# Currents of Change

## Journal of the Falls of the Ohio Archaeological Society

Spring 2004, Volume 2, Number 1

ISSN 1553-3719

SISAC 1553-3719(200421)2:1<>1.0.TS;2-Q

LC Control Number 2004216300

*This journal issue is dedicated in memory of FOAS member, Ed Boston.*

*Cover: Example of a stone mound at 15CK474 in Clark County, Kentucky. See David Schatz and Anne Bader article, this issue.*

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Published by
Falls of the Ohio Archaeological Society
Clarksville, Indiana

# STREETS TO THE PAST: AN ARCHAEOLOGICAL SURVEY AT THE PORTLAND WHARF

*BY*

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## INTRODUCTION

In the spring of 2002, the Kentucky Archaeological Survey conducted an archaeological survey of the Portland Wharf site located in Louisville, Kentucky. The survey was part of the planning and development of the Portland Wharf Park, a unique initiative to use cultural tourism, history, and archaeology to revitalize the Portland Neighborhood. The survey conducted at the Portland Wharf represented the first step towards making the park a reality. The purpose of the survey was to identify intact archaeological resources within the wharf area and to develop research questions for future excavations and park programming.

One of the most interesting of the resources located at the Portland Wharf were the original streets found buried beneath several feet of soil. The discovery of these streets provide a glimpse into the history of a very important feature of any city. Street construction often reflects the earliest developments in a frontier city's formation.

## HISTORY OF THE WHARF IN PORTLAND

The Portland Wharf is a 60-acre (24-hectare (ha)) parcel of land located along the Ohio River at the base of the Portland Canal in western Louisville. The site is part of the Portland Neighborhood and is situated on a low-lying floodplain, nestled between the floodwall and the river. This area was once the heart of a bustling nineteenth century river town, complete with buildings, streets, and a wharf for landing riverboats.

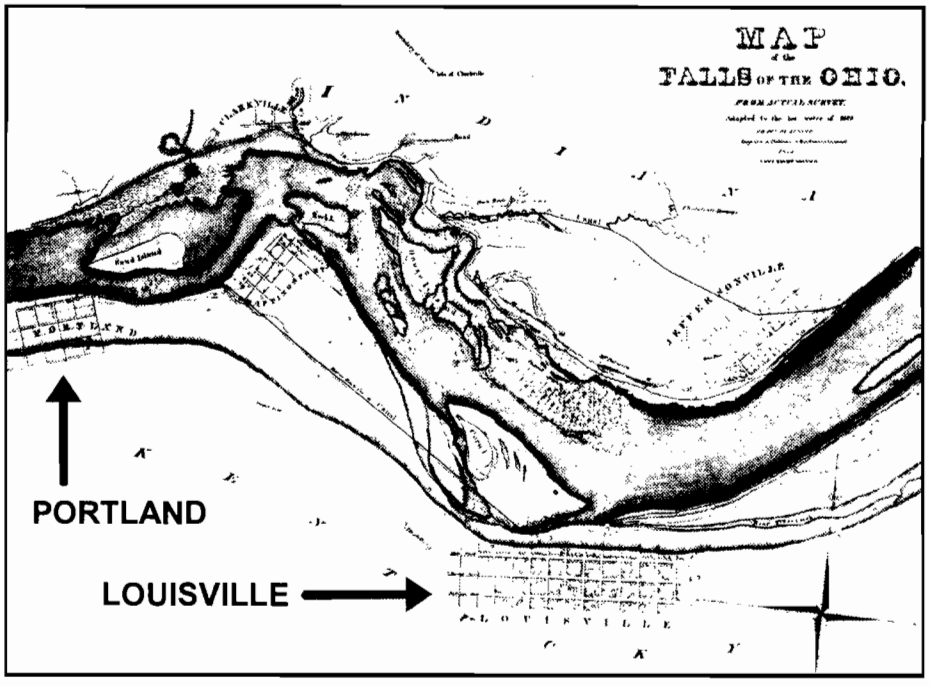



**FIGURE 1. MAP OF THE FALLS OF THE OHIO, SHOWING PORTLAND AND LOUISVILLE CA. 1824.** (From Flint 1824.)

The town of Portland was founded in 1811 at the base of the Falls of the Ohio River by William Lytle of Cincinnati, who purchased the land from Henry Clay (**Figure 1**). The town was located at the terminus point of the lucrative portage service around the Falls and was an early rival to Louisville. Both Louisville and Portland prospered greatly by increased river traffic and rose from small towns to bustling mercantile centers (Kleber 1992). Their economies flourished in the early part of the nineteenth century; first, from cargo on flatboats and keelboats coming downriver, and later, by steamboats traveling upriver from New Orleans.

