ISSUE SEVEN : SUMMER 2017

OPEN RIVERS : RETHINKING WATER, PLACE & COMMUNITY

HERITAGE, OPEN SPACE & WATER

http://openrivers.umn.edu

An interdisciplinary online journal rethinking the Mississippi from multiple perspectives within and beyond the academy.

ISSN 2471-190X

The cover image is of Pike Island at Fort Snelling State Park in Minnesota, looking west, showing the Mississippi River. Photographer Brett Whaley. (CC BY-NC 2.0)

Except where otherwise noted, this work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License. This means each author holds the copyright to her or his work, and grants all users the rights to: share (copy and/or redistribute the material in any medium or format) or adapt (remix, transform, and/or build upon the material) the article, as long as the original author and source is cited, and the use is for noncommercial purposes.

Open Rivers: Rethinking Rethinking Water, Place & Community is produced by the University of Minnesota Libraries Publishing and the University of Minnesota Institute for Advanced Study.

Editors

Editor:
Patrick Nunnally, Institute for Advanced Study, University of Minnesota

Administrative Editor:
Phyllis Mauch Messenger, Institute for Advanced Study, University of Minnesota

Assistant Editor:
Laurie Moberg, Doctoral Candidate, Anthropology, University of Minnesota

Media and Production Manager:
Joanne Richardson, Institute for Advanced Study, University of Minnesota

Contact Us

Open Rivers
Institute for Advanced Study
University of Minnesota
Northrop
84 Church Street SE
Minneapolis, MN 55455

Telephone: (612) 626-5054
Fax: (612) 625-8583
E-mail: openrvrs@umn.edu
Web Site: http://openrivers.umn.edu

ISSN 2471-190X

Editorial Board

Jay Bell, Soil, Water, and Climate, University of Minnesota

Tom Fisher, Metropolitan Design Center, University of Minnesota

Lewis E. Gilbert, Institute on the Environment, University of Minnesota

Mark Gorman, Policy Analyst, Washington, D.C.

Jennifer Gunn, History of Medicine, University of Minnesota

Katherine Hayes, Anthropology, University of Minnesota

Nenette Luarca-Shoaf, Art Institute of Chicago

Charlotte Melin, German, Scandinavian, and Dutch, University of Minnesota

David Pellow, Environmental Studies, University of California, Santa Barbara

Laura Salveson, Mill City Museum, Minnesota Historical Society

Mona Smith, Dakota transmedia artist; Allies: media/art, Healing Place Collaborative

CONTENTS

Introduction

Introduction to Issue Seven
By Patrick Nunnally, Editor 4

Features

Anthracite Heritage: Landscape, Memory and the Environment
By Paul A. Shackel 6

Lost to Progress: Upper Mississippi River and Minneapolis Parks Development
By Anna Bierbrauer 22

Where the Water Takes You: Unlocking Place-based Meanings through Inquiry at the Tidal Basin in Washington, D.C.
By Barbara J. Little and Katie Crawford-Lackey 40

Geographies

The St. Louis River
By Alex Messenger 58

Perspectives

River Reveal: Photographing the Mississippi
By Angie Tillges 74

Teaching and Practice

The Flow of Health, Water, and Information in the Mississippi Watershed
By Reba Juetten 92

Primary Sources

Fort Snelling as I Knew It
By Catherine Watson 95

In Review

National Parks: Can “America’s Best Idea” Adjust to the Twenty-first Century?
By Patrick Nunnally 107

FEATURE

LOST TO PROGRESS: UPPER MISSISSIPPI RIVER AND MINNEAPOLIS PARKS DEVELOPMENT

By Anna Bierbrauer

"Mills grind over 10,000,000 Barrels of Flour per Year. Over 300,000,000 Feet of Lumber sawed per Year"

–Description on 1891 Birds Eye Map illustrating the robust activity along the West Bank of the Mississippi.[i]

1891 Illustrated Map, Image courtesy of Hennepin County Library.

"The Fourth Coast is a narrow waterway that joins the western edge of the East Coast and the eastern edge of the West Coast. It is a point of confrontation and transformation where connections to our European traditions begin to diminish in importance and the elements and spaces of our own continental consciousness take over."

– "The Fourth Coast: An Expedition on the Mississippi River," by Catherine Brown and William Morrish (*Design Quarterly* No. 150, p. 8, 1991).

Part I: Crafting Parks & Shaping a City

In February 1872, Horace W. Cleveland trudged through the snowy streets of Minneapolis to the Pence Opera House. His goal was to deliver a speech convincing the city planners, wealthy landowners, and businessmen to work quickly on protecting and preserving the scenic beauty found throughout the growing cities of Minneapolis and St. Paul.[ii] Learning from lost park opportunities of East Coast cities and the projected rapid growth of cities in the American West, Cleveland made a pleading call for leaders to begin planning as soon as possible: this scenic beauty could not protect itself from being developed. He posited Minneapolis and St Paul had the opportunity to create park systems unrivaled by any other in the country, but leaders needed to act fast: Minneapolis was quickly becoming a bustling international leader of lumber and flour production and was on the cusp of unprecedented growth.[iii] Should leaders sit on their laurels, this Midwestern city would not only lose the gifts of natural beauty found around the nearby lakes, the storied Minnehaha Falls, and the deep Mississippi River gorge, but also the opportunity to assert its own continental character of progressive preservation coupled with economic growth. He elaborated this call to protect undeveloped lands and strengthen economic possibilities in his 1873 book, *Landscape Architecture, as Applied to the Wants of the West*: "No flaming advertisements set for their merits; no solicitations are made to us to secure them. We have but to reach out our hands, and they are given to us 'without money and without price'...and if we miss this auspicious hour, the chance is gone forever. We may cast our longing eyes upon its retreating form, and curse our own blindness and stupidity, but it is utterly beyond recall."[iv]

