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TRACING HISTORY: MAPS OF THE ILLINOIS RIVER SINCE 1673

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A map can provide a window to its reader, revealing what the mapmaker and his or her society deem important about an area. Over the centuries, the Illinois River and its two sources, the Des Plaines and Kankakee rivers, have been depicted in a variety of ways depending on the interests of the mapmakers. Certain concerns, however, reappear over the three centuries these maps were produced, namely, military and transportation concerns.

The French maps of the 17th century and the maps of the 18th century locate numerous forts along the waterway southwest from Lake Michigan. The need for forts disappeared after the frontier moved west in the early 19th century. The military concern remained, however, shifting its focus to naval defense against Great Britain and a possible invasion via the Great Lakes.

Transportation concerns began with Jolliet's first crossing of the Chicago Portage

in 1673. Travelers—either by canoe, canal boat, or barge—repeatedly looked to the Illinois as a route to reach the Mississippi from the Great Lakes.

EARLIEST REGIONAL MAPS

The earliest maps of the region were lost in the rapids of the St. Lawrence River, following Louis Jolliet and Father Marquette's travels in 1673. The two led an expedition from Green Bay down the Fox, Wisconsin, Mississippi, and Arkansas rivers. On their return trip, they canoed up the Illinois and Des Plaines rivers, across the continental divide that would be called the Chicago Portage, then down the Chicago River to Lake Michigan and back to Green Bay. Jolliet's canoe and all his maps and records were later lost in the Montreal rapids on the St. Lawrence.

Jolliet's later maps also were lost. One rough copy of his work is called "Jolliet's Map of 1674," despite the fact that he always spelled his name with two "ls" (Jolliet Map, 1674). A shallow body of water, later called Mud Lake, is correctly depicted as the connecting link between the Chicago and Des Plaines Rivers. This feature supported Jolliet's contention that it would be easy to construct a canal to connect the Des Plaines to the Chicago River. Coal deposits were indicated west of the portage, but not very precisely pinpointed. These deposits would reappear in later maps. There is no indication on the map of the Kankakee River.

In 1680 Robert Cavalier Sieur de La Salle

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arrived in Illinois country. He and his party went down the Kankakee and the Illinois rivers to where the Illinois widens out into a body of water now known as Lake Peoria. Somewhere on its banks, he built Fort Crevecouer. In his report, he makes it very clear that it would be impossible to dig a canal over the Chicago Portage. The Des Plaines and the Illinois were not navigable until one reached “the great village of the Illinois” (later called “Starved Rock”), he wrote (Pease and Werner, 1934).

La Salle had a fort, called Fort St. Louis, built on Starved Rock by his associate Tonti. This rock, rising on the left bank of the Illinois, was one of the most prominent features on the Upper Illinois. It was frequently noted simply as “the rock” on maps.

Some early maps were drawn by cartographers who never set foot in the region. In 1688 the great Italian cartographer Vincenzo Coronelli drew a map of “Western Canada and New France” based on LaSalle’s observations, including LaSalle’s description of the Illinois being as large as the Seine River in Paris (Coronelli, 1688). Another note on the map says the Illinois abounded in wildlife such as beaver, Canadian geese, fish and other game.

The first cartographer to base his maps on his familiarity with the region was Thomas Hutchins, geographer of the United States, in 1778. He published “A New Map of the Western Parts of Virginia, Pennsylvania, Maryland and North Carolina” based, he wrote, on his own surveys of the area west of the Allegheny Mountains (Tucker, 1942; Plate XXIX). Like his French predecessors, however, Hutchins still showed the Illinois River flowing southwest from below Lake Michigan to its juncture with the Mississippi, with no depiction of the Big Bend. Hutchins’s map did not record any portage and marked a fort where the “Cakago” River entered Lake Michigan. (There is no evidence of such a fort before Fort Dearborn was built in 1804.)

Hutchins took note of the coal mine, which he placed near the rock, or as he labeled it, “Little Rock.” Also at that location, he noted there were “small ponds where the French and the Natives had made good salt.” At Peoria (labeled “Illinois Lake”), there was an “old French fort and village.” Despite its inaccuracies, Hutchins’s map showed the shift away from the primary interest in portages and water travel by fur traders in canoes, to those qualities of the landscape that could be commercially useful—the location of coal and possibly salt.

FIRST MAPS OF THE ILLINOIS

The first map specifically of the Illinois River—and the first one to accurately trace the river’s course—is dated 1790. Lt. John Armstrong filed the map after traveling from the Chicago River down the Illinois to consider the feasibility of an expedition to explore the Missouri (Storm, 1944). He described the swamp at the portage and rivulets that flowed into the Chicago River and accurately located them on the map. He repeated Jolliet’s observation that at high water one could easily pass from Lake Michigan to the Des Plaines and the Mississippi without portaging.

