume an absolutist authority and can instead be premised on the stability of managed force relations. These insights taken together, and pushed farther than Foucault ventures, suggest the possibility of building a calculated band of tolerance for misconduct into spatialized social controls. In other words, in contexts where securing total compliance is inefficient but where letting random mayhem break out is undesirable, creating loose spatial and social boundaries where stipulated degrees of non-conformity are permissible can ease political tension and financial strain. Similarly, Raymond Craib uses the term “fugitive space” to describe practices that are not (yet) conforming to cartographic expectations. These fugitive spaces foil administrative attempts at spatial integration, codification, and regulation, and in so doing, undermine efforts to exert control over the people who live there. But as Foucault and Craib hint, these tolerances and indeterminacies often take on an officially demarcated presence more akin to an officially defined loophole than an insurgent threat. In this chapter, I use the term “borderland” to describe such marginal-esque spatialized bands of calculated tolerance and institutionalized non-conformity vis-à-vis normative ideas of dwelling.

This study further draws on research into the politics surrounding informal, marginal, and illegal housing, which is a burgeoning field of inquiry in Geography and City Planning circles. For instance, Li Zhang’s work on China’s floating population shows that people who lack legal recourse to housing rights can nonetheless band together to build short-term residential enclaves for their own protection and, in so doing, they re-route channels of authority in mainstream politics (Zhang 2001). AbdouMalik Simone’s work on similar practices in South Africa shows that, while illicit arrangements come with risks, they can also provide job and safety benefits to vulnerable residents who have more to lose than to gain from opting into officially sanctioned and monitored housing markets (Simone 2004). From another perspective, James Holston (2008) shows that vulnerable residents in Brazil use home construction, tax receipts, and real estate ambiguities not just to gain shelter but also to wrest citizenship concessions from an exclusionary government. This chapter investigates similar types of informal dwelling practices, but with a focus on expectations and loopholes rather than margins and outsides.

Based on these newspaper and governmental evidentiary sources, and on these space and power theoretical insights, I use this chapter to advance three lines of analysis. First, I trace the different modes of passing through space that bring transportation, gathering, and dwelling into being and into conflict on Amsterdam’s canals. By virtue of falling into many categories, these resulting watery spaces fit neatly into none. Next, I show how residents created these functional implosions by smuggling unsanctioned behaviors into approved temporal uses of the waterways, and I show how the resulting landscape developed into officially defined marginal pockets skirting the edges of established governmental regulatory oversight and capitalist commodity pressure. Third, in the

absence of any clear, external measure that could be used to adjudicate claims to space, I highlight the territorial strategies of self-identification that residents use to prevent the spatial bands of tolerance in which they live from closing. Cumulatively, the voices that follow show how improvisational incursions into space that conform to the letter of the law while subverting the spirit of legally-scripted spatial differentiation between water and land can generate borderlands in central city spaces. These watertop borderlands become sites of opportunity not only for their makers who evade the jurisdictional authorities governing dry land but also for investors and boosters hoping to profit from the subsequent popularity of water-oriented living. But extracting profit from the water in this way requires codifying the shorelines' material and jurisdictional identity in ways that facilitate standard investment and oversight practices, which runs the risk of eroding the loophole attributes of houseboat dwelling.

Spaces of differential porosity

Paul Spoek has graying shoulder-length hair, fitful body language, and a somewhat allegorical manner of speech. He responds to questions about Amsterdam housing politics indirectly with a series of examples describing his experience as a floating homeowner and those of his neighbors and friends across the city. I sat down with Paul in his home one chilly, overcast morning in 2010. I perched somewhat delicately on a faded red chair while Paul darted around his living room pulling faded, yellowed files from nooks and crannies under windows and behind furniture. We sat aboard *Jantje*, the once rotted and rusted boat he bought in the 1970s and which he has since rebuilt piece by piece with found and scrounged materials. *Jantje* has a wood floor, plexi-glass skylight, and flea-market style furniture. The walls sport Paul's collections of corks, hats, rags, beads, bells, and Asian literature.



Houseboat Jantje, Amsterdam (photo courtesy of Paul Spoek)

When I met Paul, he was one of 4,400 houseboaters living on 2,256 houseboats moored on Amsterdam's canals (Bos 2009:74). He had a reputation for being a wellspring of technical knowhow and a connoisseur of government policy pertaining to all things houseboat. Paul also had the distinction of being the spokesperson for the houseboat action group The Amsterdam Boat Committee (*Amsterdams Boten Comité*), or as much of a spokesperson as one could expect of any such quasi-anarchist association. For years, whenever government officials released a report, letter, or memo related to Amsterdam's waterways, Paul poured over it, flagging any procedural changes or development ideas that could put fellow floating residents in jeopardy.

But what kind of spaces are they, these Amsterdam canals, which Paul has kept so closely within his sights? From *Jantje's* windows and from the voices of other houseboaters mooring throughout the city, I received the sense of a curiously fragmented space awash in turf wars, jurisdictional ambiguities, and contradictory terminologies. The examples in this section illustrate some of the canals' many faces and, in so doing, show that there is no such thing as space in general along the shorelines of this city. Any espoused collection of fixed, morphological elements that could be used to define the identity and associated functionality of the water as distinct from land has unraveled at the edges in recent decades. Rather, as these paragraphs and the houseboaters' experiences illustrate, the canals have come to function as what I term "spaces of differential porosity." In other words, people pass through this space at many rates, and in the process they have created a contradictory landscape that is neither purely wet nor wholly dry.

Some examples will help make this point clear. The voices of Paul and his compatriots captured in the news media over the past 20 years – oftentimes in periods of strife – illuminate the many rates at which people have enlivened this space and the functional collisions that have at times made water dwelling so trying.

For instance, frustrated residents moored on the Prince's Canal a block north of Paul and *Jantje* illustrate one slice of canal life: water as a space of minutes. In 1992, houseboat Ferdinand voiced his irritation over the growth of high-speed pleasure boaters motoring through the city. "Every time a boat comes past too quickly, it is as though a meteorite hit the canal. The boat shakes on the lines, teacups begin to dance, whoever is standing nearly falls over" (Escher 1992). Canal-mate Ad voiced similar concerns in 2005. "People on a boat have no idea what kind of waves a ship makes. Every now and then, water just sloshes in through the open window" (Ad in Wall 2005). On lovely summer days, Annemiek did not dare shower in her own bathroom. "You don't see the boats coming, and you fall right over" (Annemiek in Escher 1992). The occupants of these motoring vessels could be just as disconcerting to houseboaters as the waves were. Geert, for instance, described peaceful mornings at his girlfriend's breakfast table interrupted by a tour boat's sudden appearance. "A metallic female voice proclaims that 'we are now turning into the Gentleman's Canal' and 20 pairs of eyes and 60 cameras and camcorders focus on our croissants and breakfast buns. I'm picking my ear. Two dozen cameras click" (Mak 1992). Such complaints are a reminder that, for some Amsterdam residents, the canals are a street, or a space for fleetingly passing through.

A cousin of the canal as a space of minutes is the waterway as a space of hours. Take Wieke, for example, a 17-year houseboat resident moored not far from Ad's boat on the Prince's Canal. In a 2005 newspaper interview, she described the pleasure of unhooking her dinghy and motoring into the town center with throngs of other pleasure boaters for

the annual Prince's Canal Concert (Wall 2005). Photographs of this annual festival bespeak its popularity: the water surface overflowed with boats moored one against the other eight or ten rows deep as their skippers waited to enjoy 40-or-so minutes of classical music performed atop floating barges (B Bakker 2009:27; Prince's Canal 2010). Or consider Soebarta who lived aboard a rented houseboat on the Amstel River just north of its intersection with the Prince's Canal until June 2009 when his mooring permit and that of two neighboring boaters was revoked to make way for a new short-term riser in front of the freshly minted Hermitage Museum. According to the interviewing reporter, "in about a month, the Netherlands' Queen Beatrix and Russian President Dmitri Medvedev will preside over the museum opening on a barge floating exactly over the spot where (Soebarta) now sips his tea" (Visser 2009). These experiences of concerts and ceremonies reflect the growing use of Amsterdam's canals as a gathering space, or a place of public assembly and cultural exchange for a few afternoon hours.

These fleeting events of minutes and hours strike a different cord from houseboaters' sensibilities of dwelling, or the canals as a space of years. Houseboater Frank, for instance, has asserted that "for centuries people have lived on anything which floats" even if these abodes often lacked a stability of tenure (Bos 2007:5). Joop, a freelance journalist turned city alderman in 2010, felt painfully aware of houseboaters' vulnerability. Until a few years ago, he complained, "a mooring permit was person-specific, boat-specific, spot-specific, had to be renewed every three years, and offered the boat resident absolutely no guarantee that he could remain in his spot" (Lahaise 1994). Given the lack of security and the difficulty in acquiring permission, some houseboaters opted to moor illegally. The Blaauw family, for instance, anchored their home near the central railway station for eight years without any kind of authorization until a 1997 government eviction notice finally forced them to relocate (Snoeijsen 1997). But even amidst this insecurity, a few thousand people have lived year after year on houseboats in Amsterdam. Their presence, and their efforts to prolong their stay, illuminates the canals as a dwelling space, or a place of residence for several years running.

This pace of living has undergone a metamorphosis in recent years giving rise to a new temporality: the canals as a potential space of generations. Houseboaters have described a series of "officialization" measures that take much of the unpredictability out of living on water, at least for people willing and able to abide by new rules. Annephine, for instance, received a letter from the Municipal City Council in 2005 reading, "Congratulations, you finally have a real address!" This standardization measure assigning her mooring space a fixed position, size, and numerical referent came with the ironic side effect that "ambulances, pizza delivery, newspaper delivery, and mailmen ... No one knew where to find us anymore" (Annephine in C Vos 2007). Houseboater Jackie, another Prince's Canal resident, expressed trepidation over the 2007 municipal mandate requiring houseboaters connect to wastewater utility lines by 2017, a project that will tie her toilet to all the others in the city and will cost her about €20,000 (Tagliabue 2007). And my host for the morning, Paul Spoek, lamented that he might have to remove the synthetic skylights and potted plants from *Jantje's* roof to comply with building safety and aesthetic codes that have long governed construction on dry land but that were only extended to floating structures in 2009 (Amsterdam City Council 2009; Spoek 2010a). In exchange for compliance, houseboaters gain legal protections against displacement, easier access to bank mortgage resources, and increased opportunities to accrue equity in their mooring

spaces. These institutionalization measures reflect the emergence of the waterways as potential private property, or as long-term places of residence that may someday become inheritable.



Photographs depicting the various slices of canal life including: a tour boat using the canals as a roadway (top left, source: Canal Company), the Prince's Canal filled with boats in anticipation of an hour long Canal Festival musical performance (top right, source: Het Parool, ANP), a make-shift houseboat built overtop a small former barge moored for a period of years (bottom left, photo courtesy of Paul Spoek), and a long-term floating home community near Amsterdam's Ring Road (source: Arthena, Wiki Commons)

These moves to make living on the water more official have critics on both sides of the isle. As the next sections will show, houseboaters with limited financial resources fear the new rules will displace lower-income boat residents. Conversely, many people living in canal-fronting housing or affiliated with local heritage protection groups decry such measures as codifying an illegal privatization of public space that obstructs views of aesthetic and historic water, wharf, and bridge amenities from the street. Such measures, these critics fear, will make it harder to ban houseboats from the canals in years to come (Schoonenberg 2001; Spaargaren 2009). But for wealthier residents hoping to invest in a high-end home on the canals, new legal property and investment protections on the water surface could create a new band of domestic space in an otherwise fully built out city center, making mooring spaces worth their weight in gold.

These quick glances into houseboaters' experiences reveal a space of differential porosities, or of different rates and modes of passing through space. The tracks these journeys leave behind become the fodder of spatial identity. This method of describing space through the twining practices that make it resonates with Massey's assertions that there is no such thing as abstract, pre-existing space in general (Massey 2005). Instead of defining the canals with reference to ontological collections of topographical features or legal categorizations, this temporal description of space suggests that the canals have become something of a roadway, public square, residential squat, and private home all at once. Legally, these functions should not overlap. Spatial designations based on land-water polarizations and associated functional stratifications would seem to prohibit their mixing. Yet, here along Amsterdam's canals, they coexist. So how did we get here, and what does it mean? The temporally embodied manner of the waterway's social reproduction demonstrates not only that this space is heterogeneous, but also, as the following section shows, that the discrepancies between institutionally designated topographical dividing lines and the biophysically endowed spatial duplicity enabled the creation of shoreline pockets of elision, evasion, and autonomy.

Places of official fugitivity

Back in Paul's living room, he told me the story of how he came to live aboard *Jantje* (Spoek 2010a). He came to Amsterdam as a university student in 1974, and affordable housing was scarce. "It was hard to find a place in town." His first bed stood in a cramped apartment block on the city's outskirts. "Twelve units shared one kitchen, and it was the same on several stories stacked." His sister, who lived at the time on the Back Canal (*Achtergracht*) near the city center, noticed a houseboat standing empty in front of her building. Paul tracked down the owner, who was living in his girlfriend's flat elsewhere in town, and convinced him to sell. "Then I had to go to four or five authorities to get all the permissions to buy the boat *as a houseboat*" (Spoek 2010a). One by one, he said, he convinced the city voting office, harbor services, police special laws, and so on, to review and sign off on his application. Paul then dropped out of college to work at the airport and harbor to earn the money he needed to make *Jantje* habitable. In the decades since, he has spent nearly all his free time on repair and maintenance tasks. He made a study of his boat. "Each rivet has been described and marked with a small mark. ... Everything has been sawn, sanded down, and painted by hand" (Bos 2007:46).

Paul considered himself lucky: *Jantje* was already a registered houseboat when he bought it, which made his uphill battle a little less steep. The hurdles involved in transferring ownership of the boat "as a houseboat" begs the question: what kind of places are these, the houseboats, which require such extraordinary material and legal acrobatics? I assert that improvisational claims of residence on the water, which initially conformed to the canals' expected temporal dynamics, smuggled domestic uses onto the water. As the examples in this section will illustrate, houseboats have long functioned as sites of liberty and service provisioning outside established housing and market frameworks. But with their popularity on the rise in recent decades, and in a social-economic context where evicting people from homes of any sort drew electorate ire, municipal officials attempted to diffuse political opposition by creating what I have termed "places of official fugitivity," or places explicitly designated as partially exempt from housing and real estate laws. This

formal inclusion perpetuated houseboats' ambiguous status as neither legally sanctioned nor expressly forbidden but rather as places of officially stipulated permissiveness.

Some history will help make this point clear. Houseboats have long functioned as refuges for people with limited resources. According to Amsterdam zoning laws, the canals are ostensibly transportation spaces. Like roadways, they were envisioned in 20th century Le Corbusier High Modern planning circles as spaces of permanent circulation and movement. But motion requires stopovers, like places to park for a few minutes or hours or days or months while loading cargo, servicing equipment, awaiting work orders, or making repairs. Skippers and other shipping-related workmen routinely sleep aboard their boats while on-the-job, and have done so in Amsterdam at least since the 16th century (Bos 2007). Other people follow suit, and governmental attempts to reign in these activities often depends on the political climate of the times.

Most historians agree that today's houseboater proliferation began after World War II when housing was scarce and incomes were low. Paul's experience and that of his Amsterdam Boat Committee colleagues illustrate that sleeping on boats provided access to otherwise inaccessible spaces during this period. Houseboater Jan, for instance, vividly recalls how desperate he was in 1967. "We were suffocated, couldn't find any housing. Yeah, a cellar room without windows for an outrageous price. ... Acquisition costs, sinister housing agencies, it made you sick" (Maarten & Dop 1992). The now-renown Amsterdam squatting movement was taking off at the time. Students and struggling families broke into abandoned factories and boarded-up apartment blocks on the grounds that it was unethical for private owners and speculators to let their buildings stand empty when so many people needed a place to live (Fainstein 1997; Uitermark 2004a & 2004b). The hippy houseboater innovation pursued by Jan, Paul, and several hundred others was to apply this mentality to decommissioned cargo vessels and empty mooring spaces. Harbor mechanization and the shift to bulk cargo in the 1960s and 1970s made smaller skiffs redundant (Kloos 2007). People with limited resources could buy these skiffs, build a shack or shell on top, and sleep aboard the boat. In so doing, they stretched the limits of permissible stay, turning long-term parking into short-term housing.

In the context of the 1960s anti-consumerism movements and the 1980s social housing movements (Kennedy 1995; Mak 2000; Smith 1995; Soja 1992), the houseboat became less a place of desperation and more a space of imagined freedom within a highly regulated and commodified landscape. Architectural historians such as Marijke Beek have attributed the popularity of houseboats among flower-power anarchist squatters of this generation to its "nonconformist, free and easy, adventurous lifestyle, with minimum costs and maximum freedom" where residents "did their own thing and created their own individual living environment" (Beek in Kloos & Korte 2007:70). Frank Bos, chairman of the National Houseboat Organization, would seem to concur, saying "anyone could construct a houseboat according to their own design," and many do-it-yourselfers created custom homes using whatever skills and resources they could lay their hands on (Bos 2007:37; see also Maarten & Dop 1992; Huijsmans 2007). This sense of feral possibility persisted into the mid-1990s and, in a more limited form, still exists today.

The issue of jurisdiction is key in explaining this houseboater proliferation. Streets, squares, and houses literally sandwich the water in Amsterdam on either side. But the municipal agencies controlling activity on land are not the same ones that have authority on the water. For instance, the Physical Planning Department manages public spaces on dry

land, and they have a rule that you can't sleep in streets, squares, or other public spaces. But the Harbor Authority and the Inland Department of Water Management have jurisdiction over what happens on the water. And they have different rules that say it's fine for skippers to sleep on boats parked along the wharf. Additionally, since people sleeping on boats ostensibly slept in transportation vehicles and not in permanent buildings, they did not pay landlords or property taxes, and they were not subject to permitting processes, building codes, or zoning laws. Moreover, while a clear rubric of ownership rights staked out on soil ultimately provided political cover to drive most land-based squatters out of the central city by the mid-1980s (Blokker 1995; Keulemans 2001; Klipp & Vugts 2000), the lack of these sorts of property laws on the water slowed attempts to discipline squatting houseboaters or push them into established market channels.

Residents on land complained that the boats blocked views of the canals and bridges, which were important amenities in determining real estate value. They complained the boats were dangerous, ugly, and fire hazards, and that the occupants illegally occupied public spaces and consumed neighborhood services without paying into the public coffers. But, with the social housing movement gaining ground, it was politically unpopular to be against housing as a land use function.

And so instead of working to close this borderland and clear these houseboats outright, municipal officials in the 1970s and 1980s began to intentionally absorb this envisioned space of freedom into institutional urban management policies. Until the mid-1970s, only about 60 of Amsterdam's then nearly 1,800 houseboats were legally authorized dwellings. This circle gradually expanded in the decades since. City mayors attempting to evict houseboats ran the risk of incurring a social housing backlash, but authorities could use temporal technicalities – such as the constant need to re-apply for mooring permits and the right to revoke permits without any notice – to constrain houseboater behavior. And government representatives lacking the political muscle to ban houseboat living could nonetheless slowly incorporate occupied mooring sites into official zoning plans in exchange for increased harbor fees or expanded regulatory control (Kloos & Korte 2007; Maarten & Dop 1992).

But officialization is not the same as legalization. Houseboats in Amsterdam during this era were not simply designated legal or illegal. Rather, from the 1970s onward, they fell into one of four categories – legal (*legale*), tolerated or official (*gedoogde* or *officieuze*), illegal (*illegale*), and super-illegal (*super-illegale*) – depending on their location, condition, and inspection and registration status (Kloos & Korte 2007:80; see also Spoeck 2010b). These legal shades of gray resonate with Foucault's theories of managed force relations and calculated bands of tolerance both in terms of government compliance and market conformity (Foucault 2007 [1978]). Municipal officials formalizing these legal shades of grey, or these calculated bands of tolerance, in the 1970s kept housing protestors at bay by allowing houseboat living for the time being. They also established boundaries to boaters' permissible transgressions without committing to a permanent guarantee of housing rights and protections that many landed property owners opposed. With most houseboats neither legal nor illegal, their residents lived for several decades in an institutionalized shoreline zone of spatial ambiguity that has only recently begun to close.

This ambiguity has had economic implications. From a market perspective, many boat owners today continue to use lingering real estate value gaps between land parcels and water spaces to gain access to central city dwellings otherwise beyond their reach.

Consider Luc, for example, a 50-something graphic artist who bought a canal freighter in 2005 and converted it into a residence. Luc described himself to an interviewing reporter as “a very boat-minded person,” but cost was clearly a factor in his domestic decision-making. He took in paying guests to make ends meet and emphasized that living on a boat was “cheaper than an apartment” which, in his 17th century neighborhood on the Prince’s Canal, cost only 60% of the price for an equivalent apartment on dry land (Tagliabue 2007). Similarly, many houseboaters have been able to partially evade neighborhood gentrification pressures effecting conventional residents. Ray, for instance, a 60-something British hippie turned website designer who moved “unofficially” onto his now semi-legal houseboat near the Kinker Street shopping district in 1995, said in 2009 that “Amsterdam in the first decade of this century has revived. ... Kinker Street is now a lovely shopping street, the middle class has returned to this neighborhood, and the City Council restored the houses around me” (Couzy 2009). While concerns over gentrification are rife on land, Ray’s ability to ride out these changes by virtue of residing on the water and outside dominant investment cycles means he is able to stay in this pleasant locale, at least for a while longer. From this perspective, houseboats remain portholes, providing not just places to eat and sleep but also creating opportunities to access neighborhood-specific goods, services, and ambiances without the steep private property barriers to entry that housing on land requires.

But this spatial loophole in design freedom and market access is beginning to close, and its perpetuation is a constant struggle. According to the National Houseboat Organization and local popular historians, between 1996 and 2009, “the (City) Council has introduced all kinds of rules and regulations which have greatly limited individual freedom” (Bos 2007:37). Houseboaters like Wieke, for example, expressed concern over pushes to clamp down on houseboaters’ freewheeling activities and to curtail their hodge-podge style homes. “I enjoy some liveliness,” she said. “In my opinion, the people who complain bought a house for a lot of money and get annoyed at anything that is not neat and tidy. It bothers me that these yuppies get to determine the rules in Amsterdam” (Wieke in Wall 2005). Geert Mak, a popular historian, expressed similar disappointment over the municipal push to “tame” the waterways in the 1990s, which he described as “the last piece of administrative wilderness in the Netherlands” (Mak 1994). New municipal policies governing addresses, toilets, building materials, and lease terms discussed in the previous section facilitate this closure and help make it possible to invest in houseboats on a larger scale. The costs associated with new property taxes on the water, heightened mooring fees, and utility and building code mandates are pushing many do-it-yourselfers out of the water, and the growing government commitment to uphold long-term mooring rights makes long-term investments into boats with desirable central city addresses more profitable. In architectural historian Marijke Beek’s words, “in future, a large group of very well-off people will live on the water” (Bos 2007:53; see also Edidin 2005; Overduin 2003). This consolidation of houseboats into a territory of profit promises to turn boats into sites of consumer-oriented wealth and prosperity.

Some sense of freedom persists. Joke, for instance, built a cardboard scale model of her dream home in the early 2000s, sent the model off to a commercial boat builder, and then waited for her custom abode to come sailing across the lake to her mooring spot. “Within the maximum dimensions,” she said, “you can do whatever you want” (Joke in Huijsmans 2007). Unlike her previous bungalow-style houseboat, which she bought to live

on the cheap, her new two-story home “barely reminds one of a boat.” With its big terrace, spacious interior, and the evocative name *Versailles*, “it could just as easily be a villa on the water, rather than in the water” (Huijsmans 2007). Or consider Steven, a personnel executive who commissioned an architect in 2002 to design a split-level home on a dilapidated boat he bought off “an elderly German who came to Holland during the flower power days.” He envisioned a high style, convenience-packed abode: “I wanted people to say, ‘O.K.!’ Maybe even a little over the top” (Steven in Tagliabue 2007). In a city where nearly 100% of the housing market is dominated by mega-scale, City Council-organized, full-community construction, being able to design your own home in this way carries a lot of weight for people who can afford to meet the new aesthetic and fee requirements. Nevertheless, this kind of design freedom with commercial builders and high price tags is very different from the houseboat as capitalist critique that was popular in the 1960s and 1970s.

These examples of houseboats as places of regulatory freedom and market access demonstrate the kinds of border effects that exist in otherwise centralized and well-regulated spaces. Amsterdam’s houseboats from the 1960s through the 1990s functioned as something akin to what Raymond Craib (2004) terms “fugitive space” or what Hakim Bey (1991) calls “temporary autonomous zones” albeit in bureaucratic rather than militaristic terms. The legal shades of grey demarcating tolerated dwellings that were neither officially condoned nor certifiably condemned created institutionally demarcated spatial pockets exempt from the usual zoning laws, housing provisions, and market processes. The lingering hesitancy to polarize houseboats into one of two categories, as either legal or illicit, helps explain why the temporal disjunctures described in the previous section have persisted so long in a bureaucratic context that otherwise places a premium on spatially- and functionally-stratified order. This border effect is not permanent, as the mounting processes of officialization show. But institutionalized expectations that water, by virtue of its fluidity, could not be privately owned or permanently occupied, created blind spots in spatially-stratified jurisdictional authority. Creative residential adaptations turning vessels and mooring spaces into ever-longer-term housing created opportunities for people to subvert ideal-type residential norms and, as the next section explains, to gain public support to perpetuate the spatial loopholes in which they set up homes.

Identity framing as place claiming

Gazing out from *Jantje*’s windows, the pride Paul and his floating neighbors feel for their boats is evident in the foliage, paint colors, and other detailed embellishments adorning their structures’ doorways, rooftops, and walls, as well as the adjacent sidewalks, lamp posts, and railings. Yet aside from this shared delight in their boats, it is unclear how cohesive the “houseboater” group identity really is. Even associations such as the Amsterdam Boat Committee are organizations only in a loose sense of the word. According to Paul, “we are just a group of volunteers giving houseboat-people information and debating with the authorities about regulations and taxes” (Spoek 2009). The organization formed in 1971 to resist what many boat owners saw as a municipal attack on their rights to affordable housing and expressive freedom. Despite many successes, getting houseboaters to participate in collective action is a constant challenge. According to Paul, neighbors sometimes rally around isolated threats, such as noise complaints near a train bridge or financial concerns regarding new sewer lines, but across the city and region, “not

many houseboaters work together. It's very local." Today, Paul is one of a few dozen active volunteers who "check out the government reports" looking for red flags. When nothing is going on, "Ok, it's sleepy time," but when calls for revised aesthetic ordinances or plans for new mooring risers catch his eye, he sets out to "warn the people affected, getting them together to protest" (Spoek 2010a).

The character of these protests against the closure of border-like shoreline spaces brings me to the third question explored in this chapter: what kind of people are they, these houseboaters, who live aboard these elusive boats on these multifarious canals? Within the panoply of editorials and self-published treatises written in defense of houseboater interests in recent years, the identity politics of the boaters comes to the surface. As the examples in this section will show, self-definitions of houseboaters as a certain kind of people help campaigns for design and mooring protections gain traction. In the absence of property laws and market structures that not only constrain but also protect residents living on land, the identity characteristics of the people residing on water takes on added import in public discussions over rights to space. These struggles to articulate place claims reveal the socially defined limits of empathy, but more than this, they illustrate the ways identities are fractured and mobilized in campaigns to perpetuate spatial zones of permissiveness.

Angry letters to newspaper editors over municipal plans to tow illegal houseboats in the mid-1990s reveal one such strategic portrayal of floating resident identity: the houseboater as a community member. For instance, Joop, a longtime houseboater and Amsterdam Boat Committee affiliate, wrote a passionate editorial condemning the inhumanity of such measures:

Who actually lives on houseboats? The answer rings: people, people, and still more people. Neighbors, families who not only choose – sometimes in strained circumstances – for a house on a ship but also for a house in a specific neighborhood where they grocery shop, where their kids go to school, where they sometimes have work associates, and where they are active in social life. (Lahaise 1994)

Bart, an ex-cargo skipper, wrote a similar defense of financially strapped families facing municipal eviction. He concluded his epistle with the lament that "living on water evidently no longer has anything do to with social housing" (Meijer 1998). Rather than defending boaters claims to space in terms of espoused rights to housing or the city, these types of defenses invoked the human face of affected families in order to elicit compassion and tolerance for their plight. Residents' identities as engaged neighbors and colleagues became the rationale for solidarity-style declarations of support despite the inconvenient bureaucratic technicality that the houseboats in question were not strictly legal.

Arguments against the adoption of new building codes and ordinances drew strength from a related set of characterizations of the houseboater as craftsman. For example, in an early 1990s treatise on what they saw as municipal anti-houseboater persecution, former Amsterdam Boat Committee volunteers Jan Maarten and Fiedeldij Dop celebrated the industriousness involved in reclaiming derelict barges and under-valued urban spaces. "Out of these undignified circumstances, (the houseboaters) stopped up mud, banged out risers, laid out paths, fought for a school bus for their kids, a phone booth, a street light" (Maarten & Dop 1992). Fifteen years later, houseboater and chairman of the National Houseboat Organization Frank Bos self-published a book on the diversity of houseboats and boaters moored in Amsterdam. He profiled residents like Mr. Biemen, Ms.

Perkins, and Paul Spoek who have spent three or four decades of their lives converting derelict concrete hulls and cargo vessels into prized custom homes using all the sweat equity, ingenuity, and resourcefulness they could muster (Bos 2007:38-51). These types of celebrations of “free spirits with little money but handy hands” (Huijsmans 2007) asserted that regulatory oversight and market integration was a poison pill to aesthetic diversity and owner independence. “Here, it isn’t about project developers and powerful interest organizations, but about a handful of people, mostly of modest means, who have the house they want. Leave them be” (Maarten & Dop 1992). In these conversations, boaters’ identities as laborers working by hand in their own homes to craft unique objects in an age of mass-produced over-standardization became the reason to support their lifestyles, tolerate their banging, and celebrate their sometimes odd-looking dwelling contraptions.



Examples of self-built and converted houseboats (photos courtesy of Paul Spoek)

For those people who remained wary of peers “illegally occupying public space” or of artisans clanging together floating “eye soars” (Amsterdam.info nd; Koert 1994; Schoonenberg nd), a third vein of argument came to the fore: the houseboater as a bearer of tradition. For instance, a conversation playing out in the opinion pages of the Amsterdam-based daily newspaper *Het Parool* in 2009 illustrated the significance of historic precedent in asserting or denying mooring rights. Inge, an Amsterdam resident living near the Amstel River north of the Prince’s Canal where three houseboaters were displaced in 2009, expressed satisfaction that the newly thinned waterfront looked more

like “the painting *The Golden Bend* by Berckheyde” which allegedly depicted “the canal as a newly built neighborhood: no cars, no boats” (Schagen 2009). A few days later, Van Zelst (no first name given) countered Inge’s pro-eviction stance by attacking the validity of this painting as an accurate 17th century referent: “I’ll point out that there are countless paintings from the period with houseboats in the canals; they belong in the city since way back” (Zelst 2009). This sort of refrain that houseboats have been here since time immemorial is a common trope in houseboater circles in response to complaints that their boats mar the city’s historic beauty (Mak 1994; Vermeulen 1994; Bos 2007; Kloos & Korte 2007). A few weeks later, Ruut, a member of the Friends of the Inner City of Amsterdam, angrily retorted that Van Zelst’s boats are freighters, not houseboats. “People lived on some, but that doesn’t make them houseboats: their function and use was as cargo ships. ... Real houseboats only appeared in Amsterdam about forty years ago” (Spaargaren 2009). Whatever the historical reality, the reason to engage in this heritage debate is that claims of precedent can legitimate or refute mooring practices today. Portraying houseboaters in the garb of ancestral traditions – especially those linked to the 17th century Golden Age when many houseboat opponents believe Amsterdam and its canals were at an imperial and artistic peak – intoned that anti-houseboat critics might be ill-informed cultural snobs and that houseboaters belonged in these wet spaces.

A fourth, related line of defense brought questions of illegality front and center in self-portraits of select virtuous houseboaters as responsible citizens. For instance, designer Ties Rijcken who researches floating homes worldwide has asserted that most of Amsterdam’s houseboaters are law-abiding residents deserving legal protection from intolerant neighbors. He fully acknowledged that houseboaters lived “in hidden locations” or “in indeterminate areas” which were “not really intended for housing,” but he nonetheless emphasized that ambiguity and criminality are not the same thing. “The more (the houseboaters) succeeded in demonstrating that they were not in breach of any law or regulation, the more certainty they had regarding their moorings” (Rijcken in Kloos & Korte 2007:118). Paul Spoek gave me an example of how this line of defense worked. “A boater is ordered to remove their terrace because it is illegal, but 20 years ago, he got permission for it, and has been paying taxes for it” (Spoek 2010a). Even if the designation of a boat or terrace as legal was never granted, approval slips, tax receipts, and a careful navigation of the legal shades of gray has become the means to resist regulatory reforms. Showing that individual boaters obtained authorization for their activities or did not explicitly violate laws – even if other floating neighbors did – allowed them to turn legally inscribed pockets of bureaucratic tolerance to their advantage in municipal courts and media debates.

As the real estate value gap began to close between dwellings on land and water in the mid-2000s, a fifth identity endowed with mooring rights came to the fore: the houseboater as a market participant. In Ties Rijcken’s words, “with each successful transfer in ownership, in which the new owner pays a certain sum of money for the right to moor somewhere, the mooring site became more permanent” (Rijcken in Kloos & Korte 2007:118). Steven, the personal executive discussed earlier who commissioned an architect to design his lavish houseboat in 2002, concurred that living on a boat today comes with a big price tag. “It’s now a yuppie market. ... Sometimes, though, I still feel like a Gypsy, but I have a big mortgage” (Steven in Tagliabue 2007). According to architectural historian Marijke Beek, in contrast to “the ‘original’” – AKA lower-income – “boat dwellers

who have fought for many years for their attainments and still do,” the moneyed “newcomers” are apathetic. “They are more affluent and have often paid a substantial sum of money for their boats. They take the attainments for granted and they do not feel the need to take part in campaigns” (Beek in Kloos & Korte 2007:94). Instead, these residents feel secure that their financial investment alone is enough to guarantee them all the expected property rights and protections they would enjoy had the home they purchased stood on soil. Their self-proclaimed identity as owners with good jobs and high incomes legitimates their claims to space, much to the chagrin of craftsman and community houseboaters struggling to pay rising taxes and maintenance expenses.

These examples of houseboater self-portraits as neighbors, artisans, legacies, citizens, and consumers illuminate the work involved in delineating a set of acceptable reasons to continue to skirt spatial authority even as the mid-20th century housing crisis has dwindled in the public imagination. Since no hegemonic set of private property rights overlays the canals, and since the extension of these land-based space management systems threatens to displace many existing boaters, parsing the identities of houseboat residents has taken on added import. Efforts to extend or restrain regulatory overhaul are attempts to define the kinds of people permitted to claim space, the markers by which these people can be recognized, and the boundaries of permissible exceptions from customary social mores that they can enjoy. Although changes are afoot, these disputes over homes and the shoreline border-pockets they occupy remain unresolved. In Paul’s words, “it is still continuing, the fights for the last free bits of town” (Spoek 2010a).

Water, boats, and dwelling in Amsterdam’s legal shades of gray

Recent research on counterculture activities has emphasized the value of fringe or secretive urban spaces in the cultivation of underground social movements. Studies of the early 20th century gay rights movement in southern California (Hurowitz 2007), the mid-century black inner city music scene in northern U.S. inner cities (Gregory 2005), and the late-century former No-Mans-Land art scene in Berlin (K Shaw 2005) illustrate the way victimized or counter-cultural groups have successfully turned isolated neighborhoods, abandoned buildings, and hidden meeting grounds into opportunities to advance alternative group ideas and social visions. Shoreline settlements in the 19th century likely fit these patterns to some extent, serving as a place for marginalized social groups to find homes and build communities even as they continued to face significant hazards.

There is much to celebrate in these lines of analysis, and this mode of analysis formed a beginning point for my own research. Yet the evidence presented in this chapter suggests another parallel opportunity for counter-cultural research and activism. The houseboater experience in Amsterdam demonstrates that researchers hoping to study borderlands, informality, and calculated bands of tolerance need not look solely to foreign terrains not yet modernized, de-industrialized urban topographies left behind, or other imagined spaces of marginality, vulnerability, or criminality. Rather, as this study of houseboats in the Netherlands has shown, creative uses of space that stretch and subvert legally scripted temporal definitions of space can create pockets of autonomy even in closely monitored capital city landscapes.

The examples of houseboats as places of regulatory freedom and real estate access discussed in this chapter demonstrate one kind of border effect successfully created through the heart of Amsterdam’s otherwise well-regulated central city landscape. Laws

define space in part through references to their expected material form and functional capabilities. Living aboard a boat in the 1960s and beyond conformed to regulatory laws mandating a minimum degree of transience in a designated transportation space while nonetheless incorporating new dwelling functions into a spatial typology thought unable to accommodate long-term habitation. Ideological expectations that land and water were incommensurable created institutional assumptions that domestic activities could not effectively transcend a hard shoreline divide. In successfully forging a new and lasting residential topography on the water, improvisational houseboaters appropriated a spatial pocket jurisdictionally ill-equipped to regulate or profit from their activities. This loophole later became an officially sanctioned zone of non-conformity.

This border effect was not permanent, and houseboaters living outside official real estate, housing, and zoning laws had limited recourse to legal and market frameworks that not only constrained but also protected people residing on dry land. As new laws and investment decisions have slowly eaten away at this autonomous zone, houseboaters have publicized their identities in ways they believed to be sympathetic to the general public as a means of forestalling the absorption of water-top domesticity and its associated freedoms into dominant real estate and housing frameworks previously empowered only on dry land.

The initial wave of informal houseboat colonization of the canal edges and the subsequent municipal attempt to confine and co-opt these houseboat activities challenged institutional expectations about whether water and land were functionally disparate topographies. In both instances, water was made to function more like land from a jurisdictional perspective even as the biophysical dividing line remained unchanged. This change in spatial utilization broadened and blurred the boundary between wet spaces and dry ones, with living rooms crossing the imagined divide to float overtop an aquatic terrain. In so doing, this transition has suggested new understandings about where to look for freedom in the city and how to create opportunity and elusiveness in closely monitored urban spaces.

