

Mud Lake

A corridor gets built – labor and the lash, transformations of the land – then everything accelerates. Merchandise flows toward a terminus which itself is a node in a larger network. Profits bring people, and the management of both brings a cosmopolitan culture, plus oblivion. Every great city tells you this story. And we forget it, constantly. Oblivion of the past, oblivion of the present.

I zoom in with my satellite eye to a familiar neighborhood on the northeastern edge of the city. One street cuts the wrong way: it's Rogers Avenue, a diagonal against the grid. Then comes Indian Boundary Park, along the same diagonal. Further on it's Forest Preserve Drive – then Indian Boundary Golf Course – then more little fragments as you move southwest, all the way to the town of Ottawa where the Fox River pours into the Illinois.

Just this afternoon I was out in Lockport, and an amateur historian zoomed in on the same satellite map. Now we were looking south of the city, way out in the burbs in Tinley Park, and she went deep into the grid of streets. There it was, a tiny little thing, residual, just half a block long. South Indian Court, it's called. Another diagonal line, echoing those up north in Rogers Park.

Fragments of our daily lives retrace the origins of the American imperial project in the Great West. The Indian Boundary Lines were surveyed by John Sullivan in the winter of 1818-19. Three years earlier, the Treaty of St Louis had forced the Ottawa, Ojibwe and Potawatomi peoples to give up land they never claimed to own. The surveyor's lines traced out a safe passage – or really, an exclusion zone – around a future canal connecting the Great Lakes to the Gulf of Mexico. That zone defines what we call the Southwest Corridor.

You can start exploring it anywhere, just take the diagonal. Begin on either side of the Boundary Lines two hundred years ago, or maybe tomorrow with some chance detail that will jog your memory. Some of us started on a simple afternoon tour, with Abraham Mwaura and Beth Gutelius pointing out the window to the warehouses of Bolingbrook and Romeoville. For others it was more intense: a three-day immigrants' bike caravan through the Foreign Trade Zones on Chicago's industrial perimeter.

Gradually you realize that a powerful arc of water, steel and cement leads from Bridgeport to the suburban town of Summit, then onward to Joliet with its ultramodern Burlington Northern and Union Pacific rail yards. Chicago is still the great continental transportation hub. If you want to understand contemporary logistics and the relentless movement of goods, well, this is your city. But the goods are never as compelling as the people who move them. A giant infrastructure zone like the Southwest Corridor extends across the country and the oceans and the planet; and it plunges into deep time, beyond what we think of as history. Something about this landscape might get under your skin. Ghosts of the past, visions of the future.

Crossing the Great Divide

After a while we knew we had to go out to see it: the Chicago Portage National Historic Site, which is a few severed channels of water out near Harlem and 46th, on the edge of the Des Plaines River. Like the diagonal fragments of streets, this used to be part of something bigger. Here, another local historian tells you, is where Father Marquette and Louis Joliet pulled their canoes from the water in 1673, on their way back from the Mississippi. Not far away was a provident stream (the West Fork of the Chicago River) that flowed straight to Lake Michigan. Before any railroad or superhighway, native Americans used the portage route to move fluidly across an open territory. Then they showed it to the visitors from New France, who immediately proclaimed that a canal could be dug “by cutting through but half a league of prairie.”

There's a oil depot behind you, a freeway bridge to the left, a jet plane overhead and the breeze is alive with the roar of engines. But amid the straggly trees and half-stagnant water you've found the sacred spot, the umbilicus, the birthplace of Chicago.

That first visit to the portage left me feeling completely dazed. The Continental Divide, we were told, runs somewhere along Kedzie Ave. OK, it might be Leavitt or Rockwell, but that's not much of a difference. We live on a Great Divide, right here in Chicago, without even going to the Rocky Mountains. But what can that possibly mean? And where is it? The city that you walk through is almost perfectly flat, like the world according to Thomas Friedman. Just asphalt as far as the eye can see.

