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# Narrating the Contested Space of Detroit's River Rouge, 1600–2015

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**Abstract:** The River Rouge, which flows through Michigan into the Great Lakes at Detroit, has been a contested space, from the Mound Builders c. 1100 AD to the present. The river's changing uses and meanings provide a microcosm of North American history, including Native Americans, French fur traders, the British, American settlers, small-scale industries, and Henry Ford's largest factory. Narratives treat the river as a landscape, as a highway, as a natural resource, as raw material, as a minor detail, or as a threatened environment. The river has been part of a romantic view of pre-history, a heroic story of colonial conquest, a tale of democratic expansion into new land, an exemplary second creation in which unfinished nature is transformed into the world's largest factory, a narrative of class warfare between workers and capitalists, a tale of the triumph of democracy over National Socialism in World War II, a tragic story of the exploitation of nature, and a recovery narrative in which the river is rescued from pollution and misuse.

## 1 The Trope of Empty Space

From pre-Columbian times until the present, the Rouge River has been reinterpreted in new narratives, in a process of continuous erasure and rewriting. A common trope in writing about the US is the transformation of empty space. Alexis de Tocqueville used this trope in a description of how “the Anglo-American”

falls the forests and drains the marshes; lakes as large as seas and huge rivers resist its triumphant march in vain. The wilds become villages, and the villages towns. The American, the daily witness of such wonders, does not see anything astonishing in all this. This incredible destruction, this even more surprising growth, seems to him the usual progress of things in this world. He gets accustomed to it as to the unalterable order of nature. (Tocqueville 1960, 329)

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In descriptions of the creation of cities, bridges, dams, and factories, one repeatedly finds this contrast between wild space and its transformation. Such contrasts erase previous inhabitants and species, and ignore a place's previous meanings and uses. It is misleading to assume that human beings transform abstract space into place. Americans have continually erased vestiges of the past to create the illusion of an empty space, in order then to imagine a pristine, new beginning (Massey 2005, 9).

The dominant US mythology long was that Native Americans scarcely touched the land, which remained an unspoiled wilderness until it came into European hands. Nineteenth-century Americans conceived the continent as raw and unfinished nature that awaited a second creation; man would complete the work Providence had begun (Nye 2003, 9–14). History was understood as the movement from wilderness to civilization, from raw to refined, from birch bark canoe to railroad. Many sites seemed to embody this progressive vision of American history, perhaps none more completely than the River Rouge. Its changing uses and conflicted meanings provide a microcosm of North American history, including Native Americans, French fur traders, the British, American settlers, small-scale industries, and Henry Ford's largest factory. The river figures in a series of quite different stories that treat it as a landscape, as a highway, as a natural resource, as raw material for development, as a minor detail, or as a threatened environment. The river has been part of a romantic view of pre-history, a heroic story of colonial conquest, a tale of democratic expansion into new land, an exemplary second creation in which unfinished nature is transformed into the world's largest factory, a narrative of class warfare between workers and capitalists, a tale of the triumph of democracy over National Socialism in World War II, a tragic story of the exploitation of nature, and a recovery narrative in which the river is rescued from pollution and misuse. The River Rouge has been repeatedly reinterpreted since the early seventeenth century, and these narratives were less rewritings than they were new stories.

## 2 Pre-History

The River Rouge is 125 miles long, and drains the southeast Michigan area into the Detroit River. Much of the low-lying area near its mouth is marshland where Native Americans hunted and fished. There in c. 1000 AD, the Mound Builders constructed "elaborate enclosures, embankments and mounds [...] apparently for religious purposes." (Birmingham and Eisenberg 2000, 3). The Mound Builders lived along the Mississippi and Ohio river systems and built large