His speech worked—albeit slowly. Despite a dedicated group of powerful leaders advocating for parks, the fight to preserve open space within the growing city proved difficult. The Board of Trade made multiple attempts to create park legislation defining the governing structure and systematic growth of parks, but they were continually thwarted. Eleven years after Cleveland delivered his inspirational speech, on April 3, 1883 the citizens of Minneapolis voted into existence the Board of Park Commissioners.[v] This group of leaders was to be an independent council overseeing growth of the city's park system separate from City Council. Unusual even among today's parks departments standards, the powers held by the Board gave them authority to purchase land, levy taxes, and issue bonds. Its separate status allowed for a full embrace of its agenda unencumbered by roadblocks from City Hall. In need of a comprehensive plan for procuring parkland, the Board of Park Commissioners once again turned to Cleveland for advice on how to "reach out their hands" and "secure them [parks]" within the future of Minneapolis.[vi]

Cleveland delivered. On June 2, he presented "Suggestions for a System of Parks and Parkways

for the City of Minneapolis," laying out a plan for connecting the entire city to its scenic waterways and neighborhood parks via a series of tree-lined parkways. In his speech, he urged the Board of Park Commissioners to focus considerable resources on the protection of the Mississippi River. He suggested "a broad avenue be laid out on each side of the river…the other side of the avenue will become a site of costly mansions and public buildings…overlooking a continuous park."[vii] The Mississippi River he refers to is limited in scope and only focuses on the area south of St. Anthony Falls. This omission is understandable; the exclusion of the Central and Upper Riverfront in 1883 was one of economy. Cleveland recommended to the Board of Park Commissioners to "let the city avail itself to any tracts which are intrinsically valueless and proceed to adorn and render them attractive,"[viii] but the Upper River was the city's industrial backbone and riverfront parcels were quite literally the building blocks of wealth in Minneapolis.

The undoing of the wilderness above the falls began in the 1840s when the first lumber mills were built, altering the gentle slopes and oak savannas along the Upper River. An 1880 map does show large tracts of undeveloped land north of the falls—including a public wharf on the East Bank—but non-industrial uses were soon pushed out. By the time Cleveland warned of lost opportunities in 1883, maps showed most of the Upper River occupied with lumber mills, flour mills, breweries, and railways. As the lumber industry

1892 Plat Map, Plate 7. North of St Anthony Falls showing industrial parcels lining the river banks. [ix]

faded and flour demands diminished in the early twentieth century, new industries moved in to make use of the railroad infrastructure. By 1914, large breweries and a few lumber yards remained but the small sawmills were replaced with an array of companies such as machine shops, foundries, and furniture manufacturers. Railways hemmed in industry to the river's edge. On the west bank, rail lines isolated the river from the adjacent working class neighborhoods. The east bank had easier access to the waterfront, but the large factories, steep banks, and intermittent rail lines made recreational use unrealistic. A riverside park was created on the east bank in 1915: Northeast Riverside Park—now known as Marshall Terrace—was intended to provide playing fields and a small picnic shelter for children in the neighborhood but was quickly reported as underused.[x] Pollution from the adjacent Riverside Steam Plant of Minneapolis General Electric Company made the area unpleasant for ball games and, despite citywide investment in swimming facilities, plans for a beach were scrapped when the river's current proved too treacherous for swimming. A mere nine years after it became park property, Park Superintendent Theodore Wirth called the park unfit for use; he recommended only minimal maintenance and the shelter was relocated.[xi]

Advocates for increasing the industrial capacity of the Upper River were more successful. From the 1930s to 1960s, state legislators lobbied to expand maritime navigation by extending the nine-foot wide riverbed channel, constructing a lock and dam at the site of St. Anthony Falls, and creating a terminal port for barge traffic. The investment of public funds cemented the land use of the Upper River into heavy industry despite it being in opposition to Superintendent Wirth's dreams described in his 1945 book, *Minneapolis Parks System*: 1883-1944: "Perhaps in the post-war years some plan may be devised whereby this section of the Mississippi can be acquired by the city and improved as part of the municipal park system—or maybe of the anticipated metropolitan park system of the future….Unquestionably these shores should be preserved for the use and enjoyment of all our people and for those of the coming generations."[xii]

Looking north to the Upper Harbor Terminal on the West Bank and the Engineered East Bank. Image courtesy of Anna Bierbrauer.

But, as Cleveland warned, preservation is difficult and restoration nearly impossible. Wirth's ideals were no match for the inertia of the working river and heavy industry settled in along the banks of the Upper River. The Upper Harbor Terminal though never the boon to barge traffic it promised to be converted a large area of riverfront market farms to storage and transport. And, it represented a larger dedication to keeping the river bound to uses laid out a century earlier instead of seizing any opportunities to shift its identity.

A present-day map of Minneapolis Parks shows a strong resemblance to Cleveland's 1883 plan and is a testament to his ability to "look forward for a century, to a time when the city has a population of a million, and think what will be their wants."[xiii] Yet, one piece was perhaps unfathomable even to him: the riverfront industries so dominant in his lifetime would someday fall away and the urban core would become available for parks. His vision and the work of the founding leaders has been wildly successful and created the #1 parks system in America, according to the Trust for Public Land.[xiv] But how can it stand up to the challenges he most feared? In many ways, the gritty urban waterway of the Upper Mississippi River is the outcome he most dreaded. If the river is not protected, he argued, "it, will certainly soon become and remain for all time, the most unsightly and irreclaimable squalid center of the city."[xv] Now, 135 years later, stripped of its natural beauty, continuously covered in polluting land uses, and exponentially more expensive for the Park Board to purchase, it is on the cusp of becoming a park for the people. To follow Cleveland's intent and complete the "Crown Jewel of the Mississippi River," the roles of park, community, and river will need to be re-examined, redefined, and pieced back together within their current contexts. With more demands on the urban park, a more diverse city to serve, and an impaired water body to overhaul, how will Cleveland's vision be upheld?

