Waterfront Flyways: Two Land Creation Projects in Cleveland

THESIS

Presented in Partial Fulfillment of the Requirements for the Degree Master of Landscape Architecture in the Graduate School of The Ohio State University

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Graduate Program in Landscape Architecture

The Ohio State University

2014

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Abstract

This thesis considers Cleveland, Ohio’s current and historic lakefront planning tradition through the lens of two land creation projects. The first, the Lake Erie International Jetport, was proposed in the late 1960s but never built. The second, the Cleveland Lakefront Nature Preserve, began its life in 1979 as a confined disposal facility for polluted sediments dredged from the Cuyahoga River and Cleveland Harbor. An examination of the motives, techniques, and desires behind these projects reveals that the creation of land from polluted dredged material is Cleveland’s strongest and most consistent waterfront development tradition—one that has emerged from the distinct material economy of Cleveland to offer a future vision of the waterfront that synthesizes the city’s industry, ecology, and culture.
Dedication

This work is dedicated to my loving family and to Lucy.
Acknowledgements

First I would like to thank my Advisor, Professor Jacob Boswell, who has been a great help to me in my three years at The Ohio State University. Without his encouragement and ideas, this project would have been much more difficult. To the other member of my thesis committee, Professor Kristi Cheramie, thank you for prodding me forward when I needed it. I would also like to thank visiting Professor Rob Holmes, for introducing me to confined disposal facilities in his seminar. Finally, I’d like to thank my classmates, from whom I’ve learned so much.
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Chapter 1: Introduction

This is a story about two projects on Cleveland’s waterfront. One was designed for a bird that never arrived. The other was designed without much thought for birds, but thousands of them have come to rely on it anyway. The former, the Lake Erie International Jetport (Fig. 1.1), was never built. The latter, the Cleveland Lakefront Nature Preserve (Fig. 1.2), began its life as a confined disposal facility for polluted sediments dredged from the Cuyahoga River and Cleveland Harbor. Although they differ greatly in scale, budget, and planned use, it is helpful to consider these two projects together. They reveal that the creation of land from polluted dredged material is Cleveland’s strongest and most consistent waterfront development tradition. It has emerged from the distinct material economy of Cleveland to offer a future vision of the waterfront that synthesizes the city’s industry, ecology, and culture.
Fig. 1.1: Detail of an Aerial Rendering of the Lake Erie International Jetport. (Image courtesy of the Western Reserve Historical Society)

Fig. 1.2: The Cleveland Lakefront Nature Preserve/Dike 14, 1987. (Image courtesy of the U.S. Army Corps of Engineers)
Chapter 2: A Waterfront Like Others

In their paper “Relational Comparisons: The Assembling of Cleveland’s Waterfront Plan” published in *Urban Geography* in 2009, geographers Ian R. Cook and Kevin Ward argue that ongoing attempts to redevelop the Cleveland waterfront reveal an inherently comparative process, whereby a significant amount of seemingly territorial politics and urban policy making come to be characterized by policymakers’ engagements with other cities. Cleveland’s plans for its waterfront are not derived from its specific history and context, rather, they are the plans of other cities: dissected, modified, recombined, and applied to Cleveland.

Cook and Ward focus on the city’s 2009 Masterplan, but they extend their thesis to the multiple waterfront plans produced for Cleveland in the past three decades. Since the 1980s, the city’s leaders have directed most of their redevelopment efforts to the North Coast Harbor area, a patch of the lakefront directly north of the city’s downtown core (Fig. 2.1). These plans emphasize the promotion of “large-scale retail, office and hotel development, entertainment and sports attractions to attract tourists” (Keating et al. 1996, 192). They differ only in their references, as each plan draws inspiration directly from the successful waterfront of the moment, be it Baltimore’s Inner Harbor, Chicago’s Navy Pier, or New York City’s Battery Park. The outcome of this strategy is a set of monumental tourist attractions huddled on the lakefront: the Cleveland Browns Stadium, the Rock and Roll Hall of Fame and Museum, and the Great Lakes Science Center. Although they are located on the water, they don’t have much of a relationship with it (Fig. 2.3). They are oriented inward, toward their novel contents.
The 2004 Waterfront District Plan (Fig. 2.1) is exceptional in that it extends its gaze beyond the North Coast Harbor area to include an 8 mile stretch of shoreline from Edgewater Park in the west to Gordon Park in the east. It calls for Cleveland’s waterfront to be transformed into a green, recreational paradise. There are some conspicuous gaps in the green ribbon—these are reserved for the Port and other industrial functions. The Waterfront District Plan continues to act as an overarching masterplan, the city has since returned its focus to the North Coast Harbor area in its 2012 Lakefront Plan (Fig. 2.2).