“WHATEVER FLOATS YOUR BOAT”

Canal festivals and the making of a gathering space

The crescent canals in Amsterdam’s central city are a vibrant scene in the summer months. The tourism season is in full swing. Several major public festivals occur in rapid succession. Even on quiet days, pleasure boating is at a year-round peak. In the words of one cultural commentator, at this time of year, “you don’t need much of an alibi to go in a small boat singing and drinking across the water” (Baar 2009). From speedboats and yachts to dinghies and skiffs, watercraft cover the canals. People come to the quays in droves to celebrate holidays, watch parades, attend concerts, or just to see the crowds pass by.

Using urban water as a leisure site is an anomaly in the living memory of most Amsterdammers. These vivacious scenes clash with characterizations of the central city 40 years ago as dilapidated and overrun with drugs, sex, hippies, anarchists, and socialists. But boosters today speaking with the benefit of hindsight say that a key strategy in ameliorating the 1970s unrest was to “do more with water” in the 1990s, for instance by renting paddle boats, lighting bridges, holding floating events, building risers, and reducing waterborne pollution. The change is most noticeable during a handful of newly invented traditions that draw hundreds of thousands of people to the canals for a few days in April and for several weeks in August. These events, which are now among the largest public attractions in the Netherlands, have transformed the water into something it wasn’t before: a premier gathering space for city and nation.

Public space in Amsterdam has undergone two significant shifts since the 1990s. First, as other analysts have commented, many officially designated public spaces have slowly but steadily become targets for privatization, marketization, and surveillance. For instance, as economic geographer Rianne van Melik (2008) and urban sociologist Leon Deben (2009) explain, amidst rising affluence and intra-urban competition in the 1990s, the number of public spaces in Dutch cities getting “themed” facelifts, heightened security, use restrictions, and consumer entertainment amenities spiked. Shared courtyards were fenced off, street side benches were updated with anti-sleeping designs, and security cameras and police patrols increased. Alongside these tightening restrictions, new kinds of consumer-oriented shopping plazas emerged as the new public spaces for affluent residents.

This chapter explores a parallel but distinct trend: the improvisational conversion of former nautical spaces into seized sites for collective gathering. In the context of the perceived growing enclosure of spaces deemed public for much of the 20th century, and in the wake of harbor and industry restructuring that reduced much of the water-top cargo traffic in Amsterdam, water emerged as a third type of collective gathering space. This change began informally in the 1990s as an alternative to the usual and increasingly sanitized public space venues available on dry land. Within a decade, water had emerged as

a popular site for leisure and gathering, becoming the explicit target of market-oriented policy regulations by the mid-2000s.

As this chapter explains, over the past two decades, the actions of many unassociated people working between the lines and without a script set the waterways' metamorphosis in motion largely by accident. Gay advocates, holiday revelers, and *horeca*¹ managers among others hosted one-off parties on the canals in the early 1990s, eschewing customary dry-land venues to make statements, stage spectacles, or just to have a little unfettered fun. The people involved situated their events on the canals because, through trial, error, and coincidence, they found innovative ways to use the landscape novelties and jurisdictional boundaries encasing water to add novelty to their events and to escape social conventions on adjacent streets and squares. These improvisational actions, which were elusive without being elicited, when repeated year after year, effectively created a liminal space in the city. People began to envision the nautical thoroughfares as de facto public space, or a place to look to see leisure and identity performances. The growing success of these events in attracting visitors and shaping municipal reputation has since prompted a push to bring these impromptu canal festivities into regulatory line, not by banning water-top revelry but by channeling it to profitable ends.

Methods overview and chapter outline

To explore how people engaging in festivals of frivolity have helped transform Amsterdam's canals into prominent gathering spaces, I studied the emergence and development of the three largest annual canal festivals held on the central city waterways between 1990 and 2010. Of these three events, I give the annual Gay Pride parade special attention in this chapter because, as one of the first organized events in several decades if not centuries to systematically use water as a civic space, parade planners played a pioneering if unintended role in the canals' ongoing metamorphosis. The second event, Queen's Day (*Koninkinnedag*), is a long-standing national holiday that has no formal organizational structure that has only recently become associated with leisure boating. The third event, Canal Festival (*Grachtenfestival*), is the most consumer-oriented and boosterish of the festivals analyzed here and involves a multi-day collection of musical and cultural events hosted on and around Amsterdam water.

These three festivals were the largest of 25 events held on the Amsterdam canals in 2007 when this study began, and they were consistently among the top five most popular public festivals in the city over the preceding half-dozen years. Three other sizeable public events also contributed to the festival scene between 1990 and 2010, but are not included in this study. The turnout on *Uitmarkt*, an annual festival commemorating the opening of the national cultural season, is comparable with that of Gay Pride and Queen's Day, and it often opens with an event on the water, but it is excluded from this study because most of the events occur on dry land. Similarly, the Sail exhibition of historic tall ships draws more spectators than any of these other festivals and has an explicit water theme, but it only occurs every five years and takes place primarily in the city's harbors rather than its canals. Lastly, the Flower Pageant, one of the most popular festivals in Amsterdam for nearly a half a century, attracted about a million spectators in the early 1990s just before Gay Pride,

¹ The term *horeca* refers to the hotel and restaurant industry.

Queen's Day, and Canal Festival traditions began, but the festival ended in 2007 due to a sharp and persisting dip in turnout.

For evidence, I draw on the extensive written record that Gay Pride, Queen's Day, and Canal Festival planners, participants, spectators, commentators, and regulators have left behind. I rely heavily on reports, editorials, and interviews published between 1990 and 2010 in three reputable Dutch-language newspapers: the national, business-oriented *NRC Handelsblad*; the widely-circulated, left-wing *de Volkskrant*; and the Amsterdam-focused, center-left *Het Parool*. Additionally, I reviewed several other sources, such as event organizers' press releases published in the local electronic Gay Newspaper (*GayKrant*), municipal reports and editorial rebuttals on the changing character of Queen's Day canal use, and tourism press releases surrounding the more recent Canal Festival installments. I also look to secondary sociological studies of emerging public space and urban planning trends in Amsterdam to help situate these events in a wider cultural development context. Interviews with a handful of experts and event organizers played a small role in this study, directing my digging for the relevant historical artifacts and ruling out false starts.

I use a qualitative method to analyze these evidentiary sources, reading them for statements of event purpose, assessments of canal landscapes, and descriptions of participant behaviors and impressions. Using this close-reading technique, I extract information about the origin stories of the festivals, stated expectations about why these events in these places seemed important, and disagreements over their social implications. I pay special attention to comments expressing sensibilities of the materiality, history, identity, and economy of the canals, and to changes in these sensibilities over time. This read is not meant to give a full account of the festivals' histories and politics, which are colorful and would have been fun to write, but rather is intended to foreground the space-making dimensions of these celebratory undertakings.

In this analysis about the making of a watery gathering space, I begin with an overview of the three canal traditions of interest that I assert have done so much to change perceptions of water's functional potential in Amsterdam. I briefly comment on the novelty of this trend, and I then explain how revelers opportunistically mobilized several material and jurisdictional properties distinguishing water from land to make this new social landscape. I then review the City Council's evolving regulatory approach to these events, as well as the attempt to unmoor the newly created gathering space from the interest groups creating it in an effort to recast the canals as a de facto public space of market import citywide.

New Festivals on Amsterdam's Canals

One warm afternoon in August 2009, spectators stood shoulder-to-shoulder several rows deep along the Prince's Canal (*Prinsengracht*) in Amsterdam's city center. Nearly everyone was cheering and dancing. Chatter and laughter filled the air. Bottles of beer exchanged hands among friends who were out to see and be seen on this rare sunny summer's day. On the surface, this scene was stereotypical of so many others routinely occurring in squares and plazas around the world. But there was one notable exception: instead of being on foot, many revelers were afloat.

That day's aquatic event – Gay Pride Amsterdam 2009 – was a sight to see. Drag queens on party boats and dance troupes on barges snaked in procession through the picturesque canals ("Amsterdam Canal..." 2009; see also "Amsterdam's floating..." 2003;

"Gay pride parade..." 2002). Parents hoisted young children onto their shoulders while craning their necks to get a better look at the scene gliding past on the water below. Queer and straight, young and old, people came in droves to witness the spectacle and show their support. According to radio announcers, as well as event organizers with the ProGay Foundation, the record attendance of 560,000 onlookers made the parade the biggest event in the city that year ("Canal Parade..." 2009; We are Proud 2009).

This annual festival, which depending on your perspective began either in 1994 when Amsterdam hosted the EuroPride Parade or in 1996 when local organizers turned the parade into a recurring event, has received much acclaim in recent years. The Netherlands Center for Folk Culture listed the Gay Parade as one of the Netherlands' Top 100 Traditions in 2008 ("The hundred..." 2008). That same year, The Alliance, a cooperative of cultural organizations and the business community, gave ProGay Foundation event organizers the Welcome Award in recognition of the parade's positive contribution to local hospitality and inclusivity ("Amsterdam Pride..." 2008). MTV's Logo cable television channel nominated Amsterdam for the TripOut Best Annual Gay Event in the World award in 2009. The prize ultimately went to Madrid, but the nomination remains a badge of honor ("2009 TripOut..." nd; Hemelaar & Dalen 2009). And ProGay President Frank van Dalen successfully lobbied the municipal City Council in September 2009 to "pass a resolution that says Gay Pride is one of the most important events in the city. Now we'll see if they put their money where their mouth is" (Hemelaar & Dalen 2009).

Event organizers past and present explain the motives behind this new, successful festive tradition on the water. Concerns over reputation and commerce are important, to be sure. In the words of E. Verhoeven, parade organizer during the event's second year, "every big city in Europe has a gay parade with floats. But Amsterdam had nothing. We needed this to keep from falling behind" (Verhoeven in "Boat parade..." 1997). The Netherlands was first country in the world to legalize same-sex-marriage in 2001, and it is a long-standing pilgrimage site for gay tourists who spend 30% more on average per day than straight visitors. For these reasons, maintaining the image of a gay friendly atmosphere today remains as central to local trendsetter sensibilities as it is to *horeca* business interests (Berkhout 2008; Hanuska 2004; Wiegman 2007). But alongside these payoffs, parade-goers also see the event as a way to display "the Dutch Way of Gay" ("Europride..." 1994). According to ProGay secretary and parade organizing collaborator Irene Hemelaar, event organizers and participants use their event to give grassroots activists in other countries hope and to send messages condemning anti-gay actions in foreign lands. And at home, Hemelaar says, "the Amsterdam City Council likes the event because it's not just a party in the summer. It expresses ideas of how we want Amsterdam to be" (Hemelaar & Dalen 2009; see also "Sail against..." 2008; Schipper 1994).

Dancing Queens also take center stage every April 30 on *Koningsdag*, or Queen's Day, which is "by far the most widely celebrated holiday in the Netherlands" (McAllister nd). Commentators describe the festival as a cross between the U.S. Fourth of July and the New Orleans Mardi Gras. The holiday began in 1885 as a show of national unity in the form of a birthday party for the reigning female monarch of the Netherlands' Royal House of Orange. My first Queen's Day experience was in 2008 as one of 200,000 people flocking to the party scene in the national capital. From the moment I arrived, I asked almost everyone I met about the best way to partake in this most special of days. From a former roommate

to a university professor, from a fellow traveler to a cultural critic, the answer was always the same: find a friend with a boat and motor through the canals.

According to chief editor Peter Paul De Baar with the local magazine *Our Amsterdam* (*Ons Amsterdam*), as well as other local history experts with the University of Amsterdam and the Amsterdam Free University, pleasure boating on Queen's Day is a relatively new phenomenon. The old holiday tradition, and still the one most known to locals, is for kids to mimic the so-called national hobby of free trade. "For one day, everyone is free to sell anything on the street without requiring formal permission" (Baar 2009; see also Dam 2009). Elementary school children impersonating merchants set up stalls in parks and streets. They sell games, perform tricks, or charge passers-by five cents each to look inside their homemade dioramas (Mamadouh 2009).

But this custom is changing. Amsterdam has long been "the place to be" on Queen's Day (Arnoldussen 1993; "Celebrating?..." 2009), but in recent years the event has become a holiday for grown-ups and water has become a main attraction. Revelers wander through the vendor-packed streets decked out in "orange clothes, hats, wigs, capes, feather boas, face or body paint (some even opt for more paint than clothing)" (McAllister nd). Of these revelers, many rent, build, buy, beg, borrow, or steal boats and go drinking, singing, and shouting through the central city waterways. Skiffs carrying groups of ten, twenty, or thirty people toot along. The canals, which were nearly empty only a few days earlier, suddenly become so congested that motorists "bob rather than drive" (Baar 2009). The 2008 scene was typical of Queen's Day revelry since the early 1990s. According to local news reporters, "everything that can float and carry cases of beer is cued up on the water to make a tour through the canal scene" ("Barely jostling..." 1994; "Orange insanity..." 1998; Sanders 2001; Sevil 2009). Mingling and absurdity were key. In the words of one floating reveler in the tradition's early years, "the best thing about Queen's Day is meeting other student boats on the Amsterdam canals" (Berg 1995). This attitude persists today. Celebratory groups on the water drink in the air of national release, delighting in "making themselves ridiculous on the water" (Dam 2009).

Queens of various guises are less of a theme in the third and most commercially-oriented of Amsterdam's new water traditions: the annual late-summer Canal Festival. This gala began in 1981 when managers of the Pulitzer Hotel and Cristofori piano house hired a solo pianist to perform for guests atop a shabby barge rented from the municipal sanitation department (Somers 1998; see also Spel 2001). By the late-1990s, this recurring performance had grown into an annual, five-day carnival of 30-plus floating classical music concerts on the Prince's Canal waterway. In 2001, a "singing crowd" of 20,000 people "on small boats, the quays, and a VIP-pontoon" lent their voices to the event finale, a brass ensemble playing "the traditional ode 'On the Amsterdam Canals'" (Spel 2001). The nine-day 2007 festival grew larger still, with 70,000 visitors attending over 160 music, architecture, literature, and history activities. Many of the smaller events were free to the public and nearly all took place "on floating stages, canal-side terraces, or the banks of the IJ River" ("Canal Life" nd).

The Canal Festival reinforces an already strong link between the 17th century crescent canals and Amsterdam's tourism industry. The Amsterdam Boat Tour through the central city is consistently one of the two most popular tourist attractions in the Netherlands (Amsterdam.info nd; see also "Boat tour..." 2007). But while the other attraction, the Efteling Theme Park, is a domestic day out, Amsterdam boat tours cater

primarily to foreigners (Borg 1993). Romantic perceptions of water and Holland carry significant weight abroad. According to academic analysts, 80% of tourists “identify the beauty of Amsterdam with its canals” (Rooijendijk 2005:107), and the municipality’s 200 registered tour boats have been “cash cows” for several decades (Adolf 1993; see also Amsterdam.info nd). Three million people make their acquaintance with Amsterdam aboard these boats every year. The process is hyped as one of “discovery,” of uncovering the places “you normally would not go” and of learning the “little tidbits that make life in the city more interesting” (Kramer 2000). The annual Canal Festival reinforces these canal-tourism trends. Its concerts and tours entertain participants, who in the process learn to read the central city crescent canals as the quintessential place of history, government, and culture in the Netherlands.

Making a Gathering Space

It is not intuitively obvious that water should have become so prominent a gathering space. The canals are open to anyone engaged in shipping, and in centuries past, the quays often functioned as social promenades and market exchanges. Nevertheless, they were not customary places for groups to collect or demonstrate during the 20th century (P Rooy 2009). Notable social movements such as the *Provo* anarchists and the *Kabouter* squatters of the 1960s and 1970s targeted the central city crescent canals to some extent. Displacement was rampant near this water-rich section of town, and as a symbolic site of government authority, the neighborhood made an evocative setting for semi-staged media images depicting police brutality. Protestors occasionally used isolated bridge crossings and permeable water surfaces to launch surprise assaults or evade police capture. *Provo* anarchists even threatened to get everyone in Amsterdam high by lacing the canals or drinking water with LSD (Foundation for... 1994; Kempton 2007; Pas 2003; P Rooy 2009). But despite these minor deployments of the watery landscape, activists overwhelmingly preferred to gather, protest, and riot in the era’s customary public spaces: the squares and streets on dry land.

But by the mid-1990s, municipal officials began commenting on a trend: the growing use of the waterways as places for assembling, celebrating, and advertising. In the words of one cultural analyst, “the use of the canals as ‘just fun’ has grown since the ‘80s and ‘90s” (Baar 2009; see also C Janssen 2007; P Rooy 2009). People began buying brand new boats explicitly for pleasure boating rather than hauling freight, a seemingly illogical behavior a few decades ago, and commentators began speaking of boating as an emerging national hobby. Despite these trends, the canals today remain relatively quiet more often than not. In the words of former Alderman Guido Frankfurter, “except on lovely summer days and Queen’s Day, you could fire off a canon” without hitting anything (Frankfurter in R Janssen 2005). Editor and local culture expert Peter Paul De Baar concurs. “Usually it’s just tourist boats and tiny boats with young people. And a few old eccentrics with old, self-built boats; the nautical fanatics and ‘the old man in a cap’” (Baar 2009). But perhaps 20 days a year – on special holidays, festival days, and those rare sunny afternoons – the canals become venues of civic association. Water becomes, in the official language of the Amsterdam City Council Physical Planning Department, “an essential part of the public space in the central city” (Center Borough nd; see also C Janssen 2007; Keken 2003; Spaans & Thomassen 2005).

Although the canals now function as something akin to what Margaret Crawford (1999) might describe as seized spaces of collective experience, they are not officially designed as public space in municipal zoning plans. The canals thread through Amsterdam's streets and are literally sandwiched by sidewalks, terraces, and bridges on every side. But the Physical Planning Department (*Dienst Ruimtelijke Ordening*), which is the organization responsible for designing and managing Amsterdam's streetscape and plazas on land, has limited influence or authority over what happens on water. Jurisdiction throughout most of the 20th century fell to the Amsterdam Harbor agency, and more recently has fallen to the municipal Department of Inland Waterway Management (*Dienst Binnenwaterbeheer Amsterdam*), which took over many of the canal-related operational responsibilities in the wake of post-1970 harbor downsizing. In terms of man-hours, the Inland Waterway Management's primary task is to physically maintain canal bridges and locks. Since the mid-2000s, the department has also been responsible for processing boat fees and administering permits for houseboats and events on the water ("Who are we" 2007). Although the 15 local borough councils gave some say over the aesthetics of small-scale infrastructural improvements in their neighborhoods, and although the mayor's office can intercede on issues of citywide import, the primary regulatory agency in place on the water, the Department of Inland Waterway Management, remains geared towards facilitating commercial traffic across the water rather than social gathering on the water.

The past and present harbor, bridge, and inland water agencies' transportation focus shaped the kinds of regulations in force on the water in the 1990s. For instance, the agency enforced speed limits and boat registrations. Commercial captains were required to have licenses and these skippers' boats had right-of-way priority over all other traffic. Managers tolerated houseboats, floating gardens, art events, pleasure boaters, and the like only so far as professional through-traffic navigability remained unimpeded (Escher 1992; Halm 1996). Pollution and sewage control systems also took a back seat to shipping interests as manifest by the willingness to delay urgent maintenance procedures rather than close the canals for even a few hours at a time (Royen 1992).

Within these nautical constraints, partiers in the 1990s had full rights to motor on boats through the canals as they pleased. Large gatherings that would have required coordination or permitting on dry land had *carte blanche* on the water, so long as traffic kept flowing. In the words of one critic, this spatial division of labor meant that, even as people began to routinely congregate on water, "the policy for public space literally stops at the waters edge" (Schoonenberg 2001). And as the following sections show, the material properties and jurisdictional structures dividing water from land provided opportunities for a different kind of collective gathering to flourish on the canals than could exist on the quays.

Mobilizing water to make a gathering space

The canals' metamorphosis into a liminal gathering space is connected to broad changes in cultural, economic, and planning attitudes towards urban water writ large, to be sure. But the role of the three mega-events Gay Pride, Queen's Day, and Canal Festival in creating sensibilities that Amsterdam's waterways are, and ought to be, spaces for cultural exchange cannot be overstated. Yet how and why did this occur? The canals are neither an officially designated public space nor a place of freedom by virtue of a marginal location. Rather, a series of informal, improvisational, and celebratory behaviors congealing around,

through, and overtop of prominent central city canal-scapes between 1990 and 2010 turned these watery spaces into claimed meeting grounds. These events gained traction because experimenters in the early years found ways to mobilize the material and jurisdictional properties of water to escape the physical limitations, political associations, and social conventions in force on dry land. Events on water promised a degree and type of visibility, surprise, and neutrality not available in the dry streets and squares, and celebratory actions exploiting these dynamics introduced an alternative, attractive framework for congregating and celebrating.

Consider Gay Pride Amsterdam, the roving, floating dance cruise on display celebrating sex, bodies, and hedonistic frivolity (Brok 2005; Hanuska 2004). Hosting this kind of event on the water promised a degree of public exposure unavailable elsewhere in town. Water in Amsterdam means visibility. According to cultural commentator Peter Paul de Baar (2009), in a city where centuries of real estate development priorities have led to landscapes of narrow, crooked streets, water “is the only place you could see the whole show” (Baar 2009). As he explained, despite the dearth of such activities in the 20th century, staging festivities and shows on the water is an old tradition in Amsterdam. Municipal leaders commonly staged float shows on the canals to honor visiting 16th and 17th century dignitaries. For instance, when William of Orange came to town, his welcome included a grand floating firework display and a nautical re-enactment of his victory against Spain. Similar theatrics of boats sailing in formation commemorated a visit from



Spectators lining streets and bridges during the 2010 Gay Pride Parade (Source: Het Parool, ANP)

Peter the Great. Although Gay Pride organizers do not evoke this history explicitly, their actions reinvent this once nearly forgotten tradition in a contemporary guise. The parade turns the sunken water surfaces with their long, curving footprints into stages or windows displaying sexual emancipation. Streets and bridges become a network of viewing platforms. This heightened visibility in space parallels political calls for “greater visibility for gay life” and for the right to be visibly different in public year round (Hemelaar & Dalen 2009; see also “City chagrin...” 2003; “Without Gay...” 2000).

Similarly, physical movement on water cultivates an air of social inclusivity that would have been difficult to achieve on dry land. Amsterdam has few squares or boulevards and no noteworthy history of parading. In the words of one cultural geographer, “that’s really more of an American thing” (Mamadouh 2009; see also Baar 2009; Pistor 1994). And as a historically Protestant nation, carnival-esque entertainment remains relatively rare though by no means completely absent. Nevertheless, event organizers in the early years wanted a celebration in the style of the annual New York City march commemorating the Stonewall Riots (“Europride...” 1994). Routing a parade through the canals met this objective, and it had another unexpected but lasting effect, as well. As ProGay Foundation president Frank van Dalen explained, moving the parade through the city rather than demonstrating in a single cramped square created “a sense of connectivity with the whole city” giving “the feeling that minority is the majority” (Hemelaar & Dalen 2009). This kind of visible motion that was physically unviable on land in Amsterdam has proven highly effective on water, and the extended spatial reach affirms sensibilities of social integration and widespread tolerance.

Gay advocates are not alone in their mobilization of water’s visual field. For example, image making through landscape choreography is a central component of the Canal Festival, as well. In contrast to 1960s nomenclatures of urban addicts and prostitutes, Canal Festival directors use highbrow music and architecture to define an alternate, sanitized public face to the world. The visual landscape of the water’s edge, especially along the 17th century crescent canals, is an important cultural anchor in this endeavor. Rightly or wrongly, event backers with the Amsterdam Tourism and Convention Bureau (*Amsterdam Toerisme & Congres Bureau*) and the national Tourist Board (*Vereniging voor Vreemdelingenverkeer*, or VVV) stress that, “the water, and especially the canals, makes Amsterdam an exceptional city. This combination of bridges, trees, houses, and canals doesn’t exist anywhere else in the world” (Pullens 2004). Editorial reviews of the festival emphasize that these images have represented Dutch culture “for television viewers from Japan to Spain and from America to Sweden” since CNN began broadcasting the Canal Festival head concert internationally in 1997:

Viewers saw a canal... Better yet, they saw boats, flat boats, fishing boats, and punts... What a merry anarchy, there on the water! ... What a friendly people, all sitting so still. What picturesque little houses, and there’s the glittering music besides. Look, that’s what a Dutch Village looks like. (Somers 1998; see also “Despite original...” 2004)

The finely detailed stage setting and depiction of social custom in a supposedly authentic streetscape implies that the concert, rather than being a stunt or performance, reflected ordinary life and regular people living life to its fullest on the water. Using this landscape, concert planners and promoters use the televised headline concert to affirm sensibilities of

their town's civic worthiness and cultural prestige anchored in a supposedly quintessential wet urban space.



Singer performing atop a floating barge during the 2010 Canal Festival Prince's Canal Concert (Source: Het Parool, ANP)

A second landscape dynamic related to visibility is the use of water to cultivate novelty. Unlike other run-of-the-mill parades, Gay Pride organizers emphasize that Amsterdam's floats actually float. In ProGay president Frank van Dalen's words, "this is the only floating parade in the world" (Hemelaar & Dalen 2009). In this event, the tolerance quip and marketing idiom "whatever floats your boat" assumes literal corporeality ("Canal Life" nd). Press announcements leading up to the first parades in 1994 and 1996 do not comment on the events' waterborne character. But ever since, organizers explicitly advertise floating as a salient feature. This temporal lag suggests that the attraction of floating was an accidental discovery, something people stumbled onto during the embodied performance of the parade rather than stemming from a premeditated decision that buoyancy was or ought to be culturally significant. But by the late 1990s, organizers saw floating as a symbol of Amsterdam's distinctiveness. In the words of one former parade organizer from the mid-1990s, "above all the fact that the parade goes through the water makes it exceptional. Other cities can't touch that. This is the proof that Amsterdam is the gay capital of Europe" (Verhoeven in "Boat parade..." 1997). Van Dalen reiterates this message today, attributing MTV's interest in the 2009 event to its watery character.

Queen's Day revelers likewise make much of the links between water, floating, and unexpectedness. The element of surprise in this instance stems less from the novelty of floating and comes instead from the potential for misadventure en route. According to water historian Petra van Dam, "Dutch culture is mostly serious and boring, with endless meetings about nothing. And then suddenly we start to play" (Dam 2009). Queen's Day is a day of letting go and letting loose. Over-the-top costumes and embellished intoxication contribute to this sensibility, and the element of jovial risk on the water makes bobbing seem an especially apt celebratory act. Such playful uses of water have precedent, for instance in the 19th century cross-channel Eel Pull tug-of-wars where neighborhood teams won victory by pulling their opponents over the quay edge (Furnee 2009). Today's revelers invent similar games, for instance by challenging each other to races of silly boats where almost half the boats sink along the way. Even in water-sound vessels, people can fall in, get wet, and laugh. In Van Dam's words, "people connect rituals to water because it adds fun. ... People come to see that" (Dam 2009).

Third, alongside these elements of visibility and novelty, water confers neutrality. Staging an event in a space laden with political symbolism is a common enough demonstration strategy (*e.g.* see Leitner *et al.* 2008), but for Gay Pride organizers, the lack of political associations with water in living memory in contrast to the usual protest arenas of streets and plazas has been advantageous for enthusiasts seeking to de-politicize and naturalize their message. Some participants perform political skits, to be sure, such as satirizing Pope John Paul II's anti-gay commentaries (Traa 2000), commemorating Iranian youth executed for their sexuality (Sevil 2005), or marrying Dutch-American couples denied marriage rights in the United States ("Cohen's boat" 2009; Koele 2009; We are Proud 2009). But these sorts of displays are rare. As one event planner in 1997 explained, the event "is not a demonstration; you won't see any banners." Instead, the parade was "a thank you that gays and straights have lived well together for 30 years in Amsterdam" (Verhoeven in "Boat parade..." 1997). These dynamics help generate illusions of social reality. The choreographed revelry seems to represent an incontrovertibly, already-existing, and valued gay identity rather than a project of self-construction or a call for political reform. Many former participants see the increase in human rights rhetoric and politician involvement in the late 2000s as negative progress, a sign that rising intolerance has "set the clock back 15 years" (Bonte in Beusekamp 2008; Berkhout 2009; Koele 2009; J Lahaise 2009). The politicization of the canals as a demonstration site may reinforce this disquiet suggesting as it does that emancipation is something to strive for rather than a norm already attained.

Water has similar depoliticizing and evasive effects for Queen's Day revelers. Boats sport the Netherlands' flag, boaters wear the color of the monarch, and boating figures as a national hobby. But these expressions of nationalism are playful and satirical rather than solemn. Here too, an association of water with unusually lax or playful social rules has a historical precursor in 19th century class mixing on ice-skates where people of any income and gender could meet and greet each other with limited formality and few repercussions (Furnee 2002). Partiers in the mid-1990s likewise took to the water in part to flout the comparably lax set of behavioral rules on water compared to stricter codes of conduct on land. According to one reporter covering the holiday celebrations, groups of dozens or hundreds would rent boats, load them up with thousands of bottles of beer and a disk jockey, and then "do" the canals, throwing rubbish overboard, peeing over the edge, and



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business and marketing interest in capitalizing on waterway festivities, as well as to a growing push-back from canal-fronting residents fearing that water-top anarchy undermines property values and peaceful nights. These two trends are feeding into initiatives to pin behavior on the water back down, not by banning festivities, but by getting revelers to agree to play inside an expanded set of rules. This regulatory push to make water function as a de facto public space repackages the motives behind the canal festivals as being less about sub-group interests in tolerance, frivolity, or refinement and more about the financial wellbeing of the Amsterdam business community. And although the material and jurisdictional properties of water have proven somewhat recalcitrant to this bureaucratic re-codification, processes of spatialization, city-fication, and commercialization are well underway.

In this push to regulate informal gathering on the water, Gay Pride participants, as pioneers in the festive use of canals, have also been targets of fledgling experiments to control extra-nautical aquatic behavior. Existing spatial codes of conduct have long addressed issues such as boat speed and cargo content while leaving singing, dress, and group size unrestricted. In the event's early years, when water-top parading seemed like an incidental anomaly rather than a routine practice, municipal officials asked Gay Pride participants to voluntarily sign "chastity declarations" and "morality contracts" promising not to engage in nudity, masturbation, or sex aboard the floats during the parade (Broek 1996). Amendment to these dress codes in the event's fourth year stipulated that exposed "breasts and buns are fine, but not genitals. And the nakedness must be functional" (Vugts 1999). Former event organizer Siep De Haan of Gay Building Alliance embraced the rules at the time, pledging his organization's support to securing compliance. "Passengers who are too flamboyant in their dress can count on a reprimand from the responsible officers, a fine from the police, and disqualification from the trip next year" (Broek 1996). In exchange for pledging compliance, participants received financial backing for their floats, formal inclusion in the parade line-up, and some protections from police intervention and public criticism.

Although this person-by-person regulatory strategy worked reasonably well at first, it became impractical as popular interest in Gay Pride gave participants added cover to reject what some saw as hetero-normative standards of costuming and comportment ("People don't..." 2003; Cheary 2003). It also left the question of spectator controls unaddressed. These concerns prompted a regulatory scalar shift from the level of the individual to that of the event. Although the Gay Pride parade motored through the waterways and not the streets, attendees viewed the procession and attended after-parties on dry land, which helped municipal officials expand their public space event permitting process to the emerging water tradition. Media publicized permit disputes playing out in 2000, 2005, 2006, and 2007 reveal the range of issues these strategies could address. Event organizers and city councilmen negotiated how noise decibel limits would be measured, when street parties had to end, how often parties could gather in key public squares, and what type of flatware concession stands had to provide (Fauwe 2006; "Gay Canal..." 2000; "Gay pride will..." 2000; Wiegman 2005 & 2007). Police action supplemented the slowly expanding permit framework with extra officers patrolling the streets on foot and in boats to ensure compliance, direct traffic, and log complaints ("Gay Parade..." 2001).

But as with the individual contract approach that preceded it, the event-focused nature of the permit strategy suffered from allegations of discrimination, which became

especially problematic in allegations of governmental homophobia surrounding Gay Pride ("City chagrin..." 2002; "Summer carnival..." 2002; Wiegman 2002b & 2007). The strategy was also unable to effectively manage spontaneous action, a problem augmented on Queen's Day when participants and spectators took to the waterways without any official organizing entity to solicit permits or to hold participants accountable (Baar 2009; "Flee before..." 2009; Oordt 2009; Verkerk 1998; Wall 2005). These concerns prompted would-be regulators to take a spatial turn, incorporating gathering restrictions into pre-existing, place-based codes of conduct. To gain support for the new rules, which many complained undermined freedom on the water (Hoedeman 2009; Oordt 2009), several municipal departments began compiling statistical reports cataloging boat counts, noise levels, and complaint patterns. Critics of these reports protested that the evidence, which was based on mooring crackdowns and on better-publicized complaint lines, skewed the data to make infractions more visible even as problems subsided. Nonetheless, municipal officials used the statistics to paint water as an administrative wilderness of dangerous and deathly chaos in urgent need of legislative intervention ("Amsterdam residents..." 2000; Broek 2000; "Dear Editor..." 2009; "Flee before..." 2009; "How much..." 2000; Keken 2003; Mak 1994; Spaans & Thomassen 2005; Vermeulen 1994).

With this statistical worldview in their pocket, former mayor Job Cohen along with cooperating officials from several municipal offices helped the Municipal Department of Inland Waterway Management unroll the first of what may be many comprehensive spatial regulation strategies for water-top festivities in the weeks leading up to Queen's Day 2009. The new rules, which mimicked many of the public space regulations already in effect on land, stipulated restrictions on boat lengths, traffic direction, music volume, and alcohol intake for anyone and everyone occupying space between the quay walls on the water surface within the central city limits. This spatial rather than individual- or event-oriented behavioral control strategy issued under citywide mayoral authority bridged jurisdictional gaps between water and land. Moreover, by testing the rules on Queen's Day rather than Gay Pride, it sidestepped potential criticisms of intolerance. This so-called comprehensive approach to canal chaos was to be in effect for one day only, but if successful on that holiday weekend, regulators proposed making these sorts of rules standard fare on the canals at all times ("2 minutes" 2009; "Dear Editor..." 2009; "Pleasure boat..." 2009; Rombouts 2009; "Rules for..." 2009).

This shift from social control through individual contracts to social control through spatial terms of access opened the door for a second mode of spatialized authority: the erosion of informal, sub-group approaches to organizing canal frivolity and their replacement with a generalized, pro-business municipal framework. Initially, Gay Pride paraders took to the water to celebrate (and, in so doing, to foster) tolerance and inclusivity. Queen's Day revelers sought unbridled and unceremonious collective revelry. And Canal Festival-goers sought cultural edification. Business interests played a role, to be sure, especially for organizers pitching their events to potential sponsors and regulatory authorities. Even so, the events were far from mercenary. They reflected a wide range of uncoordinated interest group objectives. But with the growing expectation that canals were an unofficial yet influential public space for the city as a whole, the issue-based meaning of these events has lost ground to a spatialized jurisdictional appropriation of the meaning and merit of water-top revelry. Tolerance and pleasure, once seen as ends in themselves, have now become the means to boost Amsterdam's tourism industry.

These changes are evident in the shifting character of the events themselves. For instance, since the mid-2000s, local and national politicians, tourism agencies, and *horeca* representatives have taken over the planning and presentation of Gay Pride, renamed Gay Pride Amsterdam in 2006 ("All in..." 2006; Berkhout 2008; Fauwe 2006; Koele 2009; J Lahaise 2009; "Money regulated..." 2006; Sevil 2006; Wiegman 2007). Municipal councilmen also gained support for infrastructural improvements such as the construction of new short-term mooring risers to increase physical connections between the sunken water surfaces of partiers and the commercial city streets ("Boat friendly pizzeria" 2007; "Boat friendly Amsterdam" 2007; Damen 2007 & 2008c; R Janssen 2005; Visser 2009). And tourism boosters have formalized their attempts to use water to attract as many visitors as possible to the Netherlands capital city, for instance by organizing bi-decennial tourism theme years that scale up the Canal Festival's activities into a full season of water-oriented history, staging, and entertainment ("Amsterdam Water..." nd; Jong 2009; Katstra 2005; Metz 2002).

These functional appropriations of past informal and uncoordinated water-top festivities, combined with the growing regulatory push to codify canal events in favor of central city property values and tourism interests, are beginning to transform the once improvisational and evasive gathering activities on the water into officially regulated behavior in a de facto public space not for the sake of tolerance, frivolity, or edification, but for the sake of business. While these perspectives are not necessarily incompatible, this shift is nonetheless leaving many formerly eager participants dissatisfied and disaffected.

But in these moves to turn nautical canals into regulated leisure sites, water is recalcitrant. Just as the watery nature of the improvised gathering space posed unique opportunities for revelers seeking to shake social conventions sedimented on dry land, a related set of material and jurisdictional properties pose challenges to the formal re-scripting of canals as public space. For instance, to occupy wet space, a person needs a boat, not just a mobile body, which means participation in this collective gathering venue rather than a dry-land equivalent requires some degree of disposable income. And once afloat, passengers cannot easily decide to switch social groups or go home early. The canals' edge conditions create unusual parameters for public space-style social interaction because, while the canals thread through the entire city giving them a greater geographic reach than a square or plaza, there are only have a handful of points where boaters can physically (rather than visually or audibly) cross from the low water surface to the elevated street level on either side.

Jurisdictional patterns are in some ways even more intransigent than material ones. For instance, even though some critics feel that the Department of Inland Waterway Management lacks the vision and manpower needed to adequately respond to the added policing and clean-up workload needed to sustain large-scale surrounding water-top special events, jurisdictional divisions of labor have a bureaucratic momentum with calls for change giving rise to counterproductive turf wars and undesired crackdowns. Moreover, due to legal complications, the new spatial regulatory measures stop short of calls to rezone waterways as official Public Space. This naming issue is not purely semantic. Coding spaces as "public" transfers established sets of behavioral and exclusionary codes governing use, access, and action in effect on dry land onto watery spaces currently regulated according to a different set of standards. People with entrenched interests in the extant system oppose such reclassification. For instance, since dwelling in officially

designated public space is illegal, re-naming these waterways as public could mean the loss of a space that had been effectively public for 4,400 houseboaters for decades.