Part II: The Inherited Park, Community, and River - *In Situ*

PARK

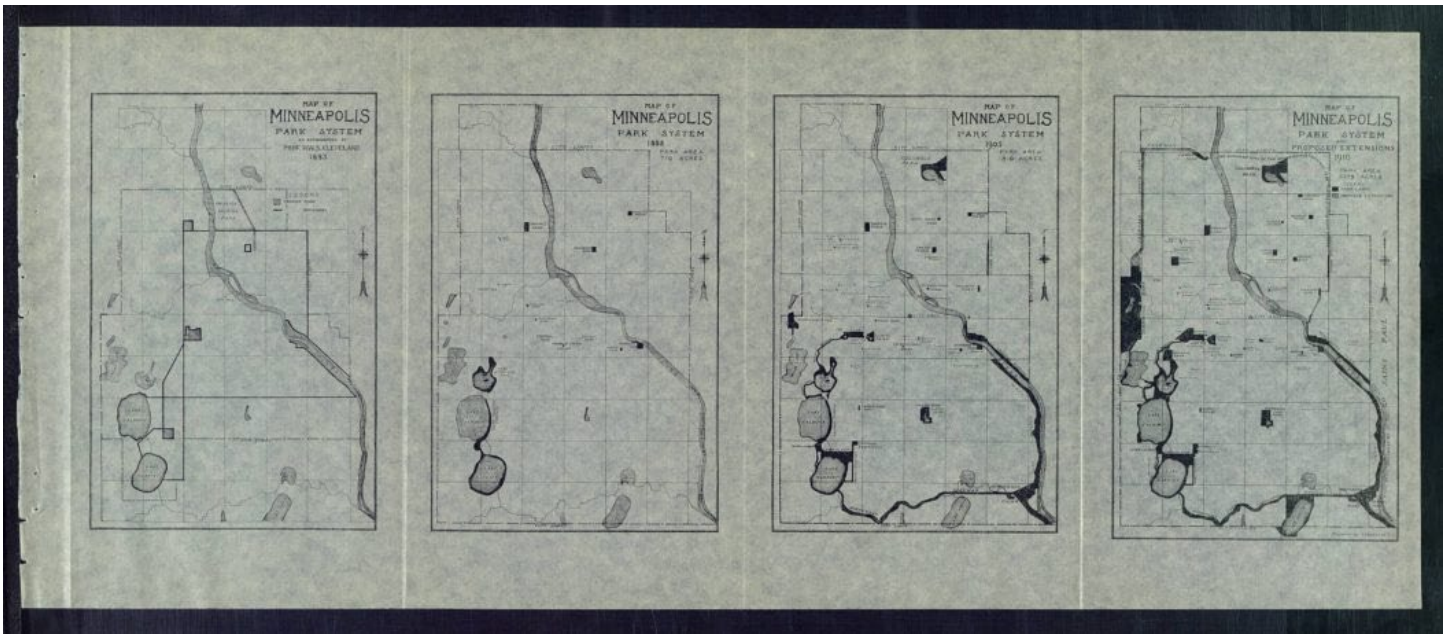
Upon its inception, the motto of the Minneapolis Parks was "Health and Beauty." One of the reasons the parks have been so successful is their ability to adapt this concept over time. From the passive strolling parks first laid out by Cleveland to miles of mountain bike paths recently developed for active recreation, from nature education programs among unique ecosystems to recreation centers in neighborhood parks, health and beauty have had different meanings over the years. As the needs of the community have changed, the parks have adjusted their facilities, their programming, and their maintenance regimes to better serve the people of Minneapolis. From 1883 to 2017, the parks system has continually revised and modified its priorities to keep Minneapolis Parks relevant to its citizens.

The foundation of public parks in the U.S. can be traced directly back to Frederick Law Olmsted's 1850 visit to Birkenhead Park in England. Olmstead was greatly impressed with the concept and function of a public park to serve growing urban populations. Upon his return, he worked to replicate the idea in crowded U.S. cities and his eventual designs included Central Park in Manhattan, Prospect Park in Brooklyn, and the Emerald Necklace of Boston, among numerous

others. He heralded the urban public park to be the "lungs of the city," a place for people to escape from the crowded residential districts and breathe fresh air. His design style is firmly rooted in the cannon of the English Picturesque and features the winding paths, large clumps of trees, and grand allees we have come to equate with American parks. Separated paths for safe strolling, sweeping lawns for picnics, and calm water bodies for lazy boat rides were the intended park programs of the late nineteenth century. Each of these design elements and associated programs were inspiration for Cleveland's ideas for the Minneapolis Park system and their successful implementation paved the way for the realization of the Grand Rounds.[xvi] Passive recreation and Picturesque scenery were the health and beauty of the young Minneapolis parks.

Petitions of residents and the leadership of Superintendent Wirth added active recreation soon after the establishment of neighborhood parks in the early 1900s. Tennis, bicycling, playgrounds, and ballfields were early additions and became popular activities. The shift away from park as protected natural areas within city to park as site for sport and competition was dramatic and not without debate among the Board of Commissioners. Nature and the beauty it offered also shifted with this new role: no longer were the preserved majestic trees and mown lawns enough. In response to trees and vegetation in poor condition, new maintenance programs in forestry and horticulture were developed to ensure the well-used parks looked presentable. [xvii] To make the public feel more welcome, fences used to protect lawns from being trampled and parks grounds from being abused were removed.