Cook and Ward conclude that the comparative process of lakefront planning has yielded little for the city: “While the history of waterfront redevelopment in Cleveland is sprinkled with minor successes…it’s waterfront, for the local elites (and the public), remains disconnected, grimy, broken up and a place people would rather avoid” (789). I agree with them, for the most part. But I offer two modifications to their thesis: first, that Cleveland’s waterfront planning has relied heavily on relational comparisons to other places since it officially began with the Group Plan of 1903; and second, that this comparative tradition has done much to obscure Cleveland’s distinct tradition of land creation.
Fig. 2.1: An eight mile stretch of Cleveland's existing waterfront juxtaposed with the 2004 Waterfront District Plan. The North Coast Harbor area is highlighted. (Image courtesy of the Cleveland City Planning Commission)
Fig. 2.2: The 2012 Cleveland Downtown Lakewfront Plan depicting the current redevelopment strategy for the North Coast Harbor Area. (Image courtesy of the Cleveland City Planning Commission)
Fig. 2.3: A view of the monumental Cleveland Browns Stadium, Great Lakes Science Center, and Rock and Roll Hall of Fame on Cleveland’s North Coast Harbor. (Photo by the author.)
Chapter 3: A Brief History of Land Creation in Cleveland

The sequence of maps in Figure 3.1 depicts an eight mile stretch of Cleveland’s waterfront, illustrating how it has changed since 1814. My analysis of historic maps has revealed that Cleveland has added about 1,200 acres or almost 2 square miles of land to its waterfront over time.

In 1796, the Connecticut Land Company founded Cleveland where the Cuyahoga River enters Lake Erie. The first major alteration of the waterfront took place about 30 years later in 1827, when the US Army Corps of Engineers sought to open up access to the Cuyahoga River from Lake Erie. Sediments deposited at the mouth of the river had been manipulated by the littoral flow of the lake to create a marshy area with a sand bar that was impassable to large watercraft. The Corps constructed two piers that jutted straight out into the lake and dammed the existing mouth so that the spring flood would scour a new, straight channel (Fig. 3.2).

This act should be considered as part of a much larger engineering project, the Ohio and Erie Canal, which was completed in 1832 (Fig. 3.3). This canal traversed the state of Ohio, connecting Cleveland to Portsmouth on the Ohio River. Cleveland was already connected to the population centers on the east coast via Lake Erie, the Erie Canal, and the Hudson River. The completion of the Ohio and Erie Canal linked it to the growing inland empire of the Midwest via the Ohio and Mississippi Rivers. “Wheat from Ohio’s interior, which would hardly move down state for 25 cents a bushel, found a market at the mouth of the Cuyahoga at 75 cents” (Ehle et al. 1996, 7). Situated on this new, continuous inland waterway that stretched from New Orleans to New York City, Cleveland became an
important transshipment hub. Figure 3.4 illustrates the canal entering the Cuyahoga River before it reaches the lake. The river acted as an inner harbor where canal cargo from the back country, grain, lumber, salt, and coal, was transferred to outbound schooners and inbound schooners from the East Coast deposited manufactured products like brass, glass, and iron to be warehoused or floated inland on canal boats. Figure 3.5 depicts Cleveland in 1854 where the Ohio and Erie Canal meets the Cuyahoga River. Lake schooners and canal boats commingled in the river, and its banks are a cluster of warehouses. The canal made the city.