Armstrong noted timber (oak and maple on the Des Plaines) and mineral resources on the banks that previous cartographers had ignored. He also described Mount Juliet, as he called it, where the river widened to 300 yards. At the juncture of the Des Plaines and the Kankakee, there was a “flat rock” obstructing their passage so they had to lift their boats over it. He described the “Coal Mine” in detail, giving its measurement and locating it about where Marseilles is now. Also at that location, a salt spring was noted.

This map correctly recorded the sharp bend south as the river flowed beyond Peru. He said the river had no current after it made the big turn. He saw no hills, only prairie

stretching beyond the trees lining the stream.

After the admission of Illinois to statehood in 1818, an increasing number of maps began appearing in commercial atlases published in Philadelphia. John Melish's map of 1819 was the first of these (Tucker, 1942; Plate XLVI and Plate XLVII). To encourage immigration from his native Scotland, Melish published a number of travelers' directories and geographical works on the United States. His map paved the way for increased settlement by marking "The Military Bounty Lands," the area west of the Illinois below the Big Bend (see page 4). This land was surveyed and divided into sections to encourage veterans of the War of 1812 to settle on the frontier. If a veteran didn't want to settle his claim himself, he could sell or give away his parcel. Prior to this, the only European settlement along the Illinois was on the west bank of Lake Peoria where French and Indian traders had land holdings as early as the 17th century (Franke, 1995).

After gaining statehood, the new Illinois legislature asked for federal money and land to build a canal to connect Lake Michigan to the Illinois River (thus, the name, "Illinois & Michigan Canal"). In 1823, the first board of commissioners of the I&M Canal was formed and charged with surveying a suitable route. Although the canal would not open for navigation until 1848, commercial map publishers immediately began to take note of its potential.

In 1825 Philadelphia publishers Carey and Lea produced a map that included descriptive notes on the future canal, depicting it as a short waterway across the Chicago Portage (Ristow, 1985). In 1836, H. S. Tanner's map included the proposed canal and current steamboat routes on the Ohio, Mississippi, and Illinois rivers. He noted 15 towns on the Illinois. As an enticement to would-be settlers, the map showed some roads and proposed railroads.

ATTENTION TO RIVER HAZARDS

The increased attention to the Illinois as a transportation route also necessitated some attention to the hazards in the river. In 1837, Howard Stansbury, a U.S. Assistant Civil Engineer, traveled the Illinois from its mouth to La Salle, where the I&M Canal would terminate. He informed the federal government that the river would be important not only for commercial and agricultural development, but also for military purposes:

In a military point of view, the uninterrupted navigation of this river cannot be overlooked, as it will afford facilities for the transportation of troops and munitions of war with certainty and celerity..." (Report from the Secretary of War, 1838)

According to Stansbury, the major difficulty in navigating the Illinois River in 1837 was the large number of sandbars in the lower Illinois. In his map (scaled 1 inch to 10 miles), he located 18 sandbars. Compared to Armstrong's map of 1790, there were no landmarks labeled, only towns, tributaries and sandbars, the largest number of which were located below Beardstown. Stansbury's recommendation was that the bars be dredged, because the soil wasn't solid enough for dams and locks (Smith and Stansbury, 1837).

Sandbars prompted an anonymous surveyor in 1868 to make this note:

I have come today over the most difficult part of the river for steamboat navigation... All of these shoals follow each other in rapid succession, and a boat is hardly off one before she is high and dry on the next. ...Nothing but a dam at or near Columbiana would render this navigation perfect, as the bars wash in as fast as dredged out (Illinois River Series A No. 39).

Despite the sandbars, the use of the I&M Canal and the Illinois River for shipping was very important in the 1850s. In 1851, W. B.



John Melish's map of 1819 was the first published in a commercial atlas after Illinois entered the Union. It paved the way for increased settlement by marking "The Military Bounty Lands," the area west of the Illinois River. (Photo courtesy of Edward E. Ayer Collection, The Newberry Library, Chicago)

Evans, a New York map publisher, printed a map of the river and the canal, along with charts on toll rates and the distances of 44 river towns from St. Louis, as well as 16 towns on the canal and their distances from Chicago (see page 6). Clearly, a much more comprehensive inland waterway had developed since Tanner's 1836 map. The future of transportation—the railroads—was still dwarfed by the river in 1850: Evans's map included only a small drawing of the proposed railroad to Galena, which by then traversed only 84 miles (not shown in detail on page 6).