developments at present-day St. Louis, Missouri, and Marietta, Ohio. In Wisconsin alone they constructed more than 15,000 earthworks “clustered along lakes, beside rivers, and on hilltops, often arranged in complex patterns that harmoniously, even artfully, blended with the natural topography” (Birmingham and Eisenberg 2000, 3). They often built at central river locations that Europeans later developed, destroying much archeological evidence. The mounds were built with considerable precision, including “large squares, circles and regular polygons” which required a knowledge of surveying. Several were along the River Rouge near Ft. Wayne. The largest “near the mouth of River Rouge, at Delray” was “700 to 800 feet long, 400 feet wide and possibly 40 feet in height; not all of which, however, was artificial.” Standing on “top of the mound gave a commanding view of the river and may have originally carried some form of structure [...]” (Sherzer 1913, 8). Such burial sites were carefully oriented in relation to the sun and moon. They linked heaven and earth, the dead and the living, the sacred and the profane (Eliade 1959). The Mound Builder culture collapsed in c. 1200, and was replaced by other Native American peoples.

### 3 European Colonization

After c. 1610, Europeans began to drive tribes westward, including the Hurons, who resettled in the River Rouge area and later allied themselves with the French. The explorer Etienne Brule came as early as 1618, followed by Jean Nicolet in 1634 and the missionary Father Jacques Marquette (Nye 1966, 118). Waterways were the pathways through the region, and the early French settlers located in navigable areas. Detroit was not settled until July 1701 by Antoine Cadillac, who arrived with a company of 50 soldiers and 50 artisans and traders. The French erased many place names, and gave sites new names, including the Rouge River. They focused on the fur trade, and did not seek to replace the Native Americans but to yoke them to the market and focus their energies on trapping. From the perspective of trading companies in Montreal and Quebec, the Rouge River was a watershed abundant in beaver that was best not disturbed by settlers. “It was not unusual for a merchant to make a profit of one thousand percent on the trade goods to be exchanged for furs” and for the furs to appreciate another thousand percent by the time they were sold in Europe (Nye 1966, 66). The fur trade reduced the available game, set one Native American tribe against another, and made them dependent on traders for weapons, needles, blankets, traps, and metal tools.

British imperialists were more aggressive than the French and emphasized “expulsion of the native population from the colonized area and the creation of

a frontier of separation between the two peoples” (Meinig 1993, 70). They transformed the landscape from one supporting Native American culture to one based on European agriculture. French imperialism was a more “benign articulation of the two peoples at a point of exchange. Each group operated largely within a separate territory, but bound together in an encompassing economic system, as in Canada” (Meinig 1993, 72). The French therefore had only a minimal presence in the Detroit area, and few settled on the River Rouge. However, after the defeat of Chief Pontiac in 1763 and the British victory in the French and Indian War, colonization followed (Michigan Writers Project 1941, 213).

The new American government continued colonization by expulsion, but the narrative which justified taking the land erased the former inhabitants. That narrative was presented not as a story but as a grid system of land division that effectively declared that all land to the west of the original thirteen colonies was empty space that could be carved into lots. Thomas Jefferson championed the idea of the grid as a key element in his conception of the US as an agrarian nation of small, independent farmers. The grid imposed on the land an abstract geometrical system of squares, oriented to the points of the compass. It was surveyed into existence as European Americans moved west. This grid ignored the former names and uses of the land, and divided it into identical squares that were for sale at the same price to anyone (Nye 2003, 21–42).

This abstract system is easily visible on contemporary maps of Detroit. The geometrical pattern effectively proclaimed that the entire region was open to development, and that every part of it had potential use value, whether wetland or forest, Indian mound or meadow. New roads further articulated the grid pattern. Within this abstract pattern, however, two ideologies battled for supremacy. Thomas Jefferson, the leading proponent of the grid pattern, championed the idea of an agrarian nation with as little industrialization as was consistent with national defense. He saw the independent small farmer as the ideal citizen for the new democratic nation. In contrast, Alexander Hamilton wanted the US to develop into an urban, industrial nation and thought the propertied class, not farmers, would be its bedrock of stability. Jeffersonian values long prevailed among voters, especially in agricultural regions such as nineteenth-century Michigan.