One year later, in 1855, the completion of another canal had an even greater impact on trade in Cleveland. The Soo Canal and Locks, completed at a cost of $1 million, bypassed a twenty one foot drop at the rapids of Sault Ste. Marie on the St. Marys River between Lake Superior to Lake Huron. Those rapids were the biggest barrier to shipping between the upper lakes and the lower lakes. That was a problem, because the nation was hungry for iron—and huge deposits of iron ore sat in Michigan's Upper Peninsula and Minnesota. Smelting iron ore in the north where it was mined was both difficult and expensive. The Soo Canal enabled cheap shipment south, to furnaces amid the coal ranges of Ohio and Pennsylvania. In 1855, before the completion of the canal, the shipment of iron ore from Marquette to Cleveland cost $3.00 per ton, by 1858 it cost only $2.09 per ton (Ehle et al. 1996, 21).

Figure 3.6 illustrates the volume of bulk goods shipped to the port of Cleveland, Most of it comes from the westernmost tip of Lake Superior, passing through the Soo Canal. The iron ore that came from this northern region was an important component in the production of iron and later steel. Cleveland boomed as an industrial manufacturing center, but more importantly, its harbor and river became the new transshipment hub for iron ore to the inland mills of Southeastern Ohio and Western Pennsylvania. Coal from this region was
in turn shipped back through Cleveland to other Great Lakes cities.

Much the iron went into the rails of the nation’s rapidly expanding railroad network, making the Ohio and Erie Canal obsolete. Figures 3.7 and 3.8 portray the proliferation of railroads along the lakefront and the piers that they constructed on the lake. The railroads were major land creators at this time. Ownership of the land they created was not settled until 1916, when the Ohio Supreme Court decided that title to all submerged land in Ohio belonged to the State. The more waterfront land that the railroads created, the greater the commercial potential of their holdings.

The images in Figure 3.9, from the turn of the century, give a sense of the scale of the ore freighters and the waterfront landscape that was created to accommodate them and the bulk materials that they carried. To make sure that they could access the docks on the inner harbor and Cuyahoga, those areas had to be dredged of accumulated sediments. The Rivers and Harbors Act of 1875 authorized Cleveland as a federal harbor, mandating that the US Army Corps of Engineers keep it navigable. Since then, they’ve performed an annual dredging regimen with a clamshell dredge (Fig. 3.10). As the ships grew in scale, so did the amount of sediment that had to be dredged each year. Figure 3.11 represents the current dredging project in the Cleveland Harbor. It gives a sense of the underwater topography that must be maintained so deep draft vessels can access the harbor. The green area is the shipping channel as maintained by the Army Corps at a depth of 27-29 feet. Until the 1960s, sediments dredged from the river and harbor that were not used in land creation were loaded onto a scow, towed out to a designated area in Lake Erie, and dumped into open water. This technique, known as “open lake disposal,” is generally the cheapest mode of dredged material disposal.

Cleveland’s industrial success made it a very wealthy city. At the turn of the century, the city’s elite class of business and civic leaders collaborated to produce the 1903 Group Plan. They hired Daniel Burnham to create the Plan, and it is very much influenced by
the City Beautiful ideas that Burnham introduced to the nation at the 1893 Columbian Exhibition in Chicago and 1902 Macmillan Plan for Washington, DC. Figure 3.13 shows the location of the Group Plan site within the city’s larger context.

Burnham’s plan called for the grouping of major civic buildings around a central mall (Fig. 3.14). At the northern end of the mall, where the railroad tracks barred access to the lake, the plan suggested a grand railroad station (Fig. 3.15). Beyond the station and the railroad tracks, the plan proposed a large park be created on filled land (Fig. 3.16). This would have been the only place on the downtown waterfront reserved for public access to the lake. Most of the plan was implemented under the leadership of progressive Mayor Tom Johnson. However, the railroad companies were not interested in compromising their interest in lakefront property, and neither the railroad station nor the park were created.