Canal festivals and the making of a gathering space

Amsterdammers celebrate some grand traditions, doing things people have allegedly been doing for generations. Some rituals have an intimate and individual feel, as when people exchange Saint Nicholas gifts or dye Easter eggs all at the same time but in their own homes. Other customs bring large groups of people together, for instance by attending holiday religious services or attending a monarch's coronation ceremony.

The biggest annual public events in Amsterdam are not part of this repertoire. Changing society means changing traditions. The Gay Pride boat parade, the Queen's Day pleasure boaters, and the Canal Festival tourist attraction are three of the most notable public events in Amsterdam today, and all three are only about two decades old. And instead of occurring in streets, squares, churches, or palaces, these new traditions take place on water.

The people inventing these traditions did not have an explicit, long-term social or spatial strategy in mind from the outset. Activists did not have the authority to legally define a gay tolerance zone. Leisure boaters did not intent to rewrite the meaning of space in a way that threatened to displace houseboaters. Physical Planning Department regulators in charge of public space on dry land did not have the authority to take control of waterways that technically fell under other agencies' authority. But paraders, partiers, and spectators nonetheless had opportunities to act, exploiting the material properties and jurisdictional parameters distinguishing water from land. These landscape divisions conferred visibility, surprise, and neutrality to expected one-off events, which when repeated over and over again, helped cultivate sensibilities of the central city canals as collective gathering spaces.

The growing popularity of water-top festivities, combined with rising frustrations over their informal and disruptive aspects, has led to attempts to codify the spaces involved by way of transferring codes of conduct in force in public spaces on dry land to the water surface. But the material substrate and jurisdictional sedimentations of water are sticky, and regulatory norms on land do not easily transfer over to aquatic contexts. Even so, the partial and growing success of these measures are beginning to equalize the politics of collective frivolity between water and soil. This recoding of water, like all such spatial designation endeavors, means defining the canals as for some people and not for others. Consumers, partiers, residents, visitors, activists, and entrepreneurs are just some of the groups with stakes in play. Yet while the initial revalorization of the waterways as a collective gathering site in the 1990s bucked many of the privatization and surveillance trends narrowing access to public space on dry land in Amsterdam and elsewhere during this period, the emerging functional and jurisdictional framework of the 2000s appears to be colonizing this informal gathering space, making it susceptible to the social dynamics that many revelers once hoped to avoid.

Part 2

WATER, HISTORY, AND REAL ESTATE

“PISS OFF WITH THAT CANAL”

Heritage, gentrification, and the almost making of urban water

Jeers and heckles filled the auditorium. The city councilman standing at the microphone was only able to utter a few short sentences before angry chants drowned out his words. The evening was a public relations disaster. Community planning events at Amsterdam's Red Hat Gathering Hall (*De Rode Hoed*) are generally lackluster affairs. Organizers expected this meeting held one Wednesday evening in late September 2004 to be no different. But irate residents and businessmen came by the hundreds to vocalize their displeasure. They filled the left side of the auditorium, outnumbering their opponents by fifteen or twenty to one. Insults hurled towards the speakers. Death threats came in the months that followed. By the meeting's end, the tranquil surface of Dutch consensus politics lay in tatters on the polished wood floor (Frankfurter in Damen 2007; Kreling 2004a, 2004b; Steinmetz 2004).

Four years later and with the benefit of hindsight, I began my investigation of this tumultuous gathering. The cause of the discontent was a proposal to restore a canal that once ran through the Jordaan neighborhood on the western edge of Amsterdam's city center. Nine similar projects were underway at the time in other parts of the Netherlands. Dozens if not hundreds are now complete across Western Europe and North America. Comparatively speaking, the Jordaan proposal was a seemingly minor proposition. The restoration had been on the municipality's official to do list for over two years with relatively little public response. Municipal surveys showed that three-quarters of Amsterdam residents supported the initiative. At two blocks long and a few million Euros for the water component of the project, it paled in comparison to the 1.5-kilometer stretch of excavation underway in the nearby town of Utrecht. Yet in the national capital where pride in water was purportedly paramount, the proposal to restore a lost canal was rapidly unraveling at the seams.

In abstract economic terms, water today has become a prized and profitable real estate amenity. As such, and somewhat ironically, associated as it is with luxury housing and neighborhood gentrification, water is a landscape feature that many residents do not wish to see coming soon to a neighborhood near them. But water in the Netherlands is not only a financial asset. In architecture and preservation circles, the old canal landscape also embodies the rich national heritage of an all-too-fleeting moment in time when Amsterdam was the world's leading imperial city. From this perspective, letting water flow again through a street where a canal once stood would recreate a lost piece of the city's Golden Age grandeur for residents today. But the financial properties of water are not easily shed. For critics of canal restoration, water history tropes threatened to provide an “in” for gentrification, privatization, and other exclusionary trends they wished to keep at bay. For this reason, the canal restoration proposal became a target in a larger social struggle against international economic dynamics putting the screws to many middle-income families. And so, in the midst of a global water craze, Amsterdam residents bucked the

trend and refused to re-hydrate their streetscape. In so doing, they hoped, perhaps in vain, to defend a way of life that many people feel may already have slipped away.

Methods overview and chapter outline

To explain why proposals to dig out filled canals in Amsterdam's central city have consistently failed over the past two decades despite seemingly overwhelming support for such undertakings at the neighborhood, national, and international scale, this chapter follows the written trail these initiatives have left behind. I base my analysis on a study of three failed canal excavation projects including the Rokin proposal that gained popularity in the mid-1990s, the Palm Canal (*Palmgracht*) proposal that followed the Rokin's failure, and the dual-sited Jordaan excavation proposal developed in the early 2000s and indefinitely shelved in 2006. Among these three, I have chosen to highlight the Jordaan initiative in this chapter because it progressed the farthest and because its failure sapped much of the enthusiasm for urban water restoration in the central city out of many of the project's most avid devotees.

I look to several archival sources to find this written trail. For instance, I draw extensively on a systematic search of several local newspapers with varying political leanings and readership circles that published progress reports and editorials on the merits and pitfalls of the three excavation undertakings. I likewise rely heavily on magazine issues and press releases published by the organization The Friends of the Amsterdam Inner City (*De Vereniging Vrienden van de Amsterdamse Binnenstad*) whose members were key advocates propelling the Jordaan excavation proposal forward. I supplement these accounts with public letters, reports, and other memoranda from political party officials, hired feasibility study experts, and the Amsterdam City Council Executive Board (*college van burgemeester en wethouders*), all of which illuminate the aspirations, concerns, and strategies at play in the excavation debates. References to occasionally boosterish academic accounts of Amsterdam water more broadly help put the excavation proposals in context with other legal and infrastructural canal-related undertakings that many excavation proponents also supported.

In these written records, the voice of land speculators and real estate developers is absent. I can only guess as to the cause. Perhaps their silence reflects a disinterest in excavation, either because speculators doubted the likelihood that such plans would come to fruition or because land assembly difficulties in closely guarded central city markets made large-scale redevelopment here comparatively unprofitable. Conversely, the silence may reflect speculator hopes for restoration success paired with concerns that an overly eager developer lobby ready to pounce on the reconfigured landscape would only galvanize project opposition. Whatever the reason, the silence remains in the archives and in this study.

Similarly, a handful of loosely coordinated organizations and officials worked in support of all three of the excavation proposals examined here while simultaneously spearheading lasting, concerted, and multi-faceted campaigns to re-evaluate the use and meaning of surface water in Amsterdam more generally. But the opposition to these proposals was less consolidated and shorter lived. Some critical voices ring out loud and clear in response to one or another of the proposed excavation locations, but no single oppositional group, official, or leader worked systematically across these projects or spoke to Amsterdam's water potential more generally. As such, in the archival record, the political

profile of these resisters is less cohesive and less well preserved than that of the instigators.

Based on these various sources, which were written to support, evaluate, or oppose excavation, this chapter begins by setting the Jordaan excavation proposal in context with successful urban water restoration undertakings elsewhere in the world, as well as with the local string of unrealized initiatives that preceded it in Amsterdam. I then explore two attributes that are unique to the Dutch context and that feature prominently in the Jordaan excavation debate: the heritage framework used to advance the proposals, and the fears of purported economic benefits that ultimately rendered them untenable. Many advocates in favor of digging out filled canals lament that the continued failure of such undertakings is a missed opportunity to improve the city they adore. But for opponents, the project became an opportunity to speak out against broad social changes underway around the world and to defend their home turf from a project they feared could accelerate their losses.

Urban water restoration in context

Amsterdam boosters bill their city as “the most watery city in the world” (Amsterdam.info nd). This wetness persists despite a century-long planning paradigm lauding the benefits of channeling rivers, burying streams, and filling lakes across North America and Western Europe to curb epidemics and augment developable land (Kaika 2005). Amsterdammers were not immune from these anti-water urban development trends. Between 1828 and 1970, the city council partially or fully filled 78 canals² – including six of the eleven canals that once ran through the central city Jordaan neighborhood – often at the request of wealthy residents living nearby (Buiter 2004; Frankfurter 2000; Kreling 2004b; Meurs 2004).

Despite this infilling, a quarter of the city remains water and, for many people, this water symbolizes the historic identity of Amsterdam. For instance, according to Walther Schoonenberg, chairman of the heritage watchdog group Friends of the Amsterdam Inner City, “except for Venice, there is no single other city in the world where water is so important to city image than in Amsterdam” (Schoonenberg 2004a). His friend and colleague former Amsterdam City Council Alderman Guido Frankfurter of the social-liberal party D66 agreed. “The historic inner city of Amsterdam ... is a water city: a city built on and in the water. From the water, Amsterdam derives its right to exist and its identity” (Frankfurter 2000). Statements of this sort convey utopian sensibilities of urban unity and exceptionality embodied in a rich canal landscape. “Amsterdam and water belong together” (Schoonenberg 2004b).

Among the many residents, experts, and officials romanticizing this waterscape and calling for its protection and restoration, affiliates of the Friends of the Amsterdam Inner City stand out. This organization is a spin-off of two private historic building preservation foundations whose members made a name for themselves by salvaging structures – especially canal fronting buildings – threatened by City Council demolition and urban renewal plans in the decades following World War II (Deters 2006; Schoonenberg 2008). The Friends mission today is to protect the historic city center inside the 17th century Singel Canal ring “against the degradation of the cityscape” (Friends... nd). Prominent

² Some sources (*e.g.* T Beek 2000) put the in-fill count slightly higher, but since I was not able to verify the count, I have opted to use the more conservative number.

Friends leaders including its chairman Walther Schoonenberg have taken a vocal stand on all three canal excavations proposed in Amsterdam since the 1990s. They played an especially hands-on role in the Jordaan excavation proposal, developing design alternatives, hosting awareness-raising events, orchestrating petition drives, circulating project information, and lobbying city council members in support of the excavation undertaking.

Alderman Guido Frankfurter, one of the Friends' close collaborators in the city council, likewise stands out as a committed, outspoken advocate of all three of the excavation proposals, as well as many other canal improvement initiatives in the surrounding years. By the mid-2000s, Frankfurter had become something of a figurehead and whipping boy in the Jordaan excavation debacle. He remained convinced of the projects' merits even after the initiative's defeat cast a shadow over his political career (Frankfurter in Damen 2007).

These interests in re-creating waterways in Amsterdam coincide with what many academics have termed an explosion of interest in urban water restoration around the globe. In the United States, this water craze has several roots. Environmental lobbyists, for instance, have advocated uncovering and un-straightening piped streams at least since the 1970s to expand biodiversity, mitigate pollution, slow storm run-off, and teach children about the merits of nature preservation. The successful 13-year campaign to "daylight" Strawberry Creek in Berkeley, California, in 1987 was among the first such projects realized in the U.S. (Pinkham 2000). Since then, ecology-minded activists have undertaken dozens of similar projects in rural, suburban, or light urban areas, including Toronto's Don River (Desfor & Keil 2004) and Pittsburgh's Nine Mile Run (Tarr 2002; Thompson 2001), just to name a couple.

A second urban water prototype gained traction around the same time in the United State's de-industrializing metropolitan regions. For instance, Baltimore's 1970s Harbor Place revitalization became a model of corporate-oriented urban renewal in blighted central cities (Harvey 1990 & 2001; Hannigan 1998). With public and private backing, project managers transformed the former working wharf into a promenade for concertgoers, sports fans, weekend shoppers, convention attendees, and the like. In the wake of Baltimore's commercial successes, designers and officials in Chicago, San Francisco, Providence, San Antonio, Minneapolis, Denver, and elsewhere have sought to reproduce the commercial appeal of shopping and dining against a glittering, aquatic backdrop in their own downtowns. While advocates often cite environmental benefits when lobbying for these projects, the added cost of implementing the ecological aspects of the design means that they often get shortchanged during the final value engineering phases when so-called unaffordable luxuries are eliminated to bring projects in on budget.

Advocates of urban water restoration face many challenges, but the promise of high payoffs can make the trouble seem worthwhile. Land acquisition associated with excavating across many property parcels is expensive and slow. The specialized technical expertise and environmental assessment reports needed to move construction forward likewise add time and money. Extra advertising and outreach is also often necessary to assuage public concerns about disease and drowning that city builders over the past century taught residents to fear. Despite these added complications, restoration advocates tout such undertakings in terms of public good. Such projects, they say, will create retail jobs in shopping districts where water's presence attracts increased foot traffic, and they

create blue-collar jobs for local residents hired to maintain the new shorelines. Another selling point, it is said, is that water as a real estate amenity accelerates property appreciation and attracts newcomers to neighborhoods, thereby bolstering local businesses and tax revenues (France 2008; Pinkham 2000).

The popularity of reincorporating water into urban surface landscapes after a century of eradication measures reflects a successful re-scripting of water's economic properties in abstract terms. Water, once deemed an enemy to modernization, is now a favored urban feature. For investors today, it seems as though water's mere presence automatically augments real estate values and enhances consumer willingness to pay extra for leisure amenities. This financial interest in water, retail, and real estate is not limited to the United States. Similar urban waterscapes now exist in London, Zurich, Tokyo, Cancun, Dubai, and Osaka, just to name a few. According to one urban theorist, as early-mover cities reaped big windfalls from these sorts of spectacle, corporate, aquatic undertakings, "waterfront renewal became de rigueur for cities, for big and small alike, even for those who had barely a trickle of water" (Merrifield 2002:24). Once *persona non grata*, water is now a ubiquitous ingredient in the urban design repertoire. The challenge for many developers, then, is to find ways to put this abstract economic potential to profitable use in concrete investment contexts.

Excavation initiatives in Amsterdam

Amsterdammers have been no less immune from water's global revaluation than they were from the previous era of aquatic disdain. In the words of one commentator with the slightly-conservative, Christian *Trouw*, "the car is no longer our spoiled pet; water certainly is" (Haaft 2001b). By the mid-2000s, urban water restoration projects were in planning stages or already underway in nearly a dozen Dutch cities including Apeldoorn, Medemblik, den Bosch, Woudrichem, Drachten, Deventer, Haarlem, and Breda among others. According to Amsterdam's pro-excavation Alderman Guido Frankfurter, "the most important example of canal excavation in the Netherlands is perhaps the re-digging of Utrecht's vanished canals" (Frankfurter 2000). Local government officials in Utrecht announced their plan to restore a one-and-a-half kilometer stretch of the Singel Canal encircling Utrecht's medieval city center in 1999. By 2006, with a third of the project complete, project leaders celebrated the water's already visible contribution to neighborhood livability (Deters 2006; Haaft 2001b; Sevil 1999).

For restoration supporters in Amsterdam, their city's absence from the list of Dutch water restoration trendsetters is conspicuous. For example, in the words of a local reporter providing positive coverage of canal restoration proposals in the capital, "in the Netherlands, Amsterdam is lagging behind in restoring ancient water structures" (T Beek 2000). Walther Schoonenberg of the Friends of the Amsterdam Inner City concurs. "In other cities in the Netherlands, people are much farther along in bringing back historic water. ... Amsterdam is trailing behind this nationwide trend" (Schoonenberg 2002).

The lack of excavation activity in Amsterdam does not stem from a disinterest in the city's water surface. On the contrary, the push to valorize and capitalize on open waterscapes has made headway here on many fronts since the 1990s. For instance, municipal pollution remediation measures have contributed to the highest water quality levels that Amsterdammers have seen in several generations. The push to build additional mooring risers, café pavilions, and boat taxi facilities on the canals is gaining ground. City

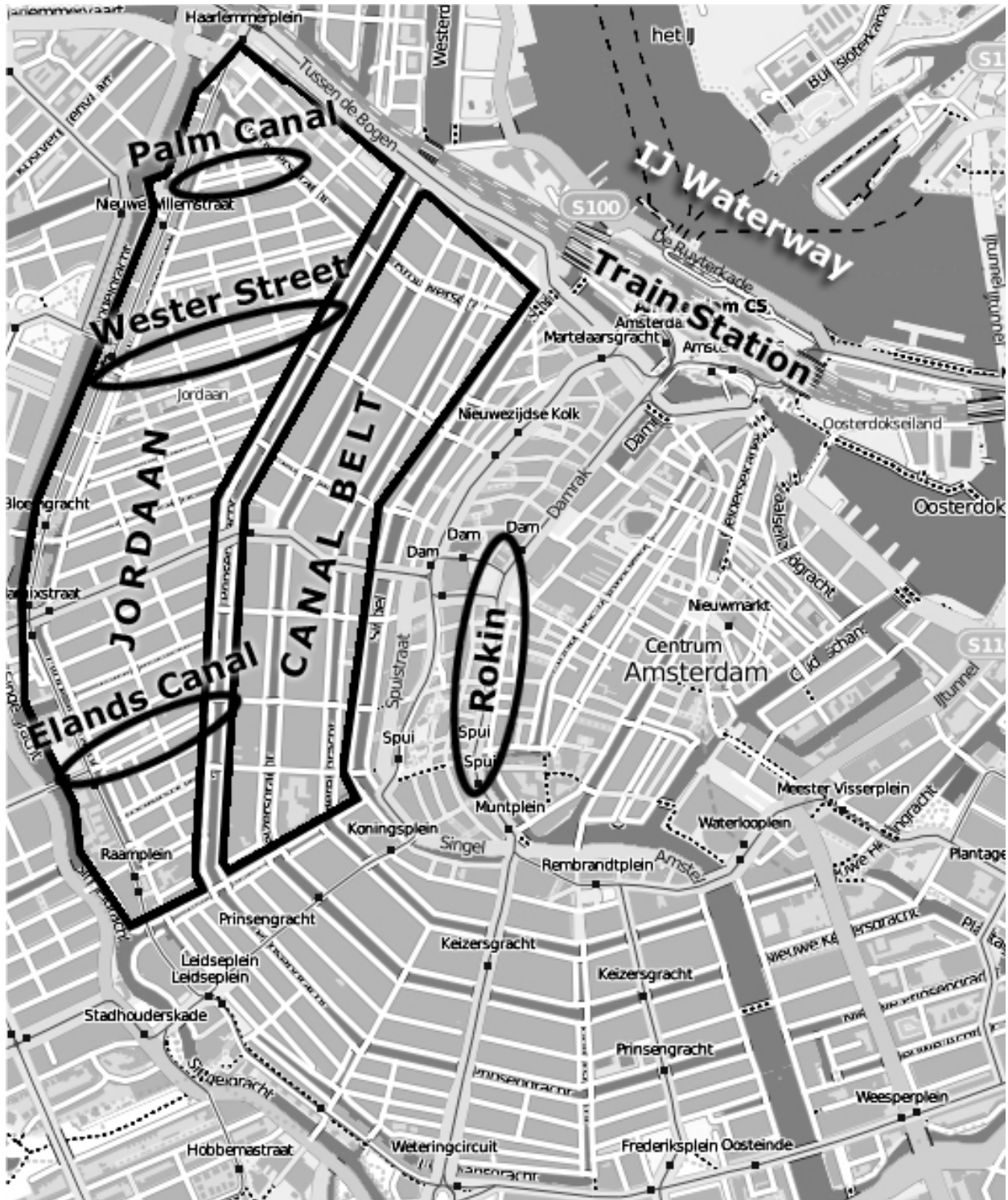
Council members have heightened boat-mooring restrictions near prominent bridges and on two of the three famous 17th century Crescent Canals to prevent floating structures from blocking pedestrians' views of historic waterway detailing. Similarly, the local tourism board frequently designs their advertising campaigns around Amsterdam's waterscape attractions. An annual nine-day summer festival of art, music, and architecture has grown up in recent years entirely devoted to the celebration of Amsterdam's water. And, perhaps most significantly, after a ten-year campaign, the city's 17th century Canal Belt and Crescent Canals was officially designated as a UNESCO World Heritage Site in 2010.

The lack of excavation activity in Amsterdam is also not due to a lack of inspiration or effort on this front. Three notable excavation initiatives have gained enough prominence since the mid-1990s to merit serious public and political scrutiny, but none of the three made it to the construction phase. The first proposal to dig out a few hundred meters of the Rokin canal through Amsterdam's medieval heart had been in the air for almost 60 years since the waterway's 1934 infill following a hotly contested, 22-year planning period. These restoration calls had limited public support until the 1990s when discussions over the best routes for the city's new subway system prompted calls to combine subway construction and canal reconstruction through this prominent central city boulevard (Sevil 1999; Michel 1991).

Alderman Guido Frankfurter lent his support to the initiative. "In the City Council in the late 1990s, I suggested letting water back into the Rokin up to the Dam so that the city's namesake, the dam in the Amstel River, would be visible from the city square" (Frankfurter in Damen 2007). But Geurt Brinkgreve, founder of the Friends of the Amsterdam Inner City and one of "the most animated defenders of the historic inner city" (Sevil 1999), denounced the design for not going far enough. In his words, filling the Rokin in the 1930s "mutilated the city's face," but the proposed reconstructed waterway at only 30 centimeters deep with either a subway line or a parking garage underneath amounted to "absolutely nothing," a "paddling pool" rather than a canal that was not worth its financial or political cost (Brinkgreve in Sevil 1999).

The Amsterdam City Council voted the Rokin proposal down in 1999 citing the technical complications of turning so central a traffic artery into an open waterway, opting instead to replace the boulevard's extant linear surface parking lot with a vegetated public square overtop a subterranean parking garage. Today's Friends chairman Walther Schoonenberg lamented the decision. "The construction of an extra shallow garage makes it absolutely impossible ever to bring water back in the Rokin," which he sees as a great loss to urban identity in so prominent and historic a public space (Schoonenberg 2003). Alderman Frankfurter and the Friends leaders nonetheless took the loss in stride, saying excavation was a new idea whose time had not yet come and whose implementation kinks had yet to be finessed (Otten in Genovesi 2000; Kreling 2004a; Frankfurter in Kreling 2004b, Schoonenberg 2008). They sought to apply the lessons learned in this first campaign in two subsequent urban water restoration initiatives.

The second attempt to open a filled canal in Amsterdam's city center began in 2000 with a call to excavate the block-long Palm Canal (*Palmgracht*), which was located in the northern corner of the Jordaan neighborhood and was filled in 1895. This initiative was the most short-lived of the three excavation proposals examined in this study, but was an important logistical stepping-stone for pro-excavation organizers. Friends' leader Jos Otten had lived on this street for 30 years. With the help of Alderman Guido Frankfurter and



Map of proposed excavation sites in the Amsterdam City Center since the mid-1990s (map by author)

other pro-excavation advocates in the Friends organization, Otten led a petition drive that obtained signatures from 93 people, or about half of the residents living in the immediate area, in support of the project. The group also raised public awareness of successful water

restoration initiatives under construction in Utrecht and Breda. Using these measures, advocates tried to paint Amsterdam officials as brooding endlessly over a relatively small, community-supported undertaking while leaders in other cities moved boldly forward (Otten in Genovesi 2000; Schoonenberg 2000b). Despite these efforts, the City Council Executive Board in 2001 decided not to pursue the proposal, citing concerns about costs, traffic, and the displacement of a neighborhood playground.

Despite this second setback, pro-excavation advocates gained significant ground in 2002 when, in response to ongoing lobbying from members of the right liberal (VVD) and labor (PvdA) political parties, central city government officials formally incorporated the objective to open at least one filled canal into the Amsterdam Central Borough's 2002-2006 District Plan laying out the development priorities for the city's historic core. The Jordaan neighborhood seemed a prime location for such a project. This long-standing blue-collar but rapidly gentrifying area bordered the 17th century Canal Belt to the west. Of its six filled canals, only one was a major transportation artery. Friends leader Walther Schoonenberg and City Councilman Guido Frankfurter among others organized rallies, photo ops, and information sessions in 2002 in support of this third excavation proposal to open either the Elands Canal (*Elandsgracht*) filled in 1891 or the Anjeliers Canal (*Anjeliersgracht*) through what is now called Wester Street (*Westerstraat*) filled in 1860.

In support of this project, central city government officials commissioned a feasibility study in 2003 that, the following year, returned a favorable assessment of both potential sites. The report went on to outline the steps necessary to build a deep underground parking garage with a waterway running overtop in either of the two locations (Amsterdam Center Borough 2004). A municipal survey conducted the same year showed that three-quarters of Amsterdam residents thought it was a good plan, as did nine out of ten Elands Canal neighbors and seven out of ten Wester Street residents (Amsterdam Center Borough 2004). Design, budgeting, scheduling, and public support seemed to fall into place. All that remained, it seemed, was to choose which of the two vetted sites would be best.



Central tree-lined parking median overtop the former Elands Canal (left, photo by author, 2010) and computer rendering of proposed Elands Canal restoration with underground parking garage (image courtesy of Walther Schoonenberg)

The tide turned, however, after a hostile community meeting in 2004 consolidated opposition to the undertaking. Meeting organizers expected the event to be something of a formality, informing the public of their findings and confirming that the Elands Canal site would be best. As Alderman Frankfurter recalled three years later, “the hearing ... was a mess” (Frankfurter in Damen 2007). He tried with all his might to convey his vision of a “picturesque glittering piece of recovered city beauty” to the irritable crowd (M Rooy 2004). According to reporters covering the meeting for the national, business-oriented *NRC Handelsblad* and the Amsterdam-focused, center-left *Het Parool* newspapers, “advocates for the new canal spoke elegantly about ‘a tourist product’ and ‘a unique selling point’ and politely called out ‘bravo’ for the glory of the new canals.” But for opponents, the proposal was “reprehensible,” an “idiot plan” (Kreling 2004a). Residents and businessmen said they “dreaded living for years next to a construction site” (Kreling 2004a). Shopkeepers were especially concerned, fearing construction would prevent clients from accessing stores. Others voiced skepticism that the project would finish on time and on budget. “Construction always takes longer than ‘they’ say” (Kreling 2004b). Critics worried that excavation would destabilize building foundations and that the canal would interfere with established street life. All for a waterway only eight meters wide. “A ditch, not a canal” (Kreling 2004a).

The discussion was heated. According to reporters, angry attendees chanted jeers and hurled insults. Friends of the Amsterdam Inner City leader Walther Schoonenberg hailed the crowd, “Open the canals!” and his audience responded, “Fool!” Alderman Frankfurter’s presentation elicited greater animosity. “Guido, go swim somewhere else!” One irritated resident shouted, “damn, what kind of bullshit is this?” A merchant shared her sentiment. “Piss off with that canal!” Friends ally Jos Brink tried to close the meeting on a conciliatory note, saying optimistically, “I’m a dreamer, I admit it.” A heckler responded, “Yeah, chappie, keep on dreaming, Jos.” Aggressive opposition persisted throughout the evening, and the meeting ended in political break down (Kreling 2004a, 2004b; Steinmetz 2004). Shortly thereafter, Schoonenberg reported receiving death threats from angry market vendors (Schoonenberg 2008).

The uncharacteristic rancor of the opposition caught advocates off guard. No other urban water restoration projects had yet succeeded in Amsterdam, it is true. But project proponents until that point imagined the failings were the result of technical difficulties surrounding implementation rather than the consequence of an emotionally charged, anti-water sentiment. With a broad base of support for excavation citywide, and with the urban water craze gaining ground nationally and well entrenched globally, the fiercely vocalized opposition to excavation bucked expected political trends and showed that this third attempt at urban water restoration was not in the bag as proponents had expected.

The intensity of animosity undercut the initiative’s political support. City Council officials concluded after the meeting that the proposal was too controversial and needed further discussion before proceeding. According to Alderman Frankfurter, one by one, local political parties backed away. “That very evening GroenLinks distanced themselves from the plan, followed by VVD and PvdA, and then the following Wednesday went my own D66. For fear of losing soul” (Frankfurter in Damen 2007; see also “Canals still...” 2004). Friends chairman Walther Schoonenberg was still smarting from the injustice of defeat when I spoke with him in person four years later. “The city council shuffled the project

away. Most people are in favor of the project, in general and in this specific form. But the silent majority was trumped by the shouting minority” (Schoonenberg 2008).

Following the angry community meetings and the loss of political support, Schoonenberg and Frankfurter mounted a referendum campaign in 2005 to put the excavation proposal to a municipal vote. They felt confident that the 70-79% statistical citywide support would vindicate their vision. Their initiative incited scathing critiques from excavation opponents of “disappointed outsiders abusing the system” to override the wishes of local residents and shopkeepers (Schuerfeld 2004; Smit & Nieuwenhuijsen 2006). Amsterdam central city officials dismissed both the referendum call and the excavation proposal in 2006. According to the public letter explaining their decision, “during the community meeting (in September 2004) it appeared that there was a lack of sufficient support to implement the feasibility study,” and after several subsequent public discussions in 2005, “there remains according to the Executive Board an apparent lack of sufficient support to open one or more canals in Jordaan” (Groensmit & Stoel 2006). Schoonenberg’s plea to let the voters decide came to naught. “With disappointment we note that there will be no further talk in the District Plan of turning Elands Canal back into a canal” (Buddingh 2006).

For Frankfurter’s efforts, he gained notoriety as “Guido the ditch digger,” a semi-slur that followed his political career until his resignation in 2007. Schoonenberg has likewise given up his excavation dream. “We’re no longer working to open the canals” (Schoonenberg 2008). Members of the Friends of the Amsterdam Inner City and the City Council Executive Board still think excavation is a good idea, and both groups have said they would like to see the topic revisited someday, if the political mood changes (Groensmit & Stoel 2006; Schoonenberg 2008). But for the time being, discussion on the issue has closed.

Water as a history question

In this chronicle of unrealized urban water restoration initiatives in Amsterdam, as well as successful undertakings elsewhere in the Netherlands, two characteristics stand out as unique *vis-à-vis* the global archetype forged through the Berkeleys and Baltimores of the world. The first major difference, which I explore in this section, is the emphasis on history and heritage as the primary reason to excavate a filled waterway. The second difference, explored in the section that follows, is the fear rather than hope that the promised economic benefits inspired.

In contrast to the United States where 19th and 20th century water eradication measures took the guise of scientists taming the willful forces of an unruly nature (Deverell 2005; Kaika 2006), concurrent undertakings in the Netherlands took the form of a rationalization of medieval, narrow, crooked canals overflowing with industrial and human waste. These two discourses are not mutually exclusive, and there was naturally much overlap and cross-polarization between them. Nevertheless, the common conflation of water with nature – a sentiment that propelled many North American stream restoration undertakings forward – held little sway in Holland. Instead, Amsterdammers’ assessments of successful water restoration elsewhere in the Netherlands describe digging out filled waterways as the restoration of ancient, authentic, historic water structures (T Beek 2000; Haaft 2001b; Schoonenberg 2002; Sevil 1999). And while heritage restoration may seem a

self-evident good to some people, the costs, trade-offs, and symbolisms associated with such undertakings leaves others disinclined to support restoration as an end in itself.

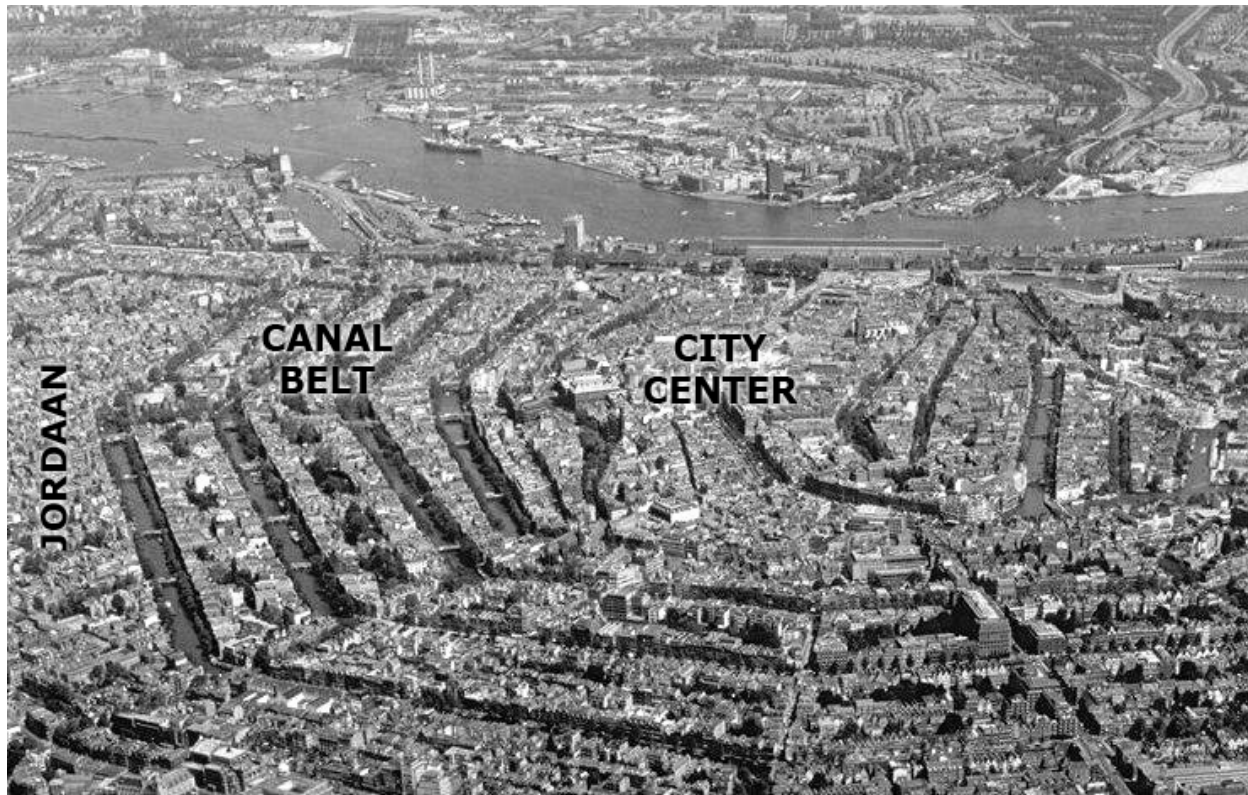
These heritage frameworks were especially prominent in the most successful of the three Amsterdam initiatives explored here, the Jordaan excavation proposal. Project advocates, including Friends of the Amsterdam Inner City leader Walther Schoonenberg and former City Council Alderman Guido Frankfurter among others, drew on a shared historical narrative to support their pro-excavation stance. This potted history, analyzed in the paragraphs that follow, depicted water as the material essence of the 17th century Golden Age still alive today, albeit on life support. This perspective served excavation advocates well: it posited water restoration as the resurrection of history, it naturalized restoration as a self-evident good, and it conveyed a sense of immediacy and an imperative to act to recreate lost waterways in short order. In this narrative, canal excavation figured as a desirable end goal in its own right. Unless, that is, you had something to loose from the project. Then this telling of history became a partisan distortion of Amsterdammers' past lives and present needs.

This heritage repertoire in favor of the Jordaan canal excavation mobilized narratives of the past in several ways. For instance, construction tales invoked sensibilities that the waterways were authentic relics embodying a past and glorious epoch. The dominant storyline opened at the assumed dawn of a civilization. The year was 1613. Amsterdam stood poised on the brink of imperial ascent. On the land around the medieval embankment, nothing existed but a vision. A quick sentence or two later, the plotline arrived in 1670. Trenches carved through the ground, water was flowing, and an unseen hand inserted the final brick into a magnificent new landscape. The "world famous crescent canals" stretched out before us (Frankfurter 2000). The Prince's Canal, the Emperor's Canal, and the Gentlemen's Canal formed a "half-moon" or a "spider web" around the medieval core. "What a fantastic achievement – the sheer size of it makes you catch your breath" (Cotterell 1972:9-10; see also Gelder 2010). At this fleeting yet frozen moment in time, Amsterdam figured as the "navel of the cosmos" (Musterd & Deurloo 2006:80) – meaning that it was the administrative seat of the world's leading empire – and the waterways read as "the jewels of the city" (Frankfurter 2000). These canals were said to have crystallized Amsterdam's urban development and its peak as a world power in one bold stroke (Pistor 2004:270-1).³

Construction on land ensued. City officials parceled plots out for development in accordance with a few basic design guidelines and taxation laws. One by one, the lots sold. Several decades passed before the grand patrician houses lining the waterways materialized, and many were refurbished or replaced over the following centuries (Deben *et al.* 2004:4). According to the City Council's Jordaan excavation feasibility study, "the buildings along the sides come from many historic periods, but the water structure forms such an important under-mat that the protection of the canals is essential" to preserving the historic fabric of the city (Amsterdam Center Borough 2004:7). It seemed not to matter that historians have shown that the glorification of the radial canal plan as a brilliant piece of Renaissance idealism was a fiction of the 19th century (Gelder 2010; Lambert 1985:217),

³ Colonial imperialism was written out of the story. Although this omission is telling, I do not address it here because excavation opponents did not address this oversight either, and so the omission did not become a point of contention in the excavation debate.

because while the architecture on land may have shifted with the sands of time, the waterways were thought to have remained constant as the one true heir of the Golden Age.



Aerial view of Amsterdam City Center and Canal Belt (source: Amsterdam Municipal Department for the Preservation and Restoration of Historic Buildings and Sites, 2006)

A related strand of heritage discourse constructed a narrative of loss. After laying out the waterway's construction history, the potted storyline's time machine skipped ahead 200 years to what Alderman Frankfurter termed a misguided assault on water (Frankfurter 2000). Legend has it that the canal elimination impulse began by royal decree after Napoleon conquered Amsterdam in 1795, bringing an end to a Dutch Golden Age that had in actuality been over for nearly a century already. Napoleon's brother acted as ruler for less than a decade, during which time he is said to have demanded that a stinky canal behind the palace be filled and transformed into a respectable Parisian boulevard (Amsterdam.info nd).