The survey and the national railway system together opened up “a gridded wilderness” where “industrious settlers could shape the land.” Moreover, they built nearly identical structures in all parts of the nation. “By 1845 a great skein of remarkably similar forms overlay the distinctly regional artifacts dating to colonial times” (Stilgoe 1982, 132–133). In Detroit, almost all traces of the French were erased. The emerging city’s appearance seemed familiar to any American newcomer.

## 4 Deforestation and Industrialization

Much of the River Rouge and its watershed was forested until the westward tide of expansion into the treeless Great Plains created demand for Michigan's lumber. Loggers exploited the Rouge watershed, sending logs down to sawmills near the mouth of the river. Part of the demand came from railroads, which needed ties to hold their rails in place. In this and many other ways they began to redefine the landscape. In 1830, the first railroad line was begun in Baltimore. By the 1850s railroads linked Detroit to the emerging national market, and tracks were laid alongside the Rouge River as well.

After these developments, the shores of the Rouge River were considered a promising industrial zone in a narrative of industrial progress in which the river was a highway and raw material. In the 1880s, more than \$8 million was invested to dredge several miles of its channel, in order that new factories there could receive large ships. In this new iteration of the site, hunting, trapping, logging, and farming were all erased, as the Rouge Improvement Company built an industrial park. Its factories produced iron stoves and other metal products, as well as salt that, using the Solvay process, was transformed into soda ash and caustic soda. By 1890, Detroit employed 38,000 industrial workers (Conot 1974, 94–95), and its population had reached 206,000 (Catlin 1923, 650). Few traces of these earlier industrial uses of the Rouge remain, and the most recent Ford biography mistakenly assumes the region was remote and rural in 1915, when the automobile company sent anonymous agents into the area to purchase 2000 acres (Watts 2005, 280–281). This marked the shift from small-scale, regional industry to the international corporation.

## 5 Henry Ford's River Rouge Plant

As Ford built his River Rouge plant into the world's largest factory it stamped a new geometry on the land, excavating, filling, flattening, and imposing an industrial order. When completed in the 1920s, it covered 1096 acres, not counting access roads and parking lots. The raw material which was used to build it arrived on freighters and barges discharging iron ore, limestone, coal, and raw materials at the canal slip (Bryan 2003, 25). The Rouge factory exemplified vertical integration as Ford sought to eliminate reliance on outside suppliers and to apply his assembly line method to the manufacture of all the Model T car's parts. Workers did not merely assemble cars; they also smelted 52 kinds of steel, made tires and safety glass, produced light and power, and

made virtually everything that went into each car from the front bumper to the rear window. The River Rouge plant even made its own coke from coal, in the process producing ammonium sulfate (sold as fertilizer), benzol (which was mixed with gasoline and used in cars), and gas and tar (both of which the plant burned) (McCarthy 2001, 57).

Albert Kahn, the architect of the factory buildings, used steel-reinforced concrete to create large interior spaces without many columns or other supports and worked closely with the company to lay out the floor plan. The complex as a whole had a functionalist design, yet the use of space wasn't rigidly preconceived. The builder for the whole project, of which Kahn's buildings were a part, was William Verner. He studied the process of making the Model T and laid out each section of the new factory in consultation with Ford's managers. The flow of the work determined the placement of each building. Since a Model T's main ingredient was steel, Verner began with the railroads and canals that transported the raw materials needed to produce it (Verner 1920, n. pag.). Once the location of railroads and canals had been worked out, he built two blast furnaces, completed in 1920 and 1922, and then a foundry for engine blocks, rolling mills to make sheet steel, and a stamping plant to make car hoods, doors, roofs, and panels. The transportation of raw materials and parts between buildings was designed into the architecture. Details were developed in consultation with the Highland Park factory managers, who were going to move to River Rouge. For example, one noted, "the machine shop setup was more compact. We studied the setup of machinery so there was no wasted space. We tried to move the machines as close together as possible to eliminate the movement of stock." Such changes exemplify what David Harvey has called the "compression of space and time" which is a hallmark of advanced capitalism (Harvey 1990, 232).