A bird’s eye rendering of Cleveland in 1913 indicates that the area where the park was proposed was subsequently filled, but that is only because it came to be used as a dump for trash and other detritus from the industrial city (Fig. 3.17)
Fig. 3.1: Cleveland’s shifting waterfront, 1814-today. (Images by the author.)
Fig. 3.2: US Army Corps of Engineers plan for removing the obstruction at the mouth of the Cuyahoga River, 1827. (Image courtesy of the Library of Congress)
Fig. 3.3: The Ohio and Erie Canal connected Cleveland to Portsmouth on the Ohio River, creating a continuous inland waterway from New Orleans to New York City. (Image courtesy of the Library of Congress)
Fig. 3.4: Cleveland’s waterfront in 1814 and 1835, illustrating the addition of the Ohio and Erie Canal. (Images by the Author)
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Fig. 3.6: Volume of materials shipped to and from the Port of Cleveland in 1938. U.S. Army Corps of Engineers, Buffalo District 1939, 136.
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Fig. 3.9: The great ore freighters of the early 20th century and the landscapes created to accommodate them. (Images courtesy of the Cleveland Public Library)
Fig. 3.10: Diagram of a clamshell dredge. U.S. Army Corps of Engineers, Buffalo District 1969, 4.13.

Fig. 3.11: The U.S. Army Corps of Engineers uses a clamshell dredge to maintain the shipping channel in the Cleveland Harbor at the proper depth. U.S. Army Corps of Engineers, Buffalo District 2009, 46.
Fig. 3.12: Until the 1960s, much dredged sediment was towed into Lake Erie on scows and dumped. This technique is known as “open water disposal.” U.S. Army Corps of Engineers, Buffalo District 1969, Photo 9.
Fig. 3.13: This map shows the site of the 1903 Group Plan in the context of the wider city. (Image courtesy of the Cleveland Public Library)
Fig. 3.14: The 1903 Group Plan proposed the grouping of major civic buildings around a central mall. Witchey and Chakalis 1986, 20.
Fig. 3.15: Perspective renderings of the 1903 Group Plan illustrate the grand railroad station that was proposed for the north end of the mall near the lake. Witchey and Chakalis 1986, 21.
Fig. 3.16: These images represent two alternative proposals for a waterfront park created from landfill in the lake. The park was never created. Witchey and Chakalis 1986, 25.
Fig. 3.17: This bird's eye rendering of Cleveland in 1913 shows that land was indeed created in the lake north of the Group Plan site, but it was a municipal dump rather than a park. (Image courtesy of the Cleveland Public Library)
Chapter 4: What the Maker Intended It to Be

In a 1927 speech that described his plans for Cleveland’s lakefront, City Manager William R. Hopkins announced that they will make the lakefront “what the Maker intended it to be, a source for profit and advantage in the commercial development of the city” (Keating et al. 2005, 136). The photographs in figure 4.1 illustrate the condition of the waterfront in the 1930s. It is, as Hopkins wished, a place for profit and commercial development where huge loads of materials like iron ore, coal, limestone, were transferred from one mode of transport to another. It also became a city dump, where the detritus from Cleveland’s material economy was deposited to create yet more land. The city continued dumping industrial debris and garbage on the lakefront until 1958.