Whether or not this story is true, the anti-water campaign became a primary urban planning objective during Amsterdam's industrial revolution between 1870 and 1930. During this period, "the whole of Amsterdam transformed from a 17th and 18th century city with its corners and canals and small streets for handicrafts into a city with warehouses and big trade and factories" (Bakker in Etty 2000). The ill effects of industrialization were legendary. The canals, which had been the sewage disposal method of choice since their construction, became an infamous source of typhoid and cholera epidemics, leading no less renowned critics than Thomas Malthus to dub Amsterdam "the graveyard of Europe" (Zanden 1998). Anti-water investment promised to revolutionize place and people with

19th century infill and plumbing curbing disease and 20th century roads and rails built over former canals promising industrial wealth. And if the quirky, outmoded canals disappeared in the process, so much the better.

Frankfurter recounted these “damaging” attempts to “make a land city out of the water city” with sadness (Frankfurter 2000). Critics of Frankfurter and the water restoration campaigns stressed that the canal infill era was also Amsterdam’s Second Golden Age, an era bringing industrial development, liberal government, social housing, public education, and health benefits to Amsterdammers. From this perspective, the associated urban rationalization of a pre-Modern layout figured as a symbol of progress (Etty 2000; Kreling 2004b; “No New...” 2004; Rooijendijk 2005; M Rooy 2004). But for Frankfurter and others, the anti-water sentiments peaking with the 1950s High Modern push for a rational, modern, managed, and dry landscape eroded much of the older city’s charm. The grand crescent canals survived the onslaught, but 78 of their watery comrades disappeared under piles of sand.

A third component of the history framework was the emphasis on waterways as overlooked gems in extant heritage preservation law. Statues and palaces are usually the stuff of monuments, but according to prominent heritage experts, “water is the main element in the historic structure of Amsterdam” (Apell 2004:124). Friends’ leader Walther Schoonenberg concurred, saying, “the city as a whole has always taken precedence over the individual houses” which “derive their value primarily from the overall sight, the cityscape, that they constitute” (Schoonenberg 2004c:135-6). In this cityscape, water was paramount. As Schoonenberg stated in his Elands Canal excavation campaign, “earlier, filling canals was a means to improve inner city livability – the canals stunk. Now excavation is the way to expand livability. ... From a historical perspective, we’ve come full circle” (Schoonenberg 2002).

Despite such assertions of water’s historic value, 20th century advocates in favor of heritage protection legislation made greater headway protecting buildings on dry land than safeguarding canals. According to historians, when today’s reigning national Historical Buildings and Monument Act took effect in 1961, it granted special protections to 7,000 individually identified buildings. Five years later, conservationists urged the Amsterdam municipality to “preserve the historic ‘half-moon structure’ of the concentric canals,” as well, but municipal officials feared that designating water as an historic monument would spur unpopular rent hikes at a time when the economy was slow and the social housing movement was booming (Kuipers 2004:92).

Preservationists calling for protections at the level of urban structure rather than individual buildings gained ground in January 1999, “the most important year for the (Friends of the Amsterdam Inner City), when the national government designated the inner city as a ‘protected cityscape’” (Bosman 2005b; see also Deben *et al.* 2004). This classification conferred basic protections on every building within the central city district. The ascending cityscape approach to monument protection gave heritage advocates greater leverage to argue that waterways, as the underlying framework of a holistic, historic core, likewise deserved special attention. Around the same time, private organizations and government agencies began assembling an application to place the 17th century Canal Belt waterways exclusive of the rest of the central city on the UNESCO World Heritage List (Damen 2008a; Fauwe 2008; Hageman 2006; “Amsterdam centre...” 2010).

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throwing counter-culture anarchists of the 1970s and 1980s – to save water, city, and humanity for posterity.

Simultaneously, this narrative intoned that historic water – and with it, Amsterdam’s Golden Age – remained in danger of dying away today. Despite a 400-year temporal gap, and despite recent heritage legislation gains, preservationists asserted that the Golden Age was still disappearing. In Alderman Frankfurter’s words, “in the year 2000, water remains under threat, this time by a sneaking process of silting up through housing, building, and infilling” (Frankfurter 2000). These practices, it was said, threatened to finish off the malevolent, anti-water work that the industrial revolution had started. The narrative intoned that with water went all that Amsterdam once was. City advertising campaigns reflected this sensibility: “Come quickly to see Amsterdam, before the Golden Age is history” (Jansen 1993). For the heritage movement, this sentiment indicated that society must act quickly to save the past before the final snuff of history was brushed away forever.

These narratives of historic water as a public good in jeopardy also functioned as a call to action. If canal infill erased history, it seemed to follow that the return or restoration of waterways might bring the past back to life. According to a reporter with the leftist *Volkskrant* newspaper, “the wind seems to blow again in favor of historical buildings, from extensive restoration to the reconstruction of complete structures and new building in historical style” (Eerenbeemt 2005). Opening filled canals and harbors figured as hallmarks of this trend. Schoonenberg’s colleagues during the Jordaan excavation campaign, for example, described excavation as “a battle to bring the inner city into a new phase, restoring as much of the old splendor of the architectural structure as possible, including open space and water” (Oldenburger 2004). These characterizations portrayed canal excavation as a project to “bring back history,” resurrecting all the grandeur lost over centuries of imperial decline and market contraction by recreating the heart and veins of the aquatic landscape forged during the city’s temporal peak (Frankfurter summarized in Kreling 2004a; see also Kreling 2004b).

These kinds of historical narratives took on so much weight in the Amsterdam urban water debate because visions of the past justify arguments for or against projects in the present, making canal excavation seem either a natural gain or self-evident loss. Producing a history of water meant deciding which pieces of the story were important and what the pieces meant. If water embodied the spirit of the Golden Age, and if that Golden Age was something to espouse, then restoring water reinforced sensibilities that Amsterdam’s imperial legacy made the city important and that people living in the central city were part of something special. From this perspective, canal restoration was not reducible to aesthetic preferences but was instead a desirable end in its own right.

This version of history has become a common trope in public discourse. It appears time and again in newspaper reports and quasi-academic publications. It is repeated nearly verbatim in government documents and municipal websites. Excavation advocates recounted it in public speeches and promotional literature. The narrative now forms an accepted truth of the city. There are many other strands of discussion, to be sure. Many critics, for instance, dispute the veracity of this telling of history and are critical of preservationist tendencies to value 17th century relics over 19th century ones (Diederiks 2004; Gelder & Mak 1993; Steinmetz 2002b). To skirt these criticisms, excavation advocates emphasized that restoring ancient water would bolster municipal identity,

tourism, and livability, as well. But the history discourses surrounding the urban water initiatives, as well as the heritage roots of key project backers, continued to dominate much of the urban water restoration framework in Amsterdam, a trait that distinguishes these undertakings from similar ones in the United States. In contrast to established nature and finance discourses in other countries, this heritage framework was likely the most promising strategic positioning option available to would-be Amsterdam excavators. But as the next section explains, the history narrative was not strong enough to get the project in the ground.

Water and socio-economic restructuring

A second significant difference between urban water restoration initiatives in Amsterdam and similar projects in other countries is that promises of an economic boost to property values and retail businesses undercut rather than reinforced the projects' chances of success.

Heritage concerns motivated many excavation advocates, such as those working with the Friends of the Amsterdam Inner City, to push canal restoration forward. But according to Friends chairman Walther Schoonenberg (2008), the argument that surface water had economic value and would bring new revenue streams to Amsterdam carried greater weight with elected City Council representatives – if not the general population and project lobbyists – than the history claims. These economic dynamics were expected to take many forms. According to market analysts, “in Amsterdam, the number of people who put a high value on cultural heritage has increased spectacularly since the 1980s” (Rooijendijk 2004:298). Heritage landscapes are a source of economic and social innovation, and central city canals – as water laced with history and identity – are especially lucrative. Schoonenberg and friends also said that replacing linear parking lots with waterways would improve livability, upgrade neighborhoods, and bolster tourism. From this perspective, excavation figured as “preservation through development,” or the historic restoration of the central city via profitable investment with immediate benefits to property owners and businessmen (Schoonenberg 2004b; see also Buddingh 2006; Schoonenberg 2004a & 2006).

But the economic dynamics associated with these sorts of public space improvements are a double-edged sword. For all their benefits, by the early 2000s, public space face lifts including urban water restorations in the United States and elsewhere had become strongly associated with the making of inequitable and exclusionary cities. David Harvey (2000 & 2001), for instance, has shown that reinventing Baltimore's harbor as a fantasy retail and entertainment center required extensive policing to keep “undesirable” poor and minority residents out of sight from the wharf promenades. These dynamics are neither new nor unique to water. Neil Smith (1996) and Maria Kaika (2005) among others show that, in these sorts of streetscape and leisure-space improvement projects, revitalization has long functioned as code for projects to push struggling people out of the way to make room for elite-oriented business investments (see also Heynen *et al.* 2007; Katz 1998). Restoring water landscapes in recent years has become a variation on this theme, functioning as a means not just to ecologize but also to neoliberalize and gentrify U.S. neighborhoods.

The public debate surrounding the Jordaan excavation proposal in Amsterdam clearly indicated that advocates and opponents alike were acutely aware of the commercial

and real estate dynamics commonly associated with these types of streetscape undertakings in general and of urban water restoration enterprises in particular. Moreover, their hyper-awareness of the structural trends associated with the urban water craze enabled the defensive responses that undercut the project's viability. As the following paragraphs explain, for many opponents, the excavation proposal figured as one in a series of political and physical changes eroding an idealized past of community cohesion and social stability imagined in contrast to ongoing economic restructuring and welfare state cutbacks. From this perspective, opposition to canal excavation became a means to take a stand not only against the economic consequences of this one project but also against the imagined penetration of predatory global dynamics into local communities on a broader national scale.

The fears associated with the so-called economic benefits of urban water restoration in Amsterdam were given salient voice in an editorial published in the prestigious, business-oriented *NRC Handelsblad* newspaper a few days before the tumultuous 2004 community meeting. The editorial sketched a hypothetical scenario. After a few years of construction at twice the anticipated cost, water would once again flow through the Jordaan's Elands Canal. Politicians would celebrate the grand opening with ceremonies, dance parties, and boat tours. Within a few days, the real estate parcels fronting the water would double in value. Existing residents could not afford to stay. As locals moved out, trendy restaurants and exclusive bordellos would take their place. Corporate developers would meet in these shops to plan the neighborhood's future, devising strategies to plunder Holland for all it's worth (Montag 2004). This description of blind and insensitive revelry followed by rapid displacement and large-scale predation aptly reflected the economic concerns voiced in the Red Hat community meeting that followed and expressed in the many public editorials and commentaries circulating in the surrounding months.

This rhetoric of water's economic properties as a threat to community integrity had many strands. For instance, the expressions of risk to extant local businesses in the short run emphasized the construction-phase difficulties associated with making water flow through a dry street. According to merchant critics, "digging out old filled canals is, in nearly every instance, a fatal undertaking" that would be "lethal for the liveliness and business activity in this street-market-rich neighborhood" (M Rooy 2004). Reporters covering the community meeting and its aftermath likewise stressed that opponents were especially concerned that small entrepreneurs would fail because clients would be unable to reach storefronts barricaded behind a multi-year construction site and that customers would forget to return once the construction was over (H Beek 2004; Kreling 2004a; "No New..." 2004). Government officials pledged to make subsidies available to affected business owners, but many people doubted that the subsidies would be sufficient to offset losses.

A related strand of economic fear underscored the long-term risks of displacement to residents and businesses. Transforming soil into water changes the range of investment strategies available to extract profit from the landscape. Water frontage in the Netherlands adds an average 28% premium to a property's total real estate value, and for a privately owned plot in the center of the capital city, the premiums would likely be higher (Haegen 2005; Luttik 2000; P Rooy 2002). With rent control cutbacks under consideration and the social housing market drying up (Veer 2009b; Veer & Schuiling 2005; Ven 2004:184), these

levels of property appreciation would be a doomsday scenario for current tenants were the proposed deregulation laws enacted.

Even if residents could hold out, many critics felt the promised business boost would erode the street's neighborhood feel. According to the most vocal critics, the touted influx of high-end, tourist-oriented commercial opportunities would displace the resident-oriented shops lining the streets today. And according to excavation critics in the business community, the incoming, wealthy residents and patrons would have "no concern whatsoever" for the local people whose labor made luxurious living possible (Bosman 2005a). The hypothetical account of revelry followed by displacement echoes these sentiments that, when water comes back, "the original residents disappear, taking their own economy with them" (Montag 2004).

A third and more indirect strand of the water-as-economic-threat framework emphasized differences in class-based attitudes as to whether the Jordaan neighborhood needed improving. According to merchants opposing restoration, "more older and wealthy people are coming to the city. That is great, naturally. But they behave more and more like city people who move to the country and then complain that the farmers smell like shit" (Steenhuis in Bosman 2005a). Similar criticisms characterized the pro-excavation contingent as "monument animals" and "Canal Belt elites" obsessed with "beauty projects," painting them as dilators from a previous century out of touch with the "real problems" of Jordaan's "working people" today (Kreling 2004a). And while it was said that "yuppies" may like a canal in front of their door, many residents felt that other land uses – such as parking lots, child playgrounds, flea markets, and memorial squares – were better suited to the daily needs of "ordinary" people (Bosman 2005a; see also Kuile in T Beek 2000).

Such statements were certainly opportunistic to some degree, and it remains difficult to identify just who the little guy was. On one hand, analysts have described gentrification pressures in Jordaan as especially symbolic of working class displacement, but this process was already well underway by the mid-1990s (Huisman 1997; Smith 1996). On the other hand, pro-excavation advocates from the upper-crust Canal Belt have described themselves as members of a volunteer organization of people bearing good will towards the inner city matched up against entrenched Jordaan "salesmen who keep special lobbyists employed" (Schoonenberg in Bosman 2005b). These ambiguities aside, the successful marshalling of aquatic economic improvements as against the interests of ordinary people who are already feeling the crunch of economic and governmental restructuring effectively derailed the Jordaan excavation proposal's chances of success.

And so despite – or rather because of – promises of a financial windfall, the feared specter of revitalization shut the heritage restoration project down. The economic gains associated with canal restoration seemed indisputable, but local shopkeepers and street merchants did not expect the benefits would flow into their pockets. These concerned merchants broadened their support base by tapping into sensibilities that, in the wake of national welfare and global economic restructuring, the Jordaan neighborhood as a place for the people was disappearing. To fend off these concerns of vulnerability and loss, many long-time residents dug in their heels, even if it meant resorting to defensive and otherwise unflattering not-in-my-back-yard attitudes.

Heritage, gentrification, and the almost making of urban water

Leaders of the loosely organized canal excavation movement in Amsterdam took personal pride in their city. They supported many projects to beautify their hometown and, in the early 2000s, their ideal undertaking involved pulling water through a filled canal. Why water? Because, in their view, water flowed through the streets when Amsterdam was at its best: a global power in the 17th century. And because water was the element they believed everyone recalled most fondly when thinking of their fair city. And because residents and visitors alike found the canals so pleasing that they paid premiums to drink in their ambience from living room windows and sidewalk terraces. Restoring a lost canal would affirm this vision of what was valuable about Amsterdam and about themselves as Amsterdammers.

These sorts of urban water restoration proposals in Amsterdam resonated with a well-entrenched global water craze. Canal reconstruction initiatives in Holland do not have the environmental roots of many North American projects, but they nonetheless share the economic frameworks of urban tourism and leisure spending shaping investment strategies in other locations around the world.

But the Amsterdam initiatives came with a few twists. First, heritage preservation concerns played a dominant roll in discussions over whether, where, and how to build waterways in the central city. Second, with the gentrification dynamics associated with such undertakings already evident in similar precursors in other nations, the promise of an economic pep-up undermined rather than reinforced the excavation proposals' viability. The post-1970s economic properties of water in an abstract, global, real estate sense are now well established. History narratives nearly succeeded in rallying the political support needed to bring this financial asset to bear in the concrete streets of Amsterdam despite known gentrification hazards and no discussion of ecological merit. But concerns that water's heritage associations could not be isolated from its economic dynamics prevented the restorations' realization.

Furthermore, although water was the object of discussion during the excavation debates, it often was not the topic of concern. Deep fears about changing government priorities and market forces lay below the surface. The provocative question on everyone's mind was, what kind of new social order would burst forth when land was turned into water? Water restoration is an economic transformation of the landscape. Constructing a heritage landscape was a key objective, but the process would have taken place alongside fiscal restructuring and the loss of social safety nets. In this context, identifying water rather than people as the essence of Amsterdam raised special ire against the intonation that water should return even if residents must leave for the canal's resurrection to happen. Excavation opponents were not anti-history, anti-water, or anti-Amsterdam. Their criticisms merely invoked a different heritage and a different landscape that better reflected their own priorities in a context of perceived risk. In their eyes, working-class people were under siege, not water.

It remains unclear how much ground excavation critics gained from their victory over canal restoration in this broader social struggle against economic and political restructuring. Gentrification has been underway for several decades. For many restoration supporters, these dynamics are a sign of urban vitality and their city's incorporation into a new and inevitable economic reality. From this perspective, the urban water defeat only bought Jordaan residents time. The value of time should not be underestimated. But the

struggle is bigger than this one project, and this lone victory is unlikely to reverse the pro-water interests or new economy forces washing over Holland.

Although the envisioned restorations never materialized in the ground, these discussions over the merits of such projects nonetheless helped construct a lasting and growing discourse of urban water as a site and fodder of history. In the United States, 19th and 20th century campaigns to eliminate surface water from cities gained popularity in the name of taming nature and turning profits. A century later, environmental and financial concerns were again touted as reasons to break down the concrete walls and ground planes once built to keep water in its place, a space apart from soil, people, and buildings in town.

In Amsterdam, however, opening up lost waterways read as the recovery of historic monuments rather than the restoration of lost nature. The canals in question were constructed in the 17th century, long before many of them were filled back in again. And with sensibilities on the rise that water might be an explanatory factor of past development patterns and market practices, people began to see water's restoration as a means of restoring key traces of the city's Golden Age legacy.

This historical explanation of water's importance was not entirely absent in the 20th century, but it became significantly more popular in the wake of nature-society ideological reconfigurations since the 1970s that advocate greater sensibility to the links between environmental dynamics and historical developments. Although water's physical route through the city ultimately remained unchanged, discussions about whether and why filled canals should be excavated helped formalize expectations that water could function as an urban heritage site. These narratives have become accepted truths of the city in official and popular urban planning circles today, reinforcing water-oriented preservation by other means, most notably in the 2010 successful designation of water in Amsterdam's Canal Belt as a UNESCO World Heritage Site.

“THE CITY ON THE IJ”

Nautical Tales of Yesteryear in the Home Harbor of Tomorrow

The IJ⁴ waterway was once a bay on Amsterdam’s northern shore. For 17th century sailors, passage through the bay signaled the beginning and end of long voyages to Asia and the Americas. Queues of heavy vessels laden with the spices and guns of the imperial city seemed to cover every square meter of open water. The majestic vista of the city’s waterfront welcomed and intimidated foreign diplomats, monarchs, and warlords arriving by sea. This grand approach through the bay reinforced Amsterdam’s status as the most powerful and influential city of the age.



Two different visions of IJ waterway utility: “The frigate ‘De Ploeg’ on the IJ in Amsterdam” (left, Ludolf Backhuysen, ca. 1708) and ‘The Music Building on the IJ’ concert hall under construction (right, source: Duco Stadig with the Physical Planning Department, ca. 2005)

Today, the IJ waterway is the largest construction site in Amsterdam. Residential neighborhoods stand overtop the vast former shipyards in the eastern and northern harbors, and municipal contractors operating sand pumps are building several new islands in the vast fluid landscape. Nearly 34,000 residential units have been built since the mid-1990s or will be complete by 2020. Many tens of thousands more may follow. The city’s most expensive housing and the nation’s largest cultural breeding grounds lay within these fledgling neighborhoods emerging in the former sea. These homes and the intermixed cultural institutions, public amenities, office complexes, and retail spaces are quickly becoming the next hot center of urban life in the national capital.

⁴ The letter combination “IJ” in *IJ Waterway* and *IJburg Archipelago* is pronounced like the vowel sound in *lay* in Australian or Cockney English (Donaldson 1996:3).

To construct this utopian city of tomorrow, developers are mining the nautical spaces and sea-faring histories of yesteryear. Relics, aesthetics, tributes, nomenclatures, and visages of previous centuries invoke utopian visions of Golden Ages past and future. But IJ waterway investment did not begin as a harbor reconstruction project. A review of newspaper and government reports published between 1990 and 2010 shows that heritage measures entered municipal planning frameworks late in the game, oftentimes after designs were already drawn and construction was already underway. These measures provided investors and boosters with an opportunity to incorporate lucrative water-oriented real estate amenities into an otherwise anti-water urban development mentality, a measure that many officials have since come to believe will augment the economic stature of both Amsterdam and the Netherlands on the world stage. The exclusivity of these developments, combined with the concurrent demolition and privatization of Amsterdam's social housing stock, is facilitating the political transition from shelter as a civic right to housing as a market good. This transformation has both benefits and costs. But cloaked in the garb of water from centuries past, the pitfalls or merits of these erasures of a more recent history of the social welfare state are all but forgotten. Aquatic flourishes give people something else to focus on and celebrate.

Methods overview and chapter outline

This chapter uses an archival approach to examine when, how, and why harbor heritage and water frameworks entered Amsterdam development discourses. I base my analysis on a review of the four largest IJ waterway redevelopment sites under construction between 1990 and 2010, including the Eastern Docklands (*Oostelijk Havengebied*), the Southern Bank (*Zuidelijke IJsoever*), NDSM Wharf (*NDSM Werf*), and the IJburg archipelago.

I draw most of my evidence from three pools of written sources. First, I systematically reviewed newspaper reports mentioning these development areas published in the Amsterdam-focused *Het Parool*, national business-oriented *NRC Handelsblad*, conservative Christian *Trouw*, and the left-leaning *de Volkskrant* newspapers. Second, I studied past issues of the Physical Planning Department's bi-monthly magazine *PlanAmsterdam*, paying special attention to issues published between 2000 and 2010 as neighborhood construction and home sales in the IJ waterway picked up steam. Third, I reviewed academic and governmental reports pertaining to questions of home construction and strategic economic visioning at the municipal and national level, especially those outlining the prioritized growth strategies driving Amsterdam urban expansion forward.

Based on these materials, this chapter begins with a brief description of the most significant construction projects underway in the IJ waterway in the past two decades and the urban development ideologies that guided them. I then explore the rise and incorporation of heritage discourses into municipal planning frameworks, and I explain how and why these narratives became a means to realize the potential economic utility of water in international real estate terms. I then briefly situate this joint history-water development framework in relation to a second major housing initiative underway in Amsterdam: the demolition of much of the city's 20th century social housing stock. These explications show that heritage discourses functioned as an important conduit through which water investment frameworks could take root in this locale. They also show that the

language of water and history provided a way for boosters to describe IJ waterway construction in positive terms as the construction of a globally ascendant metropolis rather than in negative terms as the erosion of the social welfare state, although both objectives drove urban reconstitution forward.

Placing IJ waterway construction

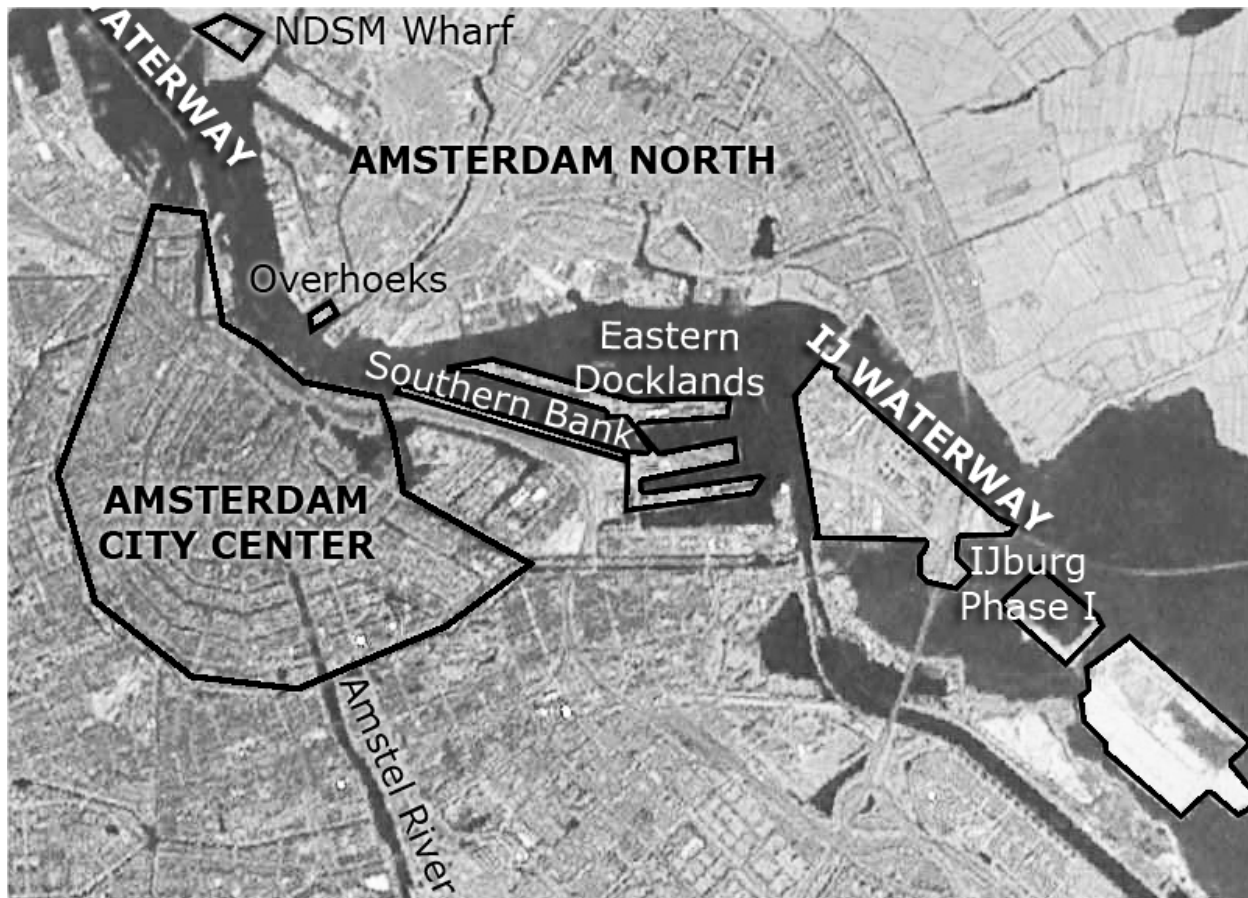
The Eastern Docklands redevelopment project in Amsterdam's IJ waterway has become an experimental prototype for many of the construction projects currently underway elsewhere along the shores. As such, this area – and its Java Island neighborhood in particular – serves as a focal point for this study of heritage, water, and real estate.

Amsterdam's Java Island is one of four artificial landmasses comprising the Eastern Docklands, including sister island KNSM and two peninsulas, Borneo and Sporenburg. A forest of piles driven into the seafloor holds the land surface a few meters above water level. These islands and peninsulas were built as trans-shipment loading docks and storage hangers at the turn of the 20th century concurrent with the high water mark of Amsterdam's industrial and colonial activity. At 1,300 meters long but only 130 meters wide, Java Island has the shape of a long parking medium in the sea. Around 1910 as the Docklands were nearing completion, 1,600 or so ships from the Dutch East Indies and the Americas anchored in the Docklands daily (Franssen & Soest 2009:25). The Royal Dutch Steamship Company (*Koninklijke Nederlandsche Stoomboot Maatschappij*) maintained their headquarters on KNSM Island for over eight decades. Then in the 1970s, trans-oceanic shipping companies around the world shifted from piece goods to bulk cargo operations carried in ever-growing vessels. During this global industry transition, IJ waterway businesses either perished or moved their operations to the larger harbors in Rotterdam and western Amsterdam to escape the logistical complications of unloading containers in the eastern harbor's more shallow and narrow channels. The local shipping industry collapsed, and the Docklands fell silent. (Steinmetz 2002a; M Vries 1994a, 2007).

In the mid-1990s, the Eastern Docklands became the site of the first of many mega-scale residential projects undertaken in Amsterdam along the IJ waterway shorelines. For 23 years, the area was the largest single construction site in Amsterdam. The most enthusiastic of reviewers described the metamorphosis as an entire city springing forth from the ground, seemingly autonomously and overnight, complete with 20,000 residents and fully formed community organizations (Evenhuis 1994; Steinmetz 2002a). The scale of development and the utopian promise of an incipient city-in-the-making attracted visitors, tourists, and homebuyers in droves even before the old structures were cleared or the new foundations poured. To manage and capitalize on this widespread interest, the Amsterdam Physical Planning Department published field guides and organized walking tours of the construction site. Marina de Vries, an architecture and art critic chronicling the Docklands redevelopment for several local newspapers over nearly two decades, reviewed one such guide in the late-1990s. In her words, the journey began spectacularly with a short boat ride from the Central Railway Station to the Dockland's Java Island. From there, the guide routed sightseers through the spectral city of a "future marina," past the "still invisible bridges," and to the island's "fallow head, reserved for one or another foggy cultural purpose" (M Vries 1998).

As construction neared completion in the late-2000s, when I toured the Docklands for the first time, architectural critics, real estate agents, and investment strategists called

Java Island and the Eastern Docklands Amsterdam's pre-eminent "success story" (M Vries 2007). The neighborhood contained 8,300 housing units. On Java Island, five- and eight-story apartment buildings lined the quays encircling block-scale interior courtyards that resonated with sounds of children playing on grassy knolls and jungle gyms. Cyclists whizzed along the wharf-fronting streets towards the newly minted bridges that would carry them to the city center in ten minutes or less. Each new block seemed to open to tremendous public acclaim. Many properties nearly doubled in value within their first few years on the market in the mid-2000s, and the neighborhood remains in high demand. When completed, architectural critic De Vries described it as "the hippest and most popular residential district in Amsterdam, and perhaps in the whole of the Netherlands" (M Vries 2007).



Map of key IJ waterway redevelopment sites discussed in this chapter (map by author)

As hip as this area may be, many larger and trendier IJ waterway development projects are rapidly following in the Docklands wake. For instance, on the mainland shoreline of the waterway's Southern Bank – including the *Oostelijke Handelskade* and *Piet Heinkade* wharves – the municipal government has been overseeing the construction of a linear cultural mega-complex in fits and starts since the 1980s. This strip of land is contiguous with the city center albeit on what was long imagined as the wrong side of the tracks. An early-mover science center opened in 1997, followed by the lavish Music Building on the IJ concert hall in 2005. Since then, two former artist squats turned

multimedia hotspots and the first of what may be many posh hotels and restaurants have opened their doors. The dozens of cranes lining the shore downstream from this strip of new, shiny, architecturally dramatic buildings in 2010 as I concluded my research bespoke the many block-scale sites that remain in the construction, retrofit, or planning stages today.

Another IJ waterway construction hotspot lies on the banks of Amsterdam North where City Council Members hope to replicate a variation of the Eastern Dockland's successes. The borough is home to about 100,000 residents, though the casual passer-by would hardly have perceived this from the deep swath of derelict and seemingly abandoned coastline visible from the waterway in the mid-2000s. But the coastline has changed with each passing year. By 2009, two extensive construction projects were well underway. An artist association at the NDSM Wharf complex had already spent nearly a decade transforming the buildings and grounds of a former shipyard into government-subsidized artist workspaces, demonstration halls, and housing units reputed to comprise "the largest (cultural) breeding ground in the Netherlands" ("The biggest..." 2004). A few kilometers downstream, a conglomeration of seven public and private organizations were constructing *Overhoeks*, a compound of sumptuous residential towers and cultural facilities on several acres of shoreline formerly owned by the Shell Corporation. City councilmen said these apartments would include "the most expensive housing in the city" ("The march..." 2009). As sizable as these projects are, boosters promised that the 7,500 housing units packed onto these two sites were just the tip of Amsterdam North's redevelopment iceberg.

And then there is IJburg, the still-under-construction archipelago off the Eastern Docklands' eastern shore. As I explain more fully in another chapter, news broadcasters in 2009 were calling this collection of artificial islands "one of the most ambitious urban projects to appear in the Netherlands in a generation" (Beauchemin 2009). Under the guidance of a municipal planning and development team, three islands of dredged sand are already complete. Construction on four additional islands will begin in 2013, bringing the total IJburg population to 45,000 people by 2020. In the few short years since IJburg houses hit the market, the area has become "one of Amsterdam's most popular quarters" winning urban design awards and fetching high sales prices (Lange & Milanovic 2009; Steinmetz 2009). At half the population of Amsterdam's city center, IJburg exceeds the number of residential units already complete or currently under construction in the Eastern Docklands and Amsterdam North combined (Center Borough nd).

This flurry of construction activity and market demand engulfing the shores may catch some Amsterdammers by surprise. In the words of one reporter repeating an oft-heard refrain, "the IJ (waterway) in earlier times was always considered a barrier in the city" (H Lange 2007). Coastal rail lines built at the turn of the 20th century cut off easy access to the shores, and since bridges interfered with ship traffic, no roads connected the city center to the Docklands or the northern borough. Dockworkers living in Amsterdam North commuted daily by boat to the Eastern Harbor for more than eight decades, but they rarely ventured farther south into other parts of town. The 1970s collapse of the shipping industry augmented sensibilities of an isolated and disreputable landscape. According to historians and urban analysts looking back, the waterway's edges became "an industrial wasteland" (Mamadouh 2008) with "coal piles, ship yards, strange buildings, drug trade, and cops" (Seegers 2008). When I asked about it, I was told that the people living there

were outsiders from the north, that no bridges could take me there, and that respectable people did not want to go there.

Until recently, that is. Today the IJ shores are “back on the map” (Combe 2008:17). “There is a new prestige to have an office on the waterfront and an apartment on the IJ, which was non-existent before the 1990s” (Seegers 2008). In the past decade, people have come to the Eastern Docklands and other redeveloped shorelines by the busloads to see the acclaimed high-style architecture and to visit the celebrated cultural institutions and corporate office complexes. In the words of one startled, long-time resident touring the redeveloped shores, “are you certain we’re still in Amsterdam, child?” (Brummelen 2009). From the city center, it looked as though nothing had changed, but on the open water, nothing seemed the same.

Real estate development and aspirations of a metropolitan powerhouse

For an explanation of the motives and aspirations driving such extensive new town construction forward, I turned to the glossy pages of *PlanAmsterdam*. Published eight times a year, this cross between an architectural periodical and a promotional brochure is the stated communications medium of choice for the Amsterdam City Council’s Physical Planning Department. Within its cover, lustrous images and stylized text address everything that is fresh and hot in local urban development. And what was said to be this decade’s trendsetter? The abandonment of the old “City on the Amstel” image in lieu of Amsterdam’s dramatic rebirth as the global and glorious “City on the IJ” (Combe 2008; see also Stadig 2005). According to these official planning publications, “Amsterdam has the ambition to develop into an internationally attractive and environmentally friendly metropolitan area” using “regional development” to keep Amsterdam “competitive on a European scale” (DRO 2010). Within the pages of *PlanAmsterdam*, visions abound of a future Golden Age, a metropolitan center saturated in top-quality amenities catering to an international cultural hub.

This sort of development framework reflexively incorporates intellectual and policy development narratives circulating internationally in Economy and City Planning circles in recent decades. Saskia Sassen’s *Global Cities* (1991), for instance, popularized conceptions that successful 21st century cities would be those able to dominate the command and control points of the international economy. Though this monopoly, these cities were said to reap the rewards of capitalist investment around the world at the expense of neighboring townships in their own homelands. Similarly, Richard Florida’s *The Rise of the Creative Class* (2002) gained international fame for the assertion that information, cultural, and knowledge workers would become the drivers of tomorrow’s global economy, and that the prosperity of any city rested on its ability to attract these workers through promises of tolerant, technological, and stimulating live-work environments.

These market models have many critics. David Harvey (1989) and Jason Hackworth (2007), for instance, have lamented that the heightened rhetoric of competition, individualism, and privatization associated with these development approaches undermined policies that provided social services and welfare redistribution in decades past. Instead, many city planners and government officials have come to believe it is their professional responsibility to facilitate corporate interests through real estate investment. Other critics have similarly shown that, while global city and knowledge economy approaches generated tremendous wealth for some people, they also polarized financial

inequality and eroded social welfare more generally (Massey 2007; McDonald 2008; Ong 2006). Despite such concerns, and despite pleas for alternative strategies, these urban development paradigms have become standard city planning tropes worldwide.

Like many of their international counterparts, Amsterdam's municipal officials at the Physical Planning Department have avidly embraced Global City and Creative Class rhetoric. Planners incorporated these terms, along with other knowledge economy, sustainability, quality of life, and urban competitiveness buzzwords, into countless reports and promotional documents. These terms, which litter *PlanAmsterdam* issues published between 2005 and 2009, dominate the national Ministry of Housing, Spatial Planning, and the Environment's structural visions for growth, as well. For instance, in strategic development visions, officials say "much of Europe's spatial and economic expansion in recent years has taken place in relatively small but internationally oriented cities. ... Cities are developing in this way into the engine of the world economy" (VROM 2006:19). Planners expect competition for a piece of the international market to be fierce, and so "the more attraction-power the city has on highly educated and innovative-oriented people, the better" (Vork 2007:11). For Amsterdammers to make their mark on the international stage, "this demands that an attractive living climate be created for talented people and innovative businesses" (VROM 2006:20). From this perspective, planning department officials see themselves as responsible for tilling the ground, literally, to create the necessary infrastructural pre-conditions for Global City style success (Musterd & Deurloo 2006).