The new factory was designed to allow for further innovation and greater compression of production. There was no permanent layout for the machine shops because the "production people [...] had the idea that there were going to be many changes in the makeup of the automobile" (Miller 1955, n. pag.). The River Rouge plant was built to accommodate changing production flows without creating a rigid arrangement that might constrain further innovations. This modern factory was not merely a container for men and machines; it was a master machine that organized and expressed the whole system of production (Nye 2013, 249–250). The river was subordinated to industrial production, and in the area near the Ford factory it appeared to be an artificial waterway. In a sense, it ceased to have a story during this period.

The Rouge factory became a tourist magnet with a thousand visitors or more each day. They came not to see the river, which was a mere detail in what was then the world's largest industrial plant and the site of Henry Ford's most completely

developed assembly line. To ensure that they understood the factory as the culmination of industrial progress toward mass production, the tour emphasized elevated views presenting a vast landscape of harmonious efficiency (Littmann 2003, 77). One journalist described the overall effect on a visitor:

He sees these units not only in their impressive individual and astounding collective magnitude, but he also sees each unit as a part of a huge machine – he sees each unit as a carefully designed gear which meshes with other gears and operates in synchronism with them, the whole forming one huge, perfectly-timed, smoothly operating industrial machine of almost unbelievable manufacturing efficiency. (Lewis 1976, 161)

A German engineer, Otto Moug, toured the River Rouge plant in the late 1920s and found it an uplifting, almost religious experience. “No symphony, no Eroica, compared in depth, content, and power to the music that threatened and hammered away at us as we wandered through Ford’s workplaces, wanderers overwhelmed by a daring expression of the human spirit” (Casey 2003, 33). The workers on the factory floor had a far harsher experience than these words suggest, but this could not be grasped in a short visit during which most of the viewpoints were Olympian.

## 6 The Rouge River as Industrial Landscape

The painter and photographer Charles Sheeler, under commission by the Ford Motor Company, depicted the factory in a series of landscapes. Sheeler spent six weeks at River Rouge in late 1927, just as the Model A was going into production. “The subject matter,” he wrote to a friend, “is incomparably the most thrilling I have ever had to work with” (Lucic 1991, 92). He submitted 32 photographs to the Ford Motor Company, which later became the basis for a series of landscape paintings. Sheeler concentrated on exterior views, showing mountains of coal, iron ore, and other raw materials, heaped symmetrically alongside the company’s shipping canal and railroad tracks. In these images there is not a single bush, or tree, or even a blade of grass, and workers are seldom present. The only signs of activity are the smoke from the powerhouse chimney and the railroad cars along the canal. The immediate impression is one of stasis, calm, order, and absolute control over the environment. The 1930s cultural historian Constance Rourke wrote approvingly: “He has accepted industrialism and renders what he sees as its essential forms” (Rubin 1990, 208). Sheeler subtly simplified every object into an almost platonic form. His static Rouge factory was almost etherealized. Eugene Jolas, in the literary journal *transition*, found “a remarkable sense of dynamic magic” in Sheeler’s photographs (Jolas 1929, 123).

Sheeler focused on rhythmic patterns and formal aspects of the industrial landscape. His brushwork seems invisible, as if the canvas was produced without human intervention. His art becomes the visual correlative of modern industrial efficiency, naturalizing Ford's transformation of the site. Sheeler declared that he wanted "to eliminate the evidence of painting as such and present the design with the least evidence of the means of accomplishment" (Corwin 2003, 156). His canvases presented the transformation of the Rouge River as a benign inevitability. They visualized the narrative of progress.

Perhaps as a kind of compensation for industry's ruthless assimilation of nature, the city of Detroit purchased 1204 acres further up the river and dedicated them as a park in 1925. In effect, this created a pastoral narrative of harmony with nature that was expected to compensate for the industrial story of resource exploitation. Ever since the opening of New York's Central Park in 1873, American cities had set aside large tracts of land ostensibly to preserve a part of nature. In fact, these sites were extensively bulldozed and landscaped into parks where the individual was expected to recover from the harshness of urban life and find new energy through contact with an idealized Nature (Sears 1989, 116–121). The grid pattern was erased inside the park, notably in "a series of winding automobile drives" and 11 miles of bridal paths for equestrians. Much space was given to team sports that had become popular after industrialization, including football, baseball, track and field, tennis, and swimming in an Olympic-sized pool. There were "picnicking facilities [...] throughout the grounds." During winter, the park offered "a 6-acre skating rink and six 700-foot toboggan slides." More ominously, the park also contained "in a natural hollow" a pistol range for the Detroit police and stables for the US National Guard (Michigan Writers Project 1941, 282).