The General Plan of Cleveland, adopted in 1949, placed new modes of transportation at center stage (Fig. 4.2). The Plan imposed a white web of interstate highways on the city, crisscrossing neighborhoods and boldly running along the lakeshore. It also depicted a new lakefront airport. The city’s larger, primary airport is located to the southwest and not shown on the plan. It was City Manager Hopkins who first envisioned this smaller airport, which would come to be known as Burke Lakefront Airport. The City Plan Commission imagined that proximity to air travel would be vital to the business center of the future (Keating et al. 2005, 138). Of Burke Lakefront Airport’s 480 acres, about 22 are made up of solid waste material, and the remainder is dredge fill and some construction and demolition debris. Although meager amounts of new park space were called for along the waterfront, they were separated from the city by the highway. Cleveland still understood its lakefront as a site for material transfer and transport.
The aerial imagery in Figure 4.4 shows the completed lakefront airport and highway network in 1959. It also hints at the state of the water flowing from the mouth of the Cuyahoga into the harbor and lake. At this time, the Cuyahoga was one of the most polluted rivers in the nation, full of industrial waste and urban runoff. It reached that state because for much of Cleveland’s history, its residents were largely untroubled by water pollution. They understood it as a necessary consequence of the industry that brought the city prosperity. But attitudes began to shift in the 1960s as environmentalism became a popular movement. In 1968, with new environmental regulations and potential fines looming, Cleveland’s residents overwhelmingly passed a $100 million bond initiative to fund the Cuyahoga’s clean up. At the same time, pollution slackened as deindustrialization struck and factories began to close.

The Cuyahoga River has burned thirteen times in its history. Ironically, the city and its residents were beginning to take responsibility for the cleanliness of the river in the years before the infamous fire of June 1969 (Fig. 4.5, 4.6). A Time Magazine cover story about the Cuyahoga fire drew national attention to Cleveland and helped garner greater public support for national environmental protection legislation in Congress—the EPA was created in 1970 and the Clean Water Act was passed in 1972. In spite of this positive outcome, the situation in Cleveland was grim: the Cuyahoga River burned, Lake Erie had been declared “dead” to due nutrient overloads and a lack of oxygen, and the deindustrializing, depopulating Cleveland earned the nickname “The Mistake on the Lake” (Fig. 4.7).
Fig. 4.1: The waterfront in the 1920s and 1930s was very much a working landscape. (Images courtesy of the Cleveland Public Library)
Fig. 4.2: This aerial image depicts the municipal trash dump on the waterfront in 1932. (Image courtesy of the Cleveland Public Library)
Fig. 4.3: The 1949 General Plan of Cleveland prioritized modern forms of transportation: the interstate highways and airports. (Image courtesy of the Cleveland Public Library)
Fig. 4.4: This aerial imagery from 1959 depicts the lakefront airport and highway. Also note the polluted water flowing into the lake and harbor from the Cuyahoga River. (Images courtesy of the Cleveland Public Library)
Fig. 4.5: The Cuyahoga River has burned 13 times in its history. Clockwise from the top left, these images depict fires in 1936, 1969, and 1952. (Images courtesy of the Cleveland Public Library)
Fig. 4.6: In the 1960s, Clevelanders began to take action to clean up the river and lake. (Images courtesy of the Cleveland State University Library Special Collections)
Fig. 4.7: Bill Roberts “Pollution Tidal Wave,” 1970; Bill Roberts “Lake Erie the Dead Sea,” 1968. (Images courtesy of the Cleveland State University Library Special Collections)
Chapter 5: A New Approach to the Cleveland/Northeastern Ohio Region

In the face of the grim outlook of the late 1960s, some prominent Clevelanders decided it was time for “A New Approach to the Cleveland/Northeastern Ohio Region.” That is what they titled their proposal to build an international jetport in the middle of Lake Erie. Initially proposed in Mayor Ralph Locher’s 1967 lakefront plan, the concept was picked up in 1969 by the Greater Cleveland Growth Association, which created the Lake Erie Regional Transit Authority (LERTA) to forward plans for the jetport in the lake.

The project was conceived at a vast scale (Fig. 5.1). The jetport itself was to be a 1,050 acre island that would extend approximately 5 miles out into the lake and connect to the city via the extension of Interstate 90. An adjacent Air-Industry Park would cover an additional 5,000 acres. When added to the approximately 3,000 acres of marina-residential development and 500 acres of Lakefront State Park, the total acreage approaches 10,000. That is almost one fifth (18%) of the area of the city of Cleveland!