During the mid nineteenth century, nearly one-third of the cost to ship cargo from New Orleans to Louisville was spent on the three-mile (nearly 5 kilometers) portage around the Falls. The portage business created a large demand for river-oriented industries, and many merchants became quite wealthy. Because the portage business was so important to Louisville and Portland, it became the source of much friction between the rival ports. The high cost of transport and the condition of the road between the two was often the subject of commentary and complaints. To eliminate the need for the portage, a canal to bypass the Falls had been proposed as early as the 1790s. However, it was not until 1825 when the Louisville and Portland Canal Company was chartered. Construction of the canal began the following year, and it was finally completed in 1830. Surprisingly, the canal did little to improve transportation around the Falls. By the time it was completed, it was too narrow and shallow for the new generation of steamboats that dominated shipping on the Ohio River. As a result, the overland portage system continued its dominance (Watrous 1977).

After the new canal failed to make a difference, Portland sought to build a railroad to Louisville. At the same time, business interests in Lexington wanted access to a port below the Falls without having to stop in Louisville. Businessmen and the Lexington and Ohio Railroad proposed to build a rail line directly to Portland's wharf. However, the project ran out of money in 1837, and a new plan was proposed that included a stop in Louisville. In a major compromise, Portland agreed to be annexed by Louisville in 1837, and, in turn, was promised the railroad terminus and a link to the inner Bluegrass regions around Lexington. The rail line between Portland and Louisville was built; however, the Louisville businessmen failed to extend the track to Lexington, thus angering the people in Portland. Moreover, within five months of its construction, the businesses in Louisville, by stating noise pollution, successfully obtained a court order stopping the trains to Portland (Freda 1996; Kleber 1992; Yater 1987). The tension came to a head in 1842, when Portlanders sought and gained independence from Louisville. Yet, this autonomy was short-lived and in 1852, Portland once again became part of Louisville, although resentment would remain (Karem 1988).

The 1850s were the peak years of river traffic and of Portland's prosperity. By the 1860s, railroads had begun to overtake riverboats as the preferred transportation system in the country. The Portland Wharf, which had brought so much prosperity to the region, was made obsolete after the Federal Government took control and enlarged the canal in the 1870s. By the turn of the century, Portland, like many other older urban areas, encountered an era of degrading structures and mass unemployment. In 1937, and again in 1945, terrible floods ravaged the "old" section of town, and by the late 1940s, plans for building a floodwall through the area were approved (Freda 1996; Kleber 2003).

The building of the floodwall in 1947 removed the last vestige of the oldest section of Portland and its wharf. The completion of Interstate 64, constructed atop the floodwall, served as the final action that successfully disconnected Portland from its original livelihood, the Ohio River (The Courier-Journal 1947; Karem 1988).

## REVITALIZATION OF PORTLAND

The development of the Portland Wharf into an archaeological and historical park was inspired by local school children during a planning project conducted by the Portland Museum in 1994. The cultural heritage theme developed from the children's interest in the community's historical and archaeological resources and called attention to the need for community revitalization.

City officials recognized that cultural heritage tourism could be a way to accomplish the task of revitalization. So, after years of neglect, the city of Louisville recently turned its attention toward the Portland Neighborhood. In 2000, the city provided funding to develop a master plan for the Portland Wharf Park. Professional planners were hired to develop the park plan. The public and professionals were invited to participate in workshops to provide input for the new park design. After a year of work, the master plan for Portland Wharf Park was unveiled. Archaeology was a prominent feature of this plan, which would focus on public participation as a tool to connect the community with their past and to the park.

In order for archaeology to play a prominent role in the development of the park, an assessment of the site's historical resources was necessary. Some of the wharf area's archaeological potential was initially revealed by limited investigations conducted by the University of Louisville (U of L) in 1982 and 1983. Several backhoe trenches uncovered a large foundation and thousands of artifacts, many dating to the early to mid 1800s. During a surface survey of the area, U of L archaeologists also identified remnants of street curbing and pavement associated with the wharf (DiBlasi 1982 and 1985). While this work was instrumental in demonstrating archaeological potential, the extent and nature of resources throughout the entire 60 acres (24 ha) of the property was not known. A full understanding of the existing resources was essential for design and implementation of the park master plan.

## ARCHEOLOGICAL SURVEY OF PORTLAND

The Kentucky Archaeological Survey (KAS) conducted a survey of the park area with the excavation of 65 backhoe trenches. Based on these excavations, it was determined that the area had been severely disturbed by the construction of the floodwall in 1947, by riverbank erosion, and by looting. Even so, five areas of very high archaeological potential were identified.

The first and most important locale of high potential encompassed an area larger than an entire city block. Trenches revealed a large cross section of residential and commercial lots and properties. House foundations, cellars, cisterns, privies, and trash middens dating from the mid-1800s to early 1900s were found throughout. Also, various parts of streets and sidewalk pavement were revealed (**Figure 2**). Based on the findings in this area, it seemed likely that it would become the focal point for public archaeology digs.

The second area determined to have high archaeological potential was located in the immediate vicinity of the old St. Charles Hotel. This lot was once owned by Paul Villier, an early settler in Portland, who built the hotel in 1856. It was a grand hotel that rivaled most in Louisville at the time. Later, at about the turn of the twentieth century, the structure served as housing for a number of African-American families. The U of L survey and additional excavations conducted by the KAS documented a large amount of artifacts and numerous architecturally-related features that were associated with this important Portland landmark.