## 7 Class Struggle

The Rouge Factory and the public park together erased the previous landscape to create idealized places for work and leisure. They implied two complementary narratives, one which explicitly treated nature as raw material, while the other recreated a pastoralized nature. However, neither of these narratives was adequate to the crisis after 1929, when the national economy collapsed and almost half the workers in Detroit lost their jobs. The unemployed were desperate. They used up their savings and cashed in their life insurance. Many lost their homes. More than 3000 joined a protest march to the gates of the River Rouge plant. At the city limits of Dearborn, police demanded that they turn back. When they refused, the police fired tear gas – and the workers pelted them with rocks. As the

police retreated, the marchers advanced to the Rouge Plant. There the police and private security forces opened fire, killing four and wounding many more. This “Dearborn Massacre” was a literal contestation of space that angered workers in all parts of the US. In Detroit, more than 20,000 people turned out for a defiant funeral. The River Rouge Plant had become a central site in the battle between capitalism and unionized labor.

During the following five years, Ford violently resisted unionization. On May 26, 1937, four UAW men, including Walter Reuther, went to an overpass at River Rouge to hand out leaflets urging workers to join the union. Men from Ford's security forces attacked and beat them severely. The incident became a national news story and was subsequently called “The Battle of the Overpass.” The confrontation between capital and labor was only resolved when World War II and rearmament forced Ford to the bargaining table. Labor won the exclusive right to represent the workers and to hold union elections inside the plant. The Rouge became a symbol of labor's successful but often bloody struggle for recognition. President Bill Clinton recalled in a speech many years later that “The workers at River Rouge [...] shed their blood for more than their own rights and their own families. Their sacrifice gave all of us collective bargaining and the minimum wage” (Clinton 1999, 1).

## 8 The Rouge and the Triumph of Democracy

Once the US entered World War II, the American mass media rewrote the meaning of the Rouge. They reconceived the Ford Motor Company and other mass-production industries as the guarantor that the US would never run short of trucks, ships, planes, weapons, or supplies. In 1940, *Life Magazine* devoted eleven pages to a photographic essay on the River Rouge Plant. In addition to a detailed diagram of the whole factory and pages of photographs of the foundry and various machines, the story also included some human-interest material, such as a photo of men lined up at a lunch wagon. There was not one critical word (River Rouge 1940, 37–48). The same issue carried a story on Hitler's rise to power with more than 60 photographs. Shortly after the US entered the war, *Time* declared: “Something is happening that Adolf Hitler does not yet understand – a new re-enactment of the old American miracle of wheels and machinery, but on a new scale. This time it is a miracle of war production, and its miracle-worker is the automobile industry” (U.S. at War 1942, 10). American mass production was expected to overwhelm the Germans and the Japanese. *Time* continued:

Endlessly the lines will send tanks, jeeps, machine guns, cannon, air torpedoes, and armored cars. Ford's River Rouge plant, where Ford steamships dump coal and iron ore

and limestone to be magicked into steel and glass and machinery, has turned its two square miles of self-contained industrial empire to the tools of war. (U.S. at War 1942, 11)