They say there was a lake, or really some kind of marsh, or a swamp, or a shallow, leech-infested fen, or almost a river in the rainy season: Mud Lake, which the Potawatomi showed to the European explorers. On one side the water flows to the Great Lakes, that is, to the Atlantic, and on the other side it flows to the Mississippi. Of course, you can't exactly see it. Instead there's the Sanitary and Ship Canal, and the railroad, and the Stevens Expressway. Not to mention that all of Chicago has been raised eight feet off the ground by engineering works, because of the mud, yeah, it was mud city. So you can't see the Continental Divide, but you can read a testimony about it, all sorts of them in fact. For instance this one, by Major Stephen Harriman Long, out on expedition in 1823:

“Our course through this swamp, which extended for three miles, was very much impeded by the high grass, weeds, etc., through which our pirogue passed with difficulty. Observing that our progress through the fen was very slow, and the day being considerably advanced, we landed on the north bank, and continued our course along the edge of the swamp for about three miles, until we reached the place where the old portage road meets the current, which was here very distinct toward the south. We were delighted at beholding for the first time, a feature so interesting in itself, but which afterward we had an opportunity of observing frequently on the route; viz.: the division of waters starting from the same source, and running in two different directions, so as to become the feeders of streams that discharge themselves into the ocean an immense distance apart.”

We live in an uncertain place, between the Atlantic Ocean and the Gulf of Mexico, where the water hesitates and finally run either way. That's what history is telling us: the flow goes both ways. But that's exactly what you can't see. What you see instead is the built history of Chicago, girder on girder, or rather, you just see the surface, the asphalt, the railroad running southwest, along with the Sanitary Canal and the Stevens Expressway. Follow the railroad, follow the canal, follow the expressway and you get to the warehouses of Joliet, where the commodities arrive from California in corrugated steel containers.

That's what we were looking for, that's what started this whole thing. We were out looking for the secret origins of the globalized commodity, out there in the Foreign Trade Zones. We were looking for what that commodity is, how it's made, how it gets here and who does the labor. We were looking west, to the California ports, to the ships on the sea, to Asia. But that's also where the explorers were looking. They were searching for the Northwest Passage. All they wanted in America was China.

“Few of us North Americans realize what a nuisance our continent was to Europe before the days of colonization,” writes Vilhjálmur Stefánsson in his book *Northwest to Fortune*. “When American rivers flowing to the west from the Atlantic were explored, it was less with a purpose to find in them, or in their surroundings, any values related to climate or soil, or even to gold, than to discover if one of them headed near enough to a west-flowing river, or to the Western Ocean, to serve as a route through the continent to the Pacific.”

So is the globalized commodity of today a fulfillment of that dream? That's what we started wondering. Or to switch the focus: What are the divides that can't be seen, whether on the streets of Chicago or out there at the rail yards, when a gantry crane grabs a big box and lays it down on a trailer?

Encrypted origins

Well, one thing that can't be seen lies directly beneath you, when you go off driving to Joliet. The Stevenson Expressway, also known as I-55, was built on top of the Illinois & Michigan Canal. The I&M was the first major transportation infrastructure in the Chicago region, completed in 1848, then rendered obsolete by a wider and deeper canal in 1900. For five miles all the major routes coincide: you see the train tracks on your right, you pass the BNSF Corwith rail yard on your left, the Sanitary and Ship Canal is in plain view, and underneath you is the forgotten I&M, buried in cement. The integrated road, rail and water transport system has an encrypted origin – at least within city limits.

My first inkling of its existence came, fittingly enough, at the Canal Origins Park located on Ashland, right across the street from the factory complex where the Chicago Sun-Times is printed. The park juts out into what used to be a turning basin for the barges. It's one of the best fishing spots on the Chicago river, so you'll always meet people there. Reading the battered informational displays, you learn that the city's development – the influx of settlers, the land speculation, the grain trade, the financial sector – all that was prompted by the building of the I&M Canal. Where you stand was once a bustling warehouse site, full of boats, passengers and merchandise. You're just across from Bridgeport and just downstream from the old meatpacking district. That's the mouth of Bubbly Creek, right there at your feet, where the carcasses were dunked in the past and all the fish come from today.

The only problem with this origin story is that the I&M itself has completely disappeared. At either end of the existing park, two narrow channels used to link the turning basin to the outset of the canal itself. Now those channels have vanished, just like Mud Lake. They've been replaced by the media (the Sun-Times, no less). There's something extremely disorienting about the whole thing: a beautiful urban park that shows you absolutely nothing of what it celebrates. But maybe in the spectacle society you can learn more from what you don't see...

