

Mahoning Movement:
a history and advocacy of transportation especially through the Mahoning Valley

by

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Mahoning Movement

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ABSTRACT

There is buzz today about the “Voltage Valley,” the potential for GM Lordstown’s conversion to electric car production. However, there is a concurrent transportation revolution, which can also generate a significant economic impact for the region, its quality of life, environmental sustainability, mobility/ accessibility, while rooted in its culture and history: titled here as *Mahoning Movement*.

It is centered on Interpreted Accessible Active Transportation Trails: universally accessible (eg: wheelchairs, cultural inclusivity) dedicated hike & bike paths with information panels. The majority of the network east of the Mississippi and north of the Ohio is in place, but for a significant missing link between Struthers and Ravenna. It can become reality in the near future through Eastgate Regional Council of Governments’ Mahoning River Corridor Plan and enacting the Steel Valley National Heritage Area proposed by Congressman Tim Ryan.

This project examines the history of transportation in America with a focus on the Mahoning Valley, and advocates its future potential. It utilizes GIS as a scientific method in topography, to deliver historical documentation (including geo-referenced maps and audio/ visual field recordings), an augmentation to traveling the trail (like a virtual historic marker accessed on a mobile device), and an ultimate extrapolation of Universal Accessibility, in that anyone with internet access can experience.

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Accompanying the paper a GIS component is viewable at www.mahoningmovement.com

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Introduction

There is buzz today about the “Voltage Valley,” the potential of GM Lordstown’s conversion to electric car production. However, there is a concurrent transportation revolution that can also generate a positive economic impact for region, its quality of life, environmental sustainability, mobility/ accessibility, while being rooted in its culture and history. Here it is titled *Mahoning Movement*.

It is centered on *Interpreted Accessible Active Transportation Trails*. This breaks down as:

- Universally accessible, such as accounting for physical variables (eg wheelchairs), and multicultural inclusivity of residents and travelers.
- Dedicated, completely separate from automobiles except for the minimized intersections with roads, hike & bike paths.
- Interpreted, meaning information panels, exhibits, and preservation along the trail. Accounting for history, art, environment, and others enhancement along the path to better inform the traveler, and use as a heuristic method.

While advocating for the completion of this network, this project examines the history of transportation in America with a focus on the Mahoning Valley, and advocates its optimized and inclusive future. It utilizes GIS in various ways, and can likewise be consumed in many ways by the reader/ participant. GIS is used as a scientific method in topographic analysis, it delivers historical documentation (including geo-referenced maps and audio/ visual field recordings), it is an augmentation to traveling the trail (like a virtual historic marker accessed on a mobile device), and is an ultimate extrapolation of Universal Accessibility in that anyone with internet access can experience.

Here in the written accompaniment to the project, the argument is made that the post WWII automobile centric focus by government from local to federal, in both urban planning and the interstate, has had significant negative effects for individuals and communities. Certainly there are also many benefits to the personal automobile, and it is inseparable from American culture, but it is still critical to find a better balance. Hike & bike trails are an essential part the United States, and need to be considered as such in planning.

Transportation networks seem to be frequently viewed at face value and “morally neutral.” In making a more significant evaluation of transportation networks in their relation to the Mahoning Valley and the nation, a system which is not often thought of in that context (and certainly cannot be seen as morally neutral), is examined, the Underground Railroad. With the stakes as high as freedom or death/ torture/ re-enslavement, it is certainly unique amongst the transportation networks. It is singular in many other ways as well, in its secrecy necessary in organization, and its formation not by government action, but in direct violation of law, especially the Federal “Fugitive Slave Laws” of 1793 and 1850.

This document and the accompanying exhibit utilize primary and secondary sources concerning transportation and histories of the region and nation. These written sources are combined with knowledge accrued in the context of traveling the trails, roads, and remnants. In some cases these are uninterpreted sites, but in the ideal sections of completed trails, the form is found in historic markers. Therefore these markers are treated as secondary sources in the knowledge conveyed, but are also used as a primary source for trail documentation. They are studied and analyzed for further interpretation in trail development.

America's long transportation history, from Native Peoples' trails, to canals, rails and improved roads took a dramatic turn in the post world war II era toward a heavily subsidized automobile centrality. The negative consequences of this predominately effect economically struggling urban communities, especially those of people of color. While electric cars may have potential for limiting the environmental effects of burning gasoline¹, its negative social effects may in fact worsen. The lessons that can be learned from the Mahoning Valley's history should at least temper blind Voltage Valley fanfare. The fateful Youngstown "Black Monday" of the collapse of the steel industry, shows the result of being at the mercy of large international corporations. Even more recently, the city's Chill-Can debacle demonstrates local leaders getting burned by false promises of outside capital.²

Certainly, environmentally sustainable electric vehicle production in Lordstown would be a benefit to the region's economy, but this project is an argument that it is also necessary to think outside the car in to build a better future and to understand our past. Nationally the movement is already underway, and one of the most critical missing pieces of the puzzle is right here in the Mahoning Valley. Much like the parallel route built 200 years previous, the Pennsylvania and Ohio Canal, that connected New Castle to Akron through Youngstown, Warren, and Ravenna, it will be transformative.

As of May 2022, no dedicated active transportation (hike & bike) trails connect Youngstown, OH to surrounding communities³. However, the proposed Mahoning River Greenway Trail, included in Eastgate Regional Council of Governments' River Corridor

¹ So long as the electric grid to charge them is not also reliant upon fossil fuels, such as burning coal, especially procured through mountain top removal. See: Schiffman, Richard, *A Troubling Look at the Human Toll of Mountaintop Removal Mining*. Yale Environment 360. November 21, 2017 <https://e360.yale.edu/features/a-troubling-look-at-the-human-toll-of-mountaintop-removal-mining>

² Dan O'Brien. "Chill Can Financial Records Missing, City Claims." (Business Journal. April 8, 2022.) <https://businessjournaldaily.com/city-renews-call-for-sanctions-against-chill-can-developer>

³ With a slight exception being the East Newport Drive trail within Mill Creek Park, which begins just on the Youngstown side and extends into Boardman,

Plan, will not only connect many communities of the Western Reserve, but will form the missing link to a much larger regional, and national network.⁴

To Youngstown's east is the Stavich Trail (Struthers to New Castle), to the north-west is the Western Reserve Greenway between Lisbon and Ashtabula⁵, and further westward a trail connects Ravenna to Akron. The Mahoning River Greenway, in connecting these trails, will unite the nation west of the Atlantic, north of the Ohio, south of the Great Lakes, and east of the Mississippi. By following historic Native American trails, the P&O Canal (1840-1877), railroad and interurban routes along the Mahoning River, the completion of this greenway builds our future, while resurrecting our history and culture.

In 2019 Mahoning Valley Congressman Tim Ryan proposed a National Parks Service Steel Valley National Heritage Area. If passed, the SVNHA and the trail, in conjunction with established entities such as the Youngstown Historical Center of Industry and Labor, the Mahoning Valley Historical Society, and the Butler Art Museum, can tell the story of the Mahoning Valley, which is essential to the story of the nation itself. Thus, in this paper the trail is viewed not only through the lens of transportation, but also that of the museum and heuristic method.

Transportation networks are the most literal connections between communities. From rivers and the trails of America's First Peoples, to 8 lane superhighways, the infrastructure (or lack there of), is a convergence of nature and human activity.

This area through the Mahoning Valley was critical to defining the character of communities and the nation. It is the divide between two of the most significant Eastern North American watersheds, the Great Lakes' outlet to the Atlantic Ocean and the Mississippi River system's path to the gulf of Mexico. With the canal systems of the 1800s the divide was overcome, and it even connected to the Chesapeake and Delaware Bays of the Atlantic.

This path was significant to Native Americans going back thousands of years, especially with its namesake the Salt Springs, and as seen in the Hopewell and Adena

⁴ Eastgate Regional Council of Governments. "Mahoning River Corridor Revitalization." (Produced by MS Consultants, NBBJ, AMK, and Eco Environmental. 2022). <https://mymahoningriver.com/wp-content/uploads/2021/12/Mahoning-River-Corridor-Revitalization-Plan.pdf>

⁵ Taken together as the Western Reserve Greenway, but technically that is just for Trumbull & Ashtabula Counties, in Columbiana County it is the "Little Beaver Creek Trail" and in Mahoning the "Mill Creek Metro Parks Trail."

mounds. For European⁶ settlers of the newly independent United States⁷ who began to try to “settle this western frontier,” the connection between Pittsburgh and Detroit (and then Cleveland) was a central focus. In the early 1800s the transportation technology to do it was canals. Thus we can geolocate a specific point that would become essential for connecting the Cuyahoga (Great Lakes) and Mahoning (Ohio River), at 41.15, -81.24 in Ravenna OH.

This was accomplished in 1840 with the Pennsylvania & Ohio Canal, when the first boat went through to great fanfare. As Engineer/ Historian Ronald Reid put it it “saved the fledging iron industry,”⁸ and paved the way for what would be known as America’s Ruhr. Meanwhile its successor was already looming, the Railroad, but as the advocates at the Canal convention in 1828 put it. “There must be a beginning somewhere.”⁹

The East-West orientation of the P&O “crosscut canal” connected the North-South running canals of the Ohio (Cleveland to Portsmouth) & Pennsylvania (Erie, Pittsburgh, Philadelphia), and thus bridged three major watersheds: the Delaware Bay, St. Lawrence, and the Gulf of Mexico.

During the canal days, a very different transportation network was also literally hiding in the shadows, at a largely south to north Axis, significantly between the Ohio River and Lake Erie: the Underground Railroad (U.G.R.R.). The intersection of these two paths can expressed and made tangible at a specific point: 41.173, -80.757 Niles, Oh. Here the missing section of the P&O Canal towpath resurrected as an Active Transportation (hike & bike trail) will intersect with the existing Western Reserve Greenway, which in Ashtabula County has information panels documenting the U.G.R.R.

As a crossroads for the two trails, the space can serve as a key interpretation, exhibit, and community gathering space.¹⁰ Traveling these routes, the two dominant transportation networks of the 20th and early 21st century are encountered for better and worse, the train and automobile. While contemplating and traveling these

⁶ There were also African-American inhabitants, as alluded to in Wayne’s 1786 treaty, included in Part Two. However given the power of the state in the hands of Europeans and their offspring in the colonies it is presented as a dichotomy here.

⁷ The Revolutionary War was fought in part over American Colonists’ desire for westward land seizure/ speculation. George Washington’s refusal to accept King George’s decree halting expansion west of the Alleghenies to honor treaties with Native American Tribes, was one of the motivations for independence.

⁸ Ron Reid. *Canal History of Youngstown*. Self Published. 1981

⁹ 1828 Canal Convention, Ohio Legislature. Doc. No. 65. Pg 50. Leicester King of Trumbull Co quoting a pamphlet debating railroads and canals.

¹⁰ The crossroads of multiple trails in Xenia, OH is a good indication of its potential.

networks, we can find a balance and appreciation of them and their accompanying history. In doing so the quality of life can be improved in all its forms including economic, environmental, education, health, and recreation. Regardless of what amperage of the Voltage Valley eventually becomes a reality, here the network is all set. With the relatively small investment of completing the Mahoning River Greenway and enacting the Steel Valley National Heritage area, a critical piece in the future of transportation will be ready to travel, enmeshed with history and culture.

Part One: The American Way of Transportation.

The Ohio country, before inclusion in the United States with the 1787 Northwest Ordinance, was a global focus of trading networks and European colonial jockeying. As the British and French established forts, trading posts, and settlements westward, they commandeered Native American paths along with lands and resources. Improvements to the trails to accommodate carriages, and the formation of new roads barely increased access to the region. It would not be until the canal, and its successor the rail, that the industrial revolution and cohesion with the United States east of the Alleghenies, would occur.

Native American Paths.

As the European powers of Spain, England, and France explored further into the interior of the North America, they discovered not only diverse peoples, but a complex network of trails. Artifacts discovered confirm the trails supported trade networks that extended all the way to South America.¹¹

Waterways are the clearest and most lasting form of transportation infrastructure. Thus, the space between the Great Lakes and the Ohio River is a critical divide. Traveling by canoe or foot, following the watersheds' rivers narrows down the divide. The space between the Cuyahoga and the Mahoning would be especially important, especially with the nearby presence of the Salt Springs that give the Mahoning its name. Well documented, including a historical marker down the road at a cemetery on Salt Springs Rd near the Owsley building at Meander Reservoir and Rt 46, but as a local blogger put it,

¹¹ Chester S Chard. "Pre-Columbian Trade between North and South America." University of California Berkeley. 2006 <https://digitalassets.lib.berkeley.edu/anthpubs/ucb/text/kas001-006.pdf>

Do you know that the “Salt Springs” literally put the Mahoning Valley on the map? In fact, did you know that the word “Mahoning” is derived from the Lenape word “Mahonik” which means “at the lick.” In 1755 (41 years before John Young surveyed the area), Lewis Evans drew the above map [SEE PART 2], printed in Philadelphia by Ben Franklin, in which the location of the “Salt Springs” is noted. While the map is lacking in geographic accuracy, it highlighted what the earliest travelers through this area thought important. Salt.¹²

Unfortunately in the Native American genocide by European colonizers, both intentional and unintentionally through disease, especially small pox, much of the history was lost. Additionally skewing the record are the biases brought to the earliest European written accounts of the region, eastern Native American groups like the Lenape being pushed there, and the Iroquois establishing their own competing nation state incorporating European influence, especially guns.

The early written primary sources, and secondary sources of Native American trails, such as Frank Wilcox’s 1933 *Ohio Indian Trails*, are useful for knowing some of the routes which had been in use for many different tribes for generations. However, much of the true complexity of the extensive Native American trail network has never been fully rediscovered and appreciated. Oral traditions of Native People’s which were often discounted in “Western” historical and scientific records, are at least starting to be finally heard. Recent scholarship that appreciates the knowledge continuing to be conveyed by Native American oral traditions, along with cutting edge science, is helping at least paint a fuller picture of pre-Columbian life in the Americas. *Origin: A Genetic History of the Americas*, by Jennifer Raff is one such work.¹³

As the peopling of America dates potentially as far back as 30,000 years with trade networks spanning at least two continents, it is necessary to reorient the colonial narratives of Indians relatively recently walking over the Bering Strait, and history beginning with Europeans’ arrival on the Atlantic and moving westward. While this paper and project cannot do justice to the Native American history, we will at least recenter the Mahoning Valley’s significance in North America, not through colonizers but by working our way in from the significant sites known and still existing today.

A historical marker at Meadowcroft Rockshelter, near the border convergence of Pennsylvania, Ohio, and West Virginia states, “A deeply stratified archeological site, its deposits span nearly 16,000 years... Meadowcroft revealed North America’s earliest known evidence of human presence and the New World’s longest sequence of human occupation.”¹⁴ Though even older evidence, such as the 21,000 year old footprints in

¹² Bob Trube. *Bob on Books Blog*. Sept 8, 2018 <https://bobonbooks.com/?s=SALT>

¹³ Jennifer Raff. *Origin: A Genetic History of the Americas*. Twelve. New York. 2022

¹⁴ *Meadowcroft Rockshelter*. Pennsylvania Historical and Museum Commission. 1999

New Mexico,¹⁵ have been discovered since this marker, it is still a unique and significant site, especially for the evidence of continual habitation. One of the frequent lies of “western” history and science was that another “race” of people must be responsible for the complex mounds in the region. Even the great Youngstown philanthropist, industrialist, and historian Joseph G. Butler was guilty of it in his work. While certainly ridiculous at face value, here at least in Meadowcroft is a site that irrefutably demonstrates the continuous ancestry of Native Americans in the Americas.¹⁶

The largest of the North American Native American mounds, once the site of the largest city in the continent at its height around 700CE (and surpassed only when New York City reached over 20,000 around 1776), was Cahokia. Situated adjacent to the Missouri River’s flow into the Mississippi near present day St. Louis, Cahokia still strikes a commanding presence on the plain. The evidence for the trade network to which it was a major hub continues to be uncovered, but the routes themselves are difficult to pinpoint, as most either evolved into the roads of today or simply grew over. Material evidence confirms the network was well established between Cahokia and Ohio.¹⁷

In fact the first major mining and manufacture operation of Ohio can be said to have occurred just east of Newark, OH. “Flint Ridge is a nearly eight-mile-long vein of high-quality flint located in Licking and Muskingum counties of eastern Ohio. Hundreds of quarry pits and workshop sites are scattered across more than 2,000 acres of ridge top in these Appalachian foothills. It has been called the “Great Indian Quarry of Ohio.”

¹⁵ Livia Gershon. “Prehistoric Footprints Push Back Timeline of Humans’ Arrival in North America.” *Smithsonian Magazine*. September 24, 2021. <https://www.smithsonianmag.com/smart-news/footprint-study-is-best-evidence-yet-that-humans-lived-in-ice-age-north-america-180978757/>

¹⁶ “Interesting as are these relics of a forgotten race...” Joseph Butler. *History of Youngstown and the Mahoning Valley*. (American Historical Society. 1921). Pg 2

While not excusing the perspective, Butler is certainly the norm of the Euro-American perspective of the time. Amongst his peers he was certainly for more admiring of Native Americans (though “the Noble Savage” trope was also common.)

On Native Americans and the Butler Art legacy in the YSU’ student ran Yo magazine
Stran, John. “A Name with Lost Meaning: Native Americans of Mahoning County.” *Yomag*. May 14, 2019. <https://theyomag.com/index.php/2019/05/14/a-name-with-lost-meaning-native-americans-of-mahoning-county/>

¹⁷ Alice Beck Kehoe. “Cahokia, America’s Great City.” *Indian Country Today*. Sept 13, 2018. <https://indiancountrytoday.com/archive/cahokia-americas-great-city>

Flint Ridge seems to have been well known in the ancient world, as small amounts of it have been found at American Indian sites across the present-day eastern United States.”¹⁸

Just to the west at present-day Granville¹⁹ is an animal effigy, known as Alligator Mound. As The Ohio History Marker at the site alludes to it’s not the most famous of of Ohio’s animal effigies. “On this bluff lies one of two great animal effigy mounds built by Ohio’s prehistoric people... like the Great Serpent Mound in Adams County, Ohio, Alligator Mound is not a burial mound.”²⁰

Newark, OH is home to the most expansive manmade mound complex on earth, even though much of it has been destroyed. With the remains of the once contiguous layout split in two by the city, the bulk of the western “Octagon” site were in part preserved through a golf course. The Great Circle, to the east is preserved as a Ohio History Connection site. The massive circle has a trench on the inside, which confounded early European visitors who assumed it must be a fort. Now it is known to align astrologically and was used as a major event and ceremonial center, similar to and perhaps in concert with Cahokia. Though the Serpent Mound is better known to Ohioans, in fact "The Newark Earthworks are the largest set of geometric earthen enclosures in the world. Already a National Historic Landmark, in 2006, the State of Ohio designated the Newark Earthworks as ‘the official prehistoric monument of the state.’”²¹

Intersecting the Licking River between Newark and Zanesville, were two significant Native American Paths, documented in the map by the Ohio Archeological Atlas of 1914. These routes directly connect the area to the Mahoning Valley. In fact at the salt springs they converge with two other major trails.