Such visions of Amsterdam as an economic powerhouse have struck some analysts as counterintuitive. Planning department officials acknowledge that – "Amsterdam as a world city, as the core city of the metropolitan region – just a few years ago the Dutch capital was seldom perceived in this way" (Leeuwen *et al.* 2009:23). Academic researchers have stressed that, in international terms, Amsterdam today is a second or perhaps even a third-tier city with a limited role in global financial and business services (O'Loughlin 2001). Its domestic performance has likewise been "somewhat disquieting" (Musterd & Deurloo 2006:92). The city generated less than 6% of national GDP in 1998 as construction on the Eastern Docklands residential neighborhood was picking up steam, the metropolitan region contributed only 13%, and both numbers declined over the following half-decade (Angus & Mangoenkarso 2005; Manshanden & Lambooy 2001). In the words of one prominent urban sociologist who has studied the city for several decades, "Amsterdam is the social and cultural capital of Netherlands, but not the economic capital" (Deben 2009).

Nonetheless, planners dreaming of something more have been working to create the conditions they hope will make Amsterdam's metamorphosis into a global city a reality. Local officials asserted that, "within the creative knowledge economy of the Netherlands, Amsterdam is the unrivalled lead player" (Zanen & Gadet 2006:31). National cabinet-level officials likewise stressed that "the government wishes to build upon Amsterdam's potential and to ensure that the benefit spreads to the entire Urban Ring⁵ and throughout the Netherlands" (VROM 2006:38; see also DRO 2010). According to municipal reports – which assuredly have some boosterism built in – the city is "in the top five (business)

⁵ The Urban Ring (*Randstad*) is the Netherlands' primary economic core. It includes the metropolitan areas of Amsterdam, Rotterdam, Utrecht, and The Hague, as well as many smaller neighboring cities and towns.

settlement locations among European cities" (Vork 2007:11) and "in the top ten list of international conference destinations" ("Back in..." 2009). It also has the world's ninth largest airport, one of the biggest Internet hubs, and "one of the longest urban waterfronts in the world" ("In 2018..." 2007). This last shoreline benchmark is not a standard measure of global greatness but, as this chapter will show, it has become a pivotal ingredient in Amsterdam planners' growth strategies. The challenge, then, appears to be one of leveraging these existing strengths to generate future economic influence abroad.

Seduction via the built landscape has emerged as a primary strategy in this endeavor. Planning documents and policy reports written with a strong Richard Florida vein emphasize the need to attract an imagined right sort of resident to drive the desired economic ascent forward. The planners' tone strikes something of a cross between a government memoranda and a dating advertisement. The ideal resident is well educated and creatively oriented with a high income. Singles and couples without children are preferable, and most viable candidates will be newcomers from Europe, or with appropriate corporate sponsorship, North America (Combe 2008; Hemel 2007; DRO 2006; Vandam 2010; Vork 2007). Since such competent people supposedly have their pick of cities like New York, London, Barcelona, and Rome, Dutch officials are prepared to woo prospective settlers with promises of a better life in cozy Amsterdam.

In this act of seduction, housing baits the line. Officials have routinely described new home construction on a massive scale as the key to global city success. The national Ministry of Housing, Spatial Planning, and the Environment, for instance, has asserted that the Urban Ring, a multi-city metropolis that they envision Amsterdam will someday head, "will need at least 500,000 new homes by 2040" and municipal planners hope to see 150,000 of those units built in Amsterdam between 2010 and 2030 (VROM 2006:49; see also Stadig 2005:22). And not just any old housing will do. According to the Director of the Center for Urban Studies at the University of Amsterdam, "high-quality housing stock" has been "a stumbling block when it comes to attracting ever more cultural and creative activity to the city" (Musterd & Deurloo 2006:92; see also DRO 2006:8). Complaining that housing in Amsterdam is too scarce and too crappy is practically a national sport. As one architect working on the Eastern Docklands project put it, "people have had more than enough of the painful mediocre houses that past decades of state repression have built" (Soeters in Koper 2002). From this perspective, affordable housing options – which were a pinnacle of the post-war municipal development paradigm – now seem out-of-step with today's creative class expectations.

Java Island in the Eastern Docklands has emerged as a model of this seductive, housing-oriented strategy's success. The neighborhood's popularity pre-dates its completion. According to one observer in the late 1990s, "hundreds of visitors swarm across the construction site searching for the ideal place, the loveliest apartment, the most pleasant vista" (Bosman 1997). The islands' innovative apartment layouts were said to cater to "a new form of urban living" for the expected non-nuclear families of the future transnational elite (M Vries 2007; see also Franssen & Soest 2009:106). Real estate in the IJ waterway by the late-2000s fetched the highest prices in the city, valued at €6,000 per square meter, or a third higher than the €4,500 citywide average. This price equates to approximately €1.2 million or more to buy an apartment on Java Island or between €1,100

and €1,600 in monthly rental fees, an exorbitant sum at the time by Amsterdam standards ("The march..." 2009).

In exchange for their money, residential consumers gained access to a total living environment catering to what urban sociologist Leon Deben has called a lifestyle of people working as though they were always on holiday, sitting with a laptop on the sidewalk and drinking cappuccino while talking on cell phones (Deben 2007:12). A home's location in a "dynamic urban neighborhood with space for a variety of lifestyles, a diverse offering of cultural and culinary services, and a high-level quality of public space" is more important from a marketing perspective than the dwelling units' size and amenity specifications (DRO 2006:7). The Eastern Docklands houses – over 20% of which include home offices (Combe 2008:10) – facilitate this style of living, and its mixed-use zoning and public space ambiance has taken on tremendous import in marketing schemes targeting the espoused creative class consumers.

Leisure, office, and neighborhood services have clearly been important selling features, as well, but housing remains the top priority. Planning narratives position new home construction as the goose that will lay the golden egg (Stadig 2005; Wit 1995; Zonneveld 2010a). And as the following section shows, nautical histories and water-oriented real estate has become the magic ingredient turning this domestic infrastructure into the expected fodder for the Netherlands' next Golden Age.

Accidental history as the "in" for water-oriented real estate development

Depending who you ask, Java Island from the Netherlands' perspective is either a former dockland in Amsterdam's Eastern Harbor or a former colonial stronghold of the Dutch East Indies. Amsterdam merchants began sending trading ships to these Indian Ocean islands at the turn of the 16th century. By the mid-1800s, remittances from Java-based operations in the East Indies comprised one third of the Netherlands' annual federal revenue (Ricklefs 1993). Amsterdam's Java Island, built at the turn of the 20th century, owes its name and *raison d'être* to this exploitive and violent legacy. As this section explains, to construct the utopian capital city of tomorrow, Amsterdam developers mined the nautical spaces and sea-faring histories of yesteryear. In today's Eastern Docklands, names, buildings, and landscape elements drawn from past centuries follow one another in rapid succession. These emphatic if not always tangible histories suture memories of a global heritage with the imagined urban future. But more than this, these history frameworks also provide an in for contemporary global real estate trends that place economic premiums on water-oriented property development.

Heritage displays have proven to be highly effective and profitable city promotion tactics in many contexts. For instance, Randall Mason's work on memory infrastructure in New York City (2009) has shown that, while many developers see historic preservation as an urban development obstacle, selective preservation that reinforces moralities, obfuscates costs, and stabilizes risks can enable rather than forestall city building. David Lowenthal (1998) and William Deverell (2005) have likewise shown that displays of cultural inheritance – even or perhaps especially those that take considerable creative license in accuracy of representation – are highly profitable boosterism tactics in many temporal and spatial contexts. Sanitized and romanticized myths of exotic pasts, including

those that whitewash ethnic traditions or colonial violence, play off tourist, consumer, and homebuyer desires to experience distinctive locales.

These sorts of heritage development tactics have occurred to some extent in waterfront development undertakings in many North Atlantic countries in recent decades. David Harvey's groundbreaking analysis of the Baltimore Harbor Place revitalization, for instance, has become a cornerstone study of the way corporate investors can clean and theme industrial wharves, turning harbor restoration into the means to create aquatic centerpieces for passive spectacle consumption (Harvey 1990, 2001; see also Hannigan 1998). Recycling the occasional industrial building or incorporating an old furnace or rail car in these types of undertakings can give the developments an added aura of memory and seeming authenticity.

The incorporation of historic landmarks or heritage themes into Amsterdam's IJ waterway redevelopment sites fits this pattern. But in this case, despite the popularity of harbor restoration frameworks and the well-entrenched links between waterfronts and real estate value in abstract global discourses, an inadvertent turn to history discourses over the course of the Eastern Docklands construction period played a significant role in repackaging housing construction as harbor restoration.

Heritage interests in the Eastern Docklands emerged largely by accident from municipal officials' points of view. Initially, Planning Department visionaries proposing vast residential construction in the IJ waterway had little to say – and none of it positive – about the harbor's past life. Master planners in the 1970s advocated paving over the harbor completely to make way for a massive New Manhattan business district for 350,000 residents, or five times the total number of people currently living in Amsterdam's city center. Development of this magnitude proved untenable for financial and ecological reasons. But a scaled-back version of this city on the waterway is moving forward, and it began with the Eastern Docklands (Ellenbroek 2001; H Lange 2007; M Vries 2007). In this development, rhetoric of a "harbor conversion" emerged late in the game, after the plans were drawn and construction was underway, and much of the nautical heritage impulse came over the Planning Department's strong objections. But as the project unfolded, mining the nautical history of yesteryear became a key strategy to overcome development opposition and to make an envisioned Global City seem imminent.

Two brief examples will illustrate the kinds of incidental dynamics at work in the early years. The first has to do with the unintended making of relics. Buildings and statues are usually the stuff of urban historic landmarks. For efficiency's sake, municipal planners preferred to bulldoze dockland infrastructure to the ground to create as much of a *tabula rasa* design slate with as few environmental constraints as possible. This strategy reduced health and safety liabilities from the planners' perspectives. It also provided a seemingly benign, technicality-based justification to evict the many large squatter communities of self-proclaimed artists, counter-culturalists, travelers, and struggling families that took up residence in the Docklands between the time the harbor closed down and the new housing development got up and running.

Some of these squatters occupying two-dozen warehouse-style buildings founded the Industrial Buildings Guild (*Gilde van Werkgebouwen*) and lobbied the national Ministry of Education and Culture to list their premises as National Monuments. The Guild had some successes, as in the case of a former Grain Dock and Silo (*graansilo*) in 1992. Successful monument designation stripped the municipality of their authority to evict squatters for

demolition purposes, thereby forestalling displacement for a time. In some instances, such as the former cafeteria building the End of the World (*Einde van de Wereld*), planners justified demolition anyway, citing soil contamination underneath the foundations that supposedly could not be remediated *in situ* or left alone. In other instances, such as the Grain Silo, development remained stalled until private investors could secure permission and funding to restore the newly named monuments by way of converting them to luxury apartments targeting wealthy foreigners willing to pay premiums to live in national historic monuments by the water (Blokker 1995; Combe 2008; Escher 1996; Klipp & Vugts 2000; Koemans 1994; “Plans to...” 1994).



Policeman conversing with a squatter on KNSM Island in the late 1980s (left, courtesy of the ANP Archive) and the post-redevelopment landscape along one of the four new canals traversing Java Island in the mid-2000s (source: Physical Planning Department)

The second example involves the inadvertent mobilization of a water aesthetic thought to be symbolic of the Dutch 17th century Golden Age. Java Island’s master planner Sjoerd Soeters was an avid proponent of pedestrian-scale urban development, which he described as the antithesis to Amsterdam’s so-called “painfully average” and “socially indiscriminant” post-war social housing stock (Soeters in Koper 2002). While designing Java, he read a book on Japanese hillside villages, and he had the idea that the arched bridges and sunken waterways in Amsterdam’s city center constituted a “sort of thrilling mountain walk” with each bridge functioning as a transition point between charmingly distinct, small-scale communities. Soeters hoped to recreate this ambience on Java Island. “So we wanted strongly curved bridges to break up the long map of Java, and if we then also needed to dig canals, then so be it” (Soeters in Koper 2002).

Soeters’ resulting master plan cut four new canals perpendicularly through the island lined with houses recognizably mimicking the rhythm and massing of the 17th century Canal Belt despite their contemporary interiors and façade detailing (Franssen & Soest 2009; M Rooy 2000; J Vries 2007; M Vries 1994b, 2000). Municipal planners responded angrily to the proposal, which added f10 million (€4.54 million) to the construction fees, and contractors refused to begin construction for a time fearing that residents would be unwilling to pay the high f2,000 (€910) rental premiums needed to offset construction costs. But homebuyers swarmed at the opportunity of living in a canal house like those off-limits to them in pricy central city markets (Bosman 1997; Bosman &

Koemans 1994; Soeters in Koper 2002; Steinmetz 2002a; M Vries 2007). Some critics hailed the resulting waterways as an urban design innovation (P Rooy 2002; M Vries 2000); others decried it as nostalgic namby-pamby kitsch (Mamadouh 2009, M Rooy 2000, 2002; J Vries 2007; M Vries 1994b). But everyone described it as the first new canals built in Amsterdam in 400 years and as “an ode to the old Canal Belt of Amsterdam” transposing the 17th century Golden Age icon onto the Docklands city of tomorrow (Boyer 1997; see also M Rooy 2000).

These two examples illustrate some of the many ways that diffuse and haphazard mobilizations of the landscape via legal courts and aesthetic visions helped generate a historical way of seeing, creating momentum for a nautical heritage redevelopment framework on the Docklands’ site. The disturbances and media storms associated with the squatters’ defensive deployment of preservation laws forced planners to grapple with the potential cultural value of a landscape they otherwise conceived of as a desolate terrain of rusting rails and neglected shipyards forsaken by God and city (Steinmetz 2002a). Similarly, the architectural desire for bridges and whimsy that led to the inadvertent construction of a 17th century canal landscape referent helped turn visions of gritty industrial pasts into more marketable legacies of Golden Age grandeur. But rather than reversing their reticence – if not outright animosity – towards building preservation, Planning Department officials launched a public relations campaign training people to see historical fodder primarily in traces and specters rather than preserved structures.

For instance, since the late 1990s, planning officials self-published or commissioned several field guides, architectural books, and walking tours of the Eastern Docklands glorifying the early 20th century remnants as historic relics. The 2009 *Discover the Eastern Docklands* (Franssen & Soest 2009) is one of the more recent such guides to hit the shelves (see also Arcam 2002; Buurman *et al.* 2007; Haastrecht 1995; Koster 1995; M Vries 1998). Like the books and tours that preceded it, this guide framed the neighborhood as a place open to the public as a demonstration site of nautical inheritance to be experienced through the active positioning of visitors’ bodies in space. The “active route” walking tours gave lavish attention to the few original harbor buildings that remained – such as the *Loods* 6 trans-shipment and customs shed or the KNSM Administration building, both turned artist workspaces, as well as the Figee Hoisting Crane turned relic monument standing sentinel on the shore. The disproportionate emphasis placed on these relics intoned that harbor preservation here was the rule rather than the exception. That none of these relics stood on Java Island seemed not to matter. Where actual relics were sparse, staged sculptures help fill in the gaps, such as the 1998 “Heavenly Jewel” gateway and the 1999 “Transit” plaque, both of which pay homage to the long, uncertain farewells and surprising intellectual exchanges associated with oceanic sojourns of centuries past.

In contrast to this emphatic telling of preservation, the mobilization of naming themes was a nearly unpublicized yet highly effective reference system turning street signs into heritage plaques of global connectivity. The islands’ names – Java, Borneo, and KNSM (the acronym for the Royal Netherlands Steamship Company) – were said to reflect the tempo of a sea-faring nation (Haastrecht 1995; see also M Vries 2007). Java Island’s four new canals were named for prominent Indonesian rivers and cities. Its block-scale, interior garden courtyards were christened after Indonesian hamlets, palaces, and royal graveyards. This naming strategy permeates the Eastern Docklands: a short 20-minute bicycle ride through the neighborhood brings the cyclist to Java Quay, Sumatra Quay,

Levant Square, Piraeus Square, Surinam Quay, Barcelona Square, Panama Square, Shipwright's Street, Helmsman Quay, Signal Watcher Street, and Oar Quay. It is not uncommon in Amsterdam to see occasional streets and plazas named after former colonial strongholds and nautical heroes, but the practice here seems to have occurred in an especially intense form with one exotic destination following another in rapid succession to make up an entire tapestry of 17th century exploration in miniature. These names intentionally or otherwise applied narrative content to the landscape, creating a living public memorial holding out the promise of recreating urban prosperity through a rekindling of global business connections.

The mobilization of a sanitized exploration nomenclature in press releases and project descriptions cast the specter of oceanic exploration not only onto the streets but also onto the bodies of contemporary Eastern Docklands residents. Planners characterized the 1980s harbor as a no-mans-land, the purported refuge of “nomads” and “hut builders,” suggesting that the pre-redevelopment squatters were a sort of modern variant of imagined tribalized Others living outside government oversight and social mores (“Architectural tour...” 2009; Ellenbroek 2001; Haastrecht 1995; “Plans to...” 1994; Steinmetz 2002a). Visitors in the early years of construction were cautioned tongue-in-cheek to be on the lookout for animal-like roving cranes and cement trucks, to pack provisions for their journey through a pre-capitalist landscape devoid of ATMs and restaurants, and to be cautious of pirate-like pickpockets exploiting the wilds of the construction site (Kreling 2007; M Vries 1998). And neighborhood boosters have continued to characterize businesses and homebuyers in the Docklands and other IJ waterway redevelopment sites as waterfront “pioneers” “discovering” Java and Borneo on their “ventures beyond more settled territory” (Combe 2008:24; Franssen & Soest 2009; Lange & Milanovic 2009; M Vries 1994a). These colorful tales of huts, danger, and East Indies exploration – all located a convenient 7-minute tram ride from Amsterdam’s central railway station – cast real estate development as a modern-day expedition civilizing an untamed wilderness within the national heartland.

The specter of ships coming and going has likewise become a metaphor for contemporary global society and associated urban forms in Amsterdam. For instance, the Eastern Docklands’ “home harbor” concept conveyed an expectation of transience. The analogy framed Java Island’s residential infrastructure as a place where people could moor while conducting a few months- or years-worth of business before silently drifting off to other destinations. Similarly, the “city as hull” concept inspiring development along the IJ waterway’s northern bank likened neighborhood infrastructure to the hull of a vessel. Rather than striving for completion, streets and buildings could be left unfinished and reconfigurable at a moments notice like a ship’s interior or a dock’s line-up (Heddema 1994; M Vries 1997). Within these analogies, local entrepreneurs appeared as underwriters for today’s footloose enterprises venturing out into uncharted, information-age waters and bringing back foreign tribute (Combe 2008:24). Such colonial and nautical concepts meld seamlessly with images of a flexible global economy where corporations and elites are expected to come and go with the tides.

By the time of the Docklands’ completion in the mid-2000s, these heritage renditions had created a pregnant, spectral air surrounding the way people saw and spoke about the neighborhood. In the words of architectural critic Marina de Vries, “the ships to England and Java, to Africa and America, have disappeared, it is true. But the memory of

their activity on the landscape of yore remains” (M Vries 2007). These ghosts of the past lurk in aged photographs showing the rows of several hundred ships from the Dutch East Indies and the Americas that once anchored here. It exists in “the sturdy bricks on the sidewalk and streets, and in the open wharves and the clear view of the water” (M Vries 2007). It exists in statues and street signs, in acts of urban re-colonization, and in the occasional preserved building and staged monument.

This history framework emerged haphazardly. Squatter resistance forced building preservation. Architectural whimsy gave rise to an aesthetic of homage. Homebuyer stampedes prompted planners to organize extra tours and brochures, which created the material means to circulate heritage discourses. And fears of crime in the early years spurred opportunistic narratives of buccaneers and pioneers to calm perspective buyers’ anxieties. These ad hoc history-making activities in the form of legal, aesthetic, advertising, and landscape interventions materialized here through practice rather than planning. But these unexpected and often undesired dynamics became opportunities to reframe official housing initiatives as *en vogue* harbor redevelopments, prompting planners to centralize the narratives after-the-fact into a history-focused urban development framework linking spatial stories of the past with economic aspirations for the future.

The payoff of this history framework has had less to do with the economic value of heritage landscapes per se than with the concurrent incorporation of water-related real estate dynamics into municipal urban development structures. A study from the Alterra Department of Landscape and Spatial Planning finds that housing in the Netherlands with views of water, proximity near water, or green spaces that front water sells for an average 28% premium nation-wide over equivalent houses on dry land (Luttik 2000). Other government sources in the early 2000s concurred, putting the benefit somewhere between 15% and 40% (Haegen 2005; P Rooy 2002). By comparison, sales premiums for other environmental amenities, such as open parks and green spaces, were negligible. These numbers suggest that homebuyers saw water as something special and not interchangeable with other nature-like amenities. Indeed, in terms of real estate value, Java Island’s new canals became “an excellent place to erect expensive housing” from an investor’s perspective because the quasi-historic water form added “just the right sex appeal” from the consumer’s vantage point (Franssen & Soest 2009:108). Similarly, one of the Eastern Dockland’s first established social organizations was an anti-foliage association founded to prevent planners from planting trees along the open wharves that could obstruct residents’ water views (Evenhuis 1994).

In terms of the creative class seduction effort, water-oriented domestic infrastructure has proven especially attractive among knowledge workers. According to a 2007 City Council survey of Amsterdam’s current creative class residents, “almost everyone (95%) is of the opinion that the canals, the Amstel (River), and the IJ (waterway) make Amsterdam exceptional” (Vork 2007:25). About 80% of respondents described water and shorelines as the city’s prime recreational space, and nearly half went boating as a regular leisure time activity. Planning Department officials likewise stressed that “the creative industry has no logistical need for Amsterdam’s water, but its attractiveness remains a sizable economic catalyst” (Zanen & Gadet 2006:20). And while the classic concentric waterways of the 17th century Canal Belt were nice, many knowledge workers expressed “a notable preference for ‘more modern’ water,” and so “water-rich environments such as the Eastern Docklands do just as well for the creative industry”

(Zanen & Gadet 2006:20-2). Java Island's new interior canals, wharf-oriented housing, and nautical-themed nomenclature reinforced the neighborhood's "island feel" (Steinmetz 2002a; Zonneveld 2010b), a boon for real estate boosters today.

The harbor restoration framework and associated open water emphasis holds an even greater allure on the international stage where many creative workers and most entrepreneurial investors are expected to come from in the years ahead. Many Dutchmen touring the emerging IJ waterway neighborhoods expressed bewilderment at their aquatic abundance. "Why wasn't (the water) filled in? You could have built more." Similarly, many locals wanted green instead of blue. "Water is nice, but you can't play soccer on it" (Verkerk 1999). The international response, by contrast, has been overwhelmingly positive. For foreigners, the mystique of the Netherlands as a seafaring, dike-building nation narrowly escaping the jaws of inundation is an important symbol of Dutch identity and folklore. City planners organizing tours of the area in the early 2000s told reporters that all nationalities loved living on the water. With the exception of "the Brits" who purportedly found the unfenced wharves "strange and dangerous, ... the interest in water projects comes from Scotland, Germany, Italy, Spain, Japan, and 'cautiously' from the United States" (Klipp 2002). People of these other nationalities were more likely than locals to see water as pretty, Arcadian, or novel, and were willing to pay good money for a place in a genuinely Dutch – *i.e.* aquatic and nautical – environment (Beauchemin 2009; Verkerk 1999).

The pro-harbor restoration trend of enlarging and embellishing harbor water rather than filling it is spreading. For instance, architectural boosters in Amsterdam North where revitalization has progressed more slowly have begun aggressively marketing what they call a "hands on the water" approach. In the words of one architect collaborating on the municipal redevelopment vision, "we have to protect the water structures. Not only because we would drown otherwise but especially because it's the most important quality of the district" (Bakker in Rombouts 2003). IJburg archipelago developers have likewise begun experimenting with homes built on floating foundations that bob on the water surface, as well as "a residential typology that is truly novel for Amsterdam: homes directly on the beach" (Beauchemin 2009; Huijsmans 2007; Lange & Milanovic 2007:28). This aquatic architecture is quickly becoming the symbol of a new cosmopolitan Amsterdam. From these newly built shorelines, "the city looks more worldly and wiser than ever seemed possible on the small canals" (Kan 2008; see also Berkhout & Rosenberg 2009). Real estate boosters now see the high price tags associated with water-oriented dwellings as a windfall. It seems not to matter that many locals cannot afford them. On the contrary, expensive, high-end housing catering to young, affluent entrepreneurs is the urban development goal from which general prosperity could hopefully emerge.

As these many examples show, the literal and figurative harbor structure has become a point of departure today, not to distant lands, but to a local future of domestic prosperity. Mobilized sedimentations of the nautical past give the impression that IJ waterway redevelopment is not about housing or business, but is instead primarily "an impressive monument to lost industrial heritage" ("N(D)SM" 2000). No comprehensive government program or developer interest stipulated the incorporation of history or water into these emerging neighborhoods. Nonetheless, local harbor constraints and transnational water interest have come to resonate with the many residents, architects, contractors, administrators, and real estate agents giving shape to Amsterdam's new residential communities. Their nautical narratives wash away the dregs of a rusting harbor

to uncover (or invent) an older, grander, sea faring tradition that has become the mirage of a golden future. Heritage-inspired water investment now figures as the fodder through which to reconstitute a material, economic, and symbolic city awaiting its destined splendor.

Nautical history and landscapes of elision

Something seems strange about the rhetoric of return advanced in the glossy pages of the Physical Planning Department's journal *PlanAmsterdam*. According to municipal planners, "Amsterdam has been oriented towards the IJ waterway from time immemorial, but this came to an end during the 20th century" (Combe 2008:23) when harbor and rail construction blocked the "the natural entrance to the city" from view (Valk 2010). Thanks to the ongoing construction of residential, business, and cultural facilities, the waterfront today is "gradually being brought back under development, thus 'giving back' the IJ to the city" (Combe 2008:23). The Amsterdam Center Borough News runs similar stories on their front pages. "Where train sheds and railways once lay, a real 'island city' is now springing up. ... So grows Amsterdam again back to its roots: the IJ" ("Amsterdam again..." 2006).

The invocation of a return to the IJ waterway is not so unusual, but from where are we returning? According to Planning Department officials, "in years to come, Amsterdam will no longer be the city on the River Amstel, but the city on the IJ" (Combe 2008:23). Time and again, the Amstel – intoned as some worn out, parochial river that most people have never heard of – appears as the city's contemporary calling card and future counterpoint. The river has its aficionados, to be sure. Legend has it that a fisherman on a stormy sea – or in some versions, two fishermen and a seasick dog – sought refuge at the river's mouth around 1275, thereby founding Amsterdam. As the city's namesake, boosters say the river is "an inexhaustible wellspring described in lyrical terms by writers and poets, painted from all angles, and photographed in a thousand manners" (Masselink 2002). Despite these attributes, planning department language implies that this river may have been a fine mascot for 20th century industrialists but is an unsuitable image for the global influence and spatial luxury to which officials now aspire.

And yet I cannot help but wonder where this City on the Amstel image is coming from. Pro-industry municipal authorities paved over the Amstel River in the center of town over 70 years ago in 1934 (Sevil 1999). References to a City on the Amstel do not seem to appear in history books, tourism literature, or planning documents. A newspaper search yields a scant handful of articles using such phrasing, nearly all of which refer to the pre-17th century city layout rather than its 20th century form. The few contemporary references I could find described the Amstel River not a distinguishing feature or urban orientation but as a neglected parking backwater of relatively little municipal-wide significance (A Lange 2009). In contrast, Canal Belt references abound. Invocations of Amsterdam as Venice of the North and as the Canal City bar none saturate news, media, and promotional accounts, as do references to a city of tolerance, social housing, and hippies. But the visage of an Amsterdam on the Amstel barely seems to exist.

If a turn away from the Amstel River is not underway, what landscape is currently being displaced with this IJ waterway revival? I assert that the focus on the Amstel River functions as a stand-in or a discursive bait-and-switch. The actual antithesis to the envisioned city of the future from leading architects' and planners' perspectives is the welfare state embodied in Amsterdam's extensive 20th century social housing network.

This observation raises another important question: why frame the transition using water references at all? A post-river narrative is not necessary to make water- and history-oriented development in the former harbor profitable. I suspect that this framework, intentionally or otherwise, functions as smokescreen. More is new in town than just the housing. A new social order is likewise taking shape. Rhetoric of a shift from one body of water to another, and of a design strategy driven by aquatic opportunity and nautical history, obscures a concurrent shift from one set of politics to another driven by the perceived free market imperatives of inter-urban competition favoring elites. Framing construction in a positive light as the reinvention of the 17th century harbor sidesteps pressure to articulate a negative critique of the 20th century welfare ideals being left behind.

Indeed, a broader look at Amsterdam's housing landscape reveals that the IJ waterway revitalization is one of two mega-scale undertakings dominating Amsterdam's spatial urban development since the 1990s. The second and closely related strategy is the extensive demolition, reconstruction, and privatization of the city's 20th century social housing neighborhoods. The most publicized of these redevelopment areas is the Bijlmer neighborhood, a 1960s-era cluster of ten-story, honeycomb-style, social housing apartment blocks swimming in a grassy sea designed to shelter 100,000 residents. Media reports have sensationalized the area's high vacancy and crime rates since the apartments' doors first opened. Since 1987, Amsterdam's city council and social housing authorities have torn half



Image of Bijlmeer social housing neighborhood (Source: Physical Planning Department, ca. late 1960s or early 1970s)

down of Bijlmer's housing units and replaced them with low-rise homes for the private buyers ("Architectural tour..." 2009; Fisher 2009; Hulsman 1994; Logan 2006; Veer 2009b; M Vries 1999). About half of the housing stock in Amsterdam West – a second social housing stronghold in the city – is likewise slated for demolition by 2020 making it, in the words of one social housing administrator, "perhaps the largest redevelopment area in Europe" (Veer 2009a).

Razing high-modern style public housing is a common enough occurrence in many countries. The 1972 demolition of Pruitt Igoe in St. Louis has become something of a poster child for government failures in the housing sector and for cultural rejections of High Modernism building styles in the United States (Birmingham 1999; Comerio 1981). In Amsterdam, St. Louis, and elsewhere, analysts have a difficult time separating design factors from policy problems, a conflation that pro-privatization lobbyists have exploited to curry public fervor against social housing aspirations. The demolition of these 20th century spaces, whatever their flaws, symbolizes a turn away from utopian visions of a society of equals and a community without homelessness.

Bijlmer-style demolitions combined with IJ waterway construction instantiates a new, private real estate structure in Amsterdam. A series of legislative changes enacted since 1989, which coincided with these two destructive and constructive housing reformations, reversed the municipality's previously staunch commitment to social housing. Since then, according to Jaroen van der Veer, a policy advisor with the Amsterdam Federation of Housing Associations (*Amsterdamse federatie van woningcorporaties*), rent controls and government subsidies have been reduced or eliminated. Housing costs have tripled. And instead of directing 95% of new housing starts into the social housing sector as occurred in the 1980s, 70% of new housing along the IJ waterway and elsewhere has gone to high-end, private-market purchasers (Dignum 2004:221; Stadig 2005:26; Veer 2009a, 2009b; Veer & Schuiling 2005:176-7). Today's seven-year wait list for a social housing unit in Amsterdam means that young people and newcomers commonly get stuck with "less desired housing on the periphery in poor condition" if they can get anything at all (Veer 2009a). But people who can get financial resources together – *i.e.*, Europeans with promising jobs and rising incomes in the information economy – can jump the housing queue and gain access to the city center by buying a home on the burgeoning private market along the IJ waterway.

Another policy change underway is the partial privatization of the real estate development process, a trend reflected in the growing prevalence of so-called public-private undertakings. For instance, project leaders of the NDSM Wharf ship-hanger conversion in Amsterdam North have described their "new city" as "a fine example of public-private collaboration" and "a model for urban renewal of the future" (Keulemans 2001). Planners have likewise touted that "the development of IJburg shows how the division of development-related tasks between the government and the private sector is now optimally divided. The government lays out the ground surface, builds the infrastructure, and delivers the land ready for construction at the arranged time for an arranged price" (Stadig 2005:27). Similarly, developer spokespeople on the IJ waterway's northern shore lauded the *Overhoeks* redevelopment project as "a lovely example of a public-private collaboration" (Partners Overhoeks nd) with government agencies assuming land development burdens and corporate homebuilders reaping final sales profits. The

march from housing as a government ensured civic right to a market provided commodity good became more entrenched with each new investment along the IJ waterway's shores.

These two urban redevelopment strategies – new private housing construction along the IJ waterway paired with demolition and divestment of the 20th century social housing stock – are inseparable. Both remake Amsterdam's domestic infrastructure and provisioning strategies in ways purportedly more amenable to potential creative class newcomers and certainly more attractive to international real estate interests. This loss of affordable housing is just one of many urban reforms cutting the tethers to the former welfare state to make way for an elite-centered knowledge economy. Billing the docklands as a harbor restoration gives people a way to describe the project without having to refer to contemporary conservative policy trends. The emerging shoreline neighborhoods seem only to embody an incipient and glorious future of global leadership and resident prosperity.

Nautical tales of yesteryear in the home harbor of tomorrow

The Eastern Docklands neighborhood was, in many ways, a precursor and prototype for massive housing development in the IJ waterway that boosters assert will lay the groundwork for a new Golden Age of regional economic achievement. High-end housing construction has become the cornerstone of this municipal development strategy to transform Amsterdam into a bastion for the creative class. The Eastern Docklands construction occurred concurrently with sweeping changes in municipal housing policy that reversed past commitments to affordable housing and established new development priorities emphasizing luxury, owner-occupied housing construction in and around Amsterdam as the means to boost national economic competitiveness. As one of the first major residential projects built in Amsterdam alongside these policy changes, the Eastern Docklands construction project helped bring these policy reforms on paper into material existence on the ground.

In this undertaking, historicity became an inadvertent “in” for water-oriented real estate development. To construct this utopian city of tomorrow, developers mined the nautical spaces and sea-faring histories of yesteryear. Stories and traces of the past reincarnated in the present sutured memories of a global heritage with the imagined urban future. This framework emerged largely by accident, but became a key urban development strategy. One benefit of this history framework was that it conferred sensibilities of honor, entitlement, value, and influence on this small city willing itself to greatness. A second benefit was that it incorporated abstract, global, water-oriented real estate frameworks into concrete, local development schemas.

A new city is under construction through these IJ waterway residences, not just in physical terms of streets and homes, but also in terms of economic opportunities, government priorities, and citizenship rights. This New Amsterdam rising from the former sea allegedly holds the promise of a future Golden Age, a feat supposedly to be achieved by cutting the symbolic, spatial, and policy tethers to the old city center and welfare state without letting that dismemberment become the overt discourse. In the construction process, old ambitions of social housing and welfare provisioning are literally being razed to the ground.

These spatial imaginings of Amsterdam reincarnated as “the City on the IJ” do not take the form of a direct, articulated challenge to past economic, political, and cultural

practices. On the contrary, the primary advantage of the water-oriented development frame is in what can be left unsaid. Billing development as the reincarnation of the 17th century Golden Age allows people to avoid saying the development is an erosion of 20th century social rights. Aquatic flourishes give people something else to talk about.

Part 3

WATER, BIOPHYSICALITY, AND CITY BUILDING

“PLAYING GOD”

Planning by Intermediaries

In October 2009, a City Ecologist with the Amsterdam City Council’s Physical Planning Department (*Dienst Ruimtelijke Ordening*) released an environmental assessment report that took urban planners and nature advocates by surprise. The report, entitled “IJburg:⁶ A Guest in Nature” (Daalder 2010a) reflected months of slogging through newly built reed beds, ponds, and rocky outcroppings in Amsterdam’s youngest neighborhood: the still-under-construction IJburg archipelago. The grand motive of this gritty work was to assess the feasibility of embarking on the biggest wetland redevelopment undertaking in Europe made possible through largest and most innovative urban development endeavor in the Netherlands. Newspaper reporters covering the study’s release described its findings as striking and unexpected. In a press interview given the day before the report’s official presentation, the researching ecologist in charge summarized the results in one short and seemingly innocent sentence: “Nature is makeable” (Daalder in Marijnissen 2009b; see also “Building outside...” 2009; Kropman 2009).

This surprising turn of phrase casting nature as a social product rather than a human precursor is not altogether unexpected from an academic point of view. Critical studies of nature-society relations by Raymond Williams (1996 [1972], 1975) and William Cronon (1995) among others have shown that people make many of the landscapes commonly believed to represent an Arcadian, pre-human wilderness. Related studies of nature and cities by Denis Cosgrove (1984) and Richard Walker (2007) to name a few have shown that ideas about what constitutes a natural landscape and pressure to protect seemingly natural environments historically emerged in tandem with urbanization. These kinds of studies expose the forgotten or suppressed links between people and nature, as well as the human hand in producing the wild. From this perspective, the Amsterdam ecologist’s claim that “nature is makeable” is hardly new.

Nevertheless, I assert that the growing expectation in planning and policy circles that nature is makeable is leading to innovative attempts to change the place and method of nature’s creation. First, with the myth of a pre-human nature falling by the wayside, some influential environmentalists and developers in the Netherlands are seeking to formalize nature creation as an explicit and overt land management objective. Second, instead of envisioning green urbanism either as a process of easing the negative environmental consequences associated with city building or of bringing nature back into the city after a century of attempted eradication, Amsterdam planners are testing new strategies aimed at turning cities into nature’s womb, or the place nature is born before radiating out into the countryside. Third, instead of making this nature directly through nurseries or total ecosystem construction, planners are instead attempting to use urban infrastructure to

⁶ The letter combination “IJ” in *IJssel* is pronounced like the vowel sound in *lay* in Australian or Cockney English (Donaldson 1996:3).

harness lake hydrology, mussel and fish biology, and avian optics so as to spontaneously create seemingly wild wetlands at a considerable distance from planners' hands.

These three elements – the intentionality, urbanity, and diffusivity of attempted nature production – distinguish this joint city-wetland development experiment from many other nature construction processes underway in the United States and England over the past two centuries. Taken together, this case study demonstrates an explicit attempt to harness the biophysical side-effects of infrastructure investment not only to generate the revenue streams and legal permissions needed to make wetlands and cities in tandem, but also to create the physical capabilities needed to bring such efforts to ecological fruition.