Chicago was important to the early trappers and settlers because of the mud – because of the portage. And it became attractive to the European powers because you could build a canal there, to conquer more territory. The US government took that same kind of interest, especially after the War of 1812 with Great Britain. On January 7, 1819, even as Sullivan was surveying the Indian Boundary Lines, the United States Secretary of War John Calhoun reported to Congress on the utility of federally funded roads and waterways for military purposes. For starters, he noted that such improvements would strengthen the country economically, and that economic strength was fundamental to the nation's war-making capacities. Then he went on to talk in detail about the strategic situation:

“Pittsburg is the great military depot of the country to the west of the Alleghanies; and, if it were connected by a canal with Lake Erie, would furnish military supplies with facility to the upper lakes as well as to the country watered by the Mississippi. If to these communications we add a road from Detroit to Ohio which has already been commenced, and a canal from the Illinois River to Lake Michigan, which the growing population of the State of Illinois renders very important, all the facilities which would be essential to carry on military operations in time of war, and the transportation of the munitions of war for the defense of the western portion of our Northern frontier, would be afforded.”

Thus it begins, with empire. The State of Illinois was empowered to build a canal in 1822, and in the following year a Canal Commission was formed to that effect. In 1827 the federal government granted the state some 285,000 acres in alternating sections for five miles on either side of the proposed route. The land grant established the model for future infrastructure projects across the country. A congressional report observed, “This was equal to a cash advance by the Nation for construction purposes, as the lands were sold by the States and the money thus obtained built the improvements.” But the advance could not be drawn upon, because the land was not yet valuable enough to fund such an undertaking. Only nine years later, after more war and turmoil, did the construction finally begin.

Property relations

In 1829 the future cities of Ottawa and Chicago were surveyed or “platted,” and salable property was created. Speculators bought canal land in Chicago for \$1.25 an acre – yet the real-estate frenzy did not yet take hold. It had to await the Black Hawk War of 1832. That anti-colonial war was led by a tribal chief who sought by force of arms to defend the rights of the indigenous peoples to live on land whose titles of ownership they neither possessed, nor desired. In a moving passage from his autobiography – the first ever published by a native American – Black Hawk explained his own philosophy of land:

"My reason teaches me that land cannot be sold. The Great Spirit gave it to his children to live upon and cultivate as far as necessary for their subsistence, and so long as they occupy and cultivate it they have the right to the soil, but if they voluntarily leave it, then any other people have a right to settle on it. Nothing can be sold but such things as can be carried away."

The Black Hawk War marked the end of indigenous life ways in Illinois. Defeat led to the treaties of September 1833, which made the Boundary Lines obsolete by putting an end to all native American inhabitation of the Chicago area. “Indian Removal,” as the process was nakedly called, set off a great influx of Yankee settlers to Chicago, igniting a real-estate boom that reached its pinnacle four years later. The canal works were paying off early. Yet still the Commission had raised almost no funds, and in 1835 it was forced into the issue of bonds, backed up by the large number of prime farmland tracts that remained unsold. The value of that collateral was uncertain, so it was necessary for the state to pledge its credit and good faith – i.e. its capacity to collect future taxes from the citizens – for the repayment of the bonds. This engagement of the state was decisive. The money began to flow.

The offices of the Canal Commission were established at Lockport and the road there was laid out by a Canal Commissioner named William Archer, who just happened to own what suddenly became quite valuable property on the town’s main street. Work commenced on July 4, 1836, just after a successful sale of land in Chicago and Ottawa. Then came the Panic of 1837 and the collapse of the boom. By 1839 the Commission’s finances had hit bottom. New loans were floated on highly disadvantageous terms, and a large amount of “canal scrip” was issued – basically IOUs for labor and materials. It was a stopgap measure. The original “deep cut” plan had to be abandoned in favor of a shallower canal whose minimum depth was only six feet. The whole project was on the verge of failure.

Finally the New York mogul Arthur Bronson, who had invested heavily in Chicago real estate, came out west to help organize further financing to save the project. Ultimately it came to hinge on an overseas loan of \$1.6 million from such British colonial magnates as Barings Brothers and Magniac-Jardine & Co. In all, over \$6 million in debt was subscribed before the completion of the canal in 1848. The final cost, with interest, was over \$11 million when repayment was completed in 1871.