To the east along the Mahoning Trail, interestingly this 1914 map shows a bump out to the North East of the Mahoning. Could this perhaps be due to the Legend of Council Rock? Though allegedly not physically possible, the Youngstown folklore (at least popular with residents after Native expulsion), was that tribes gathered to

¹⁸ "Flint Ridge Ancient Quarries & Nature Preserve." Ohio History Connection. <https://www.ohiohistory.org/visit/browse-historical-sites/flint-ridge-ancient-quarries-nature-preserve/>

¹⁹ As an interesting coincidence (or not) of this project, between Granville and Newark was also one of the earliest and longest electric interurban routes beginning in 1890. "Interurban." Licking County Library. April 6 2021. <http://wiki.lickingcountylibrary.info/Interurban>

²⁰ "Alligator Mound." Ohio Bicentennial Commission. Licking County Historical Society. The Ohio Historical Society.

²¹ "Newark Earthworks." Ohio History Connection <https://www.ohiohistory.org/visit/browse-historical-sites/newark-earthworks/>

celebrate a victory of the British in the French-Indian War. A storm swiftly came upon them and lightning struck the rock splitting it in two, and killed hundreds.²² While some historians today dismiss it completely as fiction, some feel there may be some truth to the story. It was a significant Native Peoples' gathering spot, and is a reasonable distance from battle sites where Natives more aligned with the French successfully fought the British. Lightning may have hit trees and inflicted death, but likely the rock was already cracked. Regardless, a prominent and unique rock just up a tributary on higher ground would likely be a gathering spot through the millennia after the glaciers left it there. It can be visited still on the Eastside of Youngstown, though a bad paint job and a deteriorated surround park could use some cleaning up.

Frank Wilcox, 1933 *Ohio Indian Trails*, describes the Mahoning trail, the route between Pittsburgh and Cleveland through Youngstown, as follows

Fort Duquesne, Fort Pitt, or Pittsburgh was the first important military and trading post of the French and English in the Ohio Valley. The Frenchman approached it via Lake Chautauqua or Presque Isle (Erie); to the English it was the first important post across the Alleghenies. It was therefore the point of departure for all ventures into the unknown Indian Country.

For the Indian, Fort Pitt was a logical rallying place on account of its position at the confluence of the Allegheny and Monongahela. The streams emptying into the Allegheny and Ohio served as doors to the wilderness. They were ventured by the whites in the order of their position as time went on and the conditions of the interior became known. It was natural that the Mahoning, a tributary of the Beaver, should be known at an early day. It was followed by Heckewelder, the Moravian missionary, whose manuscript map is to be seen in the museum of the Western Reserve Historical Society. His was the first known map of the unknown country to the north, now the Western Reserve. The Indians used the trail to reach the famous salt lick near Niles. There, approaching the Beaver, with its settlement of Logstown, from Fort Pitt (Penn. 856) they followed up the hills to the east of the Beaver (Penn. 18) to Beaver Falls, where the Great Trail led to Negley (Penn. 251). The Mahoning continued up the Beaver to the confluence (Penn. 288) and following up the east side of the Mahoning past Struthers (Penn. 18), passed through Youngstown to a point about three-fourths of a mile from Girard (U.S.422) where it crossed the Mahoning between the mouths of two opposing streams. It mounted diagonally the opposite shore through the Wilson Farm and struck west between Mineral Ridge and Niles across the foot of the main street of Mineral Ridge, and, crossing Meander Creek, led west to the Salt Spring about one mile northwest of that point. It then led westward over the

²² Butler, Joseph G. *History of Youngstown and the Mahoning Valley, Ohio*. (American Historical Society. 1921). Pg 12

headwaters of Duck Creek to Newton Falls where it crossed the Mahoning on its upper reaches, and following somewhat south of Ohio 5 it passed by Crystal and Muddy Lakes, and then through more of the broken and glaciated plateau to the Cuyahoga at Kent. (Ohio 59).

To this point, the trail had traversed the rather steep hillsides of the Mahoning, which today, where not disfigured by the many steel mills, shows its willow-grown banks. It then traversed the broken land of the tributaries of the Mahoning, and arrived at a lake-dotted region among the moraines and glacial heaps of the high plateau.

From Kent, it crossed the Cuyahoga in the southern part of the town about a half mile south of the rocks where Brady made his famous leap for life,³ to Silver Lake where stood two Indian towns, one probably southwest of Silver Lake and the other northwest of Little Silver Lake (Ohio 59). It then followed the line of the old Akron, Bedford & Cleveland Electric Line through the marshy land east of Turtle Lake and past Mud Lake, where a mile to the northwest it met the Cuyahoga War Trail; thence it led to Iron Bridge two miles or so southeast of Northampton where stood an Indian town. Soon the blue valley of the Cuyahoga was visible to the west, over where on its western hills the other Cuyahoga path probably descended to the mouth of the river, or served as an approach to the Lake Trail westward. Those hills today, though cleared of first growth, are cut by deep water-courses and abound in deer licks and other likely signs. We can see today where nature lovers have created an echo of the older Ohio in the more remote fastnesses of the Metropolitan Park.

From the point at Iron Bridge where one branch continued to the Portage, the trail led northwest to Northampton Center (of Ottawa origin) and followed the heads of ravines past Richie or Kendall's Ledges and Boston Ledges, which, like so many others in Ohio, lie on the natural highways of the State (Ohio 8). The white man's railroad has shattered the Boston Ledges, but the Kendall Ledge stands in its savage beauty in the solitude of primeval gray birch and hemlock.

Passing by the head of Brandywine Falls and arriving at Northfield by the southwest road (Ohio 8) it apparently cut west of the town and struck the present byroad past Willow Lake and leading down over Tinker's Creek where Dunham Road Hill mounts the steep northern bank at the foot of Bedford Glens. Descending the abrupt hollow, the trail crossed the flats and climbed the opposite ridge, across the face of which a cart track mounts diagonally. On the end of this promontory, where many relics have been found, probably stood a French trading post, popularly

identified with the Pilgerruh of the liberated Moravian Indians. The trail crossed this ridge and descended into the cornfields of the possibly genuine Pilgerruh nearly two miles northward. This it crossed diagonally northwestward, or followed around the U-shaped height and crossed the foot of the ravine to the east of the hill. This hill has been identified by representatives of the Moravian Church with a map and reference to springs and cornfields which here answer the description.

Just opposite the promontory is the "Indian Rifle" known to early settlers as the place where the Indians crossed the Cuyahoga. Here the trail crossed, and moving diagonally up the steep western bluff, passed Mingo Town on the site of which proof of habitation has been found. This would be about half a mile north of the riffle at South Park. It then continued to where the bluff came to a point at Willow, where another village site has been found. This may have been Saguin's Post, else that place lay at Tinker's Creek as mentioned, or even farther north where Big Creek enters the Cuyahoga in the city limits.

Descending the point of the hill or promontory, where some claim to see the original trace, the trail led across the flats and mounted Schaaf Road (to Ohio 176) and leading near the bridge just east of Brookside Park (U.S.42) (Ohio 3) mounted the shaly bluff of Big Creek and followed Denison Avenue and West Madison Avenue to Rocky River, where it descended to join the Lake Trail for Detroit (U.S.6).

The most picturesque section of the Mahoning Trail lies between Northfield and Willow. Here it conforms to no major highways, but in the Cuyahoga Valley its traces are visible in various places. Elsewhere it passes through industrial and residential districts where nothing suggests its original character, but in the Cuyahoga Valley time has been kind to the old trail, near as it is to the heart of Ohio's greatest city. Many accounts of pioneering at Cleveland mention use of the Mahoning Trace, over which the citizens traveled to the seat of government at Warren and to the salt lick for a then precious commodity.²³

As seen in part by Wilcox including the corresponding highways (as of 1933), the paths marked on the map largely align with the history to follow after European invasion and settlement, including the canal system, and the current and proposed active transportation paths. With the United States' first major canal project, the Chesapeake & Ohio between DC to Cumberland Maryland, the towpath would follow the Native Trails. The routes of the P&O Canal along the Mahoning and Cuyahoga

²³ Frank Wilcox. *Ohio Indian Trails*. (Third Edition. Kent, OH: Kent State University Press. 2015)

Rivers, as well as the Ohio & Erie Canal beside Tuscarawas and the Cuyahoga, also reflect the former presence of Native trails.

Complex trade networks existed before Europeans made their way inland, therefore the diseases brought to the coast with the initial white arrival made their way inland quickly. It is estimated up to 95% of Native peoples died of disease.²⁴ Even though the French, whose Jesuits missionaries and fur traders made their way to the Mahoning Valley before the British, were generally less land and blood thirsty, they still decimated the population. As an a missionary put it in 1640,

For it has happened very often, and has been remarked more than a hundred times, that where we were most welcome, where we baptized most people, there it was in fact where they died the most; and, on the contrary, in the cabins to which we were denied entrance, although they were sometimes sick to extremity, at the end of a few days one saw every person prosperously cured.²⁵

As Native American populations plummeted or were pushed further westward, the trail networks either continued to evolve as roads or became overgrown. Treaty after treaty ceded lands to European settlers, and by the time of Ohio's recognition of statehood in 1803, a stretch of swamp land near Toledo was all that was left for Native Americans. A generation later this too was lost.

As Ohio and the nation finally begins to acknowledge its crimes against humanity in the genocide and removal of Native Americans, some positive elements of reclamation are occurring. At Ohio's most well known Native site, some amount of control by the descendants of those who actually made it, is finally happening. In 2021 the Indians Country Today reported,

The Summer Solstice, June 20, the longest day of the year, marks the first time that the Shawnee tribe has officially returned to the Serpent Mound located in Ohio to present their history and connection to this place that they called home so many years ago. Although it was certainly ancestors of the Shawnee people who built the magnificent serpent shaped mound, the largest earthwork effigy in the world, Ohio failed to involve the tribe in conveying its meaning to the public until now.²⁶

²⁴ Jared Diamond. "The Story of Small Pox and other deadly Eurasian Germs." Except from book. PBS. <https://www.pbs.org/gunsgermsteel/variables/smallpox.html>

²⁵ Lalemant, Jerome. *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France (1610-1791)*. (New York: Albert & Charles Boni. 1925)

²⁶ Mary Annette Pember. "Shawnee reclaim the great Serpent Mound." Indian Country Today. June 21, 2021 <https://indiancountrytoday.com/news/shawnee-relcaim-great-serpent-mound>

What will Ohio's future look like, if finally those who were forced from it were allowed to return as leaders? With the trails resurrected, it can serve not as mere recreation, but acting as a bridge between all the eras and peoples in the region. With the Mahoning River Greenway and the Steel Valley National Heritage Area, the focus need not be just on the industrial era, but the original travelers and residents of the land and water.

The National Road

As Native Peoples' lands and trails were commandeered by predominately European- American settlers, and officially absorbed into the United States, the connection to centers of power on the east coast became a driving concern. The earliest roads used by those settlers in Ohio's Connecticut Western Reserve were barely passable. An account in *Youngstown Past & Present*, tells of two travelers leaving Connecticut by way of along the great lakes, and the other through the heart of Pennsylvania and both arriving the same time 3 months later.

In the fall of 1797 Mr. Brown and another person came on. It was during this season that Uriah Holmes, of Litchfield county, Connecticut, and Titus Hayes, arrived in Youngstown the same day; both having started from Connecticut on the same day, the one taking the route through the state of New York via Buffalo, and the other through Pennsylvania."²⁷

The first Federal project for building a functional road past the Alleghenies was the National Road begun in 1811. Beginning in Cumberland Maryland (not coincidentally the C&O canal's endpoint) and made it to Vandalia, Illinois before the project ceased in 1837. Though south of the Western Reserve, meeting the Ohio at Wheeling, it was still a significant project in bringing the western frontier into the national fold.²⁸

Stagecoach

As roads improved and the the frontier slowly continued to be absorbed into the nation, a new business of coach sprang up. While many of the carriages may be gone, remnants of the network still exist today in the roads themselves and in the old "Stages" that remain along the way. These places served the purposes of swapping out the horses the drove the carriages, and for the travelers as taverns and inns. Some of these sites remain today, such as the Elam Jones Public House in Burghill, as documented in the Early Architecture of the Western Reserve class at Youngstown State University. The class instructed for the past fifteen years by Chris Klingemier and

²⁷ Wiggins & McKillop. *Youngstown Past & Present*. (Cleveland & Pittsburgh: Wiggins & McKillop 1875)

²⁸ William JanTausch. *The National Road*. (Friesen Press. 2018.)

Dr. Tom Leary was documented with video and GIS in the Fall of 2021: <https://sites.google.com/view/earlyarchitecturewr>.

Similar to the concurrent Underground Railroad, the houses and structures are some of the only tangible primary sources remaining, but even in written form the history is conspicuously absent. In a 2016 column Peggy Mershon lamented, “It’s odd that no one has written a comprehensive account of those days. You find schedules in newspapers, occasional mentions in histories and, probably most interesting, memories in biographies and obituaries.”²⁹ Also for the tales of the old houses, and even truer for the UGRR, “there’s little proof of all those claims by anyone with old houses that they were stagecoach stops, often attached to taverns.”³⁰

The Canals

At the time of U.S. independence, canals were the technological peak for smooth movement of people and goods, and their establishment was enthusiastically lobbied for. George Washington advocated as early as 1784 for a national canal network to include the Mahoning Valley.³¹ In 1787 at the Constitutional convention, the delegates debated the role of the federal government in national transportation networks. As Richard Weingroff analyzed the lead up to the landmark 1916 Highway Act.

Article I, Section 8, of the Constitution, which granted to Congress the power to “establish Post Offices and post Roads.”* ... On September 14, Benjamin Franklin [and James Madison] proposed to amend the clause by adding “to provide for cutting canals where deemed necessary.”...

Roger Sherman of Connecticut objected because the expense would be incurred by all the States through their central government, but a canal would benefit only the place where the canal would be cut. The convention approved neither Franklin’s nor Madison’s amendment. Sherman’s view would be repeated to argue against congressional support for internal improvements throughout the 19th century and into the 20th century.

*When the Constitution was drafted in 1787, the term “post road” was not linked to the delivery of mail. It referred to roads over which the public

²⁹ Mershon, Peggy. “Stagecoaches were a familiar site.” *Mansfield News Journal*. July 22, 2016 <https://www.mansfieldnewsjournal.com/story/news/history/2016/07/22/history-stagecoaches-were-familiar-sight/87432230/>

³⁰ *Ibid*

³¹ “George Washington’s Influence on the C&O Canal.” National Park Service. February 8, 2018. <https://www.nps.gov/choh/learn/historyculture/washington.htm>

traveled from post to post. That is, between inns that were spaced about a day's travel apart³²

Without the Federal government taking on the responsibility for building canals and roads, private entities, states and counties took on the project. This would include the P&O Canal which took nearly another 40 years to complete, opening in 1840.

As the laborers, including many Irish immigrants, did the dangerous work of building the canals, the nation also grappled with an even greater labor and moral issue, slavery. The Fugitive Slave Laws of 1792 and 1850 were critical in transforming a very different kind of transportation network through the region with the Underground Railroad. In the south canal projects were built by slave labor, but the northern immigrants also faced brutal conditions.³³ As the physical infrastructure of the canals were being constructed, the hidden and less infrastructure driven Underground Railroad was also evolving.

With the success of the C&O Canal between DC and Cumberland, the Erie Canal between Buffalo and New York City, the Pennsylvania Canal between Philadelphia and Pittsburgh, and the Ohio Erie Canal between Cleveland and Portsmouth, OH, it was the next logical step for the "Cross Cut Canal" to connect Pittsburgh and Cleveland through the Western Reserve, thus the P&O canal.

As the principal progenitors laid out their case to the Ohio Assembly in Columbus on January 17, 1828:

The survey and location of so much of the route of this proposed canal as is within the limits of this State was commenced by Sebried Dodge, Esq.

In the month of October, and finished in the month of December last...

The route within this State has been found fully as favorable as was anticipated... Commencing at the village of Akron, where the proposed canal will unite with the Ohio canal in a large and commodious basin, the line pursues an eastwardly direction, crossing the Little Cuyahoga in the village of Middlebury ; thence in a northeastwardly direction through the township of Talmadge, until it approaches near the main Cuyahoga, at the centre north and south road in the township of Stow; thence, continuing nearly the same general course along the south and southeast bank of that river until it passes the village of Franklin, it enters the immediate valley of the Breakneck creek, or south branch of the

³² Richard F. Weingroff *Creation of a Landmark: The Federal Aid Road Act of 1916*. pg 4. <https://www.fhwa.dot.gov/highwayhistory/landmark.pdf>

³³ Gary Robertson. "Canal was carved with slave labor / Waterway's construction was a demanding task" Richmond Times Dispatch. September 26, 1999. <https://archive.vcu.edu/english/engweb/Rivertime/canal0926.htm>

Cuyahoga, and, passing up that valley in an eastwardly course, it crosses the summit between the waters of the Cuyahoga and Mahoning branch of Big Beaver about half a mile southeast of the village of Ravenna.

The line then descends rapidly into the valley of the west branch of the Mahoning river, crosses that stream near its southwestwardly bend, continues along its north bank, recrossing that branch, and also the south or main branch, a mile above the junction of those streams; then, leaving the immediate neighborhood of the river, the line pursues an eastwardly course, again approaching the river opposite the village of Warren, and then continues in the immediate valley of the river on the right bank, in a southeastwardly direction to the line below the States of Ohio and Pennsylvania...

Of the commercial importance of this canal, when finished, no doubt can be entertained by those who understand the interest and geography of our country; the route passes through one of the best settled and most wealthy districts of our State, and, when executed, it will, together with the Ohio canal, open a direct and convenient channel of commerce between the interior of Ohio and the great manufacturing and commercial city of Pittsburg, together with the whole of West Pennsylvania. Between these sections of country an extensive and highly beneficial commerce now exists, which must increase with the growing population of our common country, and with the development of its resources...

When these great works have been executed the farmer in the centre of our State may put the productions of his fields on board of a boat, which will convey them to Washington, Alexandria, Baltimore, or Philadelphia without unloading or reshipping; and the merchant may bring his goods from either of those cities to his own door, without risk or change in the method of transportation, and for an expense not exceeding one-third of the present cost...

The profit of this work to the proprietors must be commensurate to its commercial importance; and it is believed to offer one of the best opportunities for a profitable investment of capital that can be found in the United States.

Respectfully submitted.

ISAAC MINOR, BENJAMIN TAPPAN, N. BEASLEY, JOHN JOHNSTON,
ALFRED KELLY. M. T. WILLIAMS, A. BOURNE.³⁴

³⁴ Ohio Legislature. PG 33. Doc. No. 65. In the Canal Society Archives housed by Akron University Archives & Special Collections.

Nearly overnight the P&O transformed the frontier into a livable place with growing industry, especially iron. The Mahoning Valley specifically thrived with the simultaneous discovery of Brier Hill block coal and Mineral Ridge iron ore. Raw material could then easily make its way to the furnaces springing up along the canal route, and pig iron could be exported. As the transportation networks evolved, especially upon the steam engine propelling ample boat capacity on the Great Lakes, the supply chain grew to bringing in ore from up in Lake Superior down to the valley furnaces. After the Brier Hill coal was exhausted, Connellsville coal and coke made its way to fuel the blast furnaces.