Near the river's edge, a third area of high potential interest was exposed. A large section of intact stone paving associated with the wharf and Water Street was uncovered (**Figure 3**). Additionally, a set of wrought iron mooring rings was discovered anchored to the paving. These rings were likely used to secure boats that had landed at the wharf. Over the years, local residents reported several sets of rings, often larger, had been found. A large set of rings was documented by workers clearing mud from the wharf area in 1936 (**Figure 4**) and by the U of L surface survey in 1982.

**FIGURE 2. BRICK PAVED SIDEWALK ALONG 34TH STREET.**

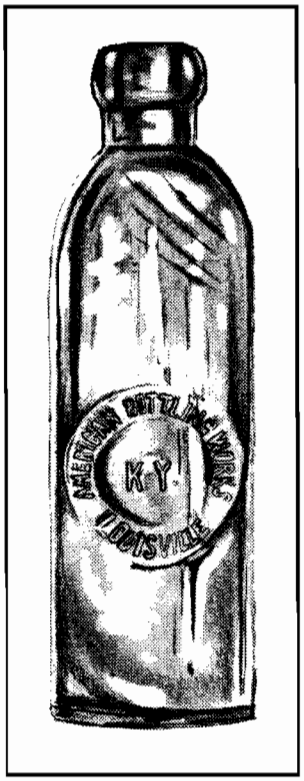
**FIGURE 3. STONE PAVED WHARF AND IRON MOORING RINGS ON WATER STREET AT THE END OF 34TH STREET.**

**FIGURE 4. IRON RINGS UNCOVERED BY WORKMEN WHO WERE REMOVING FLOOD-DEPOSITED MUD FROM WATER STREET, BETWEEN 33RD AND 34TH STREETS.** (From the *Courier-Journal* March 3, 1935.)

Another city block contained the intact archaeological remains of the Rugby Distillery, which operated from the 1880s to the 1920s. This site indicated Portland's early role in developing one of Kentucky's leading commercial enterprises. Large brick foundations, associated with bonded warehouses, foundations for distilling equipment, and brick walkways, were found throughout the entire city block. This site became the fourth area of high archaeological potential, as it would represent an excellent example of an industrial archaeology site.

The final area that showed high archaeological potential was a small area of residential lots located near the distillery. Extensive trash middens and privies were identified here. Two privies, found adjacent to each other, represent the transition from shallow, wood-lined privies to deep, brick vaults during the late 1800s. Close examination of these features would provide an understanding of changes in sanitation and would show how Portlanders adapted to Louisville laws after annexation.

Thousands of artifacts were sampled from these trench excavations at the Portland Wharf site. Most of the retained artifacts were diagnostics, particularly ceramics and glass. The ceramics typically dated to the 1800s, ranging from creamware to white granite. A wide assortment of ceramic decorative types were represented, such as transfer print, hand painted, sponge decorated, pattern molded, and mocha. Other interesting ceramic artifacts included buttons, smoking pipes, a German stoneware mineral water bottle, and marbles. Many of the glass bottles found were late 1800s to mid 1900s soft drink or soda bottles and medicine bottles (**Figure 5**). Examples of nineteenth century wine bottles were also found. Other unusual glass chunks were found in various places across the site, perhaps raw glass for use at glass factories (It is possible that raw glass was unloaded from steamboat at the wharf and then sent to glass works in Portland and Louisville. One glassworks is known to have operated in Portland during the late 1800s.). The remainder of the artifacts included plastics, faunal remains, and prehistoric artifacts. The prehistoric artifacts came from disturbed contexts, but their presence indicated that the Portland Wharf site was occupied during that time.




Overall, the survey demonstrated that excavations at the Portland Wharf site can produce important archaeological data. The archaeological deposits represented a economical and cultural cross section of an entire community, ranging from residential to industrial lot uses and from Euro-American merchants to the enslaved African-Americans. This data could help address a wide variety of questions of interest concerning eighteenth and nineteenth century issues, such as consumerism, ethnicity, sanitation, socioeconomic status, and many others. A more complete history of Portland's rich and proud past could be written.

In addition to the identification of historical resources, an important part of the master park plan included re-establishing the original street grid. During the KAS excavations, several examples of intact street paving and sidewalk were found that will eventually be uncovered and used in the new park. The discovery of old Portland street remnants provided an opportunity to examine the history and design elements of an important feature that was integral to the economy of the town.