By the end of World War II, many said this progress did not go far enough to provide opportunities for the youngest Minneapolitans and was too focused on wealthy neighborhoods; health and beauty seemed to be prioritized for only certain portions of the city. Part of this was due to leadership, part due to the park funding structure: neighborhoods that could afford it, could choose to fund parks in their neighborhood through property assessments.[xix] Along the Mississippi River, the working-class neighborhoods of North and Northeast did not have that



Series of Maps from the Thirty-Six Annual Board of Commissioners Report, 1918. From left to right: Cleveland's 1883 Proposal; Parks System in 1888; 1905; and 1915. Note the concentration of park growth in South Minneapolis. [xviii]

luxury and were dependent on the Board for their park improvements.

During the post-war years and into the 1960s, the parks worked to address the needs of a burgeoning young population. More neighborhood parks in underserved areas were created, recreation centers were built, and after-school programming was introduced. Maintenance demands and rising maintenance costs continued to be a struggle. To assert and proclaim their new commitment to active play, the Board changed the name of the organization to the Minneapolis Park and Recreation Board (MPRB) and their work for the next two decades formalized it: during the 1960s and '70s, partnerships with schools, the housing authorities, and community agencies allowed the parks to expand their recreation facilities exponentially throughout the city. An independent recreational review by outside leaders in 1977 "praised the parks and facilities, their even distribution within the city, as unsurpassed in the county." [xx] Recreational programming, however, was criticized for failing to serve "'special populations,' including seniors, handicapped, racial and ethnic minorities and teens and young adults." J.B. Jackson's 1979 essay, "The Origins of Parks," alludes to this being an issue in general within parks across America: "Why have our parks ignored this important function: the integration of the young into the life of the community?...Is it not time that we acknowledged the need ...the ample, unstructured, unbeautiful, multipurpose public playground where adolescents can assert themselves and become social beings, defending and serving some youthful concept of the community?"[xxi]

Once again, the Minneapolis park system rose to the challenge and public parks now include skate parks, environmental service learning for teens, walking clubs for the elderly, and family-oriented exercise classes—the list goes on and on. Programming is continually being altered to ensure it best fits the needs of the ever-changing trends in community health and recreation.

MPRB efforts along the Mississippi have largely been confined to acquiring and developing a continuous strip of recreational land, a parkway and adjacent trail, the length of the river in the city. More formal programming has been a collaborative effort, the main reason being that the Mississippi River within the city's boundaries has an added park designation: it is a portion of the 72-mile Mississippi National River and Recreation Area (MNRRA), a program of the National Park Service (NPS) established in 1988. Launched nationally in the 1960s as a response to rising recreational needs of a growing population, the National Recreation Area designation provides protective guidelines to lakeshores and seashores as well as historic resources—often near urban areas.[xxii] MNRRA has been a celebrated example of the National Recreation Area program balancing needs for outdoor recreational opportunities with the protection of fragmented habitats and threatened ecological systems all under a tangled web of multiple municipal boundaries and localized agendas. NPS Landscape Architect Rolf Diamant and NPS Park Superintendent Michael Creasy applauded MNRRA, declaring "this civic revitalization was exactly what National Park Service Director George Hartzog had in mind when he spoke of urban parks and that national park system as a 'resource for America.'"[xxiii]

The "working landscape" of the Upper River is an added layer of complexity for MNRRA and the MPRB to contend with. The prominence of the Upper River within the industrial history of Minneapolis may be worthy of celebrating just as much as the beauty of the water itself. It is, in many ways, a cultural landscape of Minneapolis history. But its degraded shorelines and treeless side streets are far from the "pristine wilderness" visitors desire from the national parks or local parks. Is there a way the two could co-exist? Can the unsightly history be kept in a manner fitting for an iconic waterfront? To further complicate the process, for many residents of North and Northeast Minneapolis, it is not only a National

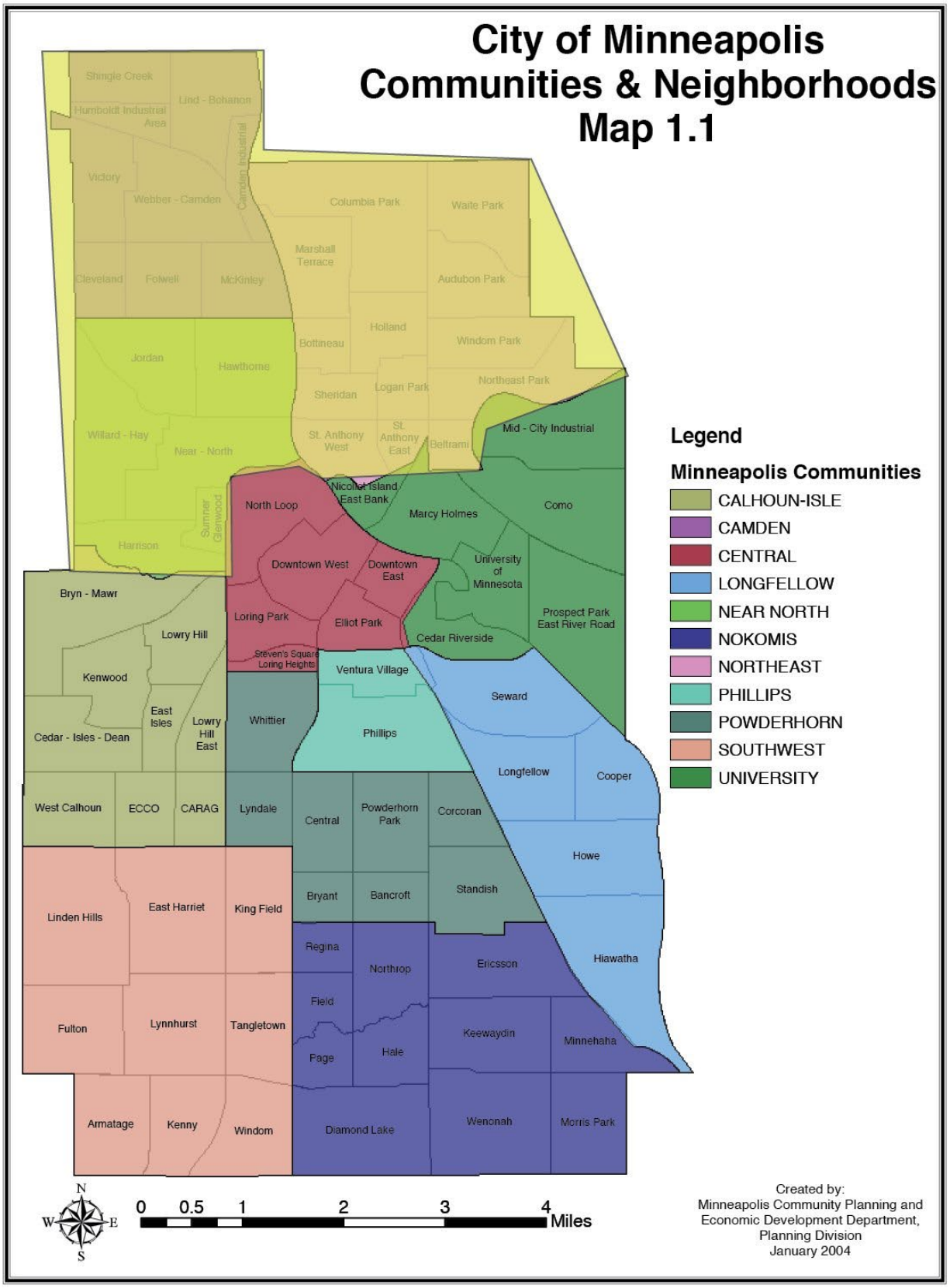
Park, but also a neighborhood park: a place for after-school tutoring, a place for an indoor tot gym on a cold winter day, or a place for an evening pottery class. This park will have to be a new model, one able to serve both the local elder and the tourist coming from afar, one celebrated for its past as much as its new form.