As quickly the national canal network took shape in the 1830s and 40s, it was already being supplanted by railroads. For a while they continued side by side, but many of the previous canal paths, including the P&O became the domain of the train.

Underground Railroad

As the canal network was connecting the United States, bringing the western frontier into the fold, a very different transportation network was also evolving. Surprisingly given the concurrence, the two networks are rarely discussed together, though they intersected in literal and various other ways.

Ohio was a free state since its inception with the Northwest Ordinance. Those looking to escape racialized chattel slavery sought freedom through Ohio from before it even became a territory. In response, southern slaveholding interests in Congress passed The Federal Fugitive Slave Law of 1792. Far from deterring escapees and abolitionist allies, the activities and organization of the network increased. This led to the Fugitive Slave Act of 1850, in turn spurring greater resistance and militancy. This stage in the conflict, previous to the secession of Southern states, reached a climax with John Brown's raid on Harpers Ferry in 1859. As depicted on an aging history panel along the Western Reserve Greenway near Orwell, OH

John had many friends in Ashtabula County. When he was here, he lived with Horace Lindsley in Cherry Valley and held meetings in the Cherry Valley Hotel. He was a friend of Joshua Giddings and Rev. Charles Shipman.

John Brown led seventeen white and five black men in a raid on Harpers Ferry to seize weapons at the armory there to use in his war to overthrow slavery. Thirteen of his men had stayed in Ashtabula County, including Dangerfield Newby, an escaped slave living for a short time in Dorset. The raid was quickly put down under the command of Robert E. Lee. John Brown was captured, tried, and found guilty of treason, and hanged on December 2, 1859. It was thought that some of the survivors came to Ashtabula to hide. The government

said that the only places for Brown's men to hide were in New York, Boston, or Ashtabula County.³⁵

Thus the region was a site and staging ground for the war which would not be resolved for another six years. As Wilbur Siebert stated in one of the first academic histories on the subject "The Underground Railway was one of the greatest forces which brought on the Civil War, and thus destroyed slavery."³⁶ Northeast Ohio was a hotbed for abolitionism and a well organized network for the Underground Railroad. Thus the battlefields of the American Civil War, should not be only considered in the south and Gettysburg, but also include the many paths and places of refuge taken through Ohio in the fight against slavery. The story is present, and documented along the Western Reserve Greenway Trail. Though the trail itself is placed on a former train railway, it also provides a pathway for contemplation and education in the journey north along the UGRR.

While the Underground Railroad was the most important transportation network for the Black community in self liberation previous to the Civil War, the post war proliferation of train railways provided another significant impact to the region and nation. Into the 20th century train railways became the vehicle of America's Industrial Revolution. In connecting North East Ohio to the nation for travel and industry, it exponentially increased the speed of connection for American identity and economy. Not only exporting the region's steel to build the nation, it also brought in the population boom that would form generations of residents. Many immigrants, especially Eastern European and Italians, would arrive at port past the Statue of Liberty, hop a train and arrive straight to employment in the mills. Industrialization brought many African Americans northward from the south in "the great migration," seeking not only employment, but also escape from the Jim Crow racial oppression/ segregation laws. Paralleling a course that a previous generation of relatives may have taken on the Underground Railroad.

The Railroads

While the P&O canal holds the honor of the first transportation network to "settle" the Western Reserve and enable industry, there is no doubt that the Railway age exponentially built upon that foundation (often literally).

While discussions of the threat of railway travel occurred at the P&O convention, the nascent method was too rudimentary to compete. Even in to the late 1850s more weight could be transported via the canal than railway. However, as the national train network evolved and became standardized, along with more powerful locomotives, the

³⁵ Ashtabula County Metroparks. *The Underground Railroad in Ashtabula County*. Panel 2 "Andover: Guardians of Freedom." Note that this is not the same Cherry Valley as in Leetonia, OH.

³⁶ Wilbur Henry Siebert. *The Underground Railroad from Slavery to Freedom*. (Arno Press. 1968) pg 358.

writing was on the wall. “When the *Cleveland & Mahoning Railroad*, controlled by the Perkins brothers of Warren, purchased the canal in 1854 to eliminate a competitive threat, the *P&O*’s fate was sealed. It lingered until abandoned in 1872 and was officially closed in 1877.”³⁷

While small sections of the P&O escaped being filled in for rail (with some of the reportedly best remnants sunk with the creation of Kirwin Reservoir), for the most part it was trains now steaming alongside the Mahoning. Many of the tracks directly covering the canal route are still in use today, though the plethora of companies have been consolidated into only Norfolk Southern and CSX.

At the railroads’ height, on the former canal site in the Haselton area near where Struthers, Youngstown, and Campbell meet, all 5 major trunk lines crossed to form what was the busiest crossings in the world for a while in the 20th century. Today railways actually carry more freight than ever. The consolidated companies are also unburdened by the passenger business which lost them money, as Amtrak was created in 1971.

Though technically the closest thing to a federally run socialist transportation network, Amtrak has received bipartisan support since its creation under Richard Nixon. With minimum government investment, it is run like a business, though as the original companies discovered too it is difficult to do so profitably. As a nation whose love affair with the train continues, and with it one of the best ways to see the nation besides on the trails, it serves a critical place in American transportation and culture. Youngstown had its own stop at the B&O station until 2005. Unfortunately, even in the plans to re-expand Amtrak in the coming years,³⁸ the Youngstown stop is not slated to return, and Alliance will continue to be the closest stop. At the very least better bus service to Alliance and a trail spur should connect the region with it.

One of the ideal sections demonstrating integrated rails and trail infrastructure is in Missouri. The former Missouri-Kansas-Texas, better known as “the Katy” train line operating from 1870-1986, became an active transportation trail across the state from St. Charles near St. Louis to Kansas City. Running parallel and intersecting at charming towns such as Hermann, MO is the Amtrak “Missouri River Runner.” Catering to cyclists, many will do the Katy Trail from one end of the state to the other, then return with their bicycles on the train.

The Bicycle

³⁷ Andrew Olsen. “The Pennsylvania & Ohio Canal (1827-1875).” Trumbull County Historical Society. <https://www.trumbullcountyhistory.com/the-pennsylvania-ohio-canal/>

³⁸ “Amtrak’s Vision for Improving Transportation Across America.” June 2021 <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/reports/Amtrak-2021-Corridor-Vision-060121.pdf>

Industrialization brought production, sturdy material, and innovation that led to a revolutionary transportation development, the modern “safety” bicycle. The degree to which the bicycle shook up American and global culture in the late 1800s and early 1900s, was labeled as a “craze.” In Youngstown, enterprising entrepreneurs the Warner Bros had a bike shop on West Federal, before they got into the moving pictures. The brothers even provided world champion Major Taylor with a bike. “It was the golden age of the bicycle, and the Warner shop became a rendezvous point for racers and trick riders from every area of the land. A.J. Clark of Australia and Major Taylor and P.O. Lawrence of the United States, whose world speed records still stand, dropped in when they came through Youngstown, and helped the brothers sell their wares.”³⁹

In culture and personal mobility the significance of the bicycle was drastic. Its revolution extended into politics, including the women’s suffrage movement. “Both Susan B. Anthony and Elizabeth Cady Stanton are credited with declaring that ‘woman is riding to suffrage on the bicycle,’ a line that was printed and reprinted in newspapers at the turn of the century.”⁴⁰ The trails of North East Ohio are a most relevant place to tell this history, connecting sites such as the Betsy Mix Clowes in Austinburg, the Harriet Taylor Upton House in Warren, and Akron site of the 1851 Ohio Women’s Convention where Sojourner Truth orated “Ain’t I a woman.”

Along with the connections to suffrage, cyclists also built a political force in the Good Roads Movement, beginning in the 1870s. “It is a common misconception that the automobile was the initial catalyst for the expansion and improvement of the American roadways. In reality, the true impetus for the growth and development of a comprehensive road system was the cycling craze of the late 19th century.”⁴¹ The Good Roads Movement culminated in the The Federal Aid Road Act of 1916. Yet by then bicycle’s claim to the road was already being marginalized.

The Interurbans

Electric powered, speedy, affordable, and accessible people-mover connecting every decently sized town between Chicago and Pittsburgh sounds like far fetched utopianism today. Yet in the late 19th and early 20th centuries it existed, formed primarily by independent companies.

³⁹ Warner, Jack. *My First Hundred Years in Hollywood*. Graymalkin Media. 1965 pg 65

⁴⁰ Adrienne LaFrance. “How the Bicycle Paved the Way for Women's Rights.” *The Atlantic*. June 2014. <https://www.theatlantic.com/technology/archive/2014/06/the-technology-craze-of-the-1890s-that-forever-changed-womens-rights/373535/>

⁴¹ Bachmann. “The Good Roads Movement.” *The Shelf*. May 2014. <https://blogs.harvard.edu/preserving/2014/05/08/the-good-roads-movement/>

The Stavich trail follows the exact line as the Interurban that connected New Castle to Youngstown. To the west, Youngstown was connected to Ravenna, and onward to Akron, Cleveland, etc. The Northern Ohio Railway Museum states,

“In addition to it’s main line from Cleveland through Akron, Canton, Massillon, New Philadelphia and Urichsvile, the Northern Ohio Traction & Light (NOT&L) interurban operated several branches. Of these, the most important was that which joined the main line at Silver Lake, just north of Cuyahoga Falls. This branch, built by the Akron & Cuyahoga Falls Rapid Transit Co, reached Kent in 1895, Ravenna shortly thereafter, and became part of NOT&L in 1900. In Ravenna, the branch connected with the Cleveland, Alliance & Mahoning Valley (CA&MV) interurban. This company had lines running to Alliance and to Warren, both of which provided connections on to Youngstown and the Ohio River. NOT&L purchased the CA&MV in 1925, operating it as part of the Kent - Ravenna branch. However, as happened elsewhere at that time, ridership soon began to decline, and the entire branch was abandoned in 1931.”⁴²

As seen in the 1920 To the network west of Youngstown

The Penn-Ohio trolley lines stretched eastward from Leavittsburg, Ohio through Warren and Youngstown to both Sharon and New Castle, Pennsylvania. During its 50-plus years the system operated 496 different passenger cars over 145 route miles. Like most of the Midwest Interurban Empire, the Penn-Ohio rail system reached its peak around 1921. Interurban main lines ran between Warren and Youngstown via Niles, Youngstown and Sharon via Hubbard, and Youngstown and New Castle via Lowellville. Branch lines ran from Leavittsburg to Warren, Niles to Mineral Ridge, Hubbard to New Castle, and Wheatland to W. Middlesex. City lines were operated in Warren, Youngstown, Sharon, and New Castle... Certain rail lines in this area were never part of the Penn-Ohio rail system including the Youngstown and Southern Railway Co. (also known as the Youngstown and Suburban Railway Co.) which ran south out of Youngstown to Leetonia, Ohio... A second line, The Harmony Railway Short Line Co. ran south out of New Castle to Beaver Falls and Pittsburgh and while it had through tariffs with the Penn-Ohio system, through service could not be operated because of its wide gauge track (5 feet, 2.5 inches). A third line was the Cleveland, Alliance and Mahoning Valley Railway Co. which did use Penn-Ohio trackage to enter Warren. The CA&MV was the key connecting link to the Midwest Interurban Network, using the Northern Ohio Traction and Light system to reach Akron and Cleveland. Passengers between the two lines transferred at Warren, but through freight trains operated directly between Youngstown

⁴² Northern Ohio Railway Museum, September 12, 2021. Facebook Post. <https://www.facebook.com/northernohiorailwaymuseum/posts/4078986968822429>

and points in Northern Ohio and Michigan. In 1905 and 1906 the Mahoning and Shenango Railway and Light Co. combined some 28 companies with differing backgrounds, and after 1906 another 14 companies were created as part of the Penn-Ohio rail system.

Mary Harver grew up along Wilson Ave, with all the historical networks discussed here, between her house and father's (a Slovenian immigrant) automobile garage. Born in 1926 she caught the tail-end of the interurban age. She makes the distinction between the "street car" i.e. the Interurban, and the trolley cars that replaced them. While both ran on electric, the interurban ran on the tracks, but the trolley operated trackless on the roads with the electric line connecting above, which came with its own disadvantages. "If it stopped in front of our house the boys in the neighborhood would sneak around in the back and pull the thing and it would pull down the trolley and the poor guy would have to get out and put it back."⁴³

Early Highways

The evolution of technologies beginning with the bicycle, combined with improvements of engines to create the greatest American transportation obsession of all, the automobile. Adding upon the groundwork laid by the bike enthusiasts, the demand for quality roads for travel, industry, and commerce became a national mission. But, the federal government was still reticent about its involvement. Ironically it would be one of the nation's all-time capitalists, the mass producer of the automobile who would insist on government's responsibility.

[Carl Fisher, an early automobile racer and enthusiast] began actively promoting his dream, a transcontinental highway, in 1912. On September 10, he held a dinner meeting with many of his automobile industry friends in the Deutsches Haus in Indianapolis, his home town. He called for a coast-to-coast rock highway to be completed by May 1, 1915, in time for the Panama-Pacific International Exposition in San Francisco. The project would cost about \$10 million, he said. "Let's build it," he told the group, "before we're too old to enjoy it!"

Within a month, Fisher's auto industry friends had pledged \$1 million. Henry Ford, the biggest automaker of his day, was a notable exception. He refused to contribute in spite of a personal plea by Fisher over a pigpen at the State Fair in Detroit. Ford believed the government, not private individuals or companies, should build the Nation's roads.⁴⁴

⁴³ Mary Harver. Personal Interview March 27, 2022

⁴⁴ Richard F. Weingroff. "The Lincoln Highway" *Highway History*. U.S. Department of Transportation: Federal Highway Administration. <https://www.fhwa.dot.gov/infrastructure/lincoln.cfm>

Great fanfare accompanied the first “trail blazer tour” on the America’s first coast to coast automobile route, Lincoln Highway in 1913. But it was hardly a feasible for many to travel, as the route was barely tenable. “During the early years, a trip from the Atlantic to the Pacific on the Lincoln Highway was, according to the LHA's 1916 *Official Road Guide*, "something of a sporting proposition." The LHA estimated the trip would take 20 to 30 days, but that assumed the motorist could average a driving time of 18 miles an hour.”⁴⁵

At this stage, automobile travel was less a form of transportation than an adventure and recreational activity. Roads for automobiles were a luxury, ironically this mirrors how some may dismiss the importance of funding accessible trails today. Without government assistance and the ability to fund an infrastructure project of that magnitude, The Lincoln Highway Association focused on organizing public enthusiasm.

One reason the LHA concentrated on publicity was that it could not afford to build the highway. In short, Henry Ford had been right. Fisher's idea that the auto industry and private contributions could pay for the highway was abandoned early. For the most part, the LHA used contributions for publicity and promotion to encourage travel over the Lincoln Highway, as well as to encourage state, county, and municipal officials to improve the road.⁴⁶

The Federal Highway Act of 1916 changed that though, and the way was paved for federal investment in the Lincoln Highway. However, given that WWI took precedence, it would not make an impact until the 1920s.

The Ideal Section was built during 1922 and 1923, with funds from the Federal-aid highway program, the [Indiana] State highway agency, and Lake County as well as a \$130,000 contribution by the United States Rubber Company. In magazines and newspapers, the Ideal Section was hailed as a vision of the future. Highway officials from around the country visited the Ideal Section, and they discussed it in papers read before technical societies in this country and abroad.

Today, the Ideal Section is still in use. However, a motorist between Dyer and Schererville would not know he was on an historic section of highway unless he stopped to see the "Ideal Section" marker placed off the road.

⁴⁵ Richard F. Weingroff “The Lincoln Highway” *Highway History*. U.S. Department of Transportation: Federal Highway Administration. <https://www.fhwa.dot.gov/infrastructure/lincoln.cfm>

⁴⁶ *Ibid*

Still, the Ideal Section stands as an early attempt to envision the type of highway that would evolve into today's Interstate superhighways.⁴⁷

Near the trailhead for the Little Beaver Creek Greenway in Lisbon, OH, the Lincoln Highway passes through the town, just as the Sandy and Beaver Canal also once did. In connecting the area to Pittsburgh to the east and Canton to the west, much of the original route 30 has been replaced by the model set out as the “ideal section” with Federal funding. However what may have been deemed the ideal for the isolated car traveller, may be to the detriment of the greater community, as would be seen with the interstate system to come.

The Interstate Highway System

All these examples follow a similar geographic and cultural pattern. However, the establishment of the Interstate Highway System in 1956 was a radical departure. The new system, along with subsequent urban deindustrialization, led to the demise of many former transportation sites and networks. It literally and figuratively cut through neighborhoods, and contributed to increased economic, racial, and cultural segregation. While technological advancements to the automobile made it possible, choices in utilization did more to divide communities than to connect them. This will be explored further below, in the section “Instituting a Balance with the Interstate.”

Although the Interstate Highway Act led to an increase in *de facto* segregation that continues today, in 1961 it was able to use its transportation regulatory power to help end *de jure* segregation in the south. NAACP (National Association for the Advancement of Colored People) court cases fought segregation in travel and the doctrine of “separate but equal.” Groups such as CORE (Congress of Racial Equality) and SNCC (Student Nonviolent Coordinating Committee) began challenging the system in practice through direct action. The “Freedom Rides” began in May of 1961 in which integrated groups boarded Greyhound and Trailways buses to travel into the deep south. The brutality and violence they faced by white racists (in and out of police uniform), especially as was documented in Birmingham, AL, forced President Kennedy and his brother Robert, the Attorney General, to do more in direct and legal protection. Finally drawing on the powers in the Constitution to regulate interstate commerce.

The Freedom Rides forced the Federal Government to take steps to ban segregation in interstate bus travel. On May 29, 1961, Attorney General Kennedy petitioned the Interstate Commerce Commission (ICC) to issue regulations

⁴⁷ *Ibid*

banning segregation, and the ICC subsequently decreed that by November 1, 1961, bus carriers and terminals serving interstate travel had to be integrated.⁴⁸

These varied results of the federal government's direct and indirect impact on transportation, demonstrate the critical role it has played not just in travel, but in justice, and what it means to be American.

Towards the end of the 20th and into the 21st century, federal, state, county, and local investment began to establish accessible paths utilizing previously established routes, especially defunct railways. On a section of the Department of Transportation website that has not been updated since 2015 it states

Under the most recent federal surface transportation law, entitled MAP-21, dedicated funding for bicycle and pedestrian efforts was consolidated into the Transportation Alternatives Program (U.S. DOT, 2013). Half of the funds are distributed to metropolitan planning organizations. The remaining funds are available to states to distribute through a competitive grant process. Federal funding for bicycle and pedestrian projects is also available under the Congestion Mitigation Air Quality (CMAQ) Program (U.S. DOT, 2013). These funds are available to both states and metropolitan planning organizations that have been identified as having air quality problems. Beyond these two funding programs, the Federal Highway Administration states that “[v]irtually all the major transportation funding programs can be used for bicycle and pedestrian-related projects.”⁴⁹

These accessible transportation routes provide a unique opportunity for the residents and visitors in conveying and strengthening regional identity. They stretch in each direction outside of Youngstown, but have yet to be completed through it. Between securing support through transportation funding and enacting the Steel Valley National Heritage Area to enrich the corridor beyond the path, hopefully the missing piece in the network through the Mahoning Valley will become a reality.