**FIGURE 5. GLASS SODA OR WATER BOTTLE MANUFACTURED BY THE AMERICAN BOTTLING WORKS.**
(Drawing by Matthew Prybylski.)

## THE STREETS OF PORTLAND

Since Portland was founded, roads have been as important to river traffic as the river itself. The portage around the Falls of the Ohio was an overland route that was dependent on sufficient roads to transport goods back to the river. Before the 1850s, the roads of Portland were merely packed and rutted dirt or crushed gravel. In October 1844, a motion was made by the Town of Trustees to repair the old portage turnpike, the Louisville and Portland Road (Town of Portland Trustee Minute Book 1842-1852). Three months later, ninety-six wagon loads of crushed stone were delivered for the improvements. Other attempts to improve the overland portage included the construction of a railroad and calls to improve the roads. The April 19,1855 edition of *The Louisville Daily Courier* described the condition of the Louisville and Portland Road and how it could be improved:

> The *quasi* road is thickly studded with vehicles of all description from early dawn to midnight. Horses are stalled, wheels are broken, shafts are snapped, springs give way and oaths are sworn from one end of the road to the other...This road is of the greatest importance to the city, by it a part of the access of strangers and travelers is had; the travel over it exceeds in amount that of any road near the city; it is in fact, the great artery which supplies our commercial heart; and yet there is not a more miserable apology for a road to be found leading to any country village in the State. Why then, should not this new council signalize the inauguration of its reign by building at once a substantial boulder road, and make suitable provisions for keeping it in repair! Macadamized and plank roads have both been tried, and both have signally failed. [See **Figure 6** for an example of an early macadamized roadway.]

**FIGURE 6. MACADAM ROAD NEAR FOREST GROVE, OREGON IN 1910.**
(Photo courtesy of the Oregon State Highway Department.)

In 1867, Louisville Mayor Philip Tomppert complained that the condition of the streets was due to the failure of street railway companies to maintain the roads, as required by their contracts. Significant damage to the Louisville and Portland Road and other Portland streets was reported at the time (Louisville Municipal Reports 1867). By the 1880s, many roads in the Portland and Louisville area had been improved. However, despite the need for investment in the Louisville and Portland Road (renamed Portland Avenue), no substantial improvements were made. The road, first constructed in 1850 (Town of Portand Trustee Minute Book 1842-1852), remained a plank road.

**Early Types of Road Pavement**

Since the 1850s, the City of Louisville (which by this time included Portland) had made a priority of paving city roads to promote better drainage, an important sanitary practice. Throughout the nineteenth century, the city utilized a variety of pavement types to slowly replace the miles of dirt roads, which would become stagnate mud pits during wet weather (Louisville Municipal Reports 1860-1900).

The most common paving type used during the early nineteenth century was called the plank road, which consisted of lining the street with wooden planks or logs to provide traction and stability (**Figure 7**). However, this type of paving was rough and associated with high maintenance costs. The most durable, but expensive, hard-paving type was block stone, as was used to pave the public wharf (**Figure 8**).

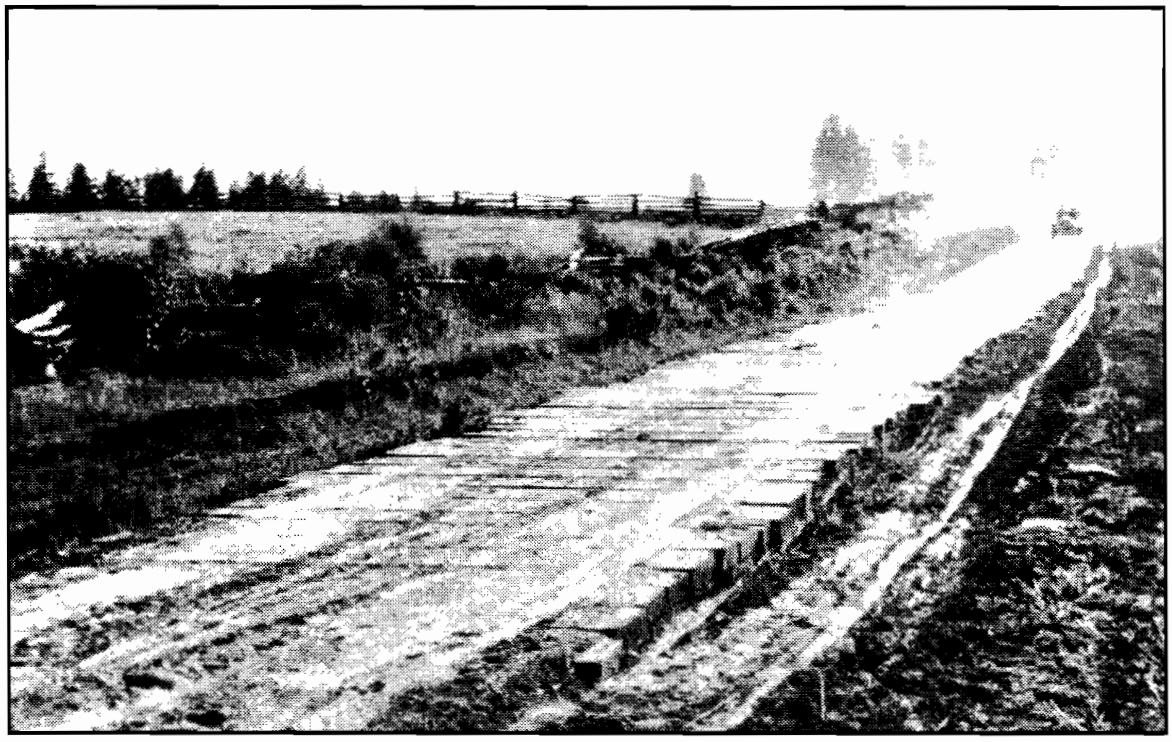


**FIGURE 7. PLANK ROAD IN FOREST GROVE, OREGON IN 1910. CONSTRUCTION TECHNIQUE CAN BE SEEN IN THE LOWER RIGHT QUARTER OF THE PICTURE.**
*(Photo courtesy of the Oregon State Highway Department.)*