This was a plan to remake the city. It was not an airport, but a jetport, designed for supersonic jets and futuristic helicopter/plane hybrids (Fig. 5.2). In the face of declining industry, the proposal imagined Cleveland returning to its former prominence as a transshipment hub, but this time via air rather than water—or rather, at the confluence of air and water. The proposal identified a growing global jet passenger and cargo industry on which Cleveland is perfectly situated to capitalize. Geographically, it placed Cleveland “within one-quarter of the way around the world from: eight of the world’s ten largest cities; 42% of the world’s population; 83% of the world’s industry; and 87% of the world’s buying power” (Greater Cleveland Growth Association 1971, 5).
As the project moved into the 1970s, everything aside from the island jetport and access highway was dropped, but it remained an enormous undertaking (Fig. 5.3). The design called for a huge diked ring that would rise 18 feet above the water, holding the lake at bay. The jetport itself would sit below the water level (Fig. 5.4). Figure 5.5 illustrates the planned construction of the diked wall. One might think that a project at this scale, displacing over a thousand acres of aquatic habitat would be an environmental disaster. But that is not how its promoters saw it. They understood the jetport as an asset to the environment: It would use polluted lake and river bottom sediments to build its land. Thus, years of pollution would be scoured from the lake bottom, and, once that pollution was safely contained in the jetport’s foundation, the lake could rejuvenate itself (Greater Cleveland Growth Association 1971, 7).

The basis for this thinking is the fact that over 80% of Lake Erie’s water is replaced each year (Fig. 5.5). Although many other cities on Lake Erie, notably Detroit and Toledo, also issued heavy pollution, most of its inputs come from the much cleaner lakes Superior and Huron. Passing most of its polluted water down the Niagara River to Lake Ontario, Erie could theoretically improve its quality very quickly. Figure 5.6 considers the jetport from a great height as it sits in the middle of the lake, containing the hopes for a rejuvenated, modern economy and the undesirable remnants of a declining one.

Clevelanders were skeptical of the project from its onset. Due to its scale and complexity, the jetport project was a tough sell. Lingering on into the late 1970s without any indication of impending success, it joined the ranks of other “savior” projects that had been pitched to the city’s residents (Fig. 5.6). Finally, in 1978, the FAA withdrew its funding after it determined that Cleveland would not need a new airport until 2000. The jetport was dead in the water.
Fig. 5.1: The Greater Cleveland Growth Association’s initial plan for the Lake Erie International Jetport. Greater Cleveland Growth Association 1971, 36.
Fig. 5.2: An imagined scene at the jetport. (Image courtesy of the Western Reserve Historical Society)
Fig. 5.3: Eventually, the additional developments were dropped and only the jetport and access highway remained. (Image courtesy of the Cuyahoga County Archives)
Fig. 5.4: The jetport would be a huge basin protected by a diked ring. (Image courtesy of the Cuyahoga County Archives)
Fig. 5.5: A transect of the proposed dike. It would be constructed using polluted sediment dredged from the lake bottom. (Image courtesy of the Western Reserve Historical Society)
Fig. 5.6: Lake Erie Water Inputs and Outputs. (Illustration by the Author after Bolsenga and Herdendorf 1993, 178)
Fig. 5.7: An aerial rendering of the proposed jetport. Sitting in the middle of Lake Erie, it contains the hopes for a new, modern economy and the remnants of an old, declining one. (Image courtesy of the Western Reserve Historical Society)
Fig 5.8: Bill Roberts “By George I’ve Got It” 1973; Bill Roberts “Cleveland Streakers” 1974. (Images courtesy of the Cleveland State University Library Special Collections)
The jetport in the lake may have died, but the idea of cleaning the lake by containing polluted dredged material with dikes was very much alive. Just as the jetport was first being proposed in the late 1960s, the US Army Corps of Engineers was investigating alternatives to open water disposal. The Army Corps knew that new environmental legislation was coming, and thus set about testing the same concept utilized by the jetport. In fact, it made use of environmental analyses produced for the jetport project in its own environmental impact studies, determining that removal and isolation of nutrient rich sediments would be beneficial to the aquatic ecosystem (U.S. Army Corps of Engineers 1973, 13).