Methods overview and chapter outline

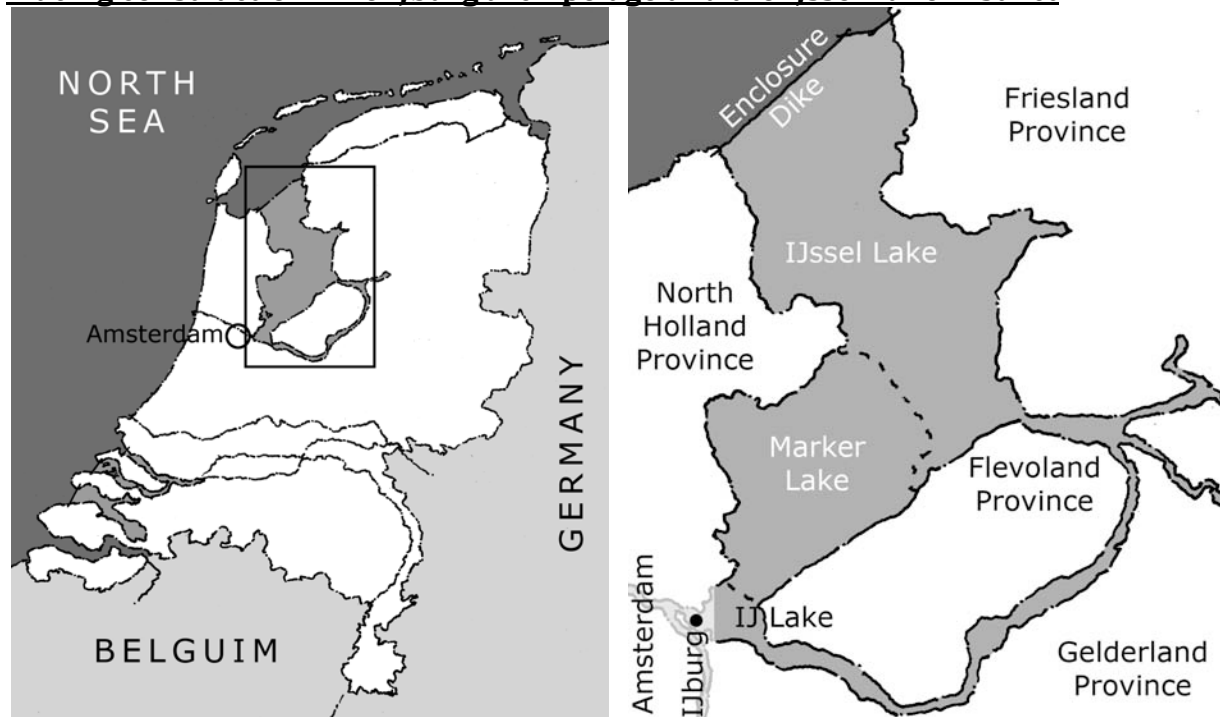
This chapter explores these changing urban and environmental strategies through a discussion of nature-making experiments underway in Amsterdam's IJburg neighborhood at the southern tip of the IJssel Lake District. Studying these dynamics in this location is especially apt because this still-under-construction archipelago and housing project has become something of an experimental garden in two senses. First, the IJburg archipelago is functioning as a test case in policy circles for the use of mega-scale residential infrastructure in nature restoration undertakings. Second, its development has become a means to uncover new strategies planners can use to loop non-human agencies into urban construction processes.

To trace these dynamics, I draw on the extensive written record that planners and environmentalists are leaving behind in the IJburg archipelago's design and construction wake. My analysis draws primarily on two pools of systematically collected resources, as well as on a spattering of other contextualizing information. First, I rely heavily on material collected from the IJburg Project Bureau, the agency set up to oversee the neighborhood's construction, and its governmental affiliates. An independent search for publically available records combined with in-person interviews with a few key people involved in the water and nature management aspects of the development yielded a wealth of government-generated reports, maps, directives, and brochures published since the mid-1990s, only some of which are directly referenced in this study. Second, I conducted a systematic newspaper search for reports, editorials, and interviews chronicling the project's political dimensions and investment objectives published between 1990 and 2010 in four leading Dutch-language newspapers of journalistic repute: the business-oriented *NRC Handelsblad*; the conservative *Trouw*; the left-leaning *de Volkskrant*, and the local daily *Het Parool*. To contextualize and evaluate these official and editorial materials, I draw on a collection of ecology-focused documents, including third-party assessments of lake history and health, studies of risks and opportunities associated with water-related regional economic development, and cautionary environmental lobby press statements advocating alternative visions of progress. Interviews with a half-dozen experts involved in the planning process or familiar with local development trends played a minor role in this study, directing my digging for the relevant artifacts and ruling out false starts.

Using these evidentiary sources, this chapter begins with a brief overview of the IJburg case study in question, followed by a look at how the explicit quest to make nature became such an important component in the archipelago's development context. Next, I take an in-depth look at two aspects of the neighborhood's planning and construction process: the nature framing devices that help construct the legal and market conditions

enabling urban expansion into the Lake District, and the use of nonhuman biophysical dynamics as agents in the physical construction process. I assert that both of these strategies intentionally and explicitly mobilize nature as an intermediary in the construction process in ways that past and contemporary green urbanism approaches have not. While it can be said that nature is always an intermediary in urban development, this case nonetheless suggests a shift away from long-dominant urban planning approaches that either seek to neutralize nature's ebbs and flows or that seek to incorporate its aesthetic attributes into a pre-formed and static environmental unit. Rather, this study shows how planners are instead working to mobilize the biophysical dynamism of water and aquaculture to build nature and cities downstream.

Placing construction: The IJburg archipelago and the IJssel Lake District



IJssel Lake District and its component parts and boundaries (maps by author, 2011)

The Physical Planning Department's release of the "IJburg: A Guest in Nature" environmental assessment report announcing nature's makeability in Amsterdam coincides with the midpoint of the IJburg archipelago's construction. Radio broadcasters that same year called this collection of artificial islands "one of the most ambitious urban projects to appear in the Netherlands in a generation" (Beauchemin 2009). The IJburg Project Bureau (*Projectbureau IJburg*) – which includes employees from the Physical Planning Department, as well as engineers, accountants, advertisers, and so on drawn from other municipal offices citywide – is orchestrating the development, laying out the ground surface and infrastructure before turning the prepared lots over to private housing contractors (Stadig 2005:27). Three islands of dredged sand are already complete. According to local journalists and planning officials, in the few short years since the first IJburg houses went on the market, the neighborhood has become "one of Amsterdam's most popular quarters" winning urban design awards and fetching stable sales prices

(Lange & Milanovic 2009; Steinmetz 2009). Construction on four additional islands is scheduled to begin in 2013 pending the successful outcome of a European Union court case reviewing the project's ecological performance. When complete, the projected 18,000 homes will house 45,000 people, or over half the total population currently living in Amsterdam's city center (Damen 2008b; Korte 2009; Zee 2009).



Aerial view of the IJburg archipelago nearing the completion of Phase I construction in the late 2000s (source: Physical Planning Department)

But IJburg is more than a mega-scale residential development. In environmental circles, the project has another distinction, as well. “The current and new islands lie in the middle of a protected European nature district” (Peters & Oppenhuizen 2009:7), the IJssel Lake District, which reporters and editorialists say is “the largest fresh water body in Western Europe” (Iedema 1996; see also Lieshout 2006b; Marijnissen 2009a). The IJssel Lake District is comprised of three jurisdictionally partitioned but physically contiguous lakes including IJ Lake, Marker Lake, and IJssel Lake. Environmentalists, anti-development watchdogs, and many public officials celebrate the region as an important bird sanctuary for Western Europe. According to national officials and government-funded analysts, the lakes are “one of the very few large fresh water districts in the temperate European climate zone that only freezes in the winter for a short period of time, if at all” (Marijnissen 2009a; see also Akker *et al.* 2006). As such, hundreds of thousands of northern birds breed here in cold months or stop off to feed on mussels and fish on their migratory journey to Africa. A loosely coordinated set of legal provisions confers some basic protections on the region. The portion of IJ Lake given over to the IJburg archipelago lies within the Netherlands’ National Ecological Network (*Ecologische Hoofdstructuur*), abuts a Natura-2000 European Union nature and biodiversity area, and falls under the jurisdiction of the 1971 Ramsar Convention on Wetlands of International Importance and the 1992 European Bird Directive (Akker *et al.* 2006).



Satellite image showing the Enclosure Dike preventing the currents from the North Sea from penetrating into the IJssel Lake District (Source: NASA)

Despite these provisions, a problem looms on the horizon. A deathly calm is said to be slowly settling over the water. Environmentalists and researchers warn that the lakes “are silting up into lifeless water” (Briët *et al.* 2009). The Wetlands in IJssel Lake Foundation published a series of reports in 2006 analyzing the predicament. Their findings show that the tidal waters which once flowed inland from the North Sea scouring grooves into bedrock no longer penetrate beyond the vast Enclosure Dike sea wall. As a result, sediment build-up is turning the lake base into a smooth, shallow, frying pan-like surface. The loss of grooves means the loss of habitat for mussels. Associated warmer water temperatures are negatively affecting fish populations, as well. Mussels and fish are the birds’ primary food source, and avian population counts are falling in turn. A low-grade, constant turbulence associated with the Enclosure Dike’s effect on hydrological currents in the area also leaves the water cloudy, making it difficult for birds to see their prey. And the Lake District’s exceptionally abrupt, man-made edges mean that there are few wetland buffers or marshy shores to stimulate ecological diversity. Because of these dynamics, the shorelines and skies are becoming “sterile” (Akker *et al.* 2006; see also Iedema 1996; Wetlands in... 2006).

Concerns over an impending environmental crisis in the IJssel Lake District are spurring calls to give nature a helping hand. Newspaper reporters describe the rise of unprecedented interest in the lakes’ ecological vitality (Schreuder 2008a). The director of the prominent environmental protection society Nature Monuments (*Natuurmonumenten*)

has advocated for the development of a “robust, spectacular, new nature” northeast of Amsterdam along the Lake District’s eastern shore (Green North Wing 2009). A second influential environmental organization, Friends of the Earth Netherlands (*Milieudefensie*), has likewise pressured government officials at the provincial and national level to invest money in a “massive ecological boost” commensurate with the lake’s exceptional scale, value, and vulnerability (Briët *et al.* 2009). Former State Secretary Tineke Huizinga of the Ministry of Transport, Public Works, and Water Management lent national credence to these endeavors by publically voicing her enthusiastic support for pleas to “take quick steps” to improve the lakes’ ecological health (Stegenga 2009). Many strategies are under discussion, but the vision gaining the most traction of late is to transform a portion of the Lake District into a National Water Park centered on a newly built 6,000-hectare marshy wetland expected to function as an ecological “beating heart” on a local, national, and continental scale (Green North Wing 2009; Stuart 2008).

The quest to make nature through the IJburg housing development

People make nature. But in contrast to 19th and 20th century expectations that this human production process had to be obscured or forgotten for the resulting product to carry emotional and political weight, this section explains how the IJburg planning team has set out to make nature generation an explicitly remembered and celebrated urban planning objective.

The history of the Lake District’s creation exemplifies some of the ways people have made nature in the distant past. Legend has it that, in the early Middle Ages, bogs, moors, and fens covered the land where the IJssel Lake District stands today. Farmers built drainage ditches and a few small, freshwater lakes across the region over about 600 years, and by the 12th century, most of the land was under cultivation. Then “the tragedies” began. Drainage caused the ground to subside while warming climates caused sea levels to rise. A series of devastating storm surges between the 13th and 15th centuries broke through dikes flooding the region many times over (Hoeksema 2006; Nienhuis 2010). In hyperbolized but commonplace accounts, these inundations are said to have covered up to 70 towns at a time, sweeping as many as 100,000 people and the land underneath them out to sea. This large agricultural area became an inland salt-water bay named the South Sea (*Zuider Zee*). Academic scholarship suggests these casualty tolls are heavily inflated by a factor of ten or more, but the legend of these floods’ destructiveness combined with the lasting material transformation of an agrarian landscape into an open seascape carries significant weight in Dutch political discourse. Much of this land was never reclaimed, not because technical knowledge was lacking, but purportedly because there were not enough people left alive to man the shovels.

This oceanic body existed until the early 20th century. After a 1916 storm surge broke through dozens of local dams, claiming lives and damaging property, national government officials oversaw the construction of the Enclosure Dike sea wall partitioning the inland bay off from the North Sea and Atlantic Ocean. The long-term objective at the time was to turn the inland side of the dike into dry land. Four large reclamation areas were completed by the 1970s when fiscal shortfalls and environmental concerns stalled momentum to finish the job (Eijsbergen *et al.* 2007). By then, rivers and rainfall had flushed the salt out of the remaining 1,800 square kilometers of open water now known as the

IJssel Lake District, and migratory birds feeding on the newly-arrived freshwater fish and mussels had colonized the lake.

This secondary account of the region's environmental history vividly illustrates that today's cherished avian habitat, the IJssel Lake District, is an inadvertent yet profoundly human-ish creation. Since the 1970s, however, a no-intervention policy has been in effect based on the premise that human activity in the area would only and inevitably cause environmental damage (see Sijmons 1997 for debate on this point). But with ecological decline accelerating despite the strict hands-off approach, and in the face of extensive lobbying from environmental, provincial, and urban development organizations pressuring government officials to allow wetland reconstruction and urban expansion in the lake area, the Ministry of Transport, Public Works, and Water Management agreed in 2009 to take "a first modest step" towards nature development in the Lake District. Their vision, stated only in the abstract at this point, is for a healthier and resilient district combining nature, leisure, safety, and economy objectives ("Blue Heart' wet..." 2008; "Cabinet chooses..." 2009; "Prospect for..." 2008; "Zeeland must..." 1997). The Lake District, which is still in a state of transition from past social activities, is once again becoming a likely target for explicit, large-scale intervention.

The IJburg housing project's troubled development history has functioned as something of a crucible for the emergence of these multi-faceted ecological objectives, a dynamic reflected in interviews that I conducted with assistant project manager Tamara Smit and engineer Edwin Meisner with the IJburg Project Bureau (Smit & Meisner 2010), as well as with policy advisor Geertjan Smits with the Nature Monuments environmental society (Smits 2010) and city ecologist Remco Daalder with the municipal Physical Planning Department (Daalder 2010b). According to them, concerns about the ecological ramifications of building in the Lake District have been in the air since the 1970s when municipal planners envisioned paving over IJ Lake entirely to build a Manhattan-style business center ten times the size of the IJburg archipelago's current proposed build-out. Despite the considerably scaled-back scope of the final archipelago design, environmental lobbyists vigorously opposed the development. The issue came to a head in March of 1997 when, on the eve of the start of construction, the Nature Monuments society organized a public awareness campaign opposing the project on the grounds that so large an urban extension into the already vulnerable lake would do irreparable ecological damage. In Smits' words, "in the beginning, Nature Monuments was furious about the city plan. There was no nature restoration, only houses" (Smits 2010). The controversy led to a citywide referendum requesting an end to the development plans. Nearly 60% of the quarter-million ballots cast opposed the project, but voter turnout was not high enough to make the election legally binding and so construction moved forward (Smit & Meisner 2010).

Sensing a hollow victory, municipal representatives sympathetic to the environmentalists' concerns worked to bridge the divide, and environmentalists with few options left at their disposal responded in kind. Planners and preservationists shook hands and joined forces. Three organizations, including the Physical Planning Department, Nature Monuments society, and North Holland Province, signed the ROM-IJ Lake Covenant and set up the IJ Lake Nature Development Fund with each agency committing €5 million to incorporate nature restoration into the neighborhood construction process (Daalder 2010b; Peters & Oppenhuizen 2009). It is this ecological aspect of new home construction that the Planning Department set out to study in its "IJburg: A Guest in Nature" report.

Their findings measure the changes in water quality and environmental diversity occurring in IJ Lake as a result of 15 years of island and housing construction off the lake's southern shore.

The planners' apparent desire to do ecological good raises the question of why it took a referendum to put nature improvement on the table in the first place. According to municipal ecologists, the vote accomplished more than announcing a public interest in environmentally sensitive urban development. "They (the municipal planners) needed a referendum because they didn't know they could make nature" (Daalder 2010b). In other words, without the vote, eco-conscious planners had little political cover to devote time and money to nature-related undertakings beyond those with immediate utility for the real estate industry. But the referendum's outcome changed the playing field, leading to an official commitment of funds and manpower to make ecology a primary issue of concern alongside the housing objective in the IJburg expansion project.

This strategy resonates with a growing expectation in academic circles that nature and society are inter-related and co-constructed. Raymond Williams' work on ideas of nature (1996 [1972]) and urban-rural relationships (1975) successfully challenged long-standing dualistic visions of a nature-society split and instead emphasized the human role in producing nature and the uses of nature in producing society. Williams' findings helped change the way critical environmental and urban theorists have conceptualized nature and cities ever since. William Cronon (1995), for instance, stirred up a constructive and lasting commotion with his essay showing that wilderness areas, which are among the most prized landscapes envisioned as pre-social spaces, are actually a socially created myth complete with the human-created material correlate of the depopulated wild. Nature is not purely cultural, to be sure, but a tremendous amount of human engineering goes into its production. Alexander Wilson (1992) and Maria Kaika (2005) among others likewise show that urban development occurs not through the expulsion of nature from cities as was commonly espoused throughout much of the 19th and 20th centuries but rather was achieved through a re-patterning of the forms and flows of material fodder in and through city infrastructure. These various studies not only illustrate that the long-dominant ideal of a romanticized, Arcadian, pre-human nature is untenable, but also that the social production of nature has been willfully ignored, obscured, and forgotten for nearly two centuries because, however untenable, notions of a dehumanized nature have been extremely useful in projects of capital expansion and political scapegoating.

The claim coming from the Amsterdam Physical Planning Department that nature is makeable, then, is in one sense unsurprising. People have been making nature for a long time. What is striking, however, is the blatant public acknowledgement of this fabrication process. Since the 1997 citywide referendum, the planning department has been on an official quest to "compensate nature" for urban expansion, and by 2009, ecologists were claiming success. But as planning department Alderman Duco Stadig noted, one vexing question remained: "Compensate water, how do you do that?" (Stadig in Nieuwenhuis nd).

The City as Nature's Womb

Patterning water, trees, and other seemingly natural elements has always been a central component of urban development. But in contrast both to attempts to expel nature from cities at the dawn of the 20th century and to rhetoric of bringing nature back into

urban centers at the century's close, this section explores how urban planners in Amsterdam are looking for ways to turn cities into nature's womb.

A photo of a bridge running overtop a shimmering blue water surface half-hidden behind a thick bed of reeds fills the cover of a booklet entitled *50X Outside!* The pages inside display photographs of babbling brooks, rocky coastlines, bobbing birds, and floating boats, as well as of people gazing contemplatively out over these watery landscapes. This cross between a guidebook and advertisement jointly produced by the Nature Monuments society and IJburg Project Bureau invites readers to "discover the nature around IJburg" (Peters & Oppenhuizen 2009). A series of resident profiles included in the booklet gives voice to the feel of water on Amsterdam's youngest islands. According to Ben Maas, "if you ask about IJburg, then water is the first thing I think of" (*ibid*:18). Blind resident Jean Poppes agrees, saying that the scent of water carried in the wind is a definitive and enjoyable characteristic of his neighborhood (*ibid*:43). Or in the words of Raymi Sambo, "you close your eyes, you hear the water sloshing," and it feels as though "the world lays right before you, just as though you were out at sea" (*ibid*:37). The book's authors go on to tout that you can stand on the end of a residential street and dive right into the lake (*ibid*:26).



New and restored vegetated shoreline buffers on and around the IJburg archipelago (photo courtesy of IJburg Project Bureau)

This gush of affection for water is somewhat surprising. According to IJburg assistant project manager Tamara Smit, wet nature is something that people never knew

they always wanted. As she explained to me in a 2010 interview, “water is of course one of the main elements in the whole plan,” but that does not mean residents intentionally come here for the water. In Smit’s eyes, people buying and renting homes in IJburg “have little choice in where to live.” They move here because newly built units are available and the rest of the city is full. “But once there, in satisfaction surveys, people want to live there because it is close to city, but also to enjoy nature and water.” Smit described this “closeness to water” as “one of the best features of the area” (Smit & Meisner 2010). IJburg landscape architect Dirk Sijmons, speaking in the *50X! Outside* brochure, would seem to concur. Although water is prevalent in the landscape across the whole of Amsterdam, in IJburg, he said, the air “smells really different than in the city: you feel the water in the wind” (Sijmons in Peters & Oppenhuizen 2009:61).

In an interview with Remco Daalder, one of eight or so City Ecologists in the Physical Planning Department and the author of the 1009 IJburg ecological assessment, he described the process of making water evocative for people as a two-pronged strategy. The first step, he said, was to make underwater nature visible. Lakebed grooves, mussels, and fish have ecological significance, but “you can’t see it. ... It is very important to have things people can see. Things people can enjoy. And then they love nature. Otherwise, they won’t love it” (Daalder 2010b). On IJburg, planners strove to make underwater nature visible – and in so doing to make water pleasurable – by pulling these grooves, mussels, and fish up onto the land and into the air. This meant cleaning the water and boosting fish counts near the shorelines so people could watch big cormorants swooping through the sky from their breakfast table window and so people could fish themselves from the front door of their five-story apartment buildings. It meant making beaches where people could walk their dogs, making streams where kids could sail little boats, making water safe enough for swimming, and making bridges high enough for ice skating (Smit & Meisner 2010). According to Daalder, “you don’t have that in the city. That’s why people live here” (Daalder 2010b).



Resident fishing in Polygon Canal on West Harbor Island, IJburg (Photo by author, 2010)

But making nature that creeps onto shorelines or that swoops past terraces is only part of the challenge of making water nature visible. The second step is to get people to

cognitively process these things as nature. On this front, Daalder says, “PR is 80% of the job” (Daalder 2010b). Press releases and public relations materials such as the *50X Outside!* municipal field guide play an important role. These awareness-raising materials identify water- and nature-related activities throughout the archipelago that are “perfect for a mid-day sail, lounge, stroll, or cycle” (Peters & Oppenhuizen 2009:8). The authors’ describe birds that, like humans, have a hard time finding homes in Amsterdam and so squat in whatever attic spaces they can find. They talk about sea creatures that sun themselves on rocks down the coast from beaches where people do the same thing. These upbeat stories use humor rather than science, prescribe short jaunts from front doors rather than extended hikes from trail heads, and emphasize water alongside parklands as a means of getting people to use their bodies in ways that stimulate the senses and make blue ecologies perceptible. These sorts of narratives, maps, and activities turn existing ecological webs into noticeable ones. All the better, Daalder says, if these stories lead to “a nice little article in a local magazine or a TV spot” that gets “people talking” and builds momentum for further rounds of nature investment (Daalder 2010b).

This process of making water into something experienced as nature is as much about turning people into nature lovers as it is about making nature, and these sorts of undertakings have legal and financial consequences that resonate with other past and present pro-environment urban development trends. The goal, of course, is to make “nature that sells” (Daalder 2010b). Using nature to sell residential property has a long history. Close-to-nature-ness was as significant a design and marketing consideration in Ebenezer Howard’s Garden Cities and Fredrick Law Olmstead’s streetcar suburbs as it is in today’s Green Design and Sustainable Planning movements. Creating the appearance of a seemingly wild nature in IJburg, like the making of New York City’s Central Park or Chicago’s vegetated Riverside suburb, turn the act of buying a house rather than leaving it for a camping trip into an act of ecological engagement (Calthorpe 1986; Heynen *et al.* 2007; Katz 1998; Wilson 1992). The emphasis on shorelines and aquatic ecology has the added advantage of capitalizing on the international magnetic pull of living on water today, a strategy that many provincial and national officials tout as a terrific boost to local and national economic competitiveness (Aarden 1997; “Blue heart beats...” 2008; Houtman 2000; “Prospect for...” 2008; Schreuder 2008b).

But here something different is happening, as well, a change that is bigger than the continuing use of nature amenities to sell housing via a shift in focus from green to blue or from rural to urban. As theorists such as Maria Kaika (2005), Matthew Gandy (2002), and Mike Davis (1999) explain, utopian visions of Urban Modernity in the United States and across Europe included an express drive to expel unruly rivers, forests, and animals from city spaces. Piped water, manicured lawns, and well-behaved pets took their place, the good humanized counterpart to the imagined bad pre-human nature. Today’s Green Design and Urban Sustainability rhetoric is often couched as the antithesis to this expulsion, or as an attempt to, among other things, bring nature back into the city in the form of restored streams, community gardens, nature boulevards, and so on (Keil & Graham 1998; Pinkham 2000; C Shaw 2004). Nature was never really absent, of course. But the planning paradigm under development in Amsterdam today nonetheless breaks ranks with both of these dominant urban development discourses. The urban nature development vision driving planners’ approach to nature in IJburg is neither a rhetoric of exclusion nor one of return.

Rather, the rising expectation is that cities can be made into nature's womb, or the place nature is born and from whence it repopulates a strained and distant countryside.

Some further examples will help make this point clear. For instance, municipal planners, government officials, and some environmental organizations are coming to see new housing starts as a way to create the revenue streams needed to restore nature. Ecologists say cleaning the IJssel Lake District will require a 6,000 hectare marshy wetland costing half a billion Euros, plus another three-hundred million to make a series of coastal reed beds. According to municipal planners, "no government will give so much money to make nature" (Daalder 2010b). Geertjan Smits of Nature Monuments agreed, saying, "if there is no building, the government will never spend that much for nature." But the cost "is peanuts" compared to the infrastructure expense of a new bridge, tunnel, or island associated with city building, "and so officials say, sure, throw it in" (Smits 2010). From this perspective, it appears that the only way to get the funds needed for nature investment on so large a scale as is required in this instance is if houses and roads are involved. Nature Monuments spokespeople have therefore broken ranks with other environmental preservationists to support future IJburg-style development in the Lake District so long as it comes with "free money" to substantially improve the lake's ecological quality and resiliency (Schreuder 2009a).

Similarly, successful nature preservation is key in securing legal permission for future rounds of urban expansion in this region. As environmental lobby spokespeople explain, the terms of the European Bird Directive, for example, make it illegal to lower the lake's ecological quality. "It is only possible to build here if you first raise the quality level above the standard, then with building, let it drop back down to the acceptable level" (Smits 2010; see also Schreuder 2008b). Concerns about the negative side effects of housing production, as well as the adoption of more stringent European Union environmental standards in 2005, have already stalled progress on IJburg's second phase of construction, which is currently undergoing extensive review in European courts. For developers envisioning a city in the vastness of the IJssel Lakes, nature investment is a necessary step to open their desired building site up for business.

Moreover, if developers could demonstrate that city infrastructure enabled nature improvement and that ecological health emerged from shorelines rather than open lake areas or parklands, then they could make the case that island construction should proceed for environmental reasons and that "if there are houses on the islands, it doesn't matter" (Daalder 2010b; see also Wetlands in... 2007:14). These sorts of questions lie at the heart of the 2009 IJburg environmental assessment report and, as the following section will demonstrate, are leading directly to some novel urban development methods in the Amsterdam Planning Department.

Take together, these financial, legal, and ideological framing devices suggest that urban expansion ought to take the lead in wetland mitigation efforts. The financial utility of these nature-making undertakings is undeniable and continues a long history of using nature to sell commodities, but the ecological potential of such undertakings is seen as no less significant by virtue of its profitability. Through these practices, it is said, the avian nature dying off today can be reborn from the urban heartland to repopulate national and continental skies.

Mobilizing hydrology in the construction process

City ecologists are using awareness campaigns and urban development revenue streams to push IJssel Lake District wetland construction forward, but the question of how planners can physically put these resources and processes to work to compensate nature for urban expansion still requires explication. Developers have always used natural inputs to make revenue-generating residential aesthetics and amenities. But these processes have often been imagined as top-down constructions of fully complete (if not yet fully matured) designed environments. This conceptualization screens the role of nature in the production process from view. In this section, I move beyond questions of nature reorganization as a medium of ambience- and profit-making to focus instead on an innovative search for strategies that can recruit hydrological, biophysical, and optical forces into indirect wetland and urban construction processes. Instead of trying to unroll a complete ecosystem as a whole, I explain how IJburg archipelago planners have self-consciously attempted to set a chain of events in motion so that urban design can make nature make itself and, in so doing, create the afore-mentioned institutional conditions for continued urban expansion.

In the planning department's quest to compensate water for urban expansion, the Hoeckelings Dam was one of the first experiments that the IJburg planning team implemented. This 1.6-kilometer, sandbar-like dam runs parallel to the IJ Lake's northern shore a few kilometers from the IJburg archipelago construction site. Municipal planners explained the thinking behind the Hoeckelings Dam design in an undated promotional booklet published in the mid-2000s. The dam's above-water surface is meant to function as an avian rookery. The underwater portion of the dam runs parallel to the coast and shelters the water near the shore from the constant, low-grade lake turbulence. In the words of one of the city ecologists contributing to this booklet, "we hope that water plants will grow in the sheltered water area between (the Hoeckelings) dam and (the hard shoreline) dike."



Hoeckelings Dam shortly after construction (photo courtesy of IJburg Project Bureau, 2007)

Then the water will become clearer and fish can use this area as a breeding ground” (Daalder in Nieuwenhuis nd). He goes on to say that, with cleaner water and more plants and fish, it is easier for birds to find a tasty snack. IJburg Project Manager Herman Groot concurs, describing this landscape experiment as an attempt to make “space for spontaneous nature development. ... Yeah, it looks a bit like you are playing god. But nature is dynamic. ... We only created the conditions for new nature, and these were surprisingly well picked up by nature itself” (Groot in Nieuwenhuis nd).

That was the design vision. And after four years of construction consuming 900,000 cubic meters of sand, 38,000 tons of stone, and €10.5 million, municipal planners touted Hoeckelings Dam as an immediate success from a bird’s perspective. As planning department public relations materials explained, “already in the first year that the dam stood above water, Common Terns settled there in a large breeding colony.” Black-Headed Gulls, Mediterranean Gulls, three types of Plovers, several Avocets, and the first pair of Little Terns known to nest in Amsterdam joined these 800 tern breeding pairs. The result is “a real bird paradise” in keeping with the European legal vision of the lakes’ international ecological value. The dam is a boon to birdwatchers, as well, because all the breeding pairs are rare in the Amsterdam region (Daalder in Nieuwenhuis nd; see also Lange & Milanovic 2009).

The development team set out to achieve the same types of ecological gains through their designs for the IJburg archipelago proper. City ecologist Remco Daalder explained the strategy to me in 2010. The first step was to decide what kind of nature to make. The answer for the municipal planning office was unquestionably to make nature that sells, which in their eyes meant nature that looked wild. The landscape architects involved did not want people to see nature here as just another well-manicured urban park, but rather they wanted to create a genuine, self-generative landscape that made people think, “this is real!” (Daalder 2010b).

Once planners settled on this vision, ecologists had to figure out how to make it, and they decided to start with water. The charge to design water in the late-1990s was a big undertaking. According to an editor at with the national, business-oriented *NRC Handelsblad* newspaper, “we’re not used to designing water in the Netherlands. Designing land is more like it, and we’ve been doing that with mathematical precision from way back” (M Rooy 1997). Water history professor Gerard van de Ven expressed a similar sentiment, saying Holland has “a fine-grained network of hundreds of different water levels” along with systems of pumps and overflows that “accurately regulate the water level down to the smallest ditch” (Banning 2003). But in contrast to these water management practices of the past, the IJburg archipelago project team shifted focus from managing water in a terrestrial setting to designing water as the primary object. They did so because, with a strong aquatic ecosystem as a starting point, it seemed like it would be easy to pull nature that people could see up into the air.

IJburg architect and project leader Frits Palmboom explained some of the water design innovations his team devised in a 1997 press interview on the cusp of the citywide referendum that nearly curtailed the project’s construction. Instead of building one large island as was originally planned, they broke the development into several smaller islands to maximize the length of the shoreline. Then by placing the islands close together, the narrow channels could accelerate water currents between the banks. The quickened movement prevents alga growth and creates grooves in the lakebed that mussels can grip.

Similarly, marshy inner waterways traverse the islands and break the landmasses up even further. Reed beds planted along the shores help wild water plants take root. These plants calm turbulence and filter sediment, which makes the water clean and helps birds see their underwater prey (M Rooy 1997; Kuiken 2010; Marijnissen 2009c; Smit & Meisner 2010). These shoreline configurations mobilize lake currents and sediment carrying capacities, plant and mussel growth patterns, and acute avian eyesight capabilities in the physical process of producing the nature ecologies that laws mandate, consumers admire, and ecologists desire.



Green Tunnel (Groenetunnel) canal on West Harbor Island, IJburg (Photo by author, 2010)

The use of nature as an intermediary in this kind of construction process is different than the methods used to construct similar nature-like spaces such as the urban parks and suburban retreats of the 19th and 20th century. Matthew Gandy (2002), for instance, has described the painstakingly detailed process of razing woods, planting saplings, and arranging stones to create New York City's Central Park. Robert Fishman (1989), Alexander Wilson (1992), and Peter Calthorpe (1986) likewise describe the precise and detailed landscape patterning associated with turn-of-the-century suburbanization in England and the United States, as well as the strict maintenance procedures outlined in neighborhood ordinances and property deeds. In these examples, planners and contractors mapped out and physically inserted each boulder, trench, tree, and blade of grass with the goal of creating a fully formed if not yet fully matured ecological landscape object. IJburg housing planners in Amsterdam could have used this object-based approach by planting the preferred water plants directly, releasing farmed fish into the lakes, or importing birds from other locations to bolster breeding activity. But planners instead attempted to shape a base terrain of action encased in the urban infrastructure defining the islands' footprint that would set spontaneous hydrological and biological chains of events in motion to create the desired bodies of birds several steps removed from the planners' hands.

This emphasis on events rather than objects, and on distributed action rather than single-stroke creation, resonates with emerging theories of distributed action in Science

and Technology Studies literature. Timothy Mitchell's essay on the Aswan Dam, for instance, shows that engineering products such as dams are not simple materializations of predetermined mathematical constructs but rather are contingent constellations of construction, erosion, thermal stress, silt accumulation, seepage, evaporation, and insects (Mitchell 2002). And in addition to the desired river regulation objectives, the Aswan Dam created unexpected famine and disease ecologies, as well as dependence on geopolitically sensitive agricultural inputs and financial streams. In contrast to Promethean ideals of the scientist as master of the universe, these findings emphasize that human capacities to act in the world are dependent on distributed, extra-human forces, which shape possibilities for knowledge and influence, and which proliferate effects. Mitchell's forceful discussion of the role non-human entities play in producing political and material realities challenges expectations that engineers can ever exert total, top-down control, and these insights serve as a warning of unexpected and potentially hazardous consequences of acting as though such control were possible.

But as with all knowledge and despite the warning overtones, these types of investigations into the non-human intermediaries of social life create new potential for action, as well. Donna Haraway's analysis of human-animal interactions, for instance, is especially sensitive to this generative potential (Haraway 2008). Her account reads as sympathetic to concerns of unexpected and potentially disastrous consequences associated with Promethean scientific undertakings. But she nonetheless reminds theorists that the ability to accommodate and channel non-human attributes and behaviors – for instance by custom-fitting special cameras to sea creature's unique body shapes or by mimicking the sounds and motions of a gorilla under observation – can enhance knowledge generation and scientific capacities to act. Accommodation need not imply mastery. Rather, as was the case in the IJburg Archipelago, planners' manipulation of a hydrological terrain of action established physical parameters such that the free play of hydrology, biology, and optics would seemingly spontaneously lead to the desired avian-repopulation end without requiring direct, brute force intervention into plant and bird reproductive cycles.⁷

Twelve years into the IJburg construction process, with three islands nearly complete and four left to go, the Physical Planning Department published their remarkable finding that, when done right, large-scale housing development in cherished and fragile aquatic nature reserves is good for the environment (Daalder 2010a). The IJburg environmental assessment report listed several of the benefits to nature through new home construction in IJ Lake. More plants and animals live in the area today than was the case when the project began. Fish diversity has expanded. The number of grass snakes has increased. Water quality has improved. This report asserts not only that nature is makeable in a general and haphazard sense, but also that people can make specific types of aquatic properties and life forms depending on the plants and edge shapes used (Marijnissen 2009c). Suddenly, the IJburg neighborhood, which only months before was still getting negative press from environmental lobbyists, has become a celebrated aquatic nature

⁷ I take this language of "terrains of action" and "free play of desire" from Foucault's work on governmentality (2007[1978]). Although Foucault developed these concepts through his explorations of social control, they aptly describe the planning mentality at work in IJburg archipelago planning initiatives to noninvasively yet decisively direct non-human, ecological processes, as well.

boulevard prototype that municipal ecologists hope to recreate on a grander scale to restore environmental vitality to the entire IJssel Lake District (Breunissen 2007; “Building outside...” 2009; Marijnissen 2009c).

In addition to making birds and fish, IJburg archipelago ecologists are making knowledge and setting expectations about the extent to which city builders can and should engineer ecosystems. The Lake District’s history shows that people can make ecologically valued freshwater lakes and bird breeding grounds by accident. And IJburg planners hope to show that people can also make spaces for spontaneous nature development on purpose and through city building. The real success in municipal ecologists’ eyes has less to do with the raw number of fish or snakes and more to do with precedent. In addition to being a nature restoration undertaking, the IJburg housing project is now seen as an experimental garden (Daalder 2010b; Marijnissen 2009c; Timar 2010). In this big nature development laboratory, practitioners are learning new ways to harness biophysical dynamics to carry their design interventions out into the world on the unencumbered backs of current flows, plant growth, light refraction, children’s play, afternoon walks, and court proceedings. This use of the natural world as a construction intermediary in the IJssel Lake District, in combination with the mobilization of nature-enframing devices, is successfully creating a legal and market terrain of action wherein the desirability of cultivating combined nature-housing starts seems self-evident.

Planning by Intermediaries

This chapter has explored the way theories of nature-society interdependency and distributed agency, many of which were developed as a warning against human hubris, are changing the way municipal planners in Amsterdam are approaching urban development tasks. The IJburg archipelago mega-housing construction project off the northeastern shores of Amsterdam has become a nature development laboratory of sorts.

Their efforts and successes add a twist to many past and contemporary green urbanism development strategies. Instead of envisioning nature as something needing to be re-imported into urban spaces from the rural hinterlands or the subterranean culverts, IJburg planners are working to turn city infrastructure into the place where nature is born before migrating out into the local and continental countryside. And instead of trying to midwife these nature elements directly through fisheries, nurseries, or total ecosystem construction in one fell swoop, planners are instead looking for infrastructural construction methods that activate latent hydrology, biology, and optical potentialities that can then spontaneously create vibrant ecosystems of their own accord. If successful, these methods have the potential to seemingly spontaneously generate bird bodies flying through the air, nature lovers walking through the streets, and legally sanctioned and popularly supported investment opportunities within cherished ecological landscapes.