The park has successfully and incessantly been adapted to maintain its prominent role in civic life; the post-industrial riverfront park will reveal a complex web of wants and restrictions, one demanding further adaptation and variation.

COMMUNITY

G.P.jacob, a Minneapolis hip-hop artist, recently released a song about the "the longest bridge from Poland to Africa" as a commentary on the historical, cultural, and racial divide between North and Northeast Minneapolis. The bridge he refers to, Lowry Avenue, is the main east-west artery across the Upper River, and his discussion of "Midwest Apartheid" is not unwarranted.

Industrial Riverfront of North Minneapolis along the Riverfront. Image courtesy of Anna Bierbrauer.



Map of Minneapolis Neighborhoods and Communities. Courtesy of City of Minneapolis. North and Northeast highlighted in yellow.

Segregation of neighborhoods along the river has long been a defining characteristic of the Upper River and has increased greatly in the last 30 years.

Affectionately referred to as "Nordeast" due to the heavily accented English of its early residents, Northeast Minneapolis has been home to many tight-knit immigrant communities. So strong is the immigrant-friendly identity, the local streets are named after the presidents of the U.S. in chronological order—an attempt to help new arrivals study for their citizenship test.[xxiv] From breweries started by German immigrants to later waves of Poles and Eastern Europeans to a strong Lebanese community and more recent immigrants from Central America and East Africa, Northeast has been known as a solid working-class neighborhood of Minneapolis. In the 1980s, artists began to take advantage of cheap, spacious rents in Northeast Minneapolis warehouses. Former seed houses and casket companies became artist studios, and low housing costs made for a good standard of low-cost living. A renovation of a historic theater and ample storefront space for galleries gave birth to the celebrated Northeast Arts District.[xxv] The neighborhood has been a boon for commercial and residential developments in recent years and property values have risen sharply making the area less affordable for the working class and artists alike. The area is served by multiple bus lines and a network of bike lines, and there is easy access to major interstate routes.

Recent mapping of racial covenants on Minneapolis properties reveals a concentration of covenants in South Minneapolis; these partially account for the historic concentration of African Americans in North Minneapolis.[xxvi] However, until the 1950s, North Minneapolis housed both a large Jewish and a large African American population. Most Jewish families and businesses moved to a first-ring suburb in the '50s and '60s and the area has been largely African American with a growing Asian population since.[xxvii] Cultural institutions are tight-knit and well organized and there is a strong presence of localized youth, entrepreneur, and community-development organizations. North Minneapolis was hit hard by the foreclosure crisis in the mid-2000s and, ten years later, is still plagued with empty homes or vacant lots dotting the neighborhoods.[xxviii] Housing costs are low due to disinvestment and a disproportionate number of subsidized housing units, despite high-quality housing stock available in the neighborhood. A tornado hit Minneapolis in the spring of 2011 and North Minneapolis sustained the greatest amount of damage. Lasting damage to homes and the mature tree canopy is still visible. Although well connected to the rest of the city via bus routes, the area of North Minneapolis is bounded on the south and west sides by large interstates. This creates easy access for drivers but divorces the neighborhood from the riverfront and downtown Minneapolis.