The Movement

The *Mahoning Movement* exhibit documents the current and proposed multi-use trails, the accompanying history and culture, and advocates for their expansion through the Steel Valley National Heritage Area and other regional, state, and federal programs. This will accomplish the two objectives of rehabilitating those paths for universal accessibility and telling the story of the region. Its establishment would

⁴⁸ Obama, President Barack. Presidential Proclamation 9566. *Establishment of the Freedom Riders National Monument*. January 12, 2017 <https://www.federalregister.gov/documents/2017/01/18/2017-01349/establishment-of-the-freedom-riders-national-monument>

⁴⁹ U.S. Department of Transportation. *Use of Federal Funds for Bicycle and Pedestrian Efforts*. August 24, 2015. <https://www.transportation.gov/mission/health/use-federal-funds-bicycle-pedestrian-efforts>

connect geographically and thematically with the larger network of heritage areas, the south-western Pennsylvanian *Rivers of Steel National Heritage Area*, the *Ohio & Erie Canalway Heritage Area*, and the *National Underground Railroad Network to Freedom*.

By linking transportation, recreation, and education, accessible paths can bring the SVNHA to life, providing additional positive community impact and “visitability.” Aside from the utilitarian use as transportation, important quality of life benefits through recreation, mental and physical health, and the additional economic impact from travelers . It provides a tangible resource to residents, while telling the story of the Mahoning Valley and its people, on the path from which it all started. Providing an account of history and culture, and a source for further revitalization.

Reconnecting the historic networks while expressing the history and culture of the region is an ambitious project. It will take more than just federal and state legislation and funding. In the multiple senses of the word, it is about Movement. *The Mahoning Movement* is about the transportation networks that have moved people and goods through the region for millennia, especially the past 400 years’ chaos, and the recent 40 years of deindustrialization. Transportation and culture are entwined. People shape it and in turn are shaped by it. It is thus a movement in the literal and activist sense of the word, advocating and expressing the history, culture, and need for accessible transportation networks to connect communities in the Mahoning Valley and the nation.

Universal Design

Making these paths accessible to all, regardless of physical and cultural variables, is critical. Often these paths are identified as “bike paths” yet it is important to see them as accessible routes for all forms of self propelled travel (running, walking, wheelchairs, rollerblades, etc). Being informed by a Universal Design perspective ensures their accessibility.

Matt O’Nesti utilizes an electric wheel chair for personal mobility. His perspective and advocacy is a strong voice in the state of Ohio for accessibility. Discussions with him concerning how the path may be more accommodating, and the technological framework of his mobility device, inform a better vision for the 21st century path. He is consulting on the formation of the connecting paths, and in 2022 will participate in traveling and documenting the section of trail between Ravenna and Kent.

An inherent benefit to the accessibility of these former canal and railroad paths is they were designed with a consciousness of the grade. Accommodations can further make the trail more accessible. Strategically placed rest stops along the way can serve multiple purposes. Restrooms of course are universally appreciated. Personal mobility vehicle assistance resources can include electricity for battery charging, air pumps for tires, and various tools. Maps at stations depict the trail, nearby attractions and hospitality. Emergency Call buttons for 911, and other connections to local resources

can be incorporated. The rest stops may also provide secure display of artifacts to tell the stories of the areas. Vending machines, and even rentable space for small businesses can supply travelers and locals with supplies, food, drink, and lodging.

The route for the Mahoning River Greenway largely traverses existing abandoned rail lines, so land acquisition will hopefully be a simpler issue to resolve. Unfortunately for the missing link to connect the Mill Creek Metroparks to the Little Beaver Greenway, a conflict with a small group of property owners continues to play out.

Utilizing digital technologies, the path can be accessible to those not even physically present. An online interactive component can bring the experience to anyone with a connected device. This online resource can augment the journey along the trail, or provide a digital experience of the trail from anywhere. Virtual adaptations of some trails already exist to connect areas to those not physically present.⁵⁰ Further enhancing the experience with historical and cultural content can make it both educational and entertaining. Likewise augmented reality exhibits for those physically on the trail, enable the smart phone in nearly everyone's pocket to be a portal to the history around them. Even if the physical remnants are gone, using the device as a viewfinder, one could even see a steel mill where it once stood.

Trail as Museum

It may seem a radical notion for a trail to serve as museum, but in the United States it formally goes back to 1951 with the establishment of *the Freedom Trail*, connecting Revolutionary War sites in Boston. In the last quarter of the 20th century expanded inclusivity for public history and the museum in the community emerged. Preservation evolved from specific structures, to neighborhoods, and even into whole cities. In 1931 Charleston, SC was the first city to enact legislation for a regulated historic district. Williamsburg's revitalization as a living museum and preserved town began in the late 1920s. In 1978 Lowell, MA was the first urban industrial area to be put under the purview of the National Park Service. These efforts helped shape the perspective that any city can also function as a museum.

Likewise inside the museum, an evolution of attitudes for accessibility and involvement in the community has transpired over the past century. The early antecedents of the museum were by definition spaces apart from the outside world, protecting sacred artifacts. The European Middle Ages' "curiosity cabinets" collected objects for their isolated value alone. The so-called "Age of the Enlightenment" and revolution in Europe introduced utilizing objects to develop storylines and opened their doors to the public in anti-elitist democratic fervor. Now in the 21st century museums are expected to not only depict the storylines relevant to the public, but also be comprised of, and serving the needs of diverse communities.

⁵⁰ Ashley Rossi. *Explore the Great Indoors: Virtual Hikes and Natural Wonders You Can See at Home*. SmarterTravel. 4/9/2020. <https://www.smartertravel.com/virtual-hikes-to-do-at-home/>

Museum architecture has gone through significant permutations. The 1700s-early 1900s 'Monument' stage featured buildings modeled after palaces. The prestige of the structures sometimes came at the brunt of functionality. Modernity, especially as typified by the "white box" innovation of the Museum of Modern Art in New York brought a factory rationality. It featured clean pragmatic displays and functionality, and introduced adaptable/ reconfigurable gallery spaces. However, at the end of the 20th century came a regression toward "post-modernist" interpretations. The "brand" and eccentricities of the building, once again, took precedence over its functionality. Such is the case with Frank Gehry's Guggenheim at Bilbao.

Some argue that all history and cultural representations are performative, so perhaps it is necessary to break down the fourth wall. Presenting a museum without any architecture at all liberates the visitor from the host of other barriers that stand between content and person. For museum functions that are best served indoors, adaptive reuse of existing structures presents opportunities in presentation and story telling. Seeing the region as a museum enables its existing institutions to be united in a grander narrative.

For a city of its size, Youngstown has a significant roster of established museums and cultural institutions. The Butler Institute of American Art was the first museum built specifically for the collection of American art, and was designed by the prestigious McKim, Mead, and White architects. Founded by the previously mentioned Joseph G. Butler Jr., it holds significant pieces for labor history as well, with paintings such as William Groper's 1937 *Youngstown Strike*. By its history, content, and geographic location, the Butler is well situated for collaboration in enacting the Steel Valley National Heritage Area.

Mill Creek Park is a designed masterpiece of the late nineteenth century park movements. Its prestigious amongst residents and internationally know in serving as nature preserve, recreational space, and historic element to our community and visitors. Through its preservation of Lanterman's Mill it even tells of the earliest days of water-powered industry. In addition to the contiguous original space orchestrated by Volney Rodgers within Youngstown, The park also maintains the Mahoning county section of the Western Reserve Greenway Trail. The "Mill Creek Metroparks Bike Trail" connects Canfield to Niles, OH, trying to expand the final 6 miles to connect where the trail continues in Washingtonville, OH continues to suffer from court battles. Though a former rail line, a small group of property owners no longer wishes the right away to return to the public use.⁵¹ Similar property owner concerns played out thirty years ago in establishing the Portage Co Hike & Bike Trail.

⁵¹ Dennis, Justin "Appeals court rules Mill Creek MetroParks 'abused its discretion' in eminent domain action." April 16, 2022. Mahoning Matters. <https://www.mahoningmatters.com/news/local/article260441412.html>

Greenway plans in Kent have some homeowners seeing red. Some folks living along the Cuyahoga River don't like the plans that are emerging to expand the city's meager greenway in their direction... "I'll fight this to the very end," said Karen Flint... [Park board Chairman Bob] Lindsey told Flint and the others that he has visited cities where networks of paths have been installed and found that owners of property adjacent to the nature trails have become their biggest boosters.⁵²

As the Kent trail now is a magnificent ideal section that seems to have universal appreciation in the community, it is hard to imagine the debate ever occurred. Hopefully the same will be said of the completed Metroparks bikeway in the future.

the Youngstown Historical Center of Industry and Labor, aka *The Steel Museum*, is a significant base to establish the Steel Valley National Heritage Area. Its mandate to tell the history of labor and industry, with a focus on steel production, makes it ideal to be a home-base to the heritage area. Bringing interpretation and collections onto the trail of the industrial corridor, will enrich the SVNHA. Likewise, the external activity will rejuvenate the inside of the museum and attract visitors. As an excess of hearty industrial artifacts in its collection sit in storage, they can be brought out for curated displays along the path at the former mill sites. This can both tell the history and attract the passerby into the museum to learn more.

The SVNHA act provides for Federal funding of "\$10,000,000, of which not more than \$1,000,000 may be made available in any fiscal year." It also mandates that the states, Ohio and Pennsylvania, or other sources must also in part bear the cost. "The Federal share of the total cost of any activity carried out under this act shall not be more than 50%."⁵³ If funds to construct the trail come from county, state, and federal infrastructure funds, then these funds can contribute directly to interpretation on the trail.

The Eastgate Regional Council of Governments, serves as a cooperative of the areas governments to help direct federally funded projects such as this. They have recently committed to a Mahoning River Corridor Revitalization Plan. MS Consultants was contracted for planning and design work. In December of 2020 The *Mahoning Movement* was presented to its team working on the project. The author has since joined the community advisory board of the organization, both to get an inside view of this evolution of this project, and also to contribute. Through these partnerships, and

⁵² Springer, Bob. "Riverside Trail plans meet Kent resistance." Akron Beacon Journal. February 2, 1991.

⁵³ H. R. 2525. U.S. Department of the Interior. May 22, 2019 <https://www.doi.gov/ocl/hr-2525>

with Pennsylvania and Ohio Departments of Transportation emboldened by federal matching funds, there is cause for optimism that this ideal path may materialize.⁵⁴

The funding through SVNHA can create interpretive signage and exhibits along the path and in the community. Community centered partnerships with the existing institutions such as the Labor and Industry Museum and the Butler Institute of American Art will prove valuable. Funding for such an expansive project, parsed out over years, may not make an immediately significant difference in the budget of the museums. However, since its mission is critical to the SVNHA, perhaps additional federal funds for the Youngstown Historical Center for Labor and Industry could be obtained through the National Parks Service. Currently museum funding is dependent on minimal state allocations, university faculty, management, and labor, and private donors. Its increased role in transmitting the national significance of the area should be reflected in resources earmarked for enhancing its mission.

Even before the Covelli Center was built on the former Republic Steel, and as documented in a 2006 article, Dr. Tom Leary was advocating for historic interpretation along with development of the site.⁵⁵ With the Steel Valley National Heritage Area, not only can this be accomplished, but a functional trail system along the river valley that was the epicenter of the industry can be accomplished.

Instituting a Balance with the Interstate

Accessible trails often share the same routes as previous means of travel, connecting the traveller to a long and evolving history, while physically uniting neighborhoods, towns, and regions. This is in contrast to the interstate which divorced communities from each other, and keeps history and culture far from its concrete and metal boundaries. Many of the areas it left behind were physically abandoned, and communities were culturally fragmented.

Established by the Federal Aid Highway Act of 1956, the freeway marked a radical departure from previous means of surface travel. It completely bypassed many smaller towns and cities, and in major metropolitans only bridged the downtown central business district and suburbs. More than simply divorcing inner city communities from this continuity, in the construction of many expressways, entire neighborhoods especially of the Black community were targeted and destroyed.

⁵⁴ “Mahoning River Corridor Revitalization.” Eastgate Regional Council of Governments. 2022. <https://mymahoningriver.com>

⁵⁵ Barron, Sean. “YSU professor calls for measures to preserve history of steel mills.” *Youngstown Vindicator*. January 9, 2006 <https://vindyardives.com/news/2006/jan/09/ysu-professor-calls-for-measures-to-preserve/>

This was the reality in Youngstown where an entire Black business district was demolished to create the 422 expressway. The corner of Rayen and Belmont, home to Frieda's Jazz and Blues club and Charlie Staples' BBQ are two of the few surviving remnants of this. Establishing the Steel Valley National Heritage Area can physically and thematically reconnect this neighborhood to the larger community, documenting, commemorating, and reinvigorating it. As part of the cultural mission of the SVNHA this neighborhood and its celebration should be included. This also provides an opportunity to include Youngstown's rich musical legacy. As jazz still wafts into the night time air from Frieda's, monuments to the cities' musical legends can inform present residents and visitors to its past.

The combination of deindustrialization and "white flight" aided by the interstate system and federal policies that discriminated against Blacks, further decimated the economy and residential stability of the city. The adjacent suburbs to Youngstown and Warren were epicenters for the suburbanization of retail, especially through second generation Italian-American families, the DeBartolos and the Cafaros. First building in Niles and Boardman, OH, they went on to lead the national trend toward the suburban shopping centers of the strip plaza and the indoor shopping mall. Turning former fields into shopping meccas, with seas of parked cars, it was a sharp contrast to the downtowns. Now fifty years later these structures are aging and nationally on the decline, without a clear response to the internet retail age.

As retail suburbanized, so too did the industries after the interstate was introduced. General Motor's Lordstown Plant built in 1967, was "the plant of the future," highly automatized and far from the city center. It followed the path of the new suburbanization, opening along the interstate, incongruous with the evolution of industry and residential patterns previous to it.

The retail and shopping district of downtown Youngstown in the 1970s-90s followed a similar storyline as the steel mill closures. National chains purchased local businesses, stripping them for cash and then shuttering them. McKelvey's is a perfect case study of this. Founded by G.M. McKelvey it was renowned as one of the finest stores in the region. It was still very cash liquid when purchased by its Cleveland equivalent Higbee's.⁵⁶ The Higbee Corporation was in turn purchased by Dillards, which closed both Higbee's in Cleveland (now Jack's casino) and the former Youngstown McKelvey's. To add insult to injury, the gorgeous architecture of the store downtown was torn down in 1996. The "Community Improvement Corporation" said it was structurally unsound, so they took a wrecking ball to it. That wrecking ball bounced off the solid steel framed building and broke. A larger one was brought in, to finally defeat the building.

Alongside the establishments that evolved from local general stores to department stores, were the earliest sites of national retail chains. 110 W Federal in

⁵⁶ Also famous for the Santa scene depicted in *A Christmas Story*'s. The family house is not too far from downtown, near the towpath extension trail in Tremont.

downtown Youngstown is a site where local development intersects with the national economy. The Knox Building, colloquially named for the S.H. Knox Five and Dime chain of stores extending from Buffalo, NY to Youngstown, was established at the site from at least 1892. Technically titled the Wick, Sallow, Wells building by the local developers who constructed the building for the chain in 1909 after the previous structure was lost to fire. In 1912 the store merged in the formation of the F.W. Woolworth Company. It remained until 1984 after which it closed and became a Rite Aid. In 2012, Lemon Grove LLC moved operations to the site to renovate and conduct operations for the economic and cultural vitality of Youngstown, OH. The site's mission to embody that history and culture in the community, demonstrates commerce can impact residents, visitors, and the economy.

The accessible trail network, connecting historic sites and city centers enables commerce and experience that is economically stimulating, recreational and informative for a larger story. Downtown Youngstown was site to ancient Native American trading, and home to their earliest exchanges with European- Americans coming into the region, especially with the fur trade. The improvements of roads, the canals, and railways enabled it to fully connect with the burgeoning national consumer economy. For the privileged and middle class, the staples today are met by big box stores and the internet, so commerce becomes a more experiential or leisure activity. Unfortunately for many struggling communities this may be physically and economically out of reach. Thus small towns need to bridge the needs and entrepreneurial opportunities for inner-city communities along with the tourist and boutique shoppers.

Voltage Valley

Similar to the roller coaster of General Motors' history in Lordstown, or begging Lykes or US Steel to keep the mills remain open, once again a public relations campaign is underway to hype the Voltage Valley amongst turmoil.⁵⁷ It is also reminiscent of the early 2010s when the fracking boom was touted to be transformative for the valley. While benefits of natural gas production may have had an economic benefit for a few, and on a national level to regain some energy independence, for the average resident in the valley there was hardly any material impact besides earthquakes and environmental harm.⁵⁸ In the midst of hyperbolic silver bullets by "public leaders," the real efforts and potential of the community are often ignored or squashed. As activist and entrepreneur Derrick McDowell said of "community leaders" and others looking down on city residents. "We have an identity problem. We conflate industry with identity. So its not just our own city leaders that look down on us, but

⁵⁷ O'Brian, Dan. "Clock Ticking on Foxconn Deal." *The Business Journal*. March 15, 2022. <https://businessjournaldaily.com/clock-ticking-on-foxconn-deal/>

⁵⁸ Dennis, Justin. "Report: Oil and gas waste treated at New Castle facility more radioactive when discharged." *Mahoning Matters*. March 16 2022 https://www.mahoningmatters.com/news/local/investigations/article259406919.html?fbclid=IwAR32pcQJ_RuMMPEwOma7QrAoDXu-r76NautH8SUusXabs45Q7REJVNGtCJ0

outsiders too, because we don't know who we are. This is why those who lead us, let us down."⁵⁹ but those certainly landing a mega deal, like the recent Intel plant near Columbus, looks good for politicians promising jobs,⁶⁰ however it may be considered that the amount of subsidization for a single company may just as well lay the groundwork for a holistic economy for interconnected communities. An equivalence may be found in big box stores, which communities lure at sometimes a very unsustainable cost.⁶¹ More importantly these projects, do little to make a material impact in the communities that need investment the most. These projects, continuing the trend begun in part by GM Lordstown are built in suburban environments oriented toward the interstate.

By making the direct investment in interpreted active transportation trails, the public creates the framework for the growth of independent and locally owned businesses along the trails. As opposed to the large scale subsidization the government has made to large corporations, only to leave the communities at the mercy of their whims. Not too mention the difference in the difference in labor, between the once powerful UAW at GM Lordstown and the non-union suppliers potentially replacing it.

When the Ohio Works closed, the workers were, "particular bitter because they... gave up some of their pay and then broke production records on a promise from US Steel to keep the plant open as long as it made money. The workers believe they proved the mill, built at the turn of the century, could pay."⁶² This was the basis of USW Local 1330 lawsuit vs U.S. Steel led by activist and attorney Staughton Lynd.⁶³

⁵⁹ Derrick McDowell. Author's Conversation

⁶⁰ Lee, Jane Lanhee & David Shepardson. "Intel's \$20 bln Ohio factory could become world's largest chip plant." *Reuters*. January 21 2022. <https://www.reuters.com/technology/intel-plans-new-chip-manufacturing-site-ohio-report-2022-01-21/>

⁶¹ Roche, Dylan. "What Does a Big Box Store Cost the Community." *Pasadena Voice*. April 24, 2022. <https://www.pasadenavoice.com/stories/what-does-a-big-box-store-cost-the-community,14654?>

⁶² Bill Moyer's Journal. "It's Not Working." Educational Broadcasting Corporation. 1980. <https://youtu.be/TtW3XkupAoo>
Coincidentally (or not) workers layed off in the Pullman car closing, advocate for mass transit and high speed rail between cities. They came to Youngstown in solidarity and to learn from steel workers attempting to buy the closed mills.