The idea that the Illinois River was important for defense, despite its location in the heart of the country, reappeared during the Civil War. Fear that British warships in the Great Lakes would come to the aid of the Confederacy fueled pressure on the federal government to enlarge the I & M Canal and make the Illinois navigable for larger vessels (Proceedings, 1863).

The fear of the British, however, didn't end with the Civil War. In 1867 Brevet Major General J. H. Wilson vehemently expressed this concern:

...The recent confederation of the British American provinces shows the anxiety felt by the English government in this behalf and must be regarded as a movement in hostility to the people and institutions of the United States.

The government must either *connect the lakes and the Mississippi River by a canal of sufficient capacity to accommodate gunboats suitable for service on the lakes, or prepare for annexation or conquest of Canada.* [Emphasis in the original] (Wilson, 1867)

PURSUING 'COMMERCIAL NECESSITY'

The concept of raising the Illinois River's level by a series of dams and locks became popular after the Civil War. In 1866 the aforementioned Major General J. H. Wilson

proposed a navigable depth of 7 feet for the river and the canal (maps, 1867). This would require six locks and dams from south of La Salle. His map, on a scale of 6 miles to the inch, located a proposed lock and dam at Crow Creek near Chillicothe. His report espoused his belief in the nation's Manifest Destiny:

To the people of our race nothing is more inexorable than a commercial necessity, no argument is so potent as that based upon physical facts, and no ethics so readily understood as those which relate to the national welfare, when our people have been brought to thoroughly understand this necessity, ...they will not be over nice in regard to the territorial rights of those who bar the door to the eastern market, but will demand the extension of our borders so that their commerce may find its way 'unvexed to the sea' by the St. Lawrence, as it now does by the Mississippi (Wilson, 1867).

In the 1870s the debt on the I & M Canal was retired and the state began to make changes on the canal and the river that would impact the river flow. The divide between the Chicago River and the canal was excavated to reverse the flow of the Chicago River and to pull water from Lake Michigan into the canal and the Illinois River. The state also built two locks, one at Henry and one at Cooper's Creek, increasing the depth of the river, and cleared wooded areas along the banks. These changes doubled the low water flow by 1880. In the 1890s the Army Corps of Engineers built two more locks and dams, at La Grange and Kampsville.

All of this, according to an Act of Congress of August 11, 1888, was to create a navigable waterway between Lake Michigan and the Mississippi having the capacity for the largest size naval vessels suitable for "defense in time of war"—14 feet deep and 160 feet wide. The engineer maintained that 7 feet was the maximum depth that could be achieved, and no vessel navigating the Mis-

In 1851, New York map publisher W.B. Evans printed this map "showing the navigable rout[e] from Chicago to St. Louis" via the recently-opened I&M Canal and the Illinois River. Toll rates and distances of 44 river towns plus 16 towns on the canal were included adjacent to the map.



Mississippi needed more than a 7-foot draft (Survey, 1890).

To show that this depth was feasible, in 1890 the Corps published a series of detailed maps of the stretch between Chicago and La Salle. The scale was larger (600 feet to the inch) than previous maps, requiring 25 large maps for the 90-mile distance. These maps included details of the soil borings made frequently in the river on the closest shore and showed the area necessary for the enlarged canal and slack water navigation on the river.

The opening of the Sanitary and Ship Canal in 1900 increased the flow of Lake Michigan water into the Illinois River to a degree that alarmed cities downstream, particularly St. Louis. In the 1920s, the State of Illinois began building the Illinois Waterway—not to be completed until 1933—to deepen the channel again, this time to a 9-foot depth. The old locks and dams were replaced with new and larger facilities. This required more detailed measurements of water depths. In 1929, Lt. Col. Weeks directed a survey that would be consolidated in maps on the large scale of 1 inch to 200 feet. The only objects depicted on the shore were benchmarks on trees or man-made immovable objects (Measuring a Vision, 1988).

CONCLUSION

There are certain concerns that reappear in the details of Illinois River maps over three centuries. Most noticeable is the role of the river in military strategy, expressed in the frequent markings of the numerous forts in the French maps of the 17th and 18th centuries and in the interest in using the river for naval defense against possible invasion in the early- and mid-19th century.

The second continuing concern was transportation. In early maps the focus was on how to cross from Lake Michigan into the Illinois River by canoe; later maps focused on the distances and costs of shipping goods on the river and associated canals.

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The Wetlands Initiative is a non-profit corporation dedicated to restoring the wetland resources of the Midwest to reduce flood damages, improve water quality, and increase wildlife habitat and biodiversity. Our mission is to promote restoration in ways that provide environmental and economic benefits to society and the landowner. Through research, education, public policy analysis, and large-scale demonstration projects, TWI aims to restore one million acres by the year 2010. While this number may seem large, it represents only 2 percent of the wetlands lost in the Midwest.



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