After World War II, the Rouge factory again became a popular tourist destination, and it was increasingly understood not only as an exemplary assembly line but as the center of a world automotive empire, with branch factories in Britain, France, Germany, Russia, and Japan. This global reach was highlighted in the Ford Rotunda, where tours of the River Rouge factory began. This structure was first erected at the 1939 New York World's Fair and later moved to Dearborn. Ten stories high, it was "cylindrical in plan and modernistic in outline, resembling four different-sized gears, one above the other." Inside, the enormous circular wall was covered by photographic murals 190 meters long and 6 meters high that showed "the Rouge Plant in all its activities." At the center of the enormous room stood a six-meter high "revolving globe" with Ford's forests, mines, rubber plantations, factories, dealers, and offices clearly marked (Michigan Writers Project 1941, 221). It was to impress visitors with both the enormous and intricate complexity of the company and its global reach. The River Rouge factory thereby was inscribed at the center of a narrative of triumphant capitalism. In the 1920s, its productivity had been at the center of a story of the democratization of material goods, shorter working hours, and a rising standard of living. As an icon of the Cold War, it also became central to the struggle between communism and capitalism. In 1964, 227,561 people went to see it (Rotunda and Plant Visitors Attendance Statistics 1924–1964).

## 9 Decline and Restoration

However, during the energy crisis of the 1970s, production declined, and in the 1980s Ford was challenged by Japanese lean production methods, which it had adopted by 1991. Gradually, the Rouge stopped making many parts for the vehicles it assembled, and portions of the site fell into disuse. Entire buildings were closed, and the Ford Rouge canal received little traffic. Production was decentralized, and outsourced parts arrived in containers. This internationalization undermined well-paid workers in Detroit, not only because Asian and Latin American labor markets were less expensive, but also because their factories had weak (or no) unions, demanded long hours, and spent little on safety. In a new ironic narrative, Ford's global reach had led to de-industrialization inside the US, the decline of Detroit, and the hollowing out of production at the River Rouge Plant. Detroit's population slowly collapsed from 1.5 million in 1970 to

just over 700,000 in 2010. The narrative of second creation was no longer credible, and a new narrative of restoration took its place.

The restoration narrative is about the recovery of a polluted and despoiled landscape. It “begins not with empty space waiting to be improved by new settlers, but with a place corrupted and degraded by human misuse” (Nye 2003, 294). Not only had Detroit collapsed, but during a century of industrial use, the Rouge had become seriously polluted. In 1989, a bi-national commission of the US and Canada “identified the Rouge River as one of the 43 worst pollution ‘hot spots’ in the Great Lakes area” (River Rouge Remedial 1992, 3). The Rouge contained high levels of heavy metals, organic chemicals, and polychlorinated biphenyls (PCBs). The Commission called for a \$900 million cleanup that would take twenty years. By 1991, \$500 million had been appropriated by state and local authorities for improved sewers and wastewater treatment. In addition, more than 300 illegal points of discharge were identified and eliminated (River Rouge Remedial 1992, 9–11). Companies that legally discharged into the Rouge watershed under permit included a steel plant, Shell, Mobile, Amoco, Ford, General Motors, and many smaller factories (River Rouge Remedial Action Plan 1992, 31–32). Between 1986 and 1992, the Friends of the Rouge organized an annual Rouge Rescue, in which 15,000 volunteers removed 19,000 cubic yards of debris and unblocked about 500 log jams. Twenty communities participated. More than \$1 billion were needed to complete the cleanup. Afterwards, the river was redefined as natural, and in 2005, it was designated a “Green Corridor,” with funding from the federal Environmental Protection Agency, in order to make that description accurate.

This “green corridor” was only possible because in 2000, William Clay Ford, the great-grandson of the founder, decided to spend \$2 billion rebuilding the River Rouge factory into a ‘green’ flexible-production factory. A new 15-acre grass roof greatly reduced water runoff and provided insulation. Parking lots were redesigned to absorb rain rather than shed it as runoff, and the water now percolates slowly through marshy areas before entering the river. The soil was full of industrial chemicals, but plantings were carefully selected to neutralize or break down toxic substances. A wetland area cost millions of dollars less than building new storm sewers. Inside, the rebuilt factory has abundant natural light and many energy-saving features (Naughton 2000, 58–60).