⁶³ Local 1330, United Steel Workers of America, and Frankgeorges, et al., Plaintiffs-appellants. v. United States Steel Corporation, Defendant-appellee, 631 F.2d 1264 (6th Cir. 1980). <https://law.justia.com/cases/federal/appellate-courts/F2/631/1264/86708/>

Twenty two years later as GM kept cutting shifts, simply keeping the plant open garnered a headline equal to winning V-E day in the Youngstown Vindicator “THANK YOU GM.”⁶⁴ Less than another twenty years later and it too was shuttered.

As these American companies turned their back on the community, can one feel any more confident in this next wave of Voltage Valley international corporations such as LG or Foxconn? It would at best serve to be skeptical especially when considering the notorious labor abuses in their Foxconn factories in China, or how quickly they scorned Wisconsin even after the largest promised subsidy in history \$13 Billion, amongst other water and land grants.⁶⁵

Even in the best case of Voltage Valley prominence in the electric car retooling of America, critical issues of the automobile-centric network remain. Currently gas taxes charged do not cover the cost of maintaining the current automobile centered road network, and the transition to electric places a further loss in the funding. Already those who do not own automobiles are helping to subsidize the system; if a further burden is placed on them without proportional investment in a balanced transportation network, the “no taxation without representation” argument is furthered.

As the automobile centric network has created physical boundaries to active transportation and made traversing extremely dangerous by foot in some communities, it may be worth considering that a fundamental right has been impeded upon. Though the space and philosophical capabilities are lacking here to fully tackle what a Universal Right to Transportation may be; one thing is for sure, that being able to get from point A to point B without an automobile has countless benefits to individuals, communities, and the nation.

Conclusion to Part One

The bumpy journey of modern America began when Native Americans first encountered Europeans up and down the east coast, north and south of Washington D.C. the current epicenter of that national power. In addition to the roads appropriated from Native Americans, the nation’s first president was an ardent proponent of canals

⁶⁴ Cynthia Vinarsky. “GM Commits to Lordstown, Ohio Plant with new car models.” The Vindicator. August 14, 2002.

⁶⁵ Jamie Condliffe. “Foxconn Is Under Scrutiny for Worker Conditions. It’s Not the First Time.” *The New York Times*. June 11, 2018 <https://www.nytimes.com/2018/06/11/business/dealbook/foxconn-worker-conditions.html>

Ashley Graham. “Foxconn mostly abandons \$10 billion Wisconsin project touted by Trump.” *Reuters*. April 21, 2021 <https://www.cnbc.com/2021/04/21/foxconn-mostly-abandons-10-billion-wisconsin-project-touted-by-trump.html>

Also a book dedicated to the subject, Lawrence Tabak, *Foxconned*. University of Chicago Press. Chicago. 2021

to connect westward.⁶⁶ In 1784 he proposed connecting the future capital bearing his name, through Cumberland, Maryland to Pittsburgh, PA and on through the Mahoning Valley by canal. The route only made it to Cumberland and was utilized between 1831-1924 then resurrected as a navigable path with the Chesapeake & Ohio Canal National Historic Park in 1961. Cumberland was also an important point as the eastern terminus for the first national road in 1811, which would evolve into Rt 40.

Between 1986 and 2013 the former railway of the Greater Allegheny Passage was repurposed as accessible trail to take travelers westward from Cumberland to Pittsburgh, PA. From Pittsburgh, two lines can ultimately connect to Youngstown. Continuing west along the Ohio to East Liverpool and up the Western Reserve Greenway Trail, or north along the old Beaver and Erie Canal to New Castle, PA and on to the Stavich Trail. The fact that these historic paths connect Washington DC with Youngstown, OH is both a literal and symbolic metaphor between the city with the seat of the federal government. The story told along the way, is the story of America, from the First Peoples, to European westward expansion, African-Americans search for freedom northward, industrialization, post-industrialization, and the future.

Establishing the Steel Valley National Heritage Area, along with federal, state, and regional infrastructure projects to make this a site of history, culture, transportation, and recreation will embolden continuity in both American travel and identity. Riding a bicycle in June of 2016 along the Ohio to Erie Trail between Massillon, OH and Cincinnati was a lesson in the fractured culture in Ohio and America. Idyllic paths along scenic natural landscapes are halted by missing segments of the trail, forcing riders onto dangerous highway. Rural roads take you past homesteads with Trump signs and some Confederate Flags. Trying to situate oneself on the digital map is difficult among limited cellular service. Discovering a nearby “Negro Run” in that context makes one unsure if it marks an innocently named waterway with archaic vernacular, or if it is a present day command.

Rejoining the dedicated trail and making it into Cincinnati, brings one to a very different cultural environment. Nationwide protests for justice after the recent killings of unarmed Black citizens also erupted in Cincinnati, a city long a battleground of racism. Plywood covering windows of business from the real or imagined threat of rioters, were transformed by artists into visual protests and cultural expression. Panels commemorated the martyrs of police violence and racism, and the hope of transcendence. Though many miles separated the rural Confederate flags and urban Black Lives Matter expressions, the Ohio to Erie Trail connected them. Likewise are the chasms in experience between Native Americans traveling the trail many millennia before the Columbian invasion, the many Irish, German, and Italian immigrants who built canals, and those African-Americans seeking freedom from enslavement railways, and highways. Yet to some degree, for those who seek the contemplation those same trails can bridge time, space, cultures, and communities. Journeys along a

⁶⁶ *George Washington's Influence on the C&O Canal*. National Park Service. February 8, 2018 <https://www.nps.gov/choh/learn/historyculture/washington.htm>

trail taken in great danger in the dead of night guided by the north star to escape the horrors of slavery, can today take travelers along the same paths in education and contemplation. While these violent chasms in American identities may never fully heal, the path connects. The path is not only travelled, but it creates movements, and can move forward into a more just and connected country.

Part Two: Map and Hydrological Analysis

Bridging the Cuyahoga & Mahoning River Watersheds

Story Map: <https://www.arcgis.com/home/item.html?id=ab348587cebc4a6fb4d102d2b65c89eb>

Poster Layout: <https://images.squarespace-cdn.com/content/v1/5b8f0891f79392f9b253388c/ade6c89e-4909-43fb-86f5-8a4422b8c9fd/smScreen+Shot+2021-12-24+at+9.15.48+PM.jpg?format=2500w>

Web Map: <https://arcg.is/10H41K0>

Humans have been traveling through the Mahoning and Cuyahoga Valleys for thousands of years. Material evidence of mounds and found artifacts document that. Specifically, going from northwest to southeast: at the Cuyahoga mouth Lake Erie (Cleveland, OH), to the Hopewell Native American Mound at Towner's Woods in Kent, OH, the Salt Springs that gives the Mahoning its name at Weathersfield, OH, past Youngstown to where the river flows into the Beaver at New Castle, which in turn meets the Ohio River at Monaca, PA. This was a critical span, not only for Native Americans, but also the early French fur trappers, colonizers, and United States settlers who sought to develop the nation's first Western Frontier. This same corridor is becoming an important network once again as active transportation (hike & bike) trails provide not only transportation and recreation, but a way to understand this history and culture.

This project was first envisioned thanks to encountering two historic markers documenting the canal along the bike paths. One in Kent, Oh on the Portage County Hike & Bike Trail and the other going toward New Castle, PA where 422 crosses over the Stavich Trail. It is only logical to join those two paths, which also unites a large network between Cincinnati and Washington DC.

Utilizing the power of GIS, we can examine both the historic maps and topography that tell the story, and plan for its rebirth. The section's scope covers this entire region, but focuses specifically on one pragmatic and scientific question. Where is the divide between the Mahoning and Cuyahoga Watersheds, and its relation to past and present trails, especially the P&O Canal? As it did in 1840, this span may be joined again to connect the nation from the Mississippi to the Great Lakes and East Coast.

The problem faced by those before combustion engines, quality roads and rails, was how to make the Western Reserve accessible for travel of people, supplies, and goods. George Higley wrote in *Youngstown. An Intimate History*, “In the early nineteenth century travel and transportation were the major problems of migrating settlers...It was in 1820 that the first agitation for a canal from the Lakes to the Ohio River appeared in the Ohio Legislature. To finance the needed survey, to determine the best possible routes for a canal, the United States Government allotted a grant of 1,250,000 acres of land. From this \$2,257,000 was realized to start the survey.”⁶⁷

Finally, in 1840, after years of political wrangling and the “back-breaking work from sunrise to sunset for hundreds of Irish and German laborers supplemented by local farmers,”⁶⁸ the canal was finally complete, setting the stage for an era of industrial and commercial prosperity.

The canal was officially opened all the way to Akron on April 4, 1840 with further jubilant fanfare. Four decorated packets carrying Governor Porter of Pennsylvania and eminent citizens of Pittsburgh and Philadelphia left New Castle bound for Akron. General holidays were declared in Youngstown, Warren, Kent, Cuyahoga Falls, and Akron. All along the route citizens young and old stood waving and cheering as the dream of a generation was realized. The canal was open!⁶⁹

As the name shows, the critical juncture was in Portage County, between the Cuyahoga River and the Mahoning, the watersheds flowing to Lake Erie and the Mississippi. This project utilizes historic maps, elevation, and hydrological modeling to understand the development of that process, and the exact spot it took place. The answers lead to better understanding of the past, as well as our potential future. This span, between Ravenna and Struthers is the missing link to a growing active transportation (hike & bike) network that will reunite the nation, east of the Mississippi and north of the Ohio.

Two historic markers in particular framed the scope of the problem. One is near Kent, OH on the Portage County Hike and Bike trail, concerning the history of the canal. The other is between Lowellville, OH and New Castle, PA where the Stavich Bike Trail passes below 422, concerning that very same canal. This epiphany that those active transportation trails were really part of the same historic line, led to the logical conclusion that the missing piece should connect the two. East to west, this would unite Youngstown, Girard, Niles (where it also intersects with the Western Reserve Greenway), Warren, and Newton Falls.

⁶⁷ George Higley. “*Youngstown. An Intimate History.*” United Printing Company. Youngstown. 1953

⁶⁸ Catherine & Emliss Ricks. “I’ve got a mule and her name s Sal.” Kent Canal Historic Panel. Kent Parks & Recreation.

⁶⁹ pg 5. Ron Reid. “Canal Heritage of Youngstown.” 1981.

The Youngstown State University Post-Graduate education obtained through Dr. Tom Leary's Applied History Program and Dr. Bradley Shellito's classes and book, "Discovering GIS and ArcGIS Pro," have helped evolve this project to trace that route's history, and advocate its future. While my experience is primarily cultural and historical, as the slogan of ESRI maker of ArcGis goes, Geographic Information System Mapping is "The Science of Where." This has enabled an approach to include Science, Technology, Engineering, and Mathematics in this project. Elevation and hydrology modeling contributed to an environmental science analysis of the area. This led to more nuanced questions of how it shaped the first people's experience, and subsequently the engineering of transportation methods: roads, canals, railroads, and now active transportation (hike & bike trails).

Study Area

The general scope is east of the Mississippi and north of the Ohio, between the two capitals: Cahokia⁷⁰ and Washington D.C. More specifically, we are looking at the P&O Canal 1840-1877 which was the final piece to connect this vast land, the nations' first western frontier.

In 1831 the Allegheny Mountains were conquered by the Pennsylvania Main line canal⁷¹, which connected Pittsburgh to Philadelphia. This added a third watershed that the P&O Canal would connect.

Using digital elevation and hydrological models, this project focused on locating and analyzing the exact divide between the Cuyahoga & Mahoning Watersheds. The question of river flow was extremely critical before written maps. Native Americans, such as the Hopewell, Seneca, Lenape, must have utilized a complex oral tradition to accompany material markers (such as the practice of bending trees). Traveling occurred for many reasons, including trade, hunting migratory patterns, and connections between permanent settlements. This legacy is largely lost from history, with only some accounts of the trails documented by the early European explorers and colonizers. Frank Wilcox's 1933 research and illustrations, in *Ohio Indian Trails*⁷², is one of the better efforts to try and relate the history.

Many of these Native America trails usurped by the predominantly European-American settlers evolved into major roads in use today. For the early wagons, traveling was an arduous task. For the purposes of travelers, communication, and the importing

⁷⁰ Cahokia was the great urban area/ mound complex on the Mississippi across the river from St. Louis. It is suspected to have peaked around 1100CE. Evidence indicates it may not have been a political capital, but more of a trade and event center.

⁷¹ Ironically, and as a foreshadow to things to come, with a rudimentary railroad to cross the mountain range at the Allegheny Portage Railroad near Duncansville, PA. "Alleghny Portage Railroad." National Park Service. <https://www.nps.gov/alpo/>

⁷² Frank Wilcox. *Ohio Indian Trails*, Third Edition. (Kent, OH: Kent State University Press: 1933)

and exporting of goods past the Alleghenies and into the Western Reserve, a better method had to be created for the western frontier was to be brought into the fold of the newly independent United States. Political wrangling through the first decades of the 1800s, and meeting the challenge of the War of 1812,⁷³ finally culminated in a survey for the canal in 1828, and construction was underway. Despite delay from economic crashes in the 1830s construction continued until completion in 1840.

For the builders of the canal the elevation and hydrology were important not only for the execution of the route, but canals are dependent on water flows to function. The engineering of the locks overcame the elevation differences for the boats traveling. Furthermore, the entire route needs water fed to function, so tying into natural sources and constructing basins was critical.

Layering historic maps and modern precise elevation and hydrological models we can see the problem faced, anticipate how it was overcome, and verify those results. Exploration of this area was then performed to find remnants of that past, and to inform planning of active transportation infrastructure to overcome that divide once again. Doing so will contribute to a national network of active transportation trails, which aligns with the canal network created 200 years previous. The benefits of the canal system for transportation, recreation, economics, and the communication of our history and culture will also be mirrored in this new iteration.

Methods

The project began with traveling the routes, reading the interpretation along the way and discovering the history and topography. A smart phone (iPhone 10X/ 12 Max Pro), in the field is a powerful multifaceted tool: in navigation, viewing GPS location in the context of satellite imagery, taking photography and video documentation. Taking geolocated photographs are also useful for post field analysis.

ArcGis was then used to create line features of those trails, and created unique variable color coded symbology to differentiate. Points divided into “Sites” and “Interpretation” mark the critical areas along the way. To ensure exact placement of the Active Transportation Trails, the official bike map of Ohio was downloaded and traced. Ohio’s map makes no differentiation of bike routes amounting to the narrow shoulder of a busy highway and the dedicated paths, so field research and Google maps (with the helpful bike path layer) was also used.

Research into the canal and native American paths, and in looking for historic maps led to <https://www.railsandtrails.com/>, which proved to be a valuable resource of high quality maps downloads, information, and a kindred grass routes appreciation of rails and trails. The high quality scans of the 1828 P&O Canal Map and the 1914 Ohio Archeological Atlas of Native American trails were obtained there. Further quality scans of historic maps were found on the Library of Congress site. The Heckewelder map is

⁷³ The nation will forever have a debt to Commodore Perry, “Don’t give up the ship!” (Battle of Lake Erie)

featured on the Western Reserve Historical Society website. Ohio History Connection hosts the Wilbur Siebert's Underground Railroad map.

None of the maps were already geolocated (layered digitally on current satellite or map data), so upon importation into ArcGis Pro, the maps had to be scaled, moved, and control points established. For some maps with a clear scale, well defined geographic area (such as the state of Ohio), and with high precision and accuracy, this is relatively easy process in ArcGis Pro (once learning the process and parameters). For some highly inaccurate, scaleless maps of vast areas, such as the Heckewelder map, this was cumbersome. These maps had to especially rely on recognizable, "timeless" features, such as the confluence of rivers, to use as control points. Control points "fix" the map to the location, and also can reshape through "Transformations" to properly align.

The featured map of the project, the 1828 P&O Canal Survey, was a rather difficult one. The map was crinkled in the scan, throwing off the scale bar (which seems somewhat flawed anyway). The shape of the canal and waterways also were imprecise and inaccurate. For this and the Heckewelder Map, it required a large number of control points utilizing a "Spline Transformation," in order to align the features depicted with their present geographic spaces.

For the 1828 P&O canal map, 22 georeference control points were used with the spline transformation"

1) Distinctive River bend of the Mahoning near Edensburg, PA. 2) distinctive river bend of the Cuyahoga near Walcott's Mill and the present day waterworks park. 3) Gorge Metro Park Cuyahoga Falls, OH 4) Sandy Lake south of Kent/ Ravenna 5) Distinctive bend of the Mahoning between Warren and Leavittsburg 6) Distinctive bend of the Mahoning near Waddell Park. Niles, OH 7) Crab Creek into the Mahoning River Youngstown, OH 8) Grays Run and the Mahoning at Lowellville, OH 9) Bend of Knapp Rd Ravenna, OH 10) Ravenna town square 11) Crystal Lake/ Ward Pond Ravenna 12) River bend near B&O Station at Youngstown 13) Mill Creek into the Mahoning at Youngstown 14) Baldwin's Mill Youngstown, OH 15) Bend of Knapp Rd near Kirwin Reservoir 16) Bend of Knapp Rd near "Kirwin's Peculiar Peninsula" 17) Bend of Knapp Rd just north of the west end of Kirwin Reservoir 18) Distinctive bend of Mahoning between Kirwin Reservoir and Newton Falls 19) Intersection of Newton Falls Rd and Paris Windham Rd at Centre of Paris 20) Cleveland Rd going North West of Ravenna 21) Distinctive Bend of the Mahoning West of Edinburg, PA 22) River feature East of Edinburg, PA.

With the highly imprecise Heckewelder map, the spline method caused a wavy distortion, but was still useful in helping better place historic sites. This map is important as the Moravian Missionary John Heckewelder was one of the first literate and (slightly) cartographic people to put pen to paper in getting to know the area. Of course, there was much of the history he could not comprehend, even if exposed to it. "Though he had deep affection for the Indians, he saw them with a white man's

eyes.”⁷⁴. He drew his map in 1796 from personal travels with the Christian Convert Native Americans. Today it is in the collection of the Western Reserve Historical Society. The identifiable points used for control points in geolocating were: 1) Aurora Lake. 2) New Castle (confluence of Mahoning and Shenango to form the Beaver). 3) Pittsburgh (confluence of Allegheny and Monongahela). 4) Newton Falls (Confluence of East & West Branches of the Mahoning). 5) Moravian Mission where Tinkers’ Creek flows into the Cuyahoga. 6) Warren (Distinctive turn of the Mahoning between there and Leavittsburg). 7) Monaca, PA (confluence of Beaver and Ohio). 8) Coshocton, OH (confluence of Tuscarawas, Walhonding, and Muskingum Rivers). 9) Presque Isle (Erie, PA), and the mouths of the 10) Conneaut, 11) Ashtabula, 12) Grand, 13) Cuyahoga, 14) Huron, and 15) Grand Rivers on Lake Erie. For the important “lost areas” in this projects’ area of focus, polygons were created for sites “Golad Deer Lick” and “Mahony Old Town.” The general areas are presumed from the geo-reference analysis. This information may be useful for future archeological digs and focused LIDAR (Laser Light Detection and Ranging).