The cultural histories of these two areas differ, but until recently the working class economics of the two areas were quite similar. According to a Minneapolis Department of Community Planning & Economic Development report on the 2010 Census, the similarities were beginning to wane. Population numbers, household units, and household incomes have shown increases in the riverfront neighborhoods in Northeast. However, for the riverfront neighborhoods in North Minneapolis, population, available housing units, and household incomes have all fallen. Racial demographics have also diverged greatly. According to Census Bureau data, North Minneapolis's 2010 Black population was two and a half times the size of its 1980 Black population, while the White population fell by 62 percent. In Northeast Minneapolis, there has been an increase of people of color largely Hispanics or Latinos but, as of 2015, the overall percentage of people of color is only 34 percent compared to the North neighborhood's 72 percent (Minneapolis overall is 40% POC). Add in the economic changes: median household incomes in Northeast ($45,310) are

on average $12,000 more per year than North's ($33,037); those living below the poverty line in Northeast is 24 percent compared to North's 35 percent; and the unemployment rate in Northeast is only 7 percent, whereas North's is nearly 17 percent. Compare all of these to Minneapolis as a city and the disparities felt in North Minneapolis are even more distinct. Overall median household income for Minneapolis is $57,186, with 22 percent below poverty, and an unemployment rate of 7.5 percent.[xxix]

Communities on both sides of the river have very strong neighborhood leaders who regularly advocate for their communities at City Hall. A recent heated topic is riverfront industry and its impact on the health of North and Northeast residents. After years of community concerns and a recent influx of complaints, the Minnesota Pollution Control Agency began doing ambient air quality testing in the industrial area located in North Minneapolis in October 2014. Tests showed multiple violations of Total Suspended Particulate standards and unhealthy levels of airborne lead.[xxx] Given that North Minneapolis suffers from the highest rate of asthma-related hospitalizations and the highest concentration of lead poisoning cases, these air quality issues

Standing on "The Longest Bridge," looking south to downtown, North Minneapolis with active heavy industry on the right, Northeast Minneapolis with steep riverbanks on the left. Image courtesy of Anna Bierbrauer.

could not be ignored. One company–a metal recycling plant was found in violation of their permit and, after a lengthy legal battle, will be moving off of the river in 2019 and has paid the City of Minneapolis $600,000 for community health programs. The soon-to-be shuttered plant is one of many contributors to poor air quality in the area, but the number of MPCA-monitored sites along the river in North Minneapolis places a large burden on nearby residences.

Minneapolis's racial and cultural demographics have shifted greatly in the past generation. New public park space will serve a much more diverse population of users than ever before; community needs will be defined increasingly by non-Western European cultures. One can look to a line in Frederick Law Olmsted's 1886 letter to the Board of Park Commissioners for inspiration: "It is the duty of a Park Commission to open the way to new, not follow old customs."[xxxi] For North and Northeast, whose neighborhood identities have been built on welcoming minority cultures, there is now an opportunity to craft the park space of their river.

Socio-economic differences are slowly lengthening the distance of "the longest bridge" and hardening the river boundary between these two neighborhoods. Reorienting both neighborhoods toward the river through park and community development has the potential to either minimize or grow this divide.

RIVER

For its entire urbanized history, the Upper River has had a specific role: to create power and transport goods. In June of 2014, President Obama signed into law the closure of the St. Anthony Lock and Dam, effectively terminating the main identity of the Upper River. Slowly, the industrial transportation fabric will fade away and make room for new identities. The riverbanks will take on a new character. The water itself will change in both quantity and quality. The river bottom's once-maintained channel will begin to fill into something unknown and invisible to the human eye. After a century of humans manipulating the form of the Upper Mississippi River for explicit purposes, what are the unknown potentials? With what intention should leaders, citizens, and stakeholders move forward?

With so many voices involved and various priorities to address, it is tempting to once again focus the role of the river too narrowly. Rather than separate the river's functions into discrete roles—river as recreation, river as ecological corridor, river as park, river as electricity—functions can be stacked to obtain benefits across scales. When multiple voices are sought and deliberative involvement of diverse stakeholders is prioritized, a stronger outcome can be attained. A 2012 study of restored rivers in England showed a correlation between successful long-term restoration and the use of clear social goals; in-depth, transparent, and ongoing civic involvement resulted in greater ownership of the final outcome.[xxxii] Similarly, researchers from the University of Birmingham studied the improvement of restoration outcomes through early, innovative community engagement: participants increased their mutual understanding of differing priorities by relying on local, community experts and the solicitation of personal narratives.[xxxiii] The complexity of removal, repurposing, and recreating will require long-term collaboration in order to improve the social, cultural, and ecological capital equally.

A couple of miles north of the industrial zone, 21 billion gallons of water are pulled from the Mississippi River each day and turned into drinking water for the city of Minneapolis and a few nearby suburbs.[xxxiv] The Mississippi is also the destination of billions of gallons of storm water run-off—some filtered before dropping into the river, some of it running directly from gutter to

River water is pulled into the Minneapolis Water Works filtration plant. Image courtesy of Anna Bierbrauer.

pipe to river. Combined Sewer Overflows (CSOs) once dumped both raw sewage and surface runoff into the river, but since work began in the 1930s to separate storm water from raw sewage, 96 percent of the CSOs have been eliminated.[xxxv] In conjunction with the Minnesota Pollution Control Agency and the Minnesota Department of Health, the Minneapolis Watershed Management Organization began conducting water quality monitoring of bacteria levels in 2014 to ensure safe swimming and fishing for residents.[xxxvi] Sensitive to the influential impact Minnesota has on the massive Mississippi watershed, state and local agencies also work carefully to limit non-point source pollution whenever possible: for example, new storm water filtration systems have been installed to keep sediment, salt, debris, and pollutants from entering into the water. Governmental and nonprofit organizations initiate and facilitate educational programs for residents on topics of water-safe landscaping and clean-up habits. With land use changes along the Upper River, an opportunity arises: large-scale interventions and infrastructure can be prioritized to improve water quality for Minneapolis and protect the drinking water for 17 million people downstream who depend on the Mississippi.