**FIGURE 8. BLOCK PAVING.**

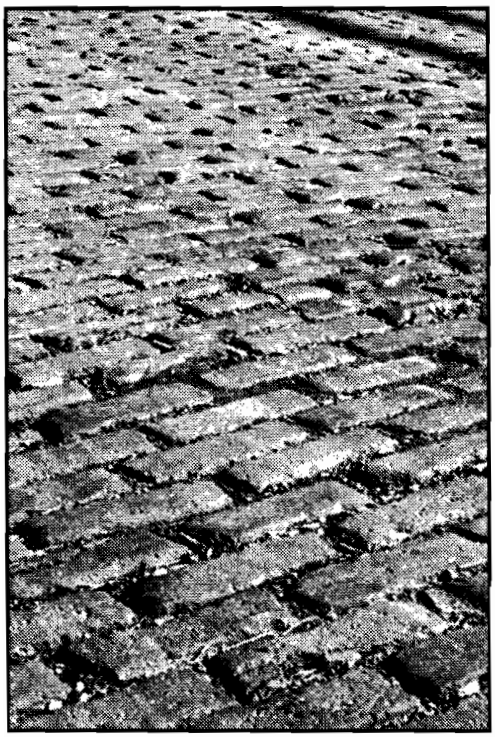


**FIGURE 9. BRICK PAVING.**

By the 1860s, more cost-effective types of paving were being used in Louisville, including bowlder, macadam (**Figure 10**), and Nicholson paving. Bowlder paving consisted of a 15.0-inch (in) (38.1-centimeter (cm)) base layer of large, unevenly-sized stone overlaid by a 5.0- to 6.0-in (12.7- to 15.2-cm) layer of gravel (Mullins 1994:4). Macadam paving, developed by John Louden MacAdam in early nineteenth century England, consisted of a raised packed-earth base and two layers of gravel (Mullins 1994:4). Macadamized roads were often sloped from the center to provide better drainage into stone gutters that ran along the sides of the road. Nicholson pavement consisted of a sand base with 5.0-in (12.7-cm) thick wooden blocks separated by fine gravel. This was then overlaid with a thin layer of a tar, sand, and gravel mixture.

In the 1870s, Louisville was one of several large cities to experiment with Nicholson wood pavement. In 1874, Louisville discontinued the construction of Nicholson paved roads, citing high maintenance costs. By 1877, all of the roads paved with Nicholson paving had to be reconstructed (Mullins 1994:22). Some of these streets were repaved with asphalt, which had been widely used in Europe, but had only gained acceptance in the United States during the late 1870s (Kleber 2001:858).

Brick also was used for paving streets, which provided a surface much more durable than macadam, but less expensive than stone blocks (**Figure 9**). Brick that could handle the weight and punishment of vehicular traffic were not developed until the 1870s by using clays that could be fired at low temperatures and by using the stiff mud process (Hockensmith 1996; Gurke 1987). However, problems with water absorption limited their popularity with road builders. Once brick makers learned that adding shale would vitrify the brick and eliminate the water absorption, bricks became a viable paving material. By the 1890s, brick was favored as a paving material for roads (Hockensmith 1996). A portion of Second Street was the first in Louisville to be paved with brick, which quickly became the pavement of choice for the city (Kleber 2001:858).

**Street Paving in Portland**

On April 1, 1848, the Town of Portland ordered that a section of Commercial Street be paved:

> Be it ordained by the President and Board of Trustees of the Town of Portland, that Commercial Street, from the south side of Water Street to the south side of Second or Market Street, be paved and graveled at the cost and expense of the owners of lots and parts of lots fronting on each side thereof, the work to be done in the following manner: Each side of the street to be protected by good curbing, at least 18 inches deep, and not less than 4 inches thick and 2 feet in length. The gutters to be paved nine inches deep, and five feet wide, and so paved as to present an even and smooth surface for the water - the balance of the street to be paved with stone six inches deep, with the base of the stone down, and points up; these to be covered six inches deep with gravel, net screened; the gutters to be covered before use with good sand, not less than three inches deep. The stone used in paving must be good, hard, limestone. --- A proposition having been received from Mr. Scott Newman for the paving of this street, it was accepted [Portland Trustees Minute Book 1842-1852].