The 1887 Ohio Railroad Map and 1914 Ohio Native American Trails have a well delineated extent of state boundaries in an age of better technology for surveying and thus were easier to geolocate. Wilbur Siebert’s published Underground Railroad map is featured in a fine resolution.tiff courtesy of Ohio History Connection.

The 1755 Evans Map has no scale, and is rather inaccurate. Pittsburgh, Baltimore, and the Susquehanna River were used as control points. This map is interesting for an early look west of the Alleghenies. Specifically for the area of focus for this project, there are not many features, beside Kuskuskie. The map itself is useful in seeing how European interest in the region was growing. It was first published by Lewis Evans in Philadelphia, but was printed in London.

The 1764 Hutchins map has a largely correct scale, but extends too far north beyond the Lake Erie coast. A 10 point Spline Transformation using these control points was created: (listed as current cities though identified by the rivers) 1) Pittsburgh 2) Cleveland 3) Warren 4) Monaca 5) Elwood city 6) South New Castle 7) New Castle 8) Kent/ Ravenna Breakneck creek confluence with the Cuyahoga. 9) Erie PA 10) Scioto River mouth at Ohio River. Hutchins’ cartography is more accurate and useful than the 1755 map. It also includes Salt Springs. Though the map’s ornamentation seems to indicate a bucolic frontier, with Natives and whites chatting around the fire, in reality it was a violent process which shaped it. Thomas Hutchins produced the map from British Colonel Henry Bouquet’s 1764 expedition to quell Pontiac’s Rebellion. After the British won the European claim to lands west of the Alleghenies and east of the Mississippi from the French in the French-Indian War in 1763, the French packed up and left, but the Native Americans remained resolute to retain their land. The increasing pressures of British settlers, replaced the more balanced relationship many Native tribes had with French fur trappers, and lead to a new Pan-Indigenous solidarity and offensive led by Pontiac. The “peace” Bouquet secured in 1763 raises further

⁷⁴ fwd. IX. Edward Rondthaler. *The Life of John Heckewelder*. (Philadelphia: T. Ward, 1847.)

questions into the actual state of things, contrary to idealized United States lore. For instance, the presence of African American mentioned in the region makes one wonder of their relationship with Indians and white settlers. Also curious are the many cases of white captives actually escaping from Bouquet to go back to living with the Native Americans.⁷⁵

After layering and comparing the historic maps in relation to each other and current satellite imagery, elevation models were downloaded from the USGS National Map. A 1/3 Arc Scale, Digital Elevation Raster of the entire region, north of the Ohio, east of the Mississippi was downloaded and imported into ArcGis Pro. This was the base layer to analyze how geology and hydrology provide the parameters of human action. Rivers and the spaces between them are the most identifiable, and form the core of transportation networks, even without humans, as other animals set out paths.⁷⁶

The mask tool was used to limit the area of analysis to only the P&O canal extent. The cells of the elevation raster grid were examined to locate the change in elevation delineating the two watersheds. The mask layer was then applied again to define the extent to between the Mahoning and Cuyahoga rivers. Specifically this established a border of Brady's Lake (natural) in the northwest corner of the extent and the Kirwin Reservoir (created by the damming of the Mahoning River in 1966) at the western extent.

The ArcGis "Slope Tool" and "Contours" tool were applied to give better understanding of the area's shape, and in revealing Prospect Rd as a dividing line. Next, hydrological models were used to examine the area. Using the "Flow Direction" tool and the "Sink" tool, a map of the sinks was generated. These were examined in the broader context and compared with the historical maps to see if any man made, thus potential canal remnants could be identified. In large part the analysis was indeterminate, although one specific spot, listed as point number six in the Story Map tour, shows a convergence of an unidentified multi-cell sink, with the geolocated canal survey. Upon exploration it indeed does look quite like a canal remnant.

Back in the digital world, after using the "Fill" tool to level out the sinks, the "Flow Accumulation" tool, in turn enabled a successful Hydrological Basin map. This confirmed the divide between the watersheds, with a visible understanding of how the water flows, and thus how the canal bridged the watersheds.

Results

⁷⁵ Ohio History Central. "*Bouquet's Expedition.*" https://ohiohistorycentral.org/w/Bouquet%27s_Expedition

⁷⁶ Interesting about the Kentucky-Indiana Buffalo Trace: Bean, Tom and Nicholas Orange. "The Buffalo Trace, Indiana's Ancient Interstate." *OrangeBean*. November 16, 2019 <https://orangebeanindiana.com/2019/11/16/buffalo-indiana/>

The elevation models compared to the 1828 Canal Survey map led me to a ridge just south of Ravenna, a street called Prospect, likely not coincidentally named. Today it is a rather busy road in road a gritty de-industrialized area with multiple rail lines passing through. Additionally, the highest elevation point along that ridge intersects with Summit ave. Using the “Hydrological Basin” tool, verified that result, and gave additional insight to the shape of the two watersheds. Finally, in exploring the site it contextualized the results with a current understanding and imagination of the past, on how the elevation, hydrology, and transportation networks impacted its surroundings. The rail lines occupying the spot of the old canal are quite active, but none of the trains seem to stop in Ravenna. A large 20th century factory remnant is half torn down. The quaint town itself still retains much of the architecture of the Gilded age in Ravenna, that had its roots in the canal and subsequently evolved into an important rail crossroads (as seen on the 1887 Ohio Railroad map). This exploration was documented in a short video, viewable in the Map Tour on the Story Map.

Further indication of this area’s topography is marked by red dashes on the 1828 Map, which mark the locks, allowing boats to scale the elevation differences. Locks if not destroyed, can be some of the longest lasting material evidence for canals, so the suspected canal route east of Prospect Street to Kirwin Reservoir was explored. Kirwin Reservoir’s creation in 1966, just west of the old Knapp road (on the 1828 Map), flooded the canal route between there and The Center of Paris (just west of Newton Falls). While no definitive evidence came from this exploration, there were a number of features that seem likely to be man made for the purposes of the canal. The best convergence of all the considered factors and visual evidence was point #6 on the Story Map.

Conclusion to Part Two

When railways began to flourish in the 1850s canals became antiquated. For the P&O, it continued to operate until 1877 when the last boat went through. The railways already owned the canal by that point, so the P&O was largely filled in for new rail. Some spots were bypassed in the new routes though. As the canal routes shape was determined by the need for water flow, the steam engines becoming exponentially more powerful would not need be as dependent on the water sources. Some of these canal remnants were still in Youngstown at the turn of the 19th century, recalled fondly by George Higley. “The canal through Youngstown was built close to the river, and just wide enough for the passage of two boats. Horses or mules driven along the tow path furnished the power. Legend has it that President Garfield as a boy drove a team of mules along these banks. However, all traces of his footprints were gone when I went fishing in the old canal bed for “bull-heads” and green frogs.”⁷⁷

East of Youngstown that canal bed was filled in for railroads including an Interurban Rail connecting to the city to New castle. Today it is the the Stavich bike trail between Struthers and New Castle. Westward to Ravenna, the canal is all but forgotten beside a

⁷⁷ pg 93. Higley, George. *Youngstown an Intimate History*. (United Press. 1952)

historical marker on the square in Warren, OH. Past Newton Falls, the rail line that replaced the canal took a more direct shot into Ravenna, as the old canal meandered along next to the river. Some of the best remaining remnants documented in the Harold Davis' 1929 pamphlet "The Pennsylvania-Ohio Canal 1823-1877,"⁷⁸ were flooded when the Mahoning River was dammed for Kirwin Reservoir in 1966.

A 1962 NPS Reconnaissance Report stated "the best sustained stretch in this section (the seven miles from to Wayland) will shortly be flooded as part of a Corps of Engineers flood control project (West Branch Reservoir, Mahoning River, Ohio River Basin). Clearing for the latter project is already underway."⁷⁹ Little has been written since, thus making this project necessary. Exploration of the areas brought up further interesting questions, in time both archeological digs and site specific fine LIDAR may hopefully uncover answers.

Other elements of that 1962 NPS study are useful, but its conclusions are the opposite of my own.

It is possible that symbolic sections of the canal might be preserved and interpreted; however, only limited use thereof for historical- interpretive purposes seems likely. Fragmented as it is, lacking (for the most part) the important element of water, and lacking significant structures serving to highlight the dubious traces that remain, the "canal" would have little or no historical impact and would certainly not provide recreational opportunities of any great consequence. It is hard to imagine its disconnected remains as a "recreational water-way" comparable to the Chesapeake and Ohio Canal National Monument. None of its remains--nearly all hard to identify--have the potential for "supreme experience" that is associated with a National Park Service area. Their rural setting is unexciting. Lacking, first and foremost, is an historical story of national significance."⁸⁰

It is indeed nationally significant that in bridging the Mahoning and Cuyahoga watersheds, a problem faced by humans for thousands of years was solved, the new nation was united, and the Western Reserve developed into one of the world's great industrial powerhouses. In 1840 it was made possible by the P&O canal, helping to "settle" the nation's first "western frontier." Access to travel and goods made life more livable for the settlers (Native Americans were nearly completely removed from the area by that point). Most important for the economy and identity that evolved for the region,

⁷⁸ Harold Davis. "The Pennsylvania-Ohio Canal 1823-1877." (Hiram, OH: Hiram Historical Society. December 1929)

⁷⁹ United States Department of the Interior Park Service. "Reconnaissance Report: Pennsylvania & Ohio Canal." (August 1962). Pg 8.

⁸⁰ *Ibid.* Pg 9.

the canal saved the “fledging Iron furnaces,”⁸¹ to paving the way for the Steel Valley to come.

With the canal, new supply chain and resource movements could occur. The early iron industry relied on charcoal from once dense forests that were rapidly depleted. The canal made it possible to move Brier Hill block coal, discovered just before the opening of the canal, to supply furnaces up and down the river. In the 1850s the supply chain was expanded to include the entire Great Lakes and Ohio River region. Iron Ore could travel all the way from Duluth, and when the Brier Hill coal was used up, coal and coke came from Connellsville, PA.

Though the railways would quickly supplant it as the preferred transportation network, the canal set the stage. Rediscovering and reconnecting these lost transportation networks, not only provide opportunity for useful modes of transportation and recreation, but provide the space to tell the history and culture of the region in the places that it actually happened.

Connecting the missing piece of the historic P&O canal towpath, between Ravenna and Struthers will link the region and nation once again just as it did in 1840. Just as the folks celebrated the potential and optimism then, so too can we again see its role in creating a bright future. It is becoming indisputable that Active Transportation (hike & bike) is an essential part of our infrastructure and post industrial economy. Along the way we can tell this story and others, and create new ones for the next 200 years. In addition to the infrastructure to connect the missing Active Transportation link between the Stavich and the Portage County Hike and Bike Trail, the National Park Service is urged to reconsider its findings from 60 years ago. This can be accomplished through Congress passing Representative Tim Ryan’s Steel Valley National Heritage Area legislation. It will enable interpretation and preservation for residents, travelers, students, and explorers to come.

⁸¹ Pg 6. Reid, Ron. “Canal Heritage of Youngstown.” 1981.

Part Three: The Trail Itself

Web Map: <https://arcg.is/1Diabr0>

Story Map: <https://arcg.is/D0Syn0>

Poster Layout: <https://indd.adobe.com/view/d0c7452f-7e3b-4ad5-aa69-d9f14a7ee928>

A trail originating with Native Peoples, transformed by settlers of the Western Reserve in the 1800s as the Pennsylvania & Ohio Canal towpath, and then as railway into the 20th century, is reemerging as an accessible path. Once again it is connecting the region from where it meets the Beaver River at New Castle (between Erie and Pittsburgh), to the Ohio & Erie Canal in Akron, (between Cleveland and New Philadelphia).

In 1983, the easternmost portion was completed between New Castle and Struthers as the *Stavich Family Bike Trail*. The most western portion, was resurrected from Ravenna to Kent as the *Portage Hike & Bike Trail* into the *Freedom Trail* where it ends in Akron at the *Ohio Erie Canal*. The missing middle, would complete the trail through Youngstown, Girard, Niles, Warren, and Newton Falls.

This text accompanies your journey east to west, on the formal trails and the path of the proposed Mahoning River Greenway. The 78 miles has been recorded with a GoPro Max in 360 and uploaded to YouTube. Videos are accessible clicking on the “Trails A/V” layer in ArcGis or by visiting the Mahoning Movement YouTube page.

At the eastern trailhead for the *Stavich Trail* in New Castle a rock with plaque places you in the footsteps of the many people who traveled roughly around this route before. Though actually much older, the plaque begins with 400 years of history from Seneca hunting grounds, to the “Delaware” (actually Lenape) people who were pushed west by Europeans in the 1700s. Canal construction followed in the 1800s, to be replaced by the railway. No other informational panels exist directly on the trail. The First Peoples did it on foot, and often in the Mahoning River below by canoe. From the late 1830s to 1877 in packet boats on the canal came through pulled along the towpath by a mule. The railroads are still a presence as you will inevitably hear and see along your journey, but the interurban electric rail line is what the current trail is directly built upon.

Crossing over the 224 bridge to the other side of the river is another historic marker, this one for Kuskuskie and a Revolutionary War veteran cemetery. “The last Native town,” can be seen on trail maps before European settlement. The first map produced by first hand travels was by an early Englishman missionary in the region,

John Heckewelder. His map, currently in the Western Reserve Historical Society Archives, shows the path connecting the Nation Peoples' villages along the Mahoning. A settlement close set to the confluence with the Beaver is marked, and perhaps Kuskuskie. The settlement moved and transitioned as Lenape peoples were pushed westward.

Heading westward, the vistas to the valley below do have a timelessness that seems to harken to an original gaze, when the trains aren't going by. Then the path descends toward the river again to pass beneath the bridge that brings 422 to the other side of the Mahoning. On either side of the modern 422 (itself on old road and stagecoach line) are two Pennsylvania state historical markers, a historic Native American site and a settler cemetery.

Nearest the Stavich Trail the first marker, placed in 1947, tells of the "Cross Cut Canal" the colloquial name of the P&O. It states, "The Pennsylvania and Ohio Canal, in use 1838-1872. Chartered by both states, 1827. Joined Beaver Canal just below New Castle, linking Pittsburgh with Youngstown and Cleveland. Followed Mahoning River on line of present railroad."⁸²

Crossing the 422 bridge toward Edinburg, the next marker is for KusKuskie. It was documented by Colonel Bouquet in 1766 as a Lenape (Delaware) settlement, who were originally from further east (as the Europeans' name imposed implies).

Adjoining the markers telling of Kuskuskie is a tangible artifact to the early United States claim of the land. The British, as the victors in the French Indian War (Seven Years War), laid claim, however the crown forbade settlement west of the Alleghenies. This led to one of the early breaking points to the land speculator and general who helped them win the Seven Years War, and would go on to lead the Revolution: George Washington. After the revolution when the new nation did not have the cash to compensate the soldiers who served, land grants were used and held drive settlement. Thus, the artifact here is a Revolutionary War Soldiers cemetery, including the grave of Joseph Ashton.

Further west in Ohio were lands called the Firelands, that were used by the State of Connecticut to compensate those whose property was torched in the revolution. The rest of Connecticut's land was turned over to a private Land Company for speculation. Thus as you continue on the Stavich you enter Ohio, specifically the Western Reserve, and enter into a turbulent history of Indigenous Peoples, ridiculous European royal edict and private real estate speculation, turn world renown community, industrial, and cultural powerhouse, to poster child of deindustrialization and rebirth.

In 1662 King Charles II granted Connecticut above the 41 parallel boundary from their Atlantic boundary all the way to the western Ocean. He did so not understanding

⁸² "Cross-Cut Canal." Pennsylvania Historical & Museum Commission. 1947. Edinburg, PA

where the Pacific Ocean was, without consideration of the European Powers that also claimed the territory, and certainly most dismissively to the Native Nations residing there.

The French who also claimed this territory, had an extensive trade network in conjunction with Native Peoples, especially in fur. Though after losing the French Indian War (1763), it paved the way for Connecticut to make good on Charles II's deed. Meanwhile more and more Euro settlers were heading west to settle the frontier, which led to significant conflict with the Native Tribes. A Pan-Indian identity was forming, especially through the leader Pontiac. In 1763 Colonel Bouquet ended the Native revolt. This "expedition" also led to the production of a map.

At the end of the American Revolution, after a number of compromises, what was left of the lands, besides the Firelands, were privatized to benefit the formation of a Connecticut public school system (with no consideration or compensation for who was already living there).

In 1796 a former general named Cleaveland, was employed by the private land company to explore and plot out. Beginning in Buffalo, he misled the representing Native peoples who had presence and claim to the land. Red Coat saw through it stating,

You white people make a great parade about religion, you say you have a book of laws and rules which was given you by the Great Spirit, but is this true? Was it written by his own hand and given to you? No, says he, it was written by your own people. They do it to deceive you. Their whole wishes center here (pointing to his pocket), all they want is the money. . . He says white people tell them, they wish to come and live among them as brothers, and learn them agriculture. So they bring on implements of husbandry and presents, tell them good stories, and all appears honest. But when they are gone all appears as a dream. Our land is taken from us⁸³

The tide had turned and the native presence of Ohio, was largely muted for generations though recent efforts, and official state acknowledgment are leading to revival, and full story of the area's history.

Riding further along the Stavich trail, signs of the industry that put Youngstown on the map emerge. Unfortunately the trail then abruptly stops, just shy of downtown Struthers. With the proposed Mahoning Valley Greenway an accessible and official trail will continue, but for now we will have to go along the not yet completed route. Here is the significant site of the industrial corridor that connected Struthers, Youngstown, Girard, Niles, Warren.

⁸³ "Red Jacket's Speech." June 23 1796. Encyclopedia of Cleveland History. Case Western Reserve University.

Struthers-Youngstown

From where the Stavich Trail ends in Struthers, the next 4 miles to Youngstown's downtown are packed with industrial history. The site of the Mahoning Trail set the stage for the settlement of the area, beginning with Indigenous people brought there by the ample hunting opportunities and valuable salt sources. The trail useful for commerce through the region especially the early fur trade. As European-American settlement expanded westward though, they disregarded their earlier treaties and pushed the Native Americans out.

One of the first sites you see after the Stavich ends is the old P&LE railroad tower. The now dilapidated landmark, would make a great rehabilitation project for interpretation along the trail. As the notable Station Square in Pittsburgh was the headquarters on P&LE it would be a fine connection by rail and trail.

Continuing on, downtown Struthers is well worth the ever slight diversion from the path. Here, Selah restaurant, situated in an old bank building, exemplifies atmosphere and faire for anywhere, but is unique to Struthers. The small downtown features a few other historic structures as well.

Upstream along the Mahoning, leads to Youngstown Sheet and tube "Campbell Works." land. The remaining structure of a damn/ bridge that spanned the Mahoning, which was used to transport coke from the ovens on the south bank to the blast furnaces on the North banks was recently demolished. While a thought for historic preservation of everything was present, in this case it was good to remove for the sake of rehabilitated the river as a water trail.