These dynamics resonate with theoretical recent insights in academic circles that people make nature. But instead of intentionally obfuscating these production histories so as to naturalize the ideas of nature produced, planners, developers, and environmentalists have no intention of forgetting this construction history. Instead, spokespeople from these groups are wholeheartedly embracing the concept of nature’s makeability so as to subvert previous no-intervention policies and to open the political door to wetland restoration and urban expansion in the ecologically cherished but struggling IJssel Lake District.

The epistemic exposure of diffuse agency and human-nonhuman connectivity in Geography and Science and Technology Studies was intended as a warning against hubris. But in Amsterdam planning circles, these types of insights also suggest ways to widen planners' reach via explicit attempts to loop lake currents, plant filtration, fish lifecycles, and so on, into urbanization processes. Visionaries hope to use the seemingly natural desires of these entities and forces to convey action beyond the shovels and seedlings initially defining new shorelines in order to make birds, cities, and money downstream. Planning has always involved intermediaries, to be sure, even when their presence was staunchly denied in ideological terms. But as continued ignorance becomes untenable, rather than abandoning dreams of mega-scale development, some planners are choosing to tap into these diffuse networks with the aspiration of making continued urban expansion beneficial not only in legal and financial terms but by court mandated and market supported ecological measures, as well. In this pro-nature development matrix, and alongside the demonstrable gains to an endangered ecosystem, the opportunity cost of doing nature differently remains unknown. But in a country where cities are thought to be bursting at the seams, and where other lake environmental protection measures are said to have had little success, this new brand of wetland urbanism may well be one of the best ideas that policy makers have to work with.

“MAKE ROOM FOR WATER”

Urban Expansion in a Warmer, Wetter World

In January 2008, the National Public Radio website hosted an online interactive graphic entitled “Rising Temperatures, Disappearing Coastlines” (NPR 2008; see also CBS Statistics Netherlands 2009; flood.firetree.net). The web portal included half a dozen maps combining Google Earth imagery with NASA topographic databases. Online users could click a Play button and watch coastal areas turn red to indicate land areas likely to fall below sea level in the coming decades. In the map of northwest Europe, red skirted the edges of France, England, and Norway, but deeply penetrated Denmark and nearly engulfed the Netherlands. These kinds of simulations may actually understate flood risks because increased rainfall and river flooding is not taken into account, and this type of threat is especially significant in delta regions like Holland where rivers meet the sea.

But at the same time, the projections do not reflect potential flood mitigation measures, which could be considerable in a place like the Netherlands where over half of the total land area already lies below sea level. The topography of the Netherlands belies an engineered landscape of near Promethean proportions. Although this small country extends only about 300 kilometers in its longest dimension, an estimated 100,000 kilometers of coastline with hundreds of carefully managed and monitored water levels criss-cross the landscape. Dams, dikes, mounded earth, drainage ditches, and pumping stations have all been built to solidify the boundary between water and land, separating sea from soil and holding both in their respective and non-overlapping places. Government officials boast of this topography as an engineering marvel, the envy of the world, and a technological triumph over the whims and hazards of water.

It is perhaps unsurprising, then, that despite the vast swaths of red protected to inundate the Netherlands as atmospheric temperatures rise, many Dutch politicians hope their water experts will be able to engineer the nation out of harms way. But, these engineering approaches premised of building walls to make impenetrable barriers dividing water from land are not expected to be sufficient to accommodate the heightened flood risks associated with 21st century climate change. And so rather than only trying to keep Holland dry, the cornerstone of the national government’s global warming adaptation plan instead involves extensive “de-reclamation” (*ontpoldering*), or intentionally giving large swaths of the countryside back to the sea.

Contracting the nation’s soil footprint in this way in one of Europe’s most densely populated regions would seem a likely cause of concern urban investors looking for new city building opportunities. Instead, however, many market analysts have come to see this extensive land-use reconfiguration as a means to acquire the square footage needed for continued urban expansion. Politicians may be ceding ground, but they are not yielding territory. Innovative architects are already preparing to turn these newly created lakes and wetlands into sites for mega-scale amphibian and floating housing enclaves. In these spaces, the dividing line between land and water will no longer be fixed at the national

border or the river's walled edge, but rather will fluctuate, sometimes lapping at the edges of back yards, sometimes lifting living rooms up off the earth, and sometimes receding from sight entirely.

These land use and building technology reforms, if successful, will supposedly turn the largest physical threat facing the Netherlands, as well as other prominent cities worldwide, into one of the most profitable urban development paradigms of the next hundred years. As this chapter explains, the re-conceptualization of water as a buildable terrain – without requiring infill and without having to be locked in place – unlocks flood planes, farmland, and low lying areas from development restrictions, making them instead read as logical places for urbanization.

Methods overview and chapter outline

In this chapter, I use discourse analysis to probe the links between climate change, hydrological risk, and infrastructure development. I base my analysis on press materials, government documents, and interest group paraphernalia from two primary sources. First, I draw heavily on a systematic review of cabinet-level public speeches, press releases, policy reports, and promotional videos prepared between 2000 and 2010 by the national Ministry of Transport, Public Works, and Water Management (*Verkeer en Waterstaat*). I pay special attention to documents that explicitly reference water management, land use, and global warming considerations. These materials target a wide range of audiences, including domestic voters and taxpayers, municipal planners, local and international development experts, and foreign dignitaries. Second, I draw heavily on newspaper archives from many Dutch and English language sources, especially on reports and editorials published in *de Volkskrant* newspaper where, perhaps because of the paper's left-leaning tendencies and wide national readership, water-related policy discussions have received extensive coverage over the past decade.

To contextualize and evaluate these accounts, I draw on several additional documents from other governmental and third-party agencies, including the Ministry of Housing, Spatial Planning, and the Environment, as well as the Living with Water Foundation, Royal Institute of Dutch Architects, Rathenau Institute, UNESCO-IHE Institute for Water Education, Amsterdam Municipal Department of Inland Waterway Management, and Amsterdam's water management contractor Waternet. I also make incidental use of secondary academic histories of culture and geology, and I incorporate insights gleaned from informal conversations with university-affiliated experts and water board representatives as noted.

I read these sources for evidence of the political-ecological frames of reference that government officials in recent years have used to naturalize some climate change approaches over others, and which in turn help shape building investment strategies in Amsterdam, its neighboring cities, and their potentially-developable agricultural and ecological hinterlands.

Questions of money and risk are central to this study. Economic dynamics associated with real estate, market competition, and growth stabilization are a continuous thread throughout this analysis. But for the purposes of this chapter, I emphasize a set of national government discourses helping shape investment frameworks and leave detailed analysis of associated market responses to these sorts of frameworks for the following chapters probing related development paradigms that have progressed farther into the

implementation phase. In this analysis of government influence in economic processes, I approach political authority as something generated through references to profitability, topography, opportunity, and calamity. Similarly, I pay special attention to questions of risk and opportunity as conditions that are jointly produced through human and nonhuman dynamics. This approach means dissolving floods and dams as aquatic, thing-like events intelligible on their own terms and examining them instead as stakes of dispute and opportunities to govern. Moreover, in emphasizing politics, I do not intend to discount the biophysical reality of hydrological processes. Rather, I aim to foreground how matter takes shape through rhetoric of history, identity, and biophysicality.

In what follows, I begin with a descriptive overview of Floating City experiments currently underway in Amsterdam and its expanded metropolitan region. I then situate these city-building explorations in relation to cabinet-level initiatives to change water management approaches nation-wide by expanding floodplains and encouraging water-resilient housing instead of banning flood water from neighborhoods outright. I then review the jointly social and natural processes giving rise to flood risks, industry innovations, and land reorganizations, and explain the political payoff of discursively recasting these dynamics as biophysically inevitable. In so doing, I show how people are reworking the land-water divide so as to mobilize hydrology in campaigns to garner the technical and political authority needed to create urban investment opportunities that hedge off market destabilization.

Floating Cities in the Netherlands

In 2004, contractors working for the company Dura Vermeer began construction on 46 homes in Maasbommel, a tiny riverfront town about 100 kilometers south of Amsterdam. Although this strip of homes was a comparatively small undertaking for the company in terms of project size, it has netted Dura Vermeer considerable international media attention ever since. A string of feature stories published in the *New York Times* (Edidin 2005; Lyall 2007), the *Guardian* (Glancey 2004), and *Der Spiegel* ("Dutch Answer to..." 2005), as well as aired on National Public Radio (Palca 2008), follow reporters knocking on doors, talking with residents, and touring premises. In these reports, the homes come across as well-appointed if fairly typical single-family houses. But each home has a remarkable feature that is the object of so much media attention. About 70% of the houses are Amphibious. They are built on hollow platform foundations anchored to vertical steel posts, a mechanical arrangement that allows the homes to rise up off the earth and float on water up to 5 meters deep. The other 30% of the houses float fulltime overtop property parcels laid out across a sheltered recreational area in the Meuse (*Maas*) River. According to company spokespeople, these engineering experiments with Amphibious and Floating architecture will keep homes and residents along this riverbank safe from periodic flooding and, even more significantly, will help the firm develop the technological knowhow to build secure, weather-resistant houses and cities in flood-prone regions as a routine part of their business operations.

The engineering success and popular interest in Maasbommel floating architecture lends credibility to another Dura Vermeer planning concept: The Floating City (*de Drijvende Stad*). Sketches of the Floating City have undergone several iterations since company employees began kicking the idea around in the mid-1990s. One ambitious and widely circulated rendition envisions a new town of 12,000 people on Amsterdam's outskirts near

the international airport. Idealized computer renderings of the design scheme depict a radial layout with individual houses and agrarian greenhouses streaming out from a consolidated town center with schools, shops, and transportation hubs all bobbing serenely on unseen, buoyant platforms in a sparkling sea of blue. Like the Ebenezer Howard Garden City designs of the late 1800s or the many New Urbanism plans *en vogue* in recent years, this Floating City for Amsterdam is envisioned as a nucleated “Capital Town” – rather than an industrial metropolis – set in an ecological paradise buffering it from unwanted congestion, pollution, and noise. This Floating City design remains confined to the drawing board for now, but its advocates assert that this urban planning vision, and others like it, embody the “Water Landscape of the Future” (Edidin 2005; Dura Vermeer nd a, nd b).



Amphibian houses at Maasbommel (left) and a computer rendering of the Floating City design concept (right) (Source: Dura Vermeer)

While floating cities carry the air of novelty, urban development in watery locales is nothing new, and Amsterdam city planners have extensive experience with these sorts of projects. According to local boosters and architects, Amsterdam is “the most watery city in the world” (Amsterdam.info nd). Whether or not this global comparison is strictly accurate, with its harbor and canals, an impressive 24% of the city’s surface area is liquid. The ground underneath Amsterdam’s brick-paved streets and narrow buildings was once mostly marshes and inland lakes. After 700 years of reclamation, the topography is now comprised of about 90 man-made islands, 250 bridges, 20 locks, and 100 kilometers of canals. These measures, dramatic though they are, in some ways understate water’s presence. Although the ground looks solid at first glance, central city homes and businesses stand on a forest of poles extending 15 meters downward from building foundations through a thick liquid layer of groundwater before finding a bed of sand stable enough to support a structure. Networks of dikes, canals, locks, and pumps anchor this landscape in place. These devices hold the soil, water, and houses in their designated, polarized spaces and give Amsterdam its characteristic form, charm, and distinctiveness (BNA nd b; BBA 2007:5; Frankfurter 2000). The result is the appearance of a perfectly poised and unchanging topography, as though water were merely lapping around the edges.

This placid surface conceals tremendous undercurrents of social activity. In the words of Petra van Dam, Chair of Water History at the Free University in Amsterdam, “it

takes an intense level of human interference to keep the city as it is, not even including city beautification” (Dam 2009). Living and working in Amsterdam, Professor Van Dam sees evidence of this labor on a daily basis in her own back yard. Her garden is slowly sinking. The foundations of her house become more visible with each passing year as the soil surrounding them recedes into the aquifer. Subsidence is the biggest immediate hydrological threat citywide. Amsterdam sinks between three and five millimeters every year. This pace of change is less than half the national average of one meter per century, but is still more than enough to require perpetual maintenance. As the height differential between topsoil and groundwater decreases, the infiltration pressure water exerts on dry land climbs. To reduce this pressure and keep groundwater at bay, mechanical pumps expel the constantly seeping water back into walled-off canals and lakes. Van Dam is fascinated by the thought of how quickly Holland’s capital would disappear under water if, one day, the pumps stopped pumping and the walls weren’t mended. “Three years, maybe? Just a guess” (Dam 2009; see also Lambert 1985; Waternet 2007).

Notions that people could build homes, roads, and marketplaces on buoyant foundations that circumvent the need to forcibly separate water from land or anchor buildings in place could dramatically change the way planners build future neighborhoods in Amsterdam and elsewhere. Instead of constantly pushing water into confined rivulets or depositing soil layers to build up terrestrial islands, planners could instead construct entire neighborhoods overtop the water without the bother of making land underneath. Design proposals and experimental pilot projects in floating infrastructure construction are changing the frameworks investors use to evaluate where future neighborhoods might be buildable, turning lakes, rivers, and harbors into the potential fluid foundations for tomorrow’s urban expansions. Moreover, potential floating home locations need not be confined to places where water already exists. Given the costs associated with reclamation and pumping, as well as the high market premiums associated with water-oriented housing today (Luttik 2000), many architects and developers are making plans to flood dry land so they can build island, amphibian, or floating homes overtop aquatically-erased *tabula rasa* sites.



Floating Homes in Amsterdam’s IJburg Archipelago (left, photo by author, 2010), and computer rendering of a floating apartment complex in Waterstudio’s New Water project (right, source: Waterstudio)

Many companies are avidly pursuing such strategies nationwide, experimenting with one or another technology at a time. Architect Jan Timmer and City Councilmen Wim Haasken, for instance, tested the technical and political feasibility of de-reclamation for



Floating home locations nationwide (Map by author based on data from Schuwer 2007 & V&W 2005)

urban development near the Netherlands' northeastern border with their construction of the Blue City (*Blauwe Stad*). After overcoming several planning hurdles, the Netherlands' monarch Queen Beatrix presided over the ceremonial turning on of a faucet in 2005. In the ensuing months, the water flowing through this and other taps turned so-called surplus

agricultural land into an 800-hectre bathtub lake surrounding 1,400 houses distributed across 75 freshly built artificial islands (“Blue City floats...” 2005; Schoof 2005). Although these homes stand on solid ground, the lake creation component of the project has become an important benchmark for similar de-reclamation enterprises under consideration elsewhere in the Netherlands.

Since then, other companies and agencies have begun testing the technology and marketing potential for floating homes as sub-components in larger neighborhood construction undertakings. The amphibian or swimming communities completed to date are mostly small in scale and distributed around the country. The first official, permanently inhabited floating homes in the Netherlands⁸ – 7 homes in all – were built in the town of Leeuwarden in 2004. A handful of other projects have followed since, with 19 floating houses entering construction in Amsterdam’s fledgling sister city Almere in 2008, 14 floating houses for sale in Utrecht by the end of 2009, and 73 floating homes on the market or already sold in Amsterdam’s IJburg neighborhood by 2010 (Huijsmans 2007; “Living on water...” nd; Schuwer 2007; “Water houses to...” nd). Plus, of course, Dura Vermeer’s 46 much-publicized Amphibian and Floating homes in Maasbommel.

What these projects lack in size, their boosters make up for in vision with promises of entire floating cities soon to come. For instance, in a cross between a serious development proposal and a sales gimmick, the company Dutch Docklands in 2007 proposed constructing a Floating City with 60,000 homes between 2012 and 2016 on IJ Lake near Amsterdam’s northeastern edge (Dutch Docklands 2007). The architectural firm Waterstudio launched their more serious New Water project in 2008 with the announcement that they would submerge 23 hectares of former marshland outside The Hague in 2010 in order to construct a 75,000 cubic meter water storage area with 1,200 floating homes overtop (Metz 2009; Tienhooven 2008). The company DeltaSync likewise hopes to build 1,300 floating houses and highways in Rotterdam on large blocks of polystyrene foam, the first piece of which – a small-scale exhibition project – was tugged into place one overcast day in May 2010 in partnership with the Rotterdam-based firm Public Domain Architects (Kanter 2009; RTV 2010). Not to mention Dura Vermeer’s 12,000 person Floating City plan for a site near the Amsterdam airport.

Although city-scale plans for development of this magnitude remain in the design or some might say dream stage, the pressure to cut these experiments loose and make full-fledged floating cities is mounting. Developers talk of these scattered projects as the tip of a growing research and development agenda laying the groundwork (or eliminate it as the case may be) for a new urban planning paradigm: the floating metropolis, functioning as a physical and economic life raft for a safe and prosperous national populace.

The Make Room for Water campaigns

Images of kids playing on a beach flash across the screen. The children scoop sand with plastic buckets to create miniature walls and drainage ditches lining the coast. No castle lies inside these walls. They protected only a wide, flat mound of dirt lying in wait for future development. The film then cuts to footage of professional engineers at computer stations designing the excavator machinery, windmill arrays, and high-tech dikes that

⁸ Since houseboats have traditionally been classified as temporary rather than permanent structures, they are not included in this official tally of floating homes.

stand like sentinels along the Netherlands' shore. This is just part of the army defining and defending the national border, a task customarily achieved by separating land from sea. Within the barriers lies the nation: towns, pastures, and fairways on reclaimed land with water lapping demurely against back gardens and sidewalk curbs. The voiceover informs viewers that this is Holland, a land protected by strong border defenses but soon to be made even more healthy and prosperous as calm waters once banished begin to rehydrate the national heartland. And in case anyone doubts the importance of these border operations, video clips of New Orleans under water are interspersed with tranquil scenes of the Dutch homeland (V&W 2008a).

These images were part of a promotional video released in June 2008 by the Ministry of Transport, Public Works, and Water Management (*Verkeer en Waterstaat*), one of thirteen ministries within the national government and the agency whose leaders have been spearheading campaigns to expand the country's water storage capacity since the late 1990s.⁹ According to this video, as well as over a hundred other official public statements and press releases issued between 2000 and 2010, water management in the Netherlands is an issue of national importance. "Three-quarters of our land," including most of the national capital, "lies below sea level;" half of the nation's total acreage is comprised of land reclaimed from the sea floor, and "about 65% of the Gross National Product is earned there" (V&W 2008a). Public remarks issued by ministry State Secretaries underscore this point. "Without our dams, dikes, and dunes, two-thirds of our country would regularly lie under water" (Huizinga 2008i; see also PBL 2010). About 100,000 kilometers of coastline criss-cross this nation, organized into "a fine-grained network of hundreds of different water levels" with "monitoring stations, pumps, windmills, and drains" that "precisely regulate the water level in even the smallest ditch" (Banning 2003; see also Helm 1994). These statistics – which some global warming skeptics dispute (Kievit 2010) – are sources of pride for many ministry officials.

Whereas subsidence is the most significant hydrological danger facing Amsterdam, flooding is the primary national concern both in the past and projected future. According to Crown Prince Willem-Alexander – affectionately dubbed "the Water Prince" and an internationally recognized water expert with the United Nations – "flooding is far and away the biggest risk threatening the Netherlands. It is a hundred times bigger than the chance of a terrorist attack, avian flu epidemic, tunnel failure, and all other such incidents combined" (Zonderop 2007; see also Andersson 2009; Heems 2006; Hoove 2006; Koelewijn & Thie 2008). Legends of dreadful inundations abound: the St. Lucia's flood of 1287, the St. Elizabeth Flood of 1421, and the All Saints Day Flood of 1570. When speaking off-the-cuff, people say these hydrological incidents killed more people than the plague. Many pop-culture sources wildly inflate death tolls by up to 4,000% (*e.g.*, Scientific American Supplement nd; Wikipedia nd), a phenomenon that bespeaks the profound emotional weight that flooding narratives carry in this country. Yet despite these sentiments, government spokespeople assert that the Netherlands today is "one of the best protected Deltas in the world" (Huizinga 2007c). Aficionados tout – perhaps with some exaggeration

⁹ To refer to these campaigns, the terms "Make Room for Water" and "Living with Water" are used interchangeably as adjectives to describe a series of campaigns and initiatives under a single heading. When used as nouns, these terms refer to discrete campaign names as noted in the following paragraphs.

– the 16,500-kilometer network of dikes and supporting structures holding the North Sea at (“Delta Works: Netherland” 2008) in a country barely 300 kilometers tall at its longest dimension.

The Promethean engineering structures fending off a repeat of these past flooding calamities come with a tinge of irony: the need for dramatic defensive measures is in part self-produced. According to environmental historians, “our land hasn’t always been so low, there was a time when it was higher than the sea. What’s crazy is that we ourselves made it sink” (A Vos 2006:30). Geological histories show that a near-millennia of human activity extensively transformed topographic patterns of hydrological vulnerability. Centuries of vegetation clearance, agricultural plowing, and peat extraction destabilized riverbanks and coastal dunes. Drainage activities caused soil to compact and erode while dike construction accelerated sedimentation and caused water levels to rise. These activities set in motion a chain of action and reaction wherein attempts to keep land dry increased inundation dangers, spurring new rounds of more extreme diking and reclamation, leading to heightened risks of breaches and flooding. In the words of geographer Audrey Lambert with the London School of Economics, “truly the Dutch were the engineers of their own disasters!” (Lambert 1985:122). Experts with the University of Amsterdam, University of Groningen, and the Netherlands’ Ministry of Infrastructure and the Environment concur that, “because people protected the land against water, it fell prey to water” (A Vos 2006:44; see also Borger & Ligtendag 1998).

Efforts to solidify the land-water divide and to triumph over flood risks once and for all were central to the 20th century water management policies in the Netherlands. These approaches emphasized the need for technological solutions to physical problems, downplaying anthropomorphic dynamics contributing to vulnerability. Government officials routinely cast floods as natural rather than social disasters and, in so doing, they turn events smacking of engineering failures into seeming biophysical imperatives for scientific innovation.

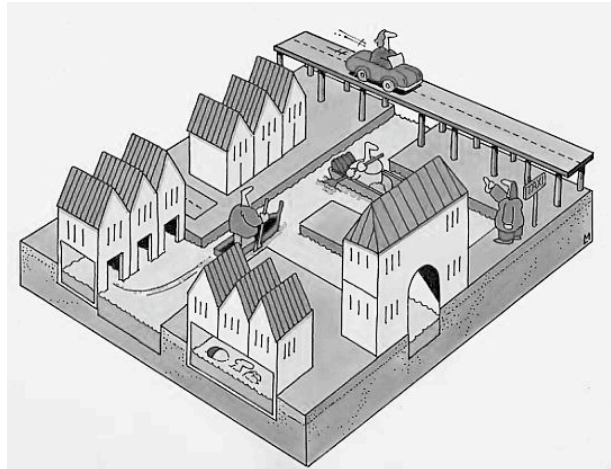
For instance, government decrees throughout the century routinely announced engineering initiatives in the wake of disasters while “the ground was still wet and the victims were not yet counted” (Oosterbaan 2008). The 1953 Delta Works initiative was the largest and most expensive of several such mega-scale engineering projects completed to date in the Netherlands. Dubbed a “magical concept” (Oosterbaan 2008) and a “titanic work of hydraulic engineering” (Sellers 2005), this project was instigated a mere 20 days after a storm surge at high tide drove the North Sea inland, leaving 1,835 residents dead, 72,000 people homeless, and 200,000 hectares of land below water (Oostrom 2007). Swearing an oath of “never again” (Huizinga 2008b, 2008i), government-backed engineers designed a network of coastal dikes that eliminated 675 kilometers of an undulating, 700-kilometer coastline, closing off Holland’s major estuaries from the ebbs and tides of the sea. Thirty years and €2.5 billion later, “the American Society of Civil Engineers counts [the Delta Works] among the Seven Wonders of the Modern World” (Sellers 2005). Industrial technology seemed to promise an end to cycles of give-and-take by solidifying the boundary between ocean and nation and making barriers against water absolute. “By the end of the 1980s, the Netherlands breathed a sigh of relief. The battle against water was nearly won” (A Vos 2006:100).

This vision of imperviousness quickly dissolved. Only seven years after the completion of the final Delta Works dike, residential neighborhoods lay once again under water while government officials managed what some foreign newspapers with a dramatic flare dubbed “the largest evacuation in Dutch history” (Corder 1995). Flooding in 1993 and 1995 when rainfall and snowmelt flowing through the Meuse and Rhine river valleys overflowed the banks shook public optimism that technological investments would ever prevail. Subsequent government studies revealed that 30% of sea dikes fell short of safety standards and that the risk of river inundation was rising rather than falling (Andersson 2009). In the words of Corne Nijburg, secretary of the Living with Water Foundation, there is “the idea that the government ensures that buildings stay dry. But that is no longer the case. We no longer have water a hundred percent under control” (Nijburg in Engels 2009).

As visions of total water management loose credence in many circles, a new mantra can be heard rising over the polders: Make Room for Water. This chorus resonates with the dozens of government and government-funded reports outlining the motives and objectives of the soon-to-be-released 2015 National Water Plan. Despite the best that engineers have to offer, officials say, “in the years to come, we will be faced with so much water that technical measures alone, such as raising dikes, will no longer be enough” (V&W nd; see also Rooy & Sterrenberg 2001). Rather than trying to keep Holland dry, “we must give water more room” (Haegen 2005a), which in many instances means “committing the once arduously drained lands back to the water” (BNA nd a; see also V&W 2000, 2002, 2008a).

Statesmen heading the Ministry of Transport, Public Works, and Water Management launched Make Room for Water initiatives of various guises several times in the mid-2000s. Former State Secretary De Vries, for instance, kicked off a precursor campaign in 2000 with the allocation of f2.8 billion (approximately €1.3 billion) to the Make Room for the River project, a 20-year initiative to conserve and expand wetland and water storage areas. This measure, which was a direct response to the 1993 and 1995 floods, advocated giving rivers “requisite space for ‘controlled flooding’” as a strategy to subvert future disasters from uncontrollable overflow (Heems 2006; V&W 2000). Two years later, De Vries kicked off the ministry’s official Netherlands Lives with Water campaign “to give water space and let it again into our daily lives” (V&W 2002). The extensive public awareness campaign of television and radio spots, newspaper advertisements, and brochures accompanying the launch were intended to remind complacent citizens that flood dangers posed a significant threat to the Dutch citizenry, as well as to popularize expectations that accommodating floodwaters rather than eliminating them could reduce the likelihood of all-out disaster (V&W 2002, 2003).

The ministry’s next two State Secretaries continued these campaigns and gave them a more explicitly climate-oriented framework. For instance, in a series of public speeches and advertisements, former State Secretary Van Haegen underscored the need to reconsider water management practices in the context of global climate change. During her administration and with her ministry’s support, the national cabinet established the Living with Water Foundation in 2005 as a 5-year, €45 million knowledge program to find ways to integrate expanded water storage capabilities into other spatial, social, and economic development objectives (Engels 2009; Living with Water 2008; “Water managers bundle...” 2004).



Cartoons from the Living with Water campaign depicting a flood-prone town retrofitted into a water-loving town (Source: Living with Water Foundation)

Her successor Tineke Huizinga turned these water and climate accommodation initiatives into a central career objective from the moment she took office in 2007. Within her first hundred days as State Secretary, Huizinga established the Netherlands Water Land program, a commission of independent experts charged with developing water management alternatives to dike construction and with raising awareness of the social importance of water in Holland (Huizinga 2008d). She followed up with calls to adopt what she described as a coherent, long-term, integral water management policy intended to encourage developers to turn land areas into waterways and convince investors that making room for water makes room for employment, housing, and leisure investment, as well (Haegen 2005b; Huizinga 2007a, 2008e, 2008g; Verbaan 2003). The floodwaters will come, she said, but there was no need to wait for another disaster before taking action. “Let 2008 go down in history as the year when we set the future of this low land high up on the agenda” (Huizinga 2008e). To this end, shortly before her 2010 promotion to Minister of Housing, Spatial Planning, and the Environment (*Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer*), Huizinga kicked off yet another Living with Water campaign and directed the Water Canon program to draft legislation to turn the credo Make Room for Water into official government policy (V&W 2009a, 2009g).

Despite these campaigns, a local and independent tradition of water management makes nation-scale reforms easier said than done. Water historian Petra van Dam explained the difficulties to me in 2009. Water corporations date back to the 12th century, and in some regions, they are considerably older. Townsmen working independently of feudal lords formed voluntary associations for the mutual protection of homes and farms. As tasks specialized, villagers set up independent water boards autonomous from other government bodies. “Institutions built up around these water functions, institutions very independent of the city or the state” (Dam 2009). To this day, water boards hold their own elections, have their own tax base, and formulate their own development strategies. The number of water boards in the Netherlands has consolidated from around 3,000 boards in 1900 to only 26 today, and Secretary Huizinga’s proposed legislative overhauls could give the national government additional say, if not direct control, over water-related spatial management practices linked to climate change. Nonetheless, expectations of independent,

local control persist (see also Banning 2003; Kuijken 2007; Rooy & Sterrenberg 2000; V&W 2009g).

Amsterdam is a case in point. The national government sets water policy objectives, for instance by stipulating minimum quality measures in accordance with European Union regulations. Provincial authorities are given leeway to design their own programs to meet these baseline requirements. But due to the capital's long-standing independence, the regional water board Amstel, Gooi and Vecht has no jurisdictional authority within the city limits. According to water board authorities, "the Amsterdam City Council has full say over its own drinking water, sewage systems, and groundwater management within its boundaries" (Bijlard 2008:2). The Department of Inland Waterway Management and the contracting agency Waternet are nominally responsible for water issues city-wide, but even here personnel are reluctant to stipulate neighborhood requirements, preferring instead to let each of the 15 boroughs make their own way. This intense degree of localism yields few sticks and carrots to government authorities wishing to unroll a comprehensive water vision across the nation.

Opposition from the agricultural sector poses another major hurdle. The de-valuation of soil taking place alongside the re-valuation of water is an emotionally charged dynamic in campaigns to flood reclaimed land. According to many economic analysts, European Union trading provisions are making Dutch farmland redundant, a charge that turns these regions into prime, cheaply acquired targets for de-reclamation. Many farmers decry this land use reform as the intolerable destruction of the drainage, cultivation, soil, transportation, and memory infrastructure they and their ancestors have built up over generations (Bezemer 2005; Haaft 2001a; Lieshout 2005; M Moore 2005; Schreuder 2009b; Staal 1996). In the words of one Zeeland Province resident in the southwest of the country, "everyone thinks such measures are too idiotic for words. You don't put fine land under water, that's throwing money in the ditch" (Broekert in Lieshout 2006a).

Nevertheless, as a result of these national cabinet Living with Water campaigns, some noteworthy land reorganizations are already underway. One early change involved the spatial redistribution of risk. The emerging Make Room for Water strategy replaces 20th century aspirations of zero risk for everyone with a stratified matrix based on land function and location. Under the new model, pastures will likely flood once every 10 years, agricultural fields every 25 years, and residential districts every 100 years. Metropolitan areas such as Amsterdam's 19th century neighborhoods may flood once every 1,250 years, and engineers expect historic areas such as the capital city Canal Belt to go under once every 10,000 years (Bengevoord 2008; Haegen 2006a; Huizinga 2009f; Zwaag 2009).

These changes in flood risk alter the types of infrastructural investment deemed profitable, leading to several new development approaches on the no-longer-solid ground. For instance, Crown Prince Willem-Alexander presided over the 2008 opening of what may be the first of many wet nature reconstruction zones on the edge of Biesbosch National Park, a project made by converting former reclaimed pastures into a combined harbor, nature, recreation, and fishing ground ("Consequences of redesign..." 2008; Janssen & Lieshout 2008). And within a year or two, Waterstudio's New Water project outside The Hague will likely become one of the first mega-scale pasture-turned-floating city initiatives to enter construction in Holland (Metz 2009; Tienhooven 2008).

Which brings the discussion back to floating urban infrastructure. The floating home movement has tremendous business potential on its own merits. But the pressure to scale

up development is especially poignant in light of governmental pressure to use these kinds of reforms to “climate proof” the Netherlands against global warming risks (Lyall 2007; V&W 2007). National ministries are among the many governmental branches encouraging Amphibian and Floating architectural experiments through financial subsidies, land provisions, and knowledge services. For instance, the Ministry of Housing, Spatial Planning, and the Environment, along with a handful of other organizations, has pledged to finance 45% of the €1.2 million design cost for Dura Vermeer’s Floating City to be built on the outskirts of Amsterdam (Edidin 2005). Similarly, officials with the Ministry of Transport, Public Works, and Water Management agreed in 2005 to open 15 previously protected wetland areas to developers willing to build so-called water-proof demonstration projects on ecologically sensitive shorelines, including the Amphibian and Floating home site in Maasbommel (V&W 2005). And government-funded ministry spin-offs, such as the Living with Water Foundation, provide research and development assistance to municipal planners and elected officials encouraging real estate reorganizations and infrastructural interventions that incorporate rather than eliminate hydrological ebbs and flows into urban development processes (Edidin 2005; Engels 2009; V&W 2005; “Water managers bundle...” 2004).

If successful, the Make Room for Water movement may lead to what former Secretary General Wim Kuijken has heralded as the Netherlands’ “biggest spatial undertaking of the 21st century” (Kuijken 2007). Floating city experiments reflect a new urban planning vision linked into this national government campaign. This Living with Water approach, based on the premise that letting feet get wet can help heads stay dry, is said to herald a “radical change” (V&W 2002) and a “historic turnaround” (Haegen 2005a) of millennia-long practices of living with water in Holland. It reflects a loosening of the rules about where water is allowed to be and how much it is permitted to fluctuate. Variable inundation rates, height requirements, and edge locations, along with infrastructure designed to bend with these vacillations, illustrate a new land-water-city paradigm developing through this emerging spectrum of soggy topographies.

Distributed productions of risk and opportunity

In 2008, the Transport, Public Works, and Water Management State Secretary launched the third official Netherlands Lives with Water campaign in six years. The formal announcement came during a visit to a local elementary school outside The Hague. The day began with an informal, media-recorded conversation between the Secretary and the students about the importance of water management in history, and it ended with video of the kids in matching “Living with Water” t-shirts bobbing in an outdoor wading pool on a floating green foam raft cut in the shape of the Netherlands (V&W 2008c). This site selection and audience was intended to underscore connections between the past and future. “Our water heroes and inventors of yore are icons of our past worth remembering. It is important that we pass this consciousness on to children, the future generation of water managers” (Huizinga in V&W 2008d).

In this campaign, as in the others that preceded it, tropes of history, place, and identity cast water and Dutchness as two sides of the same coin. The refrain “Holland-Waterland” recurs throughout many public speeches, investigatory commissions, research reports, and legislation drafts (Huizinga 2008d; Huizinga in V&W 2008b; V&W 2002, 2008d). According to government spokespeople, Huizinga, “the Netherlands without the

sea, without rivers, lakes, ponds, ditches, and canals. That is unthinkable. Water belongs to the soul of the Netherlands and of us Dutchmen” (Huizinga 2008d). From an airplane, it was said, “you realize immediately how exceptional our country is. What water! It is everywhere” (Huizinga 2008h). In this mix, landscape and culture are equally saturated:

Water flows through our entire history, from the first farmers who settled here in the early Middle Ages until now. ... In the middle ages, our ancestors dug ditches to drain the peat so that the muddy land would be habitable and fertile. ... Our ancestors built windmills, innovative wonders of their time, with which they could artificially pump wet areas dry. ... They built the Amsterdam canals, which the government has recently nominated to the Unesco heritage list. In 1932, our ancestors laid the finishing touches on the Enclosure Dike, a dike we are currently renovating it into an innovative work of art. Etched in our national memory is the flood of 1953 ... After this disaster we said, ‘Never again!’ and we began construction of the Delta Works. ... All these events and interventions have shaped our landscape into what it is today. ... This is a history to be proud of. Few nations can boast of such a close bond with water. We know the power and beauty of water. (Huizinga 2008i)

These sorts of oft-repeated narratives – presented as so self-evident that even children know it – intone a uniquely Dutch experience premised on a grand water heritage. These discourses naturalize claims of an intimate and privileged knowledge of all things aquatic. Even critics who disagree with the premise that Dutch water history is truly unique or special acknowledge the pervasiveness of this commentary. “We go on as though we had heaven’s patent on water” (Aarden 1999).

These invocations of a hydrological heritage are more than the simple construction of an identity emblem or origin story. The strength of these narratives is not based on whether history actually happened as described. Rather, in keeping with work by David Lowenthal (1998) and Gastón Gordillo (2004) on the political life of tales of the past, these heritage lessons are used to justify assertions that hydrological concerns in the present should supersede other possible objectives guiding infrastructural development and gauging its success. As this section explains, these assertions are an instance of what some geographically minded theorists might term a territorial strategic essentialism turned to tactical advantage (D Moore 2005:210-213). In other words, mobilizing hydrological explanations of seemingly innate risk and knowledge helps justify the land reforms and development subsidies giving Floating City visions life. And although these experiments promise a novel urban water paradigm, they leave several questionable city building priorities unexamined.

Many ministry spokespeople in the Netherlands assert that global warming is primarily a hydrological issue, this in contrast to carbon emissions talk common in the United States or to agricultural parasites and human disease concerns across the Global South. The term ‘climate change’ in these narratives somewhat indiscriminately refers to rising sea levels, continuing ground subsidence, and harder and more frequent rainfall. For instance, as former State Secretary Huizinga said in 2008, in preparing for “the consequences of global warming that we will inevitably face, we mainly speak about water management” (Huizinga 2008j). She elaborated the issue in several domestic and international speeches on the need to bridge the water and climate agendas. Water plays a primary role in climate adaptation because, in her words, “water is the primary transmitter

of climate change impacts on societies and the environment” (Huizinga 2009i; see also Huizinga 2009d).