The architect who retrofitted the River Rouge plant, William McDonough, became a spokesperson for integrating product recycling into the system of production. In 2002, he co-authored *From Cradle to Cradle*, which made the case for improving productivity by planning for reuse at every step in the manufacturing process. As McDonough and his co-author Braungart asserted in a related article,

Building a truly sustainable automobile industry means developing closed-loop systems for the manufacturing and re-utilization of auto parts. In Europe, the End-of-Life Vehicle Directive [passed by the EU in September 2000] makes manufacturers responsible for automotive materials, pushing companies to design for disassembly and effective resource recovery. (McDonough and Braungart 2002b, n. pag.)

This legislation exemplified “[c]radle-to-cradle systems, in which materials either go back to industry or safely back to the soil” (McDonough and Braungart 2002b, n. pag.).

McDonough reconceived industrial production as part of a “technical metabolism” that “can be designed to mirror natural nutrient cycles; it’s a closed-loop system in which valuable, high-tech synthetics and mineral resources circulate in an endless cycle of production, recovery and remanufacture.” Society needs disassembly lines that recover materials without degrading them for reuse in new products (McDonough and Braungart 2002a, 164–165). In its best form, the “technical metabolism” mirrors biological metabolism and is powered by wind and solar energy. The goal is not to minimize harm but to maximize environmental benefits.

The health of the site is measured not in terms of meeting minimum government-imposed standards but with respect to things like the number of earthworms per cubic foot of soil, the diversity of birds and insects on the land and of aquatic species in a nearby river, and the attractiveness of the site to local residents. (McDonough and Braungart 2002a, 162)

The Rouge factory is evolving into a technical metabolism that mimics natural recycling, an appropriate reconception of industry in an ecological age. The factory’s redesign made possible its presentation as a part of the larger River Rouge recovery narrative, in which pollution is curbed and a damaged ecological system cleaned up.

## 10 Conclusion

The Native American Mound Builders utilized the Rouge for transportation, hunting, fishing, and agriculture as well as a ceremonial site. The French valued the Rouge as part of the fur trade, and only after their defeat did Anglo-Americans settle and farm along its banks. After the arrival of railroads, the area was stripped of trees converted to industrial uses, including iron making, stove production, and chemical refining, before Ford built the world’s largest factory there. It became an icon of mass production in the 1920s, a symbol of labor struggles during the 1930s, a major center of military production during World War II,

and an exemplar of global capitalism during the Cold War. By 2013, however, much of the area had been returned to wetland, and even the roof of the factory was planted with grasses that welcomed wild birds. The Rouge managers took seriously the search for more environmentally sustainable production. If there is no possibility of rebuilding the ancient Indian burial mounds, neither is there any possibility of returning to the vision of nature as mere raw material to be endlessly transformed. The imagination of this (or perhaps any) site as a palimpsest mistakenly suggests that nature is merely an original or bottom layer, with additions and erasures on top. At the Rouge, the river and the land have survived many iterations of culture and industry, each of which has disappeared or declined. The new green factory recognizes the persistence of natural forces and seeks harmony with them by developing a technical metabolism, rather than treat Nature as abstract space that exists primarily in order to be exploited.

If the Mound Builders and the Native Americans remain under erasure (except for a few automobile brand names such as Pontiac), if the grid system continues to carve the land, nevertheless the natural world has reasserted itself in recent years, as much of Detroit has disappeared due to the massive loss of jobs in the automobile industry. By 2010, more than 80,000 houses and apartments had been abandoned, and 40 square miles of the city were vacant. Although Detroit has begun a modest revival, the smaller city that is emerging is marked by this reassertion of nature. There are vegetable gardens and a new forest of maple trees planted on abandoned lots (Nye 2013, 215). Many automobile plants, including parts of Ford's Rouge, are ruins that mark the death of the progressive narrative, which described a cost-free development from wilderness to factory. Gone, too, is the narrative that equated the capitalist assembly line with ever-higher living standards and increasing democracy. Unlike most of the previous River Rouge narratives, the one which is now emerging does not erase the past or define the natural world as raw material. The wetlands of the River Rouge again are highly valued, and the more modest Ford factory has a smaller carbon footprint that expresses an emerging willingness to live within limits.

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