The history books have a lot to say about the finance. Of the laborers who cut through hard stone to dig the canal, less. We are told that they were mostly Irish, that many had worked previously on the Erie Canal, that they were unloved by Chicagoans and were paid only a dollar a day, plus a gill of whiskey. John Lamb, who is a writer from Lockport, explains that they were often paid in scrip which could only be redeemed within the canal zone itself. The late nineteenth-century historian A.T. Andreas remarks: “When the work was completed, the sturdy men, the day laborers, became homesteaders, squatters, or purchasers of town lots. Almost all became settlers along the line between Chicago and LaSalle; the remainder was nomadic and is perhaps following the directors of internal improvements up to these times.” Chicago was built on squatting. But here again, the story is buried.

Land that was not supposed to be sold and labor that cannot even be remembered became the twin foundations of the state’s most important creation, namely colossal debt for which the citizens themselves furnished the ultimate collateral. One can wonder, why didn’t Illinois just build a railroad, at a fraction of the cost, as the state legislature had briefly proposed in 1833? Well, a railroad would not

have justified such a large federal land grant to the state. Not would a railroad have fulfilled the military functions of a canal. Nor could grain have been shipped so cheaply by rail to the Eastern markets, turning Chicago into the preeminent trading city along the way. Finally, a railroad along the canal route, like the Rock Island Railroad that actually was built with private capital as early as 1854, would not have required enough debt to establish the international credit and reputation of the state. Only the speculative promise of the canal could attract transnational investment and drive up the value of Illinois' commercial capital. Which is basically what they say on the displays in the Canal Origins Park.

Maybe, we began to suspect, what remains invisible in the city where we live is not the simple fact that money makes the world go round, but rather, the twisted inner logic that has guided this entire process of capital formation. It can only be understood when you follow it from start to finish, in full sequence. The inscription of the Indian Boundary Lines, the expulsion of the indigenous people, the creation of private property, the speculation on its future value, the projection of infrastructure to produce that value, the subscription of debt to realize the infrastructure, and finally, the engagement of the state to guarantee the repayment of the debt in the wake of financial collapse. What is ultimately produced is the guarantee, the creditworthiness, the bankability of the state of Illinois, which is intimately related to the war-making capacity of the federal sovereign. As we looked deeper into the documents, the maps, the testimonies, the ruins and the remnants and the successive pathways that have been erected on top of them, we began to suspect that the story of the canal expressed and consolidated this inner logic of imperial capital, encrypted at its point of origin, right there in the Origins Park beneath the shadow of the Sun-Times plant, where Bubbly Creek flows and the fish tug on the line.

Pumping

Outside the city limits, the vestiges of the I&M appear in many guises. Sometimes it's a muddy watercourse choked in overhanging bushes. Sometimes it's a perfectly straight channel cut through hard Lemont stone. Sometimes there are tall, elegant locks that flare outward into flooded pools. Often the surrounding landscape is heavily industrial, crowded with roads, tracks, boats on the Sanitary Canal and any number of massive installations. Still elsewhere you can walk along a wide expanse of sleeping water, with earthen banks, farmhouses on the other side, and only a towpath separating you from the Des Plaines river. Of course the water moves quicker during the spring rains. But the usual lazy current evokes a major issue for the past and future of the city.

Because the shallow cut plan had been adopted for lack of funds, it was hard to get enough water over the slope at Summit, just beyond today's Harlem Avenue, where the glacial moraine that once formed the shores of Lake Michigan reaches its highest elevation. At six feet deep, the bottom of the canal was still two feet higher than the surface of the lake. To make up the difference, a feeder channel was dug from the Little Calumet – but it wasn't finished in 1848, and it was never sufficient anyway. So a lock was added in Bridgeport (then called Canalport) and two 160-horsepower pumping engines were used to bring additional water into the canal. When the feeder streams ran strong enough to fill the canal, the pumping stations could be reversed to flush out the increasingly filthy Chicago river system. Still there were continuous navigation problems due to low water levels in the canal, and also further downstream, in the Des Plaines and the Illinois rivers.