These invocations cast hydrological change as an unavoidable, biophysical phenomenon necessitating adoptions in the way land is used and cities are planned. Awareness-raising billboards read “another climate, another policy” and “higher temperatures, higher water levels” (V&W 2003). Climate change is said to spur innovation and creativity (Kuijken 2007). Disasters loom “now that climate change is posing new challenges for us” (Huizinga 2008a). “Because of climate change we have to go about water in another way: no longer fighting against water, but living with water” (VROM nd). The environment is shifting, and “we have to move along with the water level,” (Huizinga in Rijcken 2008), “at least if we don’t all want to move to Germany” (Huizinga in Sekeris 2007, see also Haegen 2005b). To underscore the urgency, public officials since 2005 have liberally salted their speeches and promotional materials with references to Hurricane Katrina and New Orleans under water (Haegen 2005a, 2006a; Huizinga 2007c, 2008a, 2008e, 2008g, 2008h; V&W 2008a; see also M Moore 2005).

Alongside these characterizations of the hydrological imperatives of climate change, invocations of water heritage in Holland lends credibility to assertions that physical solutions will solve the envisioned and mounting problems. References to living with water in bygone eras convey a sense of familiarity to the new and potentially frightening challenges that climate change poses. Officials say that nine million people in Holland live below sea level today on land that has been low for eight centuries or more (Haegen 2006a & 2006b). And water has long been rising. “Sea levels have risen 20 centimeters in the past century, and according to the Delta Commission, it will certainly rise another 65 centimeters and perhaps 1 meter and 20 centimeters this century” (Oosterbaan 2008). This rhetoric is not intended to minimize the dangers associated with rising water levels, nor does it explicitly discount the human contribution to global warming. But such statements nonetheless assert that the Netherlands is “well versed in tackling water issues,” having “for centuries ... successfully controlled water and adapted ourselves to its whims” (Huizinga 2008, 2008j; see also Haegen 2007). Problems of rising seas and imminent floods read as old hat in a place with a thousand years of experience seemingly sitting in a memory bank somewhere just waiting to save the day.

While the effect of climate change on hydrological cycles is undeniable, this emphasis on biophysical imperatives diverts attention from social productions of risk, and by extension, other potential mitigation measures. The human hand in global warming is only one such consideration. The search for urban expansion sites pushes people deeper into unstable regions here as elsewhere. According to government spokespeople, residential and commercial building in flood-prone areas in South Holland has nearly tripled in the past 30 years, and the population living in the Delta below sea level has grown sharply since the 1950s. The value of these buildings and infrastructure has risen, as have people’s expectations of safety, and associated human-induced subsidence continues to outstrip the rate of rising seas (BNA nd b; Hale 2000; Huizinga 2008e). Officials cite these demographic developments as reasons to revamp water management, but not as sources of hydrological malaise deserving reconsideration in light of the atmospheric changes underway.

This biophysical framework of risk and response strategically precludes many unsavory questions. Casting hydrological dynamics rather than economic objectives as the

Non-flood-prone area
Flood-prone area

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recession, ministry spokespeople emphasize that Making Room for Water would help jumpstart stalled economies, as well (Huizinga 2008c; V&W 2007, 2009f). Moreover, de-reclamation and floating city breakthroughs, combined with assertions of a Dutch water identity, help domestic water engineers and architects gain an early mover advantage when bidding on city building contracts in other countries. New flood-proof building technologies are expected to be relevant across Europe where “the greatest natural threat in the coming years will be flooding as global warming sends more water gushing through passageways bordered by densely populated areas” (M Moore 2005). In this context, innovative city building technologies that expand river catchment while creating new housing construction zones become a “splendid export product in favor of our country” (Huizinga 2009e; see also Faiola & Eilperin 2009; Huizinga 2009d, 2009h; V&W 2007 & 2009e).

The economic advantages make land reform and floating architecture financially inviting even in the absence of atmospheric concerns. But combining these innovations with a biophysical perspective blunts development opposition and loosens government purse strings in the endeavor to turn the espoused Water Landscape of the Future into a reality today. Such projects, it is hoped, will demonstrate how best to keep coastal cities like London and New York dry when sea levels rise and how best to rebuild urban areas such that flood waters merely lap the edges and understories of houses serenely rising and falling with the storms and tides. The social production of risk is obscured, and alternative solutions to greenhouse gas mitigation and urban expansion paradigms are not pursued. Instead, narratives of biophysicality and a water-based national identity promise both a hydrological threat and an innate capacity to keep people, infrastructure, and economies afloat by finding new ways to live with water.

Urban Expansion in a Warmer, Wetter World

As this chapter has shown, the Netherlands’ ongoing Make Room for Water campaigns shift development paradigms away from efforts to expel water from the landscape and instead embrace measures that bring water in a controlled way inside the door. Officials bill this reconfiguration of the land-water divide as a reunion. No longer expelled as a threat, water is now said to be welcomed back into land and hearts with open arms. This shift is leading to a devolution and dispersal of the water-land line. The boundaries between wetness and dryness once expected to solidify at a national and finite scale are now beginning to operate block-by-block, parcel-by-parcel, and house-by-house. This returning water need no longer be contained between walls and beyond buildings, but rather is being turned into the raw foundation for roads and buildings.

To some extent, these measures to bring water back into open landscapes are part of a larger pro-water movement to restore streams and shorelines in rural and urban settings to improve ecological health and stimulate market development (Desfor & Keil 2004; France 2008; Kemp 2009). Yet despite these resonances, the project to turn land into water in the Netherlands is occurring at a significantly expanded spatial scale and is framed in grander and more dire terms than water restoration undertakings in other North Atlantic cities and townships. First, on the question of scale, instead of restoring the meandering path of a stream through a pasture or walling a rivulet though a downtown open air shopping center (*e.g.*, Bruner Foundation 2006; Pinkham 2000), water in this instance features as the only viable physical terrain of future urban expansion. *Waterfront*

development becomes *watertop* development, and concerns about acreage replace interest in edges. Second, on the topic of motive, this dramatic change in urban planning technology is motivated by more than an interest in circumventing culvert repair expenses or bringing neighborhoods toddlers in contact with frogs and tadpoles (*e.g.*, Illich 1985; Pinkham 2000). Rather, wrapped in the discourse of climate change and flood risk, this change in the relationship between water, land, and cities figures as an issue of society-wide national importance with the potential to subvert massive disaster in the Netherlands and other vulnerable urban areas around the globe.

Existing studies of water politics have explored similar links between water, nation, and risk in other times and places. Stuart Oliver (2000) and William Deverell (2005), for instance, have shown that fluctuations in river courses and levels at the turn of the 20th century – and the slum settlements and informal economies along these rivers – slowed industrial expansion. In these contexts, the push to straighten and channel rivers in the name of taming nature facilitated spatial and social reorganizations in the interest of capitalist development, a planning paradigm that came to dominate urban planning attitudes in the United States and United Kingdom for nearly a hundred years. From another perspective, Erik Swyngedouw (1999) has shown that the drive to reconfigure watersheds in Spain became a potential means to combat falling wealth, productivity, and influence vis-à-vis other European nations in the wake of colonial losses. In studies of more recent history, Maria Kaika (2003) and Karen Bakker (2003) likewise analyzed the ways experiences of drought – a socially produced phenomenon cast as a natural disaster – facilitated calls to reform water provisioning policies, sometimes in socially regressive ways. As these studies show, issues of flood control, national prosperity, and drinking water were all cast as questions of life and death. In these narratives, water functioned as a smoke screen obscuring the social production of risk and naturalizing the political call for action.

In this study of water, climates, and cities in the Netherlands, I traced similar discourses of life, death, and imperatives to act that use hydrological explanations of water to obscure the social production of risk and to augment the financial benefits of reform. While temperature, water, and society are indisputably interconnected, the nature of their relationship and the implications for policy-making remains unsettled. For instance, it is not self-evident whether preventing or adapting to climate change makes more financial sense. And no one can objectively prove whether changes in water management or capital investment should be the order of the day. As this chapter explained, the insistence on making water rather than markets or lifestyles the object of reform brings the political utility of biophysical discourses center stage. Floating City technology would tangibly change the way land is allocated and cities are constructed. These measures present a physical solution to the expected aquatic risks facing low-lying neighborhoods. But physical alterations often mask genuine social reforms. And in this instance, as this chapter shows, wrapping urban development in the guise of hydrological necessity helps keep consumerism, sprawl, and other such business-as-usual urban development priorities politically viable.

These hydrological-ized city building strategies are compatible with emerging theories of nature and capital. Building high-value homes on newly created water storage sites, for instance, transforms flood risks into investment opportunities. These tactics overcome what Scott Prudham (2005) might term an economy-ecology disjuncture,

turning landscapes of aquatic danger out-of-sync with housing investment cycles into territories of profit yielding high returns. They also add premiums to existing domestic commodities just as Cindi Katz (1998), Nik Heynen *et al.* (2007), and other critical theorists of green urbanism predict. Given the safety improvements, ambiance gains, and financial benefits of such development methods, there is clearly much to celebrate in this architectural and land use reconfiguration.

But are these floating cities and de-reclamation undertakings the radical change and historic turnaround vis-à-vis past management practices that government officials proclaim? In physical terms, there is some truth to this assertion. Homes and highways need no longer be tethered to terrestrial topographies and can instead bob in a variable and undulating sea of blue. And instead of always fighting to keep water outside the door, developers have begun purposely putting land back under water for the first time in the Netherlands' history. Floodwaters once deemed dangerous now read as wellsprings of tranquility and profit. These changes may dramatically alter the layout of new towns and the technologies used to build them.

But despite these physical alterations, these land reforms and architectural innovations in social terms may be little more than business as usual. Through these discourses, water becomes the primary object of focus while other economic, political, and ecological considerations become beneficiaries of hydrological expertise rather than topics deserving inquiry in their own right. And this market continuity, rather than the expected physical reformation, may be the strongest argument in favor of the emerging hydrological urban planning paradigm. Cast in a guise of inevitable biophysicality that occludes human choice, these water management and urban development visions have little to say – and none of it negative – about the continuation of sprawling, speculative urban expansion.

CONCLUSION

MAKING WATER, MAKING CITIES

The braided channels of social change

Art de Vos, a free-lance historian formerly associated with the Netherlands' ministry responsible for water management, opened his book on Dutch environmental history with a statement of ambiguity. "So would our country appear if we had no dikes and dunes: One great plain where it isn't clear where land stops and water beings" (A Vos 2006:17). Even with these barriers, Vos said, the division between land and water remains more permeable than many people expect, a trait made most apparent in the wake of broken dams and flooded towns. This type of statement characterizing the muddy, hazy transition between wetness and dryness foregoes triumphal claims of human dominance over nature. This poetic invocation of uncertainty is perhaps especially apt in a region where, despite Promethean efforts to solidify ground, water continually seeps back in. Sometimes this water is barely perceptible as it moves through the soil. Other times its ferocious surges claim life, land, and morale. And at still other times, the variation of wetness and dryness reads as a sign of tranquility and opportunity.

This monograph about the political utility of surface water in cities examined how and why people in Amsterdam have looped water into urban regeneration processes. Constructing homes, shaping reputations, and codifying behaviors are some of the many material, financial, and legal dynamics involved in any city building undertaking. These dynamics were central to dominant redevelopment frameworks guiding investment decision-making in Amsterdam over the past two decades. In these undertakings, politicians, planners, and residents of many stripes recruited water into construction processes. Several strategies were involved, ranging from discursive invocations of risks and legacies, physical constructions of currents and reflections, quasi-legal siezures of space and resources, and staging accoutrements expressing group identities. These literal and figurative practices, which drew on common if kaleidoscopic understandings of what water was, helped reconstruct water's jurisdictional, historical, and biophysical attributes, which in turn became evidence marshaled to facilitate or forestall further rounds of spatial investment and social control. These activities pulled political agendas through water channels, making the shorelines of the city read as manifestations of destiny, or the place to dispute it.

These findings, based on the ongoing and distributed remaking of Amsterdam between 1990 and 2010, have theoretical implications for the study of matter and society in many contexts. This region's political trajectory is caught up in many of the same economic, cultural, and environmental dynamics shaping the field of play in other European and North American population centers where similar landscape and social reformulations are under way. The revaluation of water in elite-oriented urban policy paradigms has likewise become well established worldwide. From these perspectives, studies of water in Amsterdam offer insights into the links between matter, settlement, and politics common to many international locales.

But if Amsterdam's interconnectedness with more distant places helps explain how these findings travel, Amsterdam's distinctive aquatic make-up suggests that many politicizations of water relevant in other places may take especially heightened, innovative, and instructive forms here. Amsterdam has one of the wettest surface topographies for a city of its kind in the North Atlantic. Yet, through tremendous effort, the waterways are stable enough year-round to interweave with houses, parks, and roadways on a block-by-block scale. The seemingly failed attempts to de-saturate the city in the last century in keeping with international planning paradigms of the era inadvertently furnished the landscape fodder through which boosters now hope to galvanize the city's next economic Golden Age. At the same time, this fine-grained interweaving of water and land, juxtaposed against polarized yet changing institutional, historical, and physical structures dividing the landscape into separate wet and dry spheres, also unintentionally generated the territorial fissures through which city builders and social critics could pursue alternative political agendas.

Tracing urban reconstitution through the lens of water in Amsterdam has shown not only how water fits into some of the most far-reaching and hegemonic political-economic transitions underway worldwide today, but also how many kinds of people engaged in different types of activities helped generate the political value of this landscape feature and, in so doing, influenced the potential routes of political authority through space and society.

Water politics in Amsterdam

This study examined water politics in Amsterdam through three inter-related urban development themes. The first theme, threading through the monograph and given priority in Chapters 2 and 3, emphasized the jurisdictional divisions of labor bifurcating Amsterdam along soil-water lines. This division of responsibility is a legacy of High Modern land use visions and is a holdover from the days when local employment and prosperity were predicated on shipping exotic goods from distant continents into the European heartland through Amsterdam. Centralized authority over large harbors and lengthy inland waterways partially uncoupled the canals from local borough politics and freed long distant trade functions from the entanglements of more sedentary domestic and celebratory activities on dry land. But these jurisdictional differentiations also conferred different behavioral codes of conduct on canals than on streets, squares, or apartment blocks. In recent years, with use polarization and international trans-shipment hegemonies loosing force in Amsterdam, opportunistic residents found ways to bend the lingering institutionalized rules, adhering to the spirit of perpetual motion while smuggling living and leisure activities onto the disused canal-scape. In so doing, these residents sidestepped market-based and government-regulated expectations for how to live in Amsterdam, creating spatial pockets of circumscribed autonomy. But their successes in the now-solidifying, pro-water planning paradigm have underscored the potential profitability of this aquatic topography, making water a likely target for new rounds of spatial regulation and capital investment.

A related theme given special attention in Chapters 4 and 5 highlighted the historical dynamics of urban water investment. Water has a new economic value in post-1970s city planning paradigms. Carefully packaged surface water can take many profitable forms, such as an atmospheric attraction, leisure ground, ecological amenity, or heritage

icon. The suggestion that restoring water could generate municipal and business revenue streams attracted the attention of aldermen, shopkeepers, environmentalists, preservationists, residents, and planners in Amsterdam as elsewhere. But cashing in on these watery landscapes came with opportunity costs, such as the loss of playgrounds and soccer fields, as well as externalities, such as the displacement of lower-income shops and households. In evaluating potential tradeoffs, notions of community service, human rights, and local freedom bumped up against calculations of profit. Since the ability to earn money from water as a landscape feature was filtered through aesthetic, ideological, and heritage lenses, narratives of a water-based Amsterdam historical legacy became a potential avenue for water-oriented real estate investment to take root in a place where residents doubted its desirability. Well-entrenched and vocal opponents in the central city managed to forestall this landscape transformation in their neighborhood for now, but in the former harbor where land seemed derelict and residents seemed criminal, water-history frameworks marshaled to forestall redevelopment inadvertently helped visions of an economically robust housing district to come to fruition.

A third urban development strand emphasized in Chapters 6 and 7 traced the physicality of urban expansion. To perpetuate real estate development in an already full country, developers are looking for ways to expand the nation's buildable area. The potential site list for future townships now includes floodplains long deemed too dangerous to live on, nature preserves once thought too precious to intervene in, and agrarian polders formerly imagined as the nation's economic and cultural backbone. In this search, cabinet officials, municipal planners, and professional contractors used references to ecology and hydrology to justify opening these off-limits areas to capitalist investment. Developers also harnessed buoyancy and currents alongside bulldozers and cranes in neighborhood construction processes. These invocations of water helped cultivate the political favor needed to wash away existing ownership and infrastructural patterns in favor of their profitable reconstruction. These frameworks are facilitating the devaluation of farmers' fields and foundation houses while simultaneously valorizing artificial lakes and floating homes. Building these new kinds of homes in re-hydrated landscapes read as the only viable means to restore degrading ecosystems and as a necessary response to mounting flood risks. The dangers and opportunities seemingly inherent in water advance calls for a radical spatial reconstitution of the Netherlands so that marketplace processes can proceed business-as-usual.

The Water Question

Research into water politics often focuses on resource management concerns, couching the relevant political issues in terms of the collection, distribution, and cost of water for cooking, irrigation, and manufacturing purposes. There are good reasons to study water from this angle. In arid environments or times of draught, the division of rights to a scarce resource can make or break the financial longevity of a household or region. Problems with water scares and voter fraud mar management efforts from California to Greece (Brechtin 2006; McWilliams 1949, Kaika 2003). Control over wells and spigots are an oft-exploited source of coercive authority in areas lacking universal sanitation and drinking water provisioning (Swyngedouw 2004). And damming rivers to create drinking water reservoirs and power generation stations displaces residents, threatens cities with unpredictable breaches and floods, and changes ecological dynamics from sea to mountain

peak (Montgomery 2003; Patwardhan & Dhuru 1995; Reisner 1993). These political skirmishes have profound consequences on daily life, human health, and political stability.

As important as these discussions are, however, much of the lived experience with water in and around Amsterdam over the past two decades did not fit this resource template. In the Netherlands, as indeed in most places to some extent, water fell down from the sky, seeped up from the ground, washed in from the shore, and flowed through neighborhoods not as a collected and funneled utility but as a physical threat, a living space, a recreational zone, and an identity icon. Disputes over water took the form of bird watchers staring down housing developers, partiers puking on luxury house facades, and squatters squaring off with heritage preservationists. Water was a space to cover with buildings or to enliven through nature. It was a venue for shedding the strictures of everyday life or for consolidating visions of a future social order. Water's historically sedimented form came to embody the crux of place and people even as the details of those constructions remained fluid. These processes cultivated political authority and social hierarchies in a context where water was not imagined as a scarce resource but rather was thought to be so ubiquitous as to be presumed innocent and irrelevant, mistakenly so.

For these reasons, this study traces the political life of water as a means of explaining broader processes of urban and political regeneration currently underway in many cities around the globe. From this perspective, this study presents a vision of water that may break ranks with other geographical studies of this substance even as it compliments other researchers' efforts to broaden understandings of water's inestimable social dependency and political relevance.

For instance, monographs by Marc Reisner (1993) and Karen O'Neill (2006) have shown the dramatic and sometimes dangerous effects that dam construction has had on farming, manufacturing, and city building. While a project's construction phase is important, I looked at the way information seemed to alter water and cities even when the riverbeds and buildings had not yet changed. Similarly, Erik Swyngedouw (2004) has shown that plumbing infrastructure carrying water from one place to another reconfigures social hierarchies. These sorts of bottleneck distribution systems are important, to be sure, especially when water seems scarce. But in an environmental context where people and place are literally overrun with water, I examined different sorts of political relationships developing through highly diffuse and publically accessible water landscape features. Furthermore, studies from Karen Bakker (2003) and Maria Kaika (2005) have traced changing regulatory mechanisms governing drinking water, as well as the difficulties of getting water to behave as desired and the opportunities inherent in making hydrology a scapegoat for political failings. Their attention to institutionalized market and legal structures influenced this study even as I shifted the focus of my inquiry to highlight the more everyday, ad hoc kinds of interactions with canal landscapes that fed into seemingly distant discussions about housing, freedom, and identity.

By approaching water in this way, in concert with other nature-society theorists but at arms length from resource management foci, this study shows how water as a landscape feature – beyond pipes, droughts, and aquifers – becomes politically charged. In so doing, this study is able to show that the physical shoreline reconfigurations underway in Amsterdam reflect a rationale and scale of change qualitatively different from their older and more tentative precursors in the United States, that these undertakings exhibit significant and as yet under-addressed institutional and cultural dependencies, and that

many political interests seemingly unrelated to water nonetheless have stakes in the shapes and meanings water is made to take on through urban development processes.

To say that water is a politically salient landscape feature in the Netherlands begs three important questions. What is water? How do people construct it? And how do watery constructs generate social relationships? Answering these questions requires the theoretical expectation that water is not solely a physical entity comprised of hydrogen and oxygen as many post-Enlightenment scientists expected (Linton 2010), nor is it simply a free-floating symbolic metaphor for social life as many post-Modernists might conceive (Illich 1985). Moving beyond such reductive, dualistic thinking required two cognitive shifts. First, I sought to unmoor from water many of the tangible traits generally assumed to be inherent in it. Second, I sought to anchor to water many of the social elements often thought to be floating free from it. To this end, I explored water as kaleidoscopic bundles of material, historical, ideological, and financial attributes in a constant state of production, as meaning and matter made all the way down yet anchored all the way up.

Unmooring water's physicality in this way unlocks what Doreen Massey (1994) might term its constitutive circumstances, or the wider context of forces and relations that make water intelligible and that help determine its fate. Water is undeniably material. It has currents and undergoes hydrological transformations. It has a buoyant, reflective surface and a fluid, spatial footprint. These attributes help explain the types of social practices that develop along shorelines. Nevertheless, these types of properties do not wholly define water and, most importantly for this analysis, these characteristics are not independent attributes inherent in H₂O molecules.

Take buoyancy, for example. Dutchmen have made much of the capacity to float, from legends of 17th century seafaring heritage to visions of 21st century Floating City utopias. But water was only buoyant in relation to other objects, such as a sea-worthy vessel, a hollow foundation, or an able-bodied swimmer, all of which depended on technological, financial, and cultural intermediaries to exist. Buoyancy also required sufficient depth: a rubber ducky could float in a restored 30-centimeter deep canal but a 12-foot dinghy would run aground.

Similarly, reflectivity, which was a primary attraction of prized Dutch landscape paintings and expensive canal-fronting homes, was likewise a relational attribute. It required a light source and a calm, clean water surface undisturbed by boat traffic, sediment, and pollution. The kind of visual effects thought to count as reflections were also culturally mediated. For instance, a gable-topped façade mirrored in a central city canal had a socially validated element of grandeur and so was described as having a reflection while a low-cost, utilitarian houseboat lacking this sumptuousness was not.

Fluidity and hydrology were likewise distributed effects. As a liquid, water was capable of spilling over boundaries, but only when there were boundaries to overspill. Water had motion, which became visible in the pollutants carried, algae dissipated, wetlands generated, and labor expended in its currents. And while humans could not act alone, carbon emissions, dike construction, and agricultural practices routinely and dramatically transformed sea heights, storm intensities, inundation pressure, and erosion patterns.

This somewhat academic point that water's material properties are relational rather than intrinsic is important for two reasons. First, it underscores the impossibility of answering The Water Question by speaking solely about water without reference to

infrastructure, institutions, memory, and opportunity. Second, reading water's physical properties as relational practices made it possible to analyze how reified visions of water emerge and naturalize social agendas. Understanding how relational characteristics come to be seen as intrinsic to water exposes the way material descriptions of the world made land reallocations, use regulations, and construction priorities seem justified by physical, immutable facts, which turned out to be neither absolute nor apolitical.

As a corollary to unmooring physical properties from water, this study also examined practices that seemed to anchor social properties to water. Paralleling Judith Butler's work on gender (1999), I emphasized anchoring to overcome presumptions that aquatic symbolism is merely cultural, like a costume that can be donned and changed at the drop of a hat. This in no way suggests that social traits moor more firmly than material characteristics, but it does suggest that they come to function as though they were no less vested, either. Similarly, following Gayatri Spivak (1996) and Benedict Anderson (1983), this study treated water as a strategically essentialized entity and as a component in cultural structures of belonging through which imagined communities emerge. In this context, water's many cultural attributes have staying power, no matter their relational and constructed underbelly.

For instance, history was an important factor shaping the form and meaning of water today, although not in the ways one might expect. Physical relics were part of the story. For instance, municipal planners built Amsterdam's Canal Belt and the Harbor in centuries past, and the tangible remnants of these activities constrained future development opportunities. But while history as it may actually have occurred is important, even more significant for this study were the ways people conceived of past events in present moments. Investors, politicians, and activists among others invoked legends of ancestral reclamation and sojourning, thereby enlivening water today with the shadows of yesteryear. Similarly, memories of Amsterdam's Golden Age and Industrial Revolution seemed to nestle in the Crescent Canals and commercial harbor. These discourses – often recounted as histories of water rather than people – turned social characteristics such as engineering knowhow or national prosperity into seemingly inevitable byproducts of living long-term with water. Even when these narratives were more fiction than fact, they elicited powerful emotions suggesting as they did who had rights to which spaces in Amsterdam, how those spaces should be used, and how much those spaces were worth.

Identity narratives likewise gained strength when social characteristics could be made to read as aquatic attributes. For instance, global warming discourses framed inundation as a risk to all Dutchmen, commercial waterfront investment came across as a regional concern, and canal heritage restoration was cast as a local neighborhood issue. But these seemingly natural scales of watery discourse created communities of relevance, rather than vice versa. Similarly, common sensibilities that water was the essence of Amsterdam's identity and the source of local culture obscured the human hands that rebuilt the town as a colonial, industrial, and neoliberal city. Such ideas routed political claims through reified narratives of water's essence and, in the process, shaped expectations about which people belonged to the collective and whose needs should be given priority.

The economic value of water also often appeared as something found rather than made. Retail and dining establishments cashed in on the seemingly self-evident willingness

of consumers to pay extra for aquatic ambiances. Water as a real estate amenity had a quantifiable value of between 28% and 40% of a parcel's total worth in Holland. Dike construction and wetland mitigation technology was a valuable export product for Dutch companies. These dynamics, which occurred in lock step with water's international revalorization, made its worth seem all the more natural. Such assertions of water's financial value, oftentimes laden with references to ownership patterns or risk stratifications, made the use of water as a landscape of profit appear to be a natural right.

To say these various properties were produced rather than inherent brings me to a second: how do people construct water? Countless incidents of engineering, sermonizing, boating, drinking, counting, advertising, and so on contributed to loosely shared understandings of aquatic-ness in Amsterdam. Tracing these dynamics required scrutinizing seemingly innocent spatial engagements for potentially activist political ramifications. National cabinet officials, municipal planners, and transnational corporate investors had more capacities than most people to express their visions of water's appropriate use and, by extension, society's optimal form. Yet their campaigns in no way monopolized the discussion. Rather, decisions that Amsterdam shopkeepers, homebuyers, demonstrators, artists, and pleasure seekers among others made on a daily basis created a barrage of connotations that helped shape the meaning and weight of water. These countless acts of production were not unbridled. Not every definition of water's political relevance gained traction and not every person had equal entitlement to speak. But over time, through constant back and forth assertions, innuendos, and juxtapositions, water solidified, if only partially. These aquatic bundles then became opportunities for new rounds of action and investment that played off collective ideas of water while turning them to new ends.

And how, then, did these productions of water shape society? I pursued this question from a geographical-political perspective that considered society to be a relationship generated through landscapes and territorial worldviews. Nitty-gritty practices such as dike construction, wetland restoration, boat exhibition, and nautical reincarnation became mechanisms to define spatial communities and advertise utopian visions. These dynamics mobilized selective interpretations of water to rally support for political causes. Given water's diffuse production, no single person authored these properties of water, and no solo campaign could wholly rewrite them. Once established, the various dimensions of water seemed to exist apart from their construction. These dynamics gave the impression that water's extant packaging existed independently of political will. This naturalization of water as a certain kind of physical entity, evidenced by a seemingly unchangeable past and inherent value, intoned that some visions of place and people were more natural than others. Framing social agendas as water projects made them appear expected, desirable, and unavoidable.

My answer to the "what about water" question, then, has been to partially shadow Donald Moore's insight that territorial entities are translocally routed rather than essentially rooted (D Moore 2005). Neither water nor cities are special. Like forests, railroads, nation-states, and ideologies, these are relational entities generated through far-flung social practices and with the potential to function as both enablers and obstacles to political ambition. In this instance, water took on such tremendous political import not because of innate properties or international worth, but rather because it could be made to seem stable and passive when it was anything but. Stories of water were stories of social

aspirations, and learning to read aquatic landscapes was a process of learning to interpret – and possibly to alter – political orders.

Reconfiguring the water-land divide

These re-makings of water in the wake of what Kaika (2005), Linton (2010), and others have identified as a crisis of water's Modern variant are leading to changes in the way land and water are made to meet. As this study has shown in the case of Amsterdam, aspirations of decisively separating water from land and of keeping water outside the door are giving way to new visions of gradient zones. In these emerging interstitial spaces, wetness and dryness intermingle. This zone is not a free-for-all, but it is a space governed according to a widened band of spatial and temporal tolerance in the mode, extremity, and frequency of permitted shoreline ambiguities.

For instance, the amount of internal countryside given over to aquatic influences is expanding. But even more significantly, the breadth, height, and utility of water in these zones is being permitted a degree of variability unprecedented in the North Atlantic over the past hundred years. Architects and residents are now beginning to design neighborhoods with the expectation, and even the hope, that floodwaters will come washing through the district. It is not that anything goes, of course, but these attitudes nonetheless represent a significant shift from old mentalities of always trying to keep water on the other side of rigid divides. In lieu of the embankments and dikes of old, planners are constructing spatial bands of soggy grays built to oscillate between wetness and dryness, low and high water, humanized and naturalized water, and so on.

Similarly, expectations about whether and how water can be occupied are shifting, leading to a wetting of dry activities and a drying of wet spaces. In the past, as a fluid landscape feature, water was primarily valued for transportation and was thought unsuitable for private property divisions and long-term habitation. But today water has become a place for living rooms and gathering functions. It is an area that statisticians may soon include when calculating the useful square footage of the nation. Water has become a place of memorials and tributes to the past, as well as an infrastructural intermediary with far flung ripple effects in financial, ecological, and cultural sectors. Instead of having water on one side, land-based cities on the other, and a great dividing wall in between, bedrooms, dance floors, and history tours now cross the wharves and quays to float discretely on the waves.

The rationale and scale of these changes are qualitatively different than urban water reconfigurations underway in other places, such as the United States. Water-oriented development metrics here have shifted the emphasis from frontage to acreage. The lived experience of the land-water divide has changed from a collective, state-constructed undertaking at consolidated beachfronts to an individually managed enterprise within private homes and vessels. And urban planning paradigms have shifted from interests in giving old cities a green facelift to ambitions of using new cities to generate vibrant ecosystems and crisis-mitigation measures of international worth.

Cultural mediations are key in explaining the rationale and tenor of these land-water reconfigurations. Expectations about whether water is a product of society or a relic of nature influenced the course of water's reintegration into land use and urban planning paradigms. In the Netherlands, even in agrarian or lake areas where water has recognized ecological worth, its presence, absence, shape, contents, and functions were the product of

past human activity -- whether intentional or otherwise -- and their reinterpretation in the present. This process of according water a history was made possible in part by changing nature-society ideologies, and the revalorization of Enlightenment-era landscapes, are just one of the many ways that water can be read as bearing traces of urban development pasts. Dutch activists and planners may be early movers in this regard, but links between water and social history are pervasive if conventionally underappreciated in other locales, as well.

The changing land-water divide in Amsterdam also exhibits institutional dependencies that help explain the opportunity structures enabling these reconfigurations and the mediating costs downstream. Divisions of labor that assigned shipping and movement to water while pinning housing and public spaces to dry land made different kinds of behaviors and politics possible on water than on dry land. The expected impossibility of anything but transience on water naturalized these management approaches. Yet in Amsterdam, residents found ways to go with the flow while accomplishing other social objectives en route. Sleeping, celebrating, shaping reputations, forging friendships, advancing causes, and accessing goods and services are some of the many new activities that gained a toehold in wet urban spaces over the past few decades, activities that gained traction by virtue of creative exploitations of the differential codes of conduct written for water than for land.

While these various land-water reconfigurations occurred within loosely shared if multifaceted opportunity structures, many of the practices that brought these changes into being took informal and quotidian forms. Residents looked to amphibious housing for safety. Squatters built houseboats for locational convenience and affordability. Homeowners took to water frontage for aesthetics and novelty, or moved to newly built water-oriented neighborhoods because that's where housing happened to be available. Partiers took to the canals to make gayness visible, to enjoy drunken silliness, and to experience cultural edification. Leisure goers sought out water to observe birds and enjoy breezes. Market vendors took to barges to sell hotel rooms and pianofortes. These often playful and largely uncoordinated actions had surprisingly little to do with water per se even as they had everything to do with broad changes in the form and assessment of water-society relations and even as they helped new water practices and politics take root.

Urban reconstitution

There are several ways to interpret these physical, financial, and jurisdictional reconfigurations of water, land, and society in Amsterdam. For instance, critical neoliberal theory has deeply influenced this read of Amsterdam water politics. Several of the examples discussed -- such as the push to make avian rookeries through urban expansions, to turn industrial harbors into atmospheric amenities, or to re-script inland canals as untamed wilderness -- intersect with what Noel Castree (2008a, 2008b) and Nik Heynen *et al.* (2007) might term Green Neoliberalism, or the attempt to expand capital investment opportunities by privatizing, monetizing, and re-regulating natural assets and environmental management processes in the wake of the 1970s financial crisis. Concurrent efforts to build high-end housing in harbors and floodplains, or to use water-top performances to lure transnational companies and knowledge economy workers to Amsterdam, likewise resonate with what Doreen Massey (2007) and David McDonald (2008) might term Neoliberal Urbanism, a development paradigm emphasizing elite-

oriented metropolitan investment as the only viable means of economic growth and political influence in a competitive capitalist world. Water when cast as a marker of distinction, sustainability, novelty, and tolerance, as it has been in Amsterdam over the past two decades, becomes an influential marketing element for this style of urban reconstitution, helping not only to generate but also to obfuscate associated rises in financial inequality and social marginalization.

These various examples from the previous chapters likewise resonate with theories of nonhuman “actants,” a term perhaps most popularized in the writings of Bruno Latour (1987, 1988, 2005, 2007). This line of research is intended as a reality check against human hubris and environmental negligence. Theorists working in this vein expose long-overlooked forms of material dynamism – ranging from dams and door closers to mosquitoes and farm cats – that influence social practice, enable human action, and deserve political consideration. Such insights are certainly relevant to this study of water in Amsterdam. Whatever the human hand in environmental modification and residential construction, water in the form of rainfall, currents, building surfaces, parade routes, habitat, and so on carried human activities out into the world and constrained the types of urban expansion deemed possible. Water was likewise recalcitrant to many of the urban regeneration undertakings described in Amsterdam, as evidenced in the persistence of flood risks despite Promethean coastal reconstruction, the difficulties of making mussels and birds through directly engineered shoreline ecosystems, and the inability to make water-top revelry conform lock-step to public space expectation on dry land. Water was likewise one of many entities bringing the dangerous effects of anthropocentric climate change and flood control home to roost. In each of these instances, it makes sense to talk about water as, what Donna Haraway (2008) might term, a site of agency and interest that is at once bound up in processes of nature-society co-constitution while remaining irreducible to human discursive projections and material reorganizations.

Alongside and intertwined with these neoliberal and nonhuman perspectives, this study has sought to emphasize a third dynamic: the way people are leveraging changing land-water and nature-society relationships into opportunities to transform the shape and meaning of cities.

For instance, these dynamics suggest new methods that could be used to forge places of counter-cultural freedom in the city. Instead of highlighting obscure spaces, this project emphasized forgotten junctures within highly visible landscapes. Squatters and partiers re-appropriated nautical thoroughfares, and in part were able to do so because the canals were falling into industrial disuse. But disuse was only part of the story. The canals’ centrality and the lingering place-based institutional divisions of labor bounding water off from land proved equally if not more influential. These policy divisions shaped people’s ability to lay hold of these spaces and keep hold of them over time even as similar activities on dry land lost ground. These dynamics suggest that institutional specializations mapping some kinds of spaces onto certain modes of behavior – and not just the seeming absence of institutional oversight – create opportunities to play along the margins. In Amsterdam, these jurisdictional edges became places to be elusive without being elicited and to find some counter-cultural freedoms in the city without having to resort to dark and dangerous corners of town.

This research also suggests the need to reconsider the casings of urban history. Streetscapes, sewers, and other infrastructural relics embody grand historic moments

alongside the churches and palaces more commonly celebrated. That Amsterdam's canals and harbors were designed and built is only part of the story. The presence of water emerged as stand-in for other traces of history that did not survive or could not be seen. Water, once interpreted as an empty, silent, residual, and wasted terrain, was repackaged as a reflection of the past. It came to signify economic legacies and to mark the sites of once-fruitful and globally significant daily activities. As a liquid, water could never have preserved the footprints of merchants, explorers, and workers, but its presence came to be seen as a trace of these people's former presence, as well as their bequeathed (and solicited) inheritance on Amsterdammers today.

Finally, the examples analyzed here suggest that relationships between town and country are shifting. The planning paradigms emerging in Amsterdam do not overturn false nature-society dichotomies nor do they undo the shapes and aesthetics of nature thought profitable to real estate. But expectations about the places and functions of town and country vis-à-vis each other are shifting. Planners are starting to cast cities as mothers to nature able to activate latent potentiality in the biophysical world to create a subset of valued plants, fish, mussels, and birds. And planners are learning to neutralize the risk of natural disaster, not by exerting totalitarian control over nature but by mimicking and encouraging hydrological dynamics. These new cities rise and fall with the seasons, breed birds and profits simultaneously, and neutralize risk by going with the flow.

Taken together, this study has shown how the material, symbolic, and opportunity dynamics associated with urban places are changing. Reconfigurations of land, water, society, and the way these realms are made to meet are contributing to these ongoing processes of urban reconstitution. Water, once persona non grata, has been rerouted through neighborhoods, histories, identities, and politics in subtle, seeping, and amphibious ways. These new landscape topographies naturalize urban development agendas, but with the voices of many other people are shaping water's emerging form and utility, as well, the future of both remains open. Through these discussions of place, water, and society, new and alternative urbanisms and politics are taking shape.

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