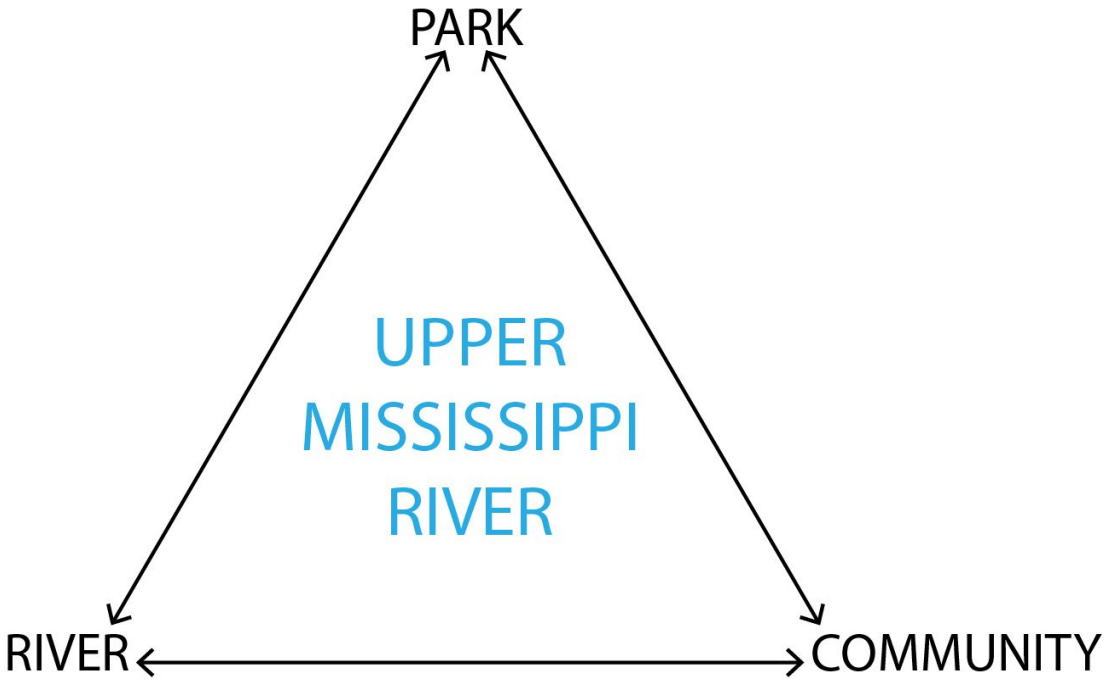
Freeing the Upper Mississippi from its channelized form cannot be a dramatic event; there will be no romantic return to a wild river. But as climate change has an impact on weather regimes, this urban river will have to be more flexible, more functional than in the past century. In the last 40 years alone, river flow in Minnesota has increased 24 percent, largely due to land use and land cover change.[xxxvii] As more roads and roofs are built, the amount and speed of stormwater runoff has increased. As wetlands are drained and replaced with agricultural fields or residential developments, the amount of water being absorbed into the land has decreased. This decreased capacity to hold water, compounded by an increase in strong, heavy rainstorms, is straining storm water infrastructure and gives more reason to return parts of the urban river to its original purpose—a piece of green infrastructure. Usually implemented at residential or commercial scales, green infrastructure includes bioretention ponds, rain gardens, and vegetated buffer strips to mimic the hydrologic cycle. Can an urban river development or restoration include design elements to slow, filter, and infiltrate water at a larger, watershed scale? As the industrial warehouses and surface parking lots are removed, both natural reconstructions and engineered systems can be installed above and below ground in order to improve resiliency of the city and the region.

Bringing experts and laypeople into early planning is necessary for the future river. As many of its values are invisible to the untrained eye, it is critical for these various values to be understood by the public, the scientist, and the engineer alike in order to build enduring support for this huge transformation.

Part III: Determining the Heritage of the Future

Peeling away the physical, historical, and cultural layers along the Upper Mississippi River will be far more complex than Cleveland could have imagined in 1883. His prediction that the riverfront is "irreclaimable" may eventually be proven wrong, but it will require visionary thinkers beyond the Park Board of Commissioners and a few wealthy landowners. A roster of ecologists and engineers, developers and community members, city council members and philanthropists, hydrologists and landscape architects, community-development organizations and historians will all need to work together to define the "spaces of our own continental consciousness" and successfully transform this four-mile sliver of the Mississippi River. The present-day relationship involving park, community, and river is built on both the genius and the failures of the past. Close consideration of how these three elements have evolved in partnership, in conflict, or in spite of one another reveals deep-seated complexities project leaders must address.

In 1972, city planners presented the "Mississippi/ Minneapolis: A Plan and Program for Riverfront Development." This plan laid the groundwork for the Central Riverfront of today: former mills preserved and celebrated; rail lines removed and replaced with cultural institutions; parking lots replaced with high-rise condos; and riverbanks turned into parkland. As riverfront development moves north, the difficulty of such a transformation increases. Industrial remnants along the Upper Mississippi are less attractive for adaptive reuse than the tasteful brick structures of the Central Riverfront. Rail,



Relationship of park, community, and river on the Upper Mississippi River.

interstate, and power infrastructures are more restrictive along the Upper Riverfront, limiting space for development. Where business districts line the Central River, the Upper River is flanked by long-standing residential neighborhoods. Communities that have historically been underserved, underrepresented, and denied riverfront access making conversations about equity, environmental justice, and transparency crucial and critical planning topics. A reliance on past planning processes will not suffice; this new context requires new tactics.

Today's differences between the "working" Upper River and the "scenic" Lower River exemplify the long-lasting impact of land use decisions. The manner in which the Upper Mississippi River was treated during the nineteenth and twentieth centuries has shaped its form, its role in civic life, and its relationship to nearby residents. As Cleveland strove to imagine Minneapolis 100 years in the future and to anticipate the city's needs, so too must today's planners. His predictions were not 100 percent accurate, but his vision established a system and an ethos of parks. His actions granted Minneapolis a rich river and park history. To quote J.B. Jackson, "The value of history is what it teaches us about the future."[xxxviii] The Upper Mississippi River sits in a tangle of constraints and opportunities; its history may well be its greatest guide to correcting past mistakes and avoiding future missteps.