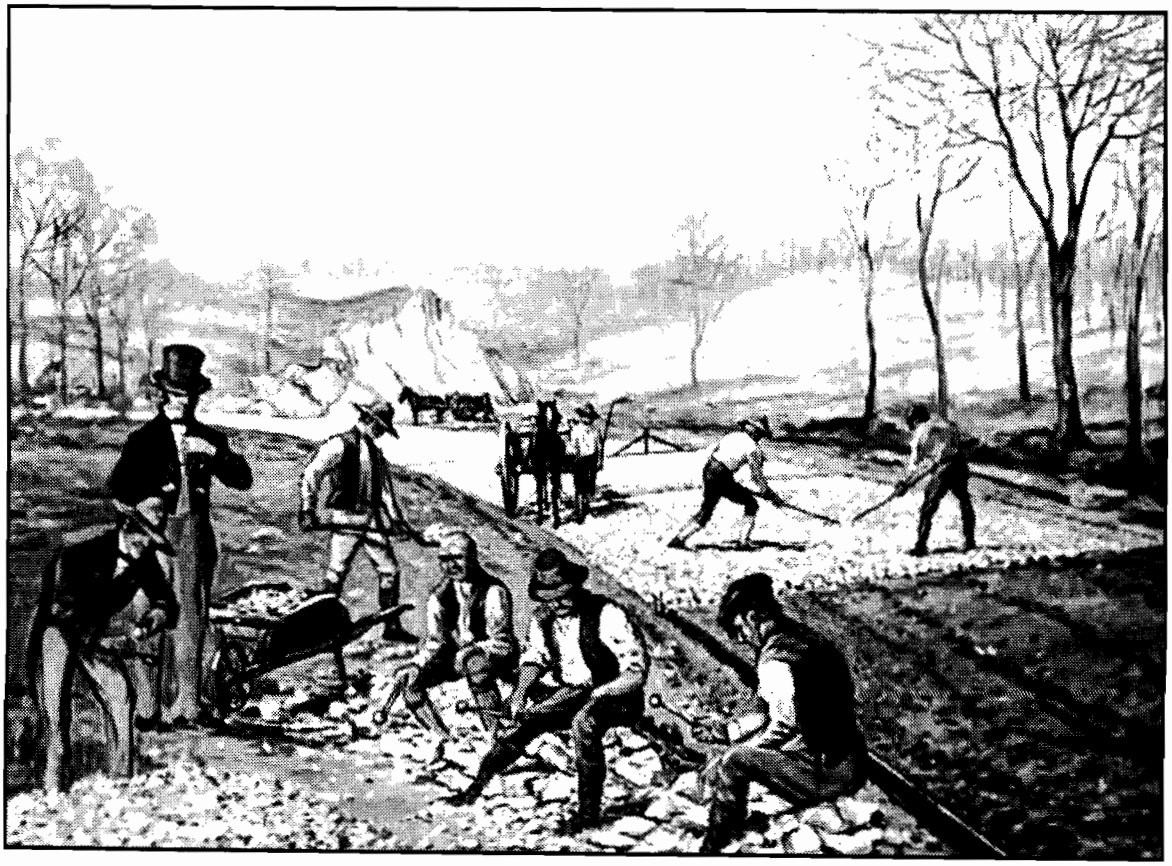


**FIGURE 10. CARL RAKEMAN'S PAINTING DEPICTING THE FIRST MACADAM ROAD BUILT IN THE UNITED STATES. IT WAS LAID ON THE "BOONSBOROUGH TURNPIKE ROAD" BETWEEN HAGERSTOWN AND BOONSBORO, MARYLAND IN 1823.**
(Information and picture courtesy of the Federal Highway Administration.)

Although the pavement type was not named in the description, the pavement specifications for Commercial Street was typical of bowlder pavement. Other actions by the Portland Trustees pertaining to streets included paying for the grading of Grove Street (renamed 35th Street) from High to the River in 1849, indicating that it was a dirt street at that time (Town of Portland Trustee Minute Book 1842-1852). On September 9, 1848, the street committee was directed to have the intersection of Grove and Water Streets paved 12.0 in (30.5 cm) deep. During this time, the Trustees also ordered that "the side-walk fronting on Water Street, between Grove and Commercial Streets, be graded and paved with good hard brick, on a bed of sand not less than four inches deep, and be covered with sand not less than one inch deep" (Town of Portland Trustee Minute Book 1842-1852).

It is not known when a concerted effort was made by Louisville to pave the streets in Portland, but the city began to invest in the infrastructure of Portland by the 1850s. The public wharf at Portland was paved with stone in 1853. One of the first sewers in Louisville was built under 35th Street to aid drainage in Portland proper. By the 1880s, many of Portland's streets had been paved.

A copy of the Hopkins map, stored at the Jefferson County Office of Historic Preservation and Archives, had been altered to include the street paving types in 1884 Louisville. Although Portland Avenue was still a wood plank road, this map indicated that most of the surrounding streets were macadamized and the alleys were unpaved. A few of those macadamized streets were afterwards upgraded to brick pavement in the 1890s.