Beginning in the late 1960s, the Army Corps began building test containment facilities off of Burke Lakefront Airport (Fig. 6.2). Then, the Rivers and Harbors Act of 1970 legally required it to provide contained disposal facilities (CDFs) for polluted material dredged from waters of the Great Lakes. In the 1970s, Cleveland Harbor required the largest volume of annual maintenance dredging of all Great Lakes Harbors and soon the early CDFs were filled. So in 1979, the Army Corps began the construction of the 88 acre Dike 14 off of Gordon Park on the city’s east side (Fig. 6.2).

Figure 6.3 is a series of aerial photos that reveals the interesting history that precedes Dike 14. In 1962, two old ore freighters, each about 500 feet long, were sunk off shore to protect the beach at Gordon Park (Fig. 6.4). The city then decided to dump trash, old cars and other debris off shore, creating an 8 acre landfill that was supposed to enhance the park. Finally, containment dikes were built and Doan Brook, which enters the lake here, was enclosed in a culvert.
Figure 6.5 depicts Dike 14 in 1987 when it was almost halfway filled—note the emergent vegetation. The Army Corps predicted that other than the prime benefit of confinement of polluted sediment, Dike 14 would also enable the development of wetland-terrestrial plants and associated wildlife species: “Invasion by annual plants and early-seeding deciduous trees—especially eastern cottonwood and black willow—is quick to occur on exposed soil surfaces. High nutrient content of the dredged material promotes plant growth so that within a very short period of time following termination of dredged material, plant communities quickly develop” (U.S. Army Corps of Engineers 1973, 16). Thus, the same nutrient load that made the sediment harmful to the lake when dumped in open water, actually proved ideal for the rapid creation of a rich ecological zone.

Members of the public were not allowed access to Dike 14 during its use as a CDF, but birds realized its value very quickly. Figure 6.6 depicts the Mississippi and Atlantic migratory flyways of waterfowl. Note the location of Cleveland at their confluence. The entire south shore of Lake Erie is a crucial bird stopover/habitat with the entire Cleveland lakefront designated an important bird area by the Audobon Society. Dike 14 is one of the few places for miles that is hospitable to these birds. Dike 14 last received fill in 1999. All of the vegetation and wildlife now present has occurred naturally, including 281 species of birds identified and several varieties of butterflies. This has made Dike 14 a very popular destination for birders since its creation, in spite of the fact that between 1999 and 2012 members of the public were only granted access to Dike 14 on one day per year.

The Ohio Department of Natural Resources created a plan for Dike 14 in 1979 that would have made it a state park with a swimming lake, running and cycling trails, and hundreds of picnic areas—essentially an extension of Gordon Park. But, when ODNR conducted a study of what the surrounding community wanted to happen to the site in 2002, it received a resounding response to leave Dike 14 essentially unchanged. People wanted the site kept “wild” and “natural” (Ray 2002, 3). And the city and state, and the
Cleveland-Cuyahoga County Port Authority, which is currently leasing the site from the state, have listened. In 2012, Dike 14 was renamed the Cleveland Lakefront Nature Preserve and opened to the public on a daily basis.