At Haselton, a marker by the trail being crossed above by the Center St bridge, we enter Republic Steel. The canal came through here, but its dominance would be short lived as "the arrival of the first train to Youngstown on Nov 12, 1856 was a major event for the city and the beginning of a slow decline for the canal."⁸⁴ As the coal, iron, and steel industry grew, the railroad supplanted the canal along this route, increasing the flow of people and goods exponentially.

Because of Youngstown's location, it had to be served by railroads: four "trunk lines," or long-distance railroads, and the Pittsburgh and Lake Erie—the "Little Giant"—probably most recognizable by its logos, which can still be seen on Station Square in Pittsburgh. All five criss-crossed the area on the city's east side, which local lore says saw more freight traffic, on a daily basis, than anywhere else in the country.⁸⁵

⁸⁴ Guerri. Vince. "Mike's Big Ditch." Beltway Magazine. August 28, 2019 <https://beltmag.com/kirwan-canal-lake-erie-ohio-river/>

⁸⁵ *Ibid*

Though no longer carrying the same volume of activity, this railway interchange is still active along the path route, near where the Center Street Bridge crosses the Mahoning. The aesthetics of this area today are a stark contrast to the industrial heyday when mills spanned past Youngstown into Warren.

New blast furnaces were built here 1900. Iron was taken along this route down to downtown Youngstown where they also built Bessemer Converters in that year, on the site that already featured an established iron operation older operation. Beginning with the Wicks in 1846, an iron rolling mill was built. In the 1850s the Phoenix and Falcon Blast furnaces were constructed between Crab Creek and Market Street. As you near this critical crab creek juncture you see the continued dominance of rail in an active crossing. On the horizon though, a whole new post industrial economy in the shells of the old, including Youngstown Flea and Penguin City Beer. This “Crab Creek Crossing” area has a great potential for being the gateway into the city from the East.

Along the current Norfolk Southern tracks between Crab Creek and South ave is land that Youngstown Tube plans to develop for their operations (but with still plenty of potential room for trail between there and the Mahoning river). This would be a positive re-industrialization, combining industry with the new post industrial presence of Youngstown. On the other side of South Ave is the Covelli Center, an arena owned by the city, obtained in part through federal funds secured by Congressman Jim Traficant. A new statue commemorates the handshake between Jackie Robinson and Youngstown Native George Shuba along with the photo opportunity Youngstown sign. The city-owned park continues on the other side of the Market St bridge with the new city amphitheater on the site of the old Wean United Foundry, where some locks to the Panama Canal were made. The edge of the park ends with the spring that marks the site of John Young meeting with the Geore Shehy and Hillman (Young went back to Connecticut, though in fairness his wife Mary was sick).

From here it is rather hard traveling until you get to a nice smooth road paved in the operating V&M star steel mill. This area, known as Brier Hill, has a long history of the industry dating back to the 1830s. And was especially critical thanks to the high quality coal found there.

In the early 19th century, the steadily growing settlement received a strong boost with the discovery of “super” enriched block coal in the hillsides bordering on the Mahoning at “Brier Hill.” This set the stage for iron, and later steel production. Yet it may have come to naught without greater connectivity, but in the nick of time came the canal. As Ronald Reid wrote in *Canal Heritage of Youngstown, OH*, the town’s early iron furnaces were “fledgling” before the canal. Youngstown’s fortune would change quickly:

In 1840 a Welsh coal miner, Thomas Davis, came to Youngstown and leased a coal bank owned by Peter Werts. Mr. Davis sent the first coal shipment from Youngstown via canal barge to Ravenna. During the

autumn of 1841 he was credited with the discovery of coal under a region of vine covered land, now known as Briar Hill, owned by David Tod. The future Civil War Governor of Ohio, and perhaps the most illustrious native son of Youngstown, David Tod (1805-1868) had been one of the original stockholders of the Pennsylvania and Ohio Canal Company. Tod, with the assistance of Davis, William Rayen, and Jeremiah Stambaugh established a mine and built a short railway down to the canal, thus launching the thriving coal industry in the Youngstown area in the 19th Century.⁸⁶

Remnants of the mills are seen throughout this stretch, amongst other industries. In the space between downtown Youngstown and the river, form mill and foundry site of the Wean United, which produced some lock components for the Panama Canal, is now the site of the Wean Community Park and site of the city's new amphitheater and its Covelli Center. A plot of land on the other side of the South Avenue bridge was the site of a Bessemer furnace. As suggested by Youngstown State Professor Dr. Tom Leary, perhaps that could potentially be the site of a *Bessemer Park*.

Under the Mahoning Ave bridge spanning the river (know as the "Peanut-man bridge" for its adorning Planter's mascot) is the site of the spring flowing into the Mahoning which marks the site of John Young, James Hillman, and Daniel Shehy officially founded the town. A monument commemorates it on Federal Street level and across the river is a bust of Young, near the historic Baltimore & Ohio Train Station.

Continuing along the former canal path on the north/ east side of the river, it intersects with the proposed "Y-line." A former railway line with its impressive bridges, that also has great recreation potential. Councilman Mike Ray Jr. features this space on his "Urban Safari" Jeep tours. Hopefully this too can be redeveloped for an accessible trail.

One large steel facility still produces on the border of Youngstown and Girard at Vallourec. There are no longer blast furnaces, like the adjacent site of the *Jenny* which Bruce Springsteen sang of, these mills use scrap metal to produce steel pipes. Though Vallourec had hoped to capitalize off of the fracking boom which never fully materialized, it is still active.

In addition to the sites of production, some preserved spots along the route also provide a testament to the steel legacy in the community's culture. One such spot is the preserved mill bar and social space at the American Ukrainian Progressive Club. Councilman Mike Ray has acquired this space and is working to restore the site. Keeping the bar as is, and adapting the upstairs apartments into hostels. This will provide immersion in the history and accommodations for the traveler through the Steel Valley National Heritage Area. Though built in the 1920s, the period of significance preserved is from a 1970s remodel. Like walking into the bar scene from *Deerhunter* it

⁸⁶ Reid, Ronald D. *Canal Heritage of Youngstown, OH*. 1981

sits across the former site of the Jeanette Blast Furnace, with the active railway between. The passing trains within stone's throw preserves the industrial feel.

Girard

Upon entering into Girard you see multiple lines of track, much of which abandoned, including a large dilapidated coal feeder with a collapsed tower. As the space between the riverfront and the town grows so too does the space between the railroad lines. Tracks in the mud and the sound in the distance indicate many of these paths have already been repurposed for dirt bikes and ATV. Following along it is easy to imagine both the finished Mahoning River Greenway, and dirt tracks for the ATVs to coexist.

Following along the line close to the river or along the higher elevation of the hill you see a lovely vista of the river and with McDonald Steel perched on the other side of the Mahoning. Following along a wide service road directly leads you to Summit Rd as you enter Niles.

Niles

Continuing along the path through Girard and into Niles brings you to where it would intersect with the Western Reserve Greenway Trail. This intersection would make a good space for exhibition and interpretation. For instance being in Niles, it may commemorate the 1926 Ku Klux Klan defeat by an organized mob, predominately of Italian Americans, other immigrants and allies.

One significant spot to Native Peoples', and the early Euro settlers that was the first to be sold off by the Connecticut Land Company was the Salt Springs. These Springs give the Mahoning its name, interpreted as "at the salt lick." General Parsons bought them in 1789, and then drowned on his way back to Connecticut. It was the first attempt at industry, but the salinity was too low to sustain it. In 1952 the B&O covered a significant portion for a train line,⁸⁷ and no indication remains, besides a historical marker down the road near the Western Reserve Greenway, not far from where the east-west Mahoning River Greenway will intersect.

A salt spring, located about a mile west of this site, was the primary attraction for immigrants to the Western Reserve territory in the mid-1700s. Prior to European-American settlement, Indians used the springs, boiling the water to extract the salt and using it for preserving meat among other uses. In 1755, surveyor Lewis Evans underscored the importance of the springs by noting it on his "General Map of the Middle British Colonies in America."... Although new settlers initially considered the springs an asset, the salinity of the water was too low to make the salt production profitable. In 1903, railroad tracks covered the

⁸⁷ "Where are and what were the Salt Springs." Mahoning Valley History. October 18, 2007. <http://mahoninghistory.blogspot.com/2007/10/where-were-and-what-are-salt-springs.html>

once-famous salt springs. “Mahoning” is said to be derived from the Lenape word mahonink, meaning “at the [salt] lick.”⁸⁸

Coming into Niles on the future greenway, brings you under the Main Street bridge. The downtown is visible and nearby, and certainly worth a visit. Highlights include the McKinley Memorial and Library, which Joseph G Butler commissioned McKim, Mead, and White to build for his boyhood friend.

The river takes some dramatic turns at this point westward, but at the city’s Waddell Park, an abandoned railroad leads you directly Northwesterly into Warren. Unfortunately this line is a few years overgrown and directly impassable, but in following a hill-crest between it and the river it is manageable in winter and early spring. As the abandoned segment merges with active rail it takes you into largely vacant and postindustrial land including a large retaining pond. Passing the boundary into Warren you enter one of the largest (literal) brownfields of the journey.

Warren

The sign for RG Steel remains at the former entrance, but the mammoth site of the former steel mill has all been demolished. Across the river the coke plant, now part of Cleveland Cliffs continues to operate and its size, even from a distance, gives an indication of what a massive operation this must have been. This section entering into downtown shows some wear and tear from the past 180 years, from the industry that sprang up around the canal, to the steel mills to deindustrialization, but the charming downtown with its beautiful court house is just a stones throw from the future trail. Another testament to the history of transportation in the area is the Packard Museum upriver adjacent to downtown. Other points on interest include the Kinsman House, a grand Greek Revival, accompanied by other historic structures, such as the suffragette Upton house along the “millionaire’s row.” As the Western Reserve Greenway also passes through Warren, these paths could play a significant role in revitalization and extending the charm beyond the square and Perkins Park.

Crossing Main Ave south of the downtown, the abandoned rail line heads due west, and crosses the Mahoning, placing us on its western bank for the first time on the MRG. This line is perfectly situated for the trail, though in its current state, with the large rocks filling the void of the tracks, it is hard traveling. Fortunately a parallel mud path makes it somewhat easier to traverse into Leavittsburg. Utilizing this route makes sense for the Mahoning River Greenway, though if you stay true to the river and former canal path it will be lead to some mysteries of the region.

The Mystery Oval of the Mahoning

⁸⁸ “The Salt Springs.” Ohio History Marker. Ohio History Connection. 2016

Continuing on past Warren, just west of Leavittsburg and the spot where Eagle Creek flows into the Mahoning is a remarkable place. The P&O Canal followed along the northern Eagle Creek tributary, before turning back South to rejoin the Mahoning between Braceville and Newton Falls. The many twists and turns of the Mahoning in the bypassed section, certainly makes the P&O's divergence rational. Perhaps the most distinctive spot in the river's entire winding course is in this area. On the satellite imagery it looks like the Greek letter Ω , as within its extent is a perfect oval.

Approaching this area in December 2020 was all the more eerie, as it appeared a tornado or some disaster recently hit the area. Some small trees remained, but otherwise, it looked wiped out. Continuing down Park Rd. it dead ends at the Mahoning River next to a single house, with the stone footers of an old bridge still on either side of the water where the road once joined.

Turning into the oval region, the path is clear to make a 360° trip around. The dirt track on satellite imagery is now green. Though clearly the oval is a more recent creation, the distinctive site must have made an ideal place for Native Americans. The mound in the center of the oval maybe of older origins, as the Hopewell mound in Towner's Park further west.

Returning to the road, fortunately the homeowner came down his driveway, and was able to solve some of the mysteries. The oval is a dirt bike track he built with his son. The deforestation was recently carried out by the Amish hired out by property owners out of Cleveland, who saw the old growth as the only source of value for the land. The fate of the former bridge he claims is the area's best kept secret. It was once the "longest freestanding bridge in Ohio" he claims, "Until sometime in the 1950s as a Halloween prank some kids burnt it down." As for the Indigenous Peoples use of the site, he confirms to have found many artifacts over the years.

Leavittsburg

A small downtown, featuring a small grocery mart with some great food, marks Leavittsburg. Just across W Market at the riverbed is Canoe City, part of Trumbull Co. Metroparks. Here a small walking path meanders and the Mahoning River Adventures Kayak rental business operates. Currently on the river it is the site of a dangerous dam slated for removal. This has created some tension for pontoon boaters of the area who use the high water side as a small lake. The added benefits of both the greenway and blueway passing through the community will hopefully sway any reasonable detractors.

The trail continues past Leavittsburg following the abandoned rail line. Once again, nearing where route 5 overpasses, the use of the area by dirt bikes and ATVs is visible. Eastern Gateway's Regional Council of Governments' conceptual trail map shows the trail splitting in two as you near Garfield Airbase. We take the branch to the left at Braceville, toward Newton Falls.

Braceville

A small, seemingly forgotten town, was once bustling from the canal, and even had a Fourierist Phalynx socialist utopian commune.⁸⁹ With the Trumbull County, Portage Co., and Eastgate Regional Council of Governments' trail plans this town can benefit greatly as an intersection. Just west of Braceville Community Park the abandoned rail line splits in two. On our route here we will take the southern spur to the left to follow the former canal and interurban route through Newton Falls, West Branch State Park, and into Ravenna. However continuing due west takes you along the northern boundary, of the Camp James. A. Garfield Training Center. This is a much more direct route to Ravenna, and is what turns into the Portage Co. Hike & Bike trail. Executive Director of the Portage Park District Christine Craycroft states that is the plan, but the ownership of the abandoned line is not yet ready to part with it.⁹⁰

Turning left, southwest, at the Braceville Fork, the abandoned rail line between here and New Castle is a pleasant green-space, neatly level and green, smooth riding despite a grass surface and a few fallen trees. Smooth riding, that is until you get to a wide creek where the original bridge was removed. Balancing upon fallen trees with a bicycle, it is crossable, however it will be ideal to have the bridge constructed for the MRG. The other side of the bridge is significantly more overgrown, but if you persevere until where route 5 crosses, you can then take the parallel First Street into Newton Falls.

Newton Falls

Near the corner of E Main and High St in Newton Falls, a dedicated path will take you along the quaint community park. Newton Falls gives many clues to its transportation history: Canal St, Railroad St, Cable Line Rd. Being a unique area with its falls, and where the East and West Branches of the Mahoning come together, it is likely to have been a significant spot for millennia. Heckewelder's map indicates that with the "old Indian town" labeled in the vicinity. Visiting today's downtown, it is a lovely main street with some charming cafés.

Continuing on the course, past the where the current dedicated trail ends with the park, leads to Railroad Street. The former interurban route is overgrown past the

⁸⁹ Sells, Grace. *The History of Braceville Township, Trumbull County, Ohio*. Warren Historical Society 1976

⁹⁰ Author's Correspondence

point of current travel, however the way can be made to West Branch by cutting across the connecting roads of Bright Baldwin and McClain.

West Branch State Park

As it is state owned, West Branch should be the ideal section of trail, however it is currently one of the most difficult areas to traverse. For sections that overlap with current trail it is very pleasant, with serene views of the reservoir. Contrarily though, are the areas relying upon the course cut for high tension lines, with deep ravines between steep peaks. Finally a very large ravine, significantly submerged by the reservoir, forces the traveller to move toward the rail line as the only passable point. From there the active rail line continues straight to Ravenna. Approaching the city, just a bit eastward is where the P&O canal route rejoins the line. Before this point, south of the rail line, along the former course of canal and interurban are mysteries only partially submerged by the 1966 damming of the West Branch of the Mahoning.

Kirwin's Peculiar Peninsula

In 1966 the section of the Mahoning at the heart of West Branch State Park was dammed to create Kirwin Reservoir. Amongst many Army Corps of Engineer projects in Ohio in the postwar period, Kirwin Reservoir changed the landscape and waterways.

“Authorized by the Flood Control Act of 1958, the Michael J. Kirwan Dam and Reservoir is one of 16 flood control projects in the Pittsburgh District. The project provides flood protection for the Mahoning River Valley and the Beaver and upper Ohio River.”⁹¹

“In 1965, the U.S. Army Corps of Engineers completed construction of the Michael J. Kirwan Reservoir. The reservoir was developed for flood control, water supply, recreation and fish and wildlife management. West Branch State Park was formally opened in 1966.”⁹²

In addition to the water recreation activities and fishing, the park features some mountain bike and hiking trails, though accessible multi-use pathways are lacking.

"The 12 miles of mountain bike trails, developed by the Cleveland Area Mountainbike Association, at West Branch State Park offer an outstanding biking experience and have earned a five star rating. The lakeside portion of the trail

⁹¹ “Michael J. Kirwan Dam and Reservoir.” US Army Corps of Engineers Pittsburgh District Website. <https://www.lrp.usace.army.mil/Missions/Recreation/Lakes/Michael-J-Kirwan-Dam-Reservoir/>

⁹² “West Branch” Ohio State Parks. https://www.stateparks.com/west_branch_state_park_in_ohio.html

consists of flowing single-track that traces along the shore of the reservoir and includes many short climbs and descents in and out of the ravines that line the lake. ⁹³”

The Buckeye Trail also intersects at this section, through which the former P&O canal towpath lies, and at the proposed Mahoning River Greenway at 81.162, 41.149. This 1,444 mile hiking trail forming a circle inside the boundaries of Ohio was first charted out in 1958. Simply designated by “blue blazes” on trees, it is a most rustic trail. A non profit social organization promotes hiking the trail.⁹⁴

The canal towpath went directly through the space, yet any indication of this is lacking, except perhaps for one particular peculiar peninsula. On the west side of the lake is a jut of land looking much like the width of a canal path. Interestingly it is above the water, but upon passing Knapp Rd it becomes a valley. Looking to be man made, it continues on until reaching a field adjacent to route 14 running into Ravenna. There stands a historical marker. Though not mentioning the site of the canal, it does tell the story of Benjamin Tappan Jr., who was instrumental in commissioning it.

The founder of Ravenna Township in 1799, Benjamin Tappan, Jr led a distinguished life of public service. An aggressive force in local politics, he served in the Ohio Senate from 1803 to 1805, as judge of the fifth circuit court of common pleas from 1816 to 1823, and as federal district judge from 1826 to 1833. Tappan served as aide-de-camp to Major General Elijah Wadsworth following the surrender of Detroit in the War of 1812, provisioning and arming local militia units defending the northwestern frontier against a possible British invasion.⁹⁵

In February of 2022, part of the author’s perplexion with the peculiar peninsula was enlightened. A mechanic with a garage in Charlestown, said it is a remnant of the interurban. It is still unknown however if the interurban followed the exact route as the canal, though the georeference of the 1828 canal survey seems to align.

In making it to downtown Ravenna the journey of the proposed Mahoning River Greenway ends, but the path of the former P&O continues, and aligns with the fine smooth surface of the Portage County Hike & Bike.

Ravenna-Kent: The Portage County Hike & Bike Trail

⁹³ “Michael J. Kirwan Dam and Reservoir.” US Army Corps of Engineers Pittsburgh District Website. <https://www.lrp.usace.army.mil/Missions/Recreation/Lakes/Michael-J-Kirwan-Dam-Reservoir/>

⁹⁴ “Buckeye Trail.” Buckeye Trail Association. 2022 <https://buckeyetrail.org>

⁹⁵ “Benjamin Tappan Jr. (1773-1857)” Ohio Historical Marker. Ohio Bicentennial Commission. 2000.