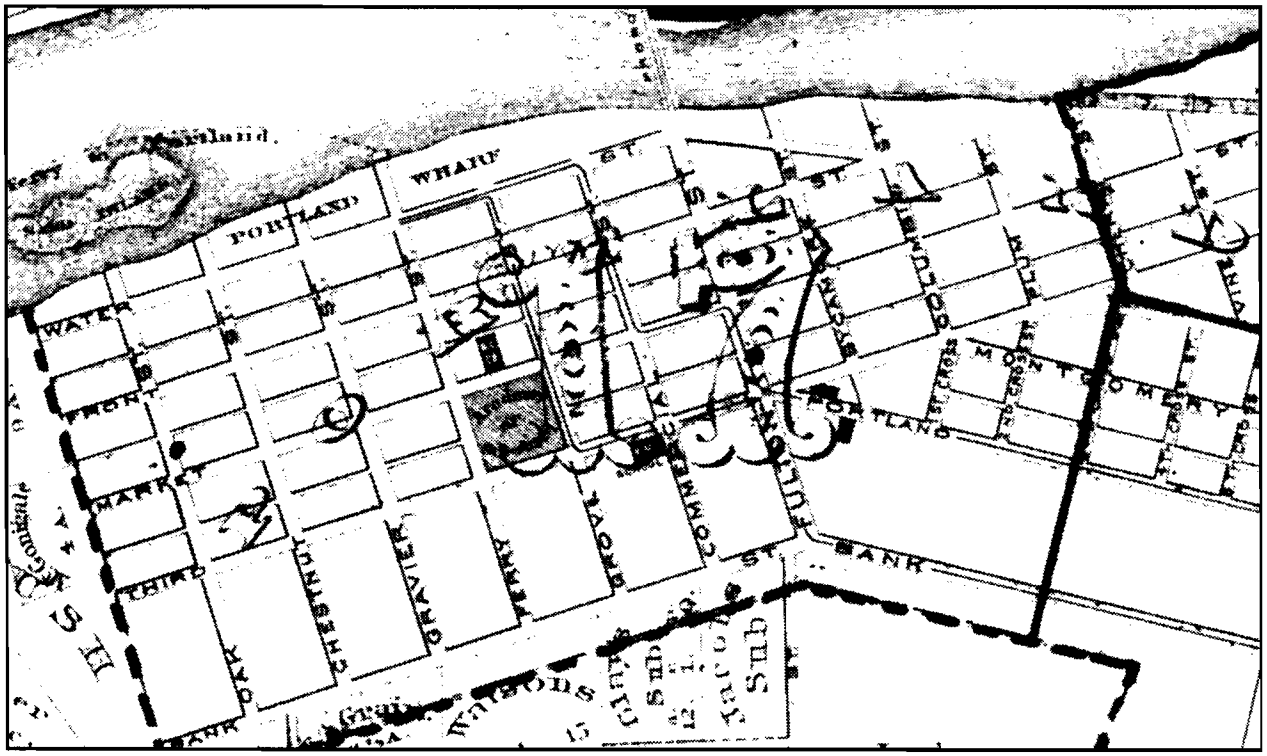



**FIGURE 11. MAP OF PORTLAND SHOWING ORIGINAL STREET NAMES.**
(Louisville Abstract and Loan Association 1876.)

### Portland's Street Name Changes

With Portland as an autonomous town, it had its own system of streets that reflected the city's identity as a population tied to a river economy (**Figure 11**). The mere proposal of street name changes caused a great excitement amongst the populace. In 1848, the town's trustees motioned to create an accurate map of Portland. When the new map was completed, there were numerical names listed in place of the original street names. This outraged the citizens, who stated that the trustees had no right to change the street names. A struggle ensued to have the traditional names reinstated. Later that year, a compromise was reached, whereby the street names were reissued using both the new numbers designated by the map and the commonly known names (Town of Portland Trustee Minute Book 1842-1852).

After annexation with Louisville, Portland's gradual assimilation was evident when the city began to change the names of Portland's streets in 1875 (Louisville City Code Book 1884). Streets like Commercial, Front, Fulton, Ferry, Gravier, and Grove were changed to names that were relevant to Louisville (**Table 1**). Only the name of Water Street was left unchanged.

| Old Name | New Name | Date |
|---|---|---|
| Commercial Street | 34th Street | 1875 |
| Front Street | Missouri Street | 1875 |
| Fulton Street | 33rd Street | 1875 |
| Ferry Street | 36th Street | 1875 |
| Gravier | 37th Street | 1875 |
| Grove Street | 35th Street | 1875 |
| Jackson Street | Florida Street | 1875 |
| Market Street | Rudd Avenue | 1875 |
| Florida Street | Mississippi Street | 1910 |
| 35th Street | Cedar Grove Terrace | 1937 |

**TABLE 1. PORTLAND STREET NAME CHANGES.**

### Archaeological Survey of Portland Streets

The archaeological survey conducted at the Portland Wharf confirmed that most of the streets were paved with the most widely-used paving style during the late nineteenth century (macadam). Sections of Missouri, 34th, 35th, 36th, and Water Streets were identified with limestone curbing and macadam paving. Other paving types were also identified. For example, much of Florida Street (the alley between Water and Missouri Streets) was paved in the bowlder style (**Figure 12**). A section of 33rd Street at Missouri Street was paved with block stone (**Figure 13**). Sections of sidewalks along 35th and Florida Streets were paved in brick. The remaining streets in Portland were unpaved during the late nineteenth century and may have never been paved.