Footnotes

[i] Pelsolt, F.. *Bird's Eye View of Minneapolis, Minnesota*. 1891. Hennepin County Library, James K. Hosmer Special Collections Library, http://reflections.mndigital.org/catalog/mpls:157. Accessed 22 June 2017.

[ii] Smith, David C. *City of Parks: The Story of Minneapolis Parks*. Minneapolis, MN: Foundation for Minneapolis Parks, 2008. Print.

[iii] Cleveland, H. W. S. *Landscape Architecture, as Applied to the Wants of the West*. Amherst, MA: University of Massachusetts Press, 2002. Print.

[iv] Cleveland, 81.

[v] Smith, 23.

[vi] Cleveland, 81.

[vii] Wirth, Theodore. *Minneapolis Park System 1883-1944: Retrospective glimpses into the History of the Board of Park Commissioners of Minneapolis, Minnesota and the City's Park, Parkway, and Playground System*. Minneapolis, MN: Board of Park Commissioners of the City of Minneapolis, 1945. Print.

[viii] Cleveland, 63.

[ix] Foote, C.M.. *Atlas of the City of Minneapolis, Minnesota*. 1898. University of Minnesota Libraries, John R. Borchert Map Library. http://map.lib.umn.edu. Accessed 22 June 2017.

[x] Smith, David C. "Marshall Terrace Park: History." http://minneapolisparks.org. Minneapolis Park and Recreation Board. Accessed June 4, 2017.

Footnotes Continued

[xi] Smith, 96.

[xii] Wirth, 157

[xiii] Wirth, 29.

[xiv] "ParkScore Index: Minneapolis," http://parkscore.tpl.org, Trust for Public Land. May 2017. Web. Accessed 1 June 2017.

[xv] Wirth, 30.

[xvi] Cleveland, 65.

[xvii] Smith, 76.

[xviii] *Map of Minneapolis Park System, 1883, 1888, 1905, 1910, Minneapolis, Minnesota*. Minneapolis Park & Recreation Board, http://reflections.mndigital.org/catalog/p16022coll55:56 Accessed 21 June 2017.

[xix] Smith, 151.

[xx] Smith, 181.

[xxi] Jackson, John Brinckerhoff. *Discovering the Vernacular Landscape*. New Haven, CT: Yale University, 1984. Print, 129.

[xxii] "Designation of National Park System Units." http://nps.gov. National Park Service, U.S. Department of the Interior. 2 Apr. 2015. Accessed 7 June 2017.

[xxiii] Manning, R., R. Diamant, N. Mitchell, and D. Harmon, editors. *A Thinking Person's Guide to America's National Parks*. New York: George Braziller Publishers, 2016. Print, 193.

[xxiv] Delegard, Kirsten. "The President Streets." http://historyapolis.org, Historyapolis. 17 Feb 2014. Web. June 10, 2017.

[xxv] WSB, Assc. "Sheridan Neighborhood Organization Small Area Plan." Minneapolis, MN:City of Minneapolis, 2013.

[xxvi] Delegard, Kirsten and Ehrman-Solberg, Kevin. "Playground of the People"? Mapping Racial Covenants in Twentieth-Century Minneapolis." *Open Rivers: Rethinking the Mississippi*, No. 6. http://editions.lib.umn.edu/openrivers/article/mapping-racial-covenants-in-twentieth-century-minneapolis/.

[xxvii] "Custom Profiles" http://www.mncompass.org Wider Research. 2017. Web. Accessed 9 June 2017.

Footnotes Continued

[xxviii] "2016 Summary of Number of Foreclosures by Ward." City of Minneapolis: Community Planning and Economic Development. 27 Jan 2017. Print. 9 June 2017.

[xxix] "Custom Comparison Tool" http://www.mncompass.org Wider Research. 2017. Web. Accessed 9 June 2017.

[xxx] "North Minneapolis Air Monitoring Project." http://www.pca.state.mn.us Minnesota Pollution Control Agency. 3 March 2017. Web. Accessed 8 June 2017.

[xxxi] Wirth, 38.

[xxxii] Aberg, E. Ulrika, and Susan Tapsell. "Revisiting the River Skerne: The long-term social benefits of river rehabilitation." *Landscape and Urban Planning*, Vol. 113, May 2013, 94–103.

[xxxiii] Petts, Judith. "Critical Perspectives on Integrated Water Management." *The Geographical Journal*, Vol. 173, No. 4, Dec., 2007, 300-311.

[xxxiv] "2013 Water Quality Report." http://www.ci.minneapolis.mn.us City of Minneapolis, 2013. http://www.ci.minneapolis.mn.us/www/groups/public/@publicworks/documents/webcontent/wcms1p-125811.pdf.

[xxxv] "History of Stormwater and Wastewater Drainage Systems in Minneapolis." http://minneapolismn.gov, City of Minneapolis, 19 Jan. 2012. Web. Accessed 10 June 2017.

[xxxvi] "State of the River 2016." http://www.stateoftheriver.com, McKnight Foundation. 2016. Web. https://www.mcknight.org/system/asset/document/3624/original/State%20of%20the%20River%20Report%202016.pdf.

[xxxvii] "State of the River 2016."

[xxxviii] Jackson, xi.

Recommended Citation

Bierbrauer, Anna. 2017. "Lost to Progress: Upper Mississippi River and Minneapolis Parks Development." *Open Rivers: Rethinking Water, Place & Community*, no. 7. http://editions.lib.umn.edu/openrivers/article/lost-to-progress/.

About the Author

With an M.A. in landscape architecture from the University of Minnesota (UMN) and a B.A. in performance theory and political systems, Anna works to expand the public's understanding of the human-built environment relationship of the past, present, and future. She sits on the Above the Falls Citizen Advisory Committee and the Minneapolis Riverfront Partnership Board, and is an adjunct faculty member in the UMN College of Design.