In the decades after 1848 the marshlands to the west of the city were gradually drained through the use of ditches and the installation of underground pipes and drain tiles. Meanwhile the production of effluents grew, notably from the meatpacking industries. From the late 1850s onward sewer pipes were laid downtown, and since they couldn't be buried below the lake level, the city itself was elevated above them. This gave rise to the amazing spectacle of entire buildings lifted on screwjacks, which is part of the Chicago urban myth. Less amazing were the results of a sanitation plan that had bypassed the idea of waste-water treatment for economic reasons. The pipes effectively brought the city's shit to

the lake – but then it fouled the water on which everyone depended, provoking deadly outbreaks of cholera and typhoid. The engineer Chesbrough conceived a solution: dig a tunnel two miles out into the lake, and connect it to a freshwater pumping station. The Water Works were finished in 1867, but spring rains still drove the sewage into the city taps. A more radical idea then came on the table: Finish the deep cut canal, so as to drain a powerful current from the lake and flush the sewage out to the Mississippi. Contrary to what everyone believes, it was the I&M that first reversed the flow of the Chicago River.

The \$3 million project was completed in 1871, to the delight of city-dwellers and the disgust of everyone living along the canal (not to mention those who had to work the barges). However, it didn't really solve the problem, so new and more powerful pumps were added. In the meantime, William Ogden and another early settler, John Wentworth, had decided to increase the value of their properties at Mud Lake, which they had bought from the Canal Commission in the 1830's. They dug a drainage ditch which, it seems, was also intended to serve as a canal for the development of Mud Island, a forlorn bit of terra firma out in the middle of the swamp. Ogden's Ditch, as it was called, drained directly into the West Fork of the Chicago River. On the old maps you can see a long channel, straight as an arrow, headed out to the horizon. For anyone in a canoe, it would have been an easy paddle across the Continental Divide.

The problem was that during the spring rains, the Des Plaines would overflow into that ditch, bringing its own flood of sewage and easily overcoming the feeble current of the canal, so that the city was once again fouled and its water supply once again polluted. An earthen dam against the floods was not enough to provide a durable solution. It was as though Mud Lake, drained for farmland and industry, were reappearing in the midst of the Loop and the Lakeshore. The cosmopolitan capital of the Midwest was threatened by an environmental crisis of its own making.

The answer was more of the same: the Sanitary and Ship Canal that you see today. Another gigantic, debt-funded engineering feat. Another attempt to pierce the continent, to reach a distant ocean. Another open sewer, able to carry away the increasing quantities of industrial pollution that Chicagoland would produce in the twentieth century.

The Sanitary and Ship Canal illustrates the most basic law of path dependency: "Stuff goes where stuff is." Following the route of the I&M and of the railroads, the new canal durably reversed the course of the river, creating major ecological problems that are only now being understood and evaluated. Through this reversal it gave an almost geological force to the transportation corridor running southwest out of the city, along the traces of the old portage route that the native Americans had shown to the European explorers. The canal was completed in 1900, using powerful explosives and a new generation of heavy earth-moving equipment. The same techniques were then applied to the construction of the Panama Canal, which began just a few years later, in 1904. Once again, a capitalist infrastructure was built under military auspices, as a consequence of a war with a European rival (the Spanish-American War of 1898). The sovereign power that had traced the Indian Boundary Lines would now inscribe another exclusion zone on an inhabited territory, in order to divide two continents and join two oceans.

One version of path dependency is when you can't stop the repeating the mistakes that caused the problem in the first place. Another version builds on technological successes by ignoring the ecological failures that are an integral part of them. And yet another version simply claims to save money by forging ahead backwards.

All of this seems to have quite a lot to do with the archaic imperial logic that inhabits progress-oriented capitalism. Throughout our explorations and studies we've been impressed to find that Chicago's global supply chains have so much to do with its failed sewage system. We live in a city where the water naturally flows in every direction. But the will of the city's elites has been to channel the flow toward the making of profit, and to pump all the consequences as far away as possible. The cosmopolitan city loves to forget, it thrives on oblivion. But still we'd like to ask: What can be learned from what has been forgotten? And where exactly is Mud Lake, anyway?