## CONCLUSION

The streets of the Portland Wharf mirror the history and demise of the once prominent river town that rivaled Louisville. The roads of Portland in the 1840s represent some of the earliest paving in the region, representing the growth, wealth, and importance of the budding town. The street improvement was one of many attempts by the town to make Portland a refined center of culture and commerce and to ascend into the ranks of the most important cities on the Ohio River. Sadly, the street conditions were also an example of its decline, showing little change after the nineteenth century and becoming a symbol of political assimilation.

Street names, changed by political motives, eradicated the memory of the wharf's importance to Portland. Assimilation, floods, construction of the floodwall, and time have all conspired to hide the history of the wharf area. The streets and other features, to be uncovered by archaeological excavation from the silt of destruction, will reveal the rich history of this once bustling river town. Through the innovative and unique Portland Wharf Park, Portland's past can be discovered, experienced, and enjoyed by all.

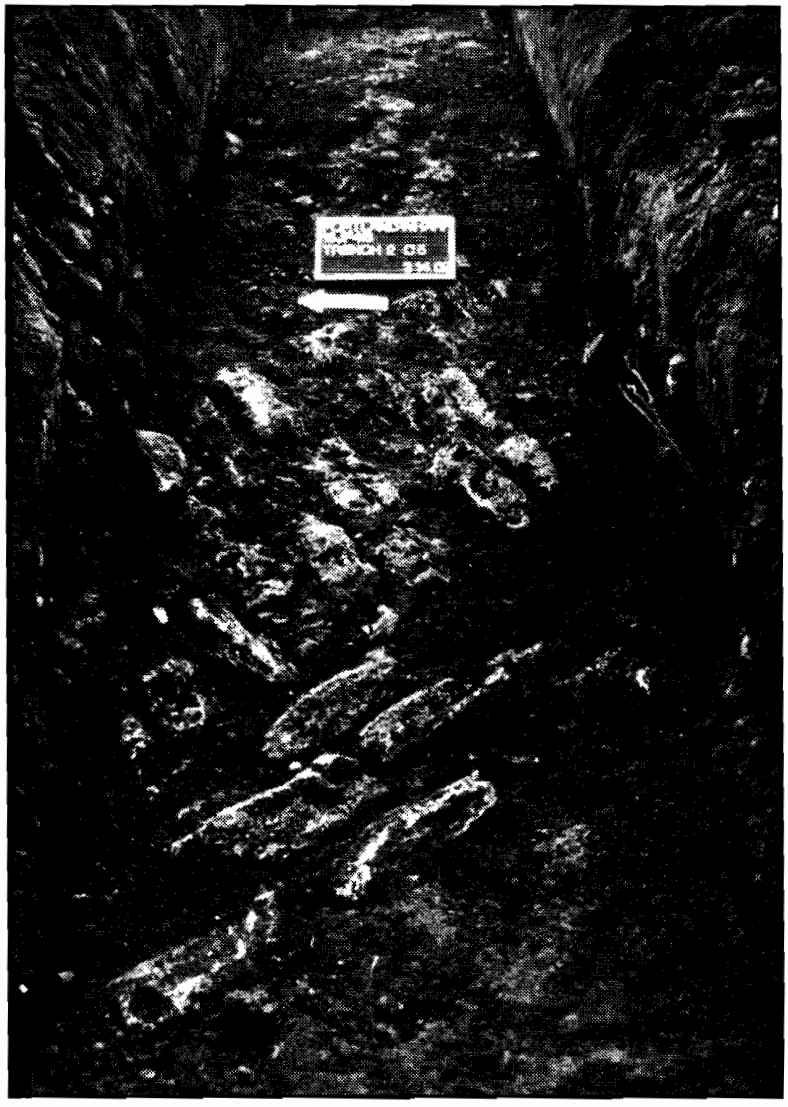


**FIGURE 12. A SECTION OF BOWLDER PAVEMENT FROM FLORIDA STREET.**


**FIGURE 13. A SECTION OF BLOCK STONE PAVEMENT FROM 33RD STREET.**

*Photos not specifically cited within this article are printed through the courtesy of the Kentucky Archaeological Survey .*

## ACKNOWLEDGMENTS

Thank you Patricia A. Solomon, Archivist of the Oregon Department of Transportation and Kimberly A. Thomas, Team Leader of Publishing and Visual Communications, Federal Highway Administration for your help and obtaining permission for the use of selected figures appearing in this article.

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