Figures 6.9 and 6.10 consist of photos taken on the Cleveland Lakefront Nature Preserve. They show a wild place, exposed to the lake and sky. It is often cold and windy—the lake can be brutal, but quite beautiful. As Adrian Geuze of West 8 might say, this is a place for lonely hearts. But what is more amazing is that although the surface of the nature preserve seems so minimally worked, it has emerged from a quite heavily worked, industrial medium. The Cleveland Lakefront Nature Preserve is a palimpsest of Cleveland’s waterfront history. It contains the freighters that carried iron ore, coal, and other bulk materials to and from its harbor; it contains a trash dump (for some time the city’s preferred use of its shore); and of course, it contains the pollution produced by its industrial economy, dredged from the depths of its river and harbor. From this material heritage has emerged a new place. One where birds flock and people can experience the elemental force of the Lake Erie in full. For so long, Cleveland has been intent upon building its future on dredged material, but this site, left open, has grown into something unique. This type of landscape was removed from Cleveland’s waterfront long ago by the appetites of industry and commerce. But now, ironically, those same forces have converged to recreate it.
Fig. 6.1: Beginning in the 1960s, the U.S. Army Corps of Engineers began depositing dredged material in confined disposal facilities (CDFs). U.S. Army Corps of Engineers 2009, 15.
Fig. 6.2: This aerial imagery highlights the CDFs in Cleveland in 1979: Dike’s 9, 12, 13, and 14. (Images courtesy of the Cleveland Public Library)
Fig. 6.3: Dike 14 has an interesting history that precedes its use as a CDF. This series of aerial images shows how it changed over time. (Images courtesy of the Cleveland-Cuyahoga County Port Authority)
Fig. 6.4: Dike 14 has an interesting history that precedes its use as a CDF. This series of images shows how it changed over time. (Images courtesy of the Cleveland State University Library Special Collections)
Fig. 6.5: Dike 14 in 1987. Note the emergent vegetation. (Image courtesy of the U.S. Army Corps of Engineers)
Fig. 6.6: Cleveland lies at the confluence of the Mississippi and Atlantic migratory flyways of waterfowl. Bolsenga and Herlendorf 1993, 325-326.
Fig. 6.7: Dike 14 has become an important migratory bird habitat and consequently, it is a favorite destination of bird watchers. (Images courtesy of the Cleveland-Cuyahoga County Port Authority and The Cleveland Plain Dealer)
Fig. 6.8: When it surveyed community members in 2002, the Ohio Department of Natural Resources found that they overwhelmingly wanted Dike 14 to remain “wild” and “natural.” Ray 2002.
Fig. 6.9: The Cleveland Lakefront Nature Preserve is a place exposed to the lake and sky. It can be cold and brutal, but it is also beautiful. (Images by the Author)
Fig. 6.10: The Cleveland Lakefront Nature Preserve is a place exposed to the lake and sky. It can be cold and brutal, but it is also beautiful. (Images by the Author)
Fig. 6.11: The Cleveland Lakefront Nature Preserve is a palimpsest of the city’s waterfront history. (Image by the Author)
Chapter 7: Conclusion

Figure 7.1 compares the 2004 Waterfront District Plan to the Army Corps’ existing and proposed CDF sites. The green are potential sites: they are designed to hold 20 years of dredged sediment. It is evident that the Waterfront District Plan’s designers incorporated land created from dredged material into their thinking. But they see their proposed green ribbon as separate from the shrinking industrial waterfront—note the conspicuous blankness of the Port and other industrial sites.

The Army Corps’ plan seems more honest. Cleveland has always understood its waterfront in as a place for profit and commercial development. CDFs are essential to that identity. The Cleveland Lakefront Nature Preserve is not a post-industrial landscape. It is an industrial landscape. The Cleveland Harbor still ships and receives iron ore, limestone, cement and concrete, salt, sand and gravel in bulk. Each year, it moves approximately 13 million tons of these materials. To maintain this capacity, 250,000 to 330,000 cubic yards of dredge must be removed from the river and harbor each year. The polluted quality of this material necessitates the continued creation of CDFs.

Clevelanders should recognize that land creation via dredged material is their city’s strongest waterfront tradition: one that links industry, ecology, and culture. They should take a cue from their own imaginative, but ill-fated jetport project. Its promoters understood the potential of land created from dredge. The Cleveland Lakefront Nature Preserve has, in turn, realized some of that potential. But its success only begs the question: what more can Cleveland make of the polluted sediments of its river?
Fig. 7.1: Cleveland’s 2004 Waterfront District Plan juxtaposed with the U.S. Army Corps of Engineers’ plan of existing and potential CDF sites. (Image courtesy of the Cleveland City Planning Commission)
References


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