Of all the trails in Ohio, this might be the ideal for what an interpreted accessible trail should be. In addition to fine paving largely uninterrupted by cross traffic, it also features some stellar historic interpretation markers.

Making your way out of Ravenna, leads through Towner's Park. Here it is only a stone's throw from "The Portage" to a (not quite universally accessible) hike only path to a Hopewell mound. Here is proof these trails have been used through the ages. A mound dating from the Hopewell people is indicated with a commemorative marker stone.

"Between 300 B.C. and 600 A.D. a prehistoric culture called the Hopewell flourished in Ohio. Evidence compiled indicates that the religion and lifestyle of these people revolved around a mysterious worship of the dead. The 1932 excavation of this small mound, with its eleven burials, unearthed numerous unique artifact that contributed to a better understanding of Ancient Peoples in northern Ohio."⁹⁶

Across from Towner's Park is one of the few natural lakes of the region: Brady Lake. As the canal towpath diverted from the Mahoning just east of Ravenna, this provided a critical water source for the canal. It was named for Captain Samuel Brady. Early in his military career as a newly commissioned Lieutenant in the Revolutionary War he crossed the Potomac with Washington to attack the Hessians at Trenton. As he rose through the ranks with daring military valor, he was deployed further west along the from the Pennsylvania frontier where he was raised. Condemnable, however, was his indiscriminate vengeance against Native Americans in retaliation for his family members casualties in raids.

Ironically, while the lake named in his honor provided the canal with a water source a generation after his death, further west after along the Cuyahoga River at Kent, OH his leap site destroyed to make room for the P&O canal. One of the many legends about Samuel Brady, his escape from the captivity of Wyndot warriors by jumping across a Cuyahoga River gorge is the most note worthy. As Donahue Ellis describes the event in *The Cuyahoga*:

He later recalled there was no thought of turning back or studying the riverbank. When he hit the escarpment, he sprang. The Indians stood stunned. None followed. The leap was not level. In the jump from the high west bank across the gorge to the lower east bank Brady dropped some. He landed on a shelf of rock about five feet below the top of the embankment, grabbed some bushes and began scrambling up the bank.

By now several Indians recovered from amazement and aimed rifles. One shot hit Brady in the right thigh, but he pumped his legs unmercifully, cleared the top, and dropped out of their sight. He stumbled now over

⁹⁶ Towner Mound marker. Unattributed. Circa 1950s

familiar ground to a place he knew which already bore his name from a previous Indian fight, Brady Lake...

In 1840 the engineers building the Ohio-Pennsylvania Canal turned this part of the Cuyahoga into slack water by widening and damming the river. Beyond that, they cut one bank of the canyon way down to build a canal towpath alongside⁹⁷

In addition to the commemorations of Brady, the amount of interpreted panels increase as you travel into Kent. It is also in this area that the P&O canal meets the Cuyahoga River, following its path for approximately 25 miles westward. Standing Stone is a significant site in the Cuyahoga here, and it has an interpreted panel devoted to it along the trail.

Like a sentry guarding the Cuyahoga' River's entrance to Kent, this sandstone formation, looking like a table in the middle of the stream, has long been a geographical point of interest. No one knows whose footsteps first visited this site, but from the time that there are records and maps, this place has been cited as a prominent landmark and a Native American meeting place along the Mahoning Trail... Nearby areas have yielded artifacts dating back thousands of years to the Paleo-Indian civilization located in this part of what is now Ohio.⁹⁸

The panel also includes the reproduction of writings by an early white settler on the rock. Unfortunately for Standing Stone and Brady's exploits, as with much of the record, Native voices and their valuable perspective are absent from the area.

Kent- Akron: Summit County Freedom Trail.

Just beyond Kent, entering into Summit county, the trail continues as *the Freedom Trail* through Tallmadge and into Akron, OH. Just as the P&O Canal once did, this becomes an important intersection where it meets the Ohio to Erie Canal, now a trail running from Cleveland to New Philadelphia. South of Akron at Massillon, a western path continues onto Columbus and Cincinnati as the Ohio to Erie Trail/ Bicycle Route 1.

Due to how active transportation trails are funded and managed, county lines often mark a drastic transition. Here it is only a minor inconvenience, with only a slight misalignment leading the hike or biker to where the trail continues just down Middlebury Road.

⁹⁷ William Donohue Ellis. *The Cuyahoga*. (Web edition. Cleveland State University Library.)<http://www.clevelandmemory.org/ellis/chap05.html>

⁹⁸ Catherine & Emliss Ricks. *Standing Stone*. Kent Parks & Recreation. Kent, OH

Now in Summit County it is called the “Freedom Trail” and continues pleasantly westward. Coming into downtown Tallmadge is a charming Mexican Restaurant featuring a train cars and appropriately named El Tren. Though this former railroad line, is somewhat south of where the P&O ran, it rejoins in Akron.

Akron

As the P&O Canal joined to the Ohio & Erie Canal, enabling the packet boat to either make a left to head toward the Ohio River or right to go up to Lake Erie at Cleveland, so too can you choose upon reaching Akron.

Unfortunately the trails do not directly connect, but it is just a brief jaunt down Martin Luther King Jr. Blvd. from the Freedom trail to the Ohio & Erie Canal Towpath Trail. The towpath trail is rich with interpretation with National Park Service oversight.

An afterward of the various connecting trails will follow, but more important for Mahoning Valley connectivity we will go back to the crossroads where the Mahoning River Greenway intersects with the Western Reserve Greenway in Niles, OH

North/ South: The Western Reserve Greenway Trail

Along the south-north axis, the *Western Reserve Greenway Trail* ultimately will connect the Ohio River at East Liverpool, OH to Ashtabula, OH at Lake Erie. Most of this accessible trail has been constructed. Though it follows the course of a former rail line, it also coincides with Native American paths, canal towpaths, and the Underground Railroad.

Along the 16 miles from Lisbon, through Leetonia to Washingtonville, OH, a story of that early history is clearly told, along with the site of one of the most interesting remaining artifacts, the Cherry Valley Beehive Coke Ovens. This trail is known as the Little Beaver Creek Greenway.

The Little Beaver Creek Greenway

The fastest way to travel from Youngstown, OH to Leetonia is by automobile on route 11. The highway, completed in 1972 as an extension of the Eisenhower Interstate System, connects the Eastern edge of Ohio from top to bottom: Lake Erie at Ashtabula to the Ohio River at East Liverpool. On the freeway, contained in cars between the guardrails you will certainly miss them, but along the way there are intricate layers worth exploring. Along the Little Beaver Creek Greenway Trail, running from Washingtonville, through Leetonia, and into Lisbon, a significantly different transportation option exists.

Eventually this trail will connect with others to complete the Great Ohio Lake to River Greenway, running parallel with rt.11 for its entire course.⁹⁹ In the meantime, since its dedication in 2000, the 13 miles comprising this bicycle, walk, and run trail along Cherry Valley Creek and the Little Beaver provide an immersive experience of those intricate layers, including geography, history, industry, commerce, and transportation.

The first trail blazers in the region were the glaciers which formed the rivers and valleys over thousands of years.¹⁰⁰ Along the Greenway Trail you can see where they cut through rock and produced dramatic vistas. The earliest known inhabitants of the area to follow these natural paths were Native Americans known as the Mound Builders, and later tribes such as the Wyandots, Mingoes, and Delawares.¹⁰¹ European colonists pushed many indigenous people from the east onto these lands. Then as a newly independent United States, the government sought to divide up the land for white settlement, further pushing Native Peoples further westward.

Lisbon, Oh was officially “settled” in 1803.¹⁰² Around the same time, just north-west along the Little Beaver Creek, a small settlement of Prussian immigrants established Teegarden. First constructing a grist mill, and then a coal mining operation, As stated on a historical marker along the trail.

[Nearby are] deep mines of the B.F. Lewis Coal and Iron Company. Extensive deposits of kidney ore were also mined here and shipped on the Erie Railroad (currently the Greenway Bike Trail) to the Cherry Valley and Grafton Furnaces at Leetonia and the Rebecca Furnace at McKinley Crossing near Lisbon.”¹⁰³

In 1836 Lock 27 of the Sandy and Beaver Canal was dedicated in Lisbon. When the canal was completed in 1848 it connected the Ohio River at Glasgow, Pennsylvania to the Ohio and Erie Canal at Bolivar, OH.¹⁰⁴ Only 4 years later, the canal ceased operations, after a reservoir in Lisbon collapsed. Regardless of the disaster, canals in

⁹⁹ *Great Ohio Lake to River Greenway*. State of Ohio website <https://ohio.org/wps/portal/gov/tourism/things-to-do/destinations/great-ohio-lake-to-river-greenway>

¹⁰⁰ “Ohio's Land Today is Because of What Happened Yesterday.” *Touring Ohio*. Ohio City Production 2022 <http://touringohio.com/history/ohio-5-regions.html>

¹⁰¹ “Historical Sketch of Columbiana County.” Columbiana Courts. <http://www.columbianacounty.org/history>

¹⁰² *Ibid*

¹⁰³ “Teegarden- Centennial Covered Bridge Association.” Ohio Historical Marker. Teegarden, OH. The Ohio Historical Society 2003

¹⁰⁴ “Lock 27 Stone Lockplate.” Historical Marker. Lisbon, OH

general were quickly being made obsolete by railroads. 1852, The same year the Sandy and Beaver Canal was discontinued, the Cleveland and Pittsburgh Railroad began operations.¹⁰⁵ More railroads in the region followed, and the line that now comprises the Little Beaver Greenway Trail, was built 1886 by the P.L. & W. Railroad.¹⁰⁶ It later became part of the Erie Lackawanna Railway. Mirroring the canal's 1852 death knell of water disaster and changing technology: in 1972 (the year rt.11 was completed) record floods resulting from Hurricane Agnes crippled Erie Lackawanna and led to its demise.¹⁰⁷

The mid 1800s expansion of the railroads and iron production, also greatly expanded the demand for coke, the “superfuel” made by burning impurities out of coal. Around 1866, 6 miles northeast from the coal mines at Teegarden, the Leetonia Iron and Coal Company out of New York constructed 200 “beehive” coke ovens, and founded the eponymously named village. A blast furnace was completed a year later at the site, but the coke produced was also used to fuel many other iron making operations. The site continued to operate until the 1930s, but was then abandoned. Only the decaying beehive ovens survived, weathering and some crumbling through the years. In 1993 they were placed on the National Register of Historic Places.¹⁰⁸ A very informative sign created as an Eagle Scout project in 2017 marks the point on the Greenway Trail to turn onto a gravel path the short distance to the ovens.

Between the remains of the coke ovens and the town, a concrete plant divides the Little Beaver Greenway Trail, routing its travelers through the village of Leetonia. The town's architecture reflects the closing of the ovens in the 1930s. Many of the buildings, especially banks, have been adaptively reused into a few small businesses. Some clues to the immigrant labor that built the canals and worked the coke ovens and iron mills remain. St. Patrick Church and School is catty-corner to the Italian American Club at Elm St. and Main.

Having an interpreted accessible path connect this valley is more than recreational. It proves that historic preservation through adaptive reuse, is not merely for architecture. The former railway line in its new incarnation maintains the routes and helps make sense of the interconnectivity of the region. Traversing along the nicely asphalted path allows for transportation in space and time, as one can imagine the history of the valley, from glaciers to footpaths, canals, and railroad, and the accompanying industries. Active examples and decaying traces of each of these modes of transportation are seen along the route from Washingtonville through Leetonia and into Lisbon. While the dedicated, motor free path keeps one safe from

¹⁰⁵ “Sandy and Beaver Canal.” Ohio Department of Natural Resources. <https://ohiodnr.gov/go-and-do/plan-a-visit/find-a-property/sandy-and-beaver-canal>

¹⁰⁶ “P.L.&W.” Historical Marker. Train Station. Lisbon, OH

¹⁰⁷ Burns, Adam. “Erie Lackawanna Railway.” American-Rails.com. <https://www.american-rails.com/lackawanna.html>

¹⁰⁸ “Beehive Coke Ovens.” Ohio Historical Marker. Leetonia, OH

automobile traffic, when arriving in downtown Lisbon, we see the crossroads of one of the most significant evolutions in the ascendancy of the automobile. Route 30, the Lincoln Highway, the nation's first coast to coast national road, built in 1913, runs through the downtown.

Thinking of historic preservation, not merely as saving specific sites, but also the transportation routes between, provides better context, along with numerous other benefits along the way. Small towns welcome the commerce of travelers, who would otherwise just whiz by on the interstate. Citizens are afforded exercise and recreation providing for better quality of life. Free from carbon burning; cycling, running, and walking provide an environmentally conscious form of transport, allowing for an experience of nature in stark contrast to the days when the coke ovens and railways unabatedly spewed smoke into the sky. All these eras can be seen and reflected upon in the journey along the Little Beaver Greenway Trail.

The Western Reserve Greenway

Six miles north of Washingtonville the greenway continues. The next 65 miles north to Ashtabula follows the path of a train railway from 1873-1975.

The Western Reserve Greenway follows much of the Pennsylvania Railroad's (PRR) former branch line, extending to the shores of Lake Erie at Ashtabula, Ohio. The route's earliest history dates back to the mid-19th century, although delays in construction and lack of financing resulted in many years passing before rail service actually began. The property eventually came under control of the PRR through various subsidiaries where it was used primarily to funnel iron ore to nearby steel mills in eastern Ohio and western Pennsylvania.¹⁰⁹

Though following the line of a train railway, there are also ample opportunities to tell the story of the Underground Railroad. The sites of stations are not far from the path along the way, many still standing. In Ashtabula County interpretive panels tell the story of UGRR and resistance to slavery by African Americans and their white Abolitionist allies in the area.

Through the trail itself, the story of the Underground Railroad can be refocused on the most important part of the story, those who used it as an escape from chattel slavery. Especially brave were those who travelled back south after successfully escaping in order to liberate others. The documented stations along the way, the homes and businesses used to hide the fugitive traveler, are stories in an of themselves. Highlights along the way, near or on the trail are Loghurst in Canfield, OH,

¹⁰⁹ Rail to Trails Conservancy. "Western Reserve Greenway History". <https://www.trailink.com/trail-history/western-reserve-greenway/>

an 1805 home on route 224, documented to have been a station operated by Jacob and Nancy Barnes.¹¹⁰

In Jefferson, OH, The abolitionist Congressman Joshua Giddings' estate along with his law office, which still stands in the town, were utilized. Nearby in Austinburg, OH, abolitionist and women's right pioneer Betsey Mix Cowles provided shelter. At the Northern terminus of the route is the Hubbard House on Lake Erie in Ashtabula, OH. Built by William and Katharine Hubbard in 1841 on top of the steep slope down to Walnut Beach, it provides a view nearly unchanged since that time. At night, seeing the North Star over the vast dark lake, gives the unsanctioned beach camper who has traveled the distance an opportunity to contemplate the journey made by those under more dire circumstances nearly two centuries prior.

The paved trail is clearly a significant advantage compared to terrain endured by those fugitives navigating at night in unknown territory with vicious bounty hunters seeking them out. Yet this accessibility allows for ADA (Americans with Disabilities Act) safe usage, along with those with other variables to be able to experience. The information panels documenting Underground Railroad activity are valuable addition. Unfortunately they are beginning to show their age twenty years in. Through revitalization and expansion of the story, this line in the network can be one of the most dynamic in telling its story. Having this trail, closed to motor vehicle traffic enables users to enjoy recreation in nature, serves as a form of transportation, and importantly facilitates contemplation of the journey's meaning for those Black Americans who had to escape chattel slavery to secure freedom. Though technically these trails close at dark, it is not ardently enforced, and so one could reflect the journey north, culminating on the beach, below the Hubbard House on Lake Erie.

Connecting trails.

C&O/ GAP

In Washington DC the C&O canal begins. In Cumberland MD it ends, but the trail continues as the Greater Allegheny Passage to Pittsburgh.

Connecting to the Western Reserve Greenway Trail is a work in progress. The Montour Trail in Pennsylvania is being extended to Monaca (where the Beaver river empties into the Ohio), which East Liverpool is connecting its river trail to the PA border. As the Western Reserve Greenway is proposed to extend to East Liverpool, it will significantly unite the nation east of the Mississippi when the Mahoning River Greenway is also complete.

In the meantime between Pittsburgh and the Mahoning Valley, it id best to just take a \$4 NCTA Bus Between Pittsburgh and New Castle, where you can access the Stavich Trail.

¹¹⁰ "Jacob Barnes." Ohio History Connection. https://ohiohistorycentral.org/w/Jacob_Barnes

Ohio to Erie Trail

Following the Ohio & Erie Canal Towpath from Cleveland to Massillon, the trail crosses the state to reach the Ohio River in Cincinnati. Along the way it passes through the Ohio State Capitol of Columbus, and the significant Native American site Fort Ancient.

Conclusion

Certainly these words and the digital representations cannot do justice to experiencing the trails themselves. Beyond a paper or exhibit, this is a continuing mission to make these trails and history, tangible and accessible to all. Whatever brings one to an active transportation trail, be it transportation, recreation, physical/ mental well being, etc. it is a space that all motives and people can coexist. This connectivity between individuals, groups, and communities has an exponential impact, including economic and environmental. In 2019, pre-pandemic, the annual economic impact was estimated by Rails to Trails Conservancy at 138.5 Billion.¹¹¹ With the combination of the pandemic boom of bike sales¹¹², increased fuel costs, and forecasted increase in travel (especially adventure travel)¹¹³, it is critical the Mahoning Valley fills its missing piece to the puzzle. In doing so we find the opportunity to contemplate and share our history while significantly connect the nation north of the Ohio, south of the Great Lakes, east of the Atlantic, and west of the Mississippi.

The completion of the Eastgate Regional Council of Governments' proposed Mahoning River Greenway, and Congress enacting the proposed Steel Valley National Heritage Area, is therefor urged. Then, the real work can begin of making the reconnections, between people and communities, space and time.

Developments to this project, will continue to be posted at www.mahoningmovement.com, feel free to reach out with comments, questions, or travel advice!

¹¹¹ Torsha Bhattacharya, et al. *Active Transportation Transforms America*. Rails to Trails Conservancy. October 2019. https://www.railstotrails.org/media/869945/activetransport_2019-report_final_reduced.pdf

¹¹² Joe Lindsey. "The Pandemic Boom is Here to Stay." *Outside*. January 15, 2021 <https://www.outsideonline.com/outdoor-gear/bikes-and-biking/pandemic-bike-boom-here-stay/>

¹¹³ Christopher Elliott. "Here comes the summer of Adventure Travel." *Forbes*. April 23, 2022. <https://www.forbes.com/sites/christopherelliott/2022/04/23/here-comes-the-summer-of-adventure-travel-how-to-have-yours---if-you-dare/?sh=131b0ccb1f79>

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Appendix.



Office of Representative Michele Lepore-Hagan 58th Ohio House District

April 7, 2021

Tim Ryan
United States Representative, Ohio's 13th District
1126 Longworth HOB
Washington, DC 20515

Dear Congressman Ryan,

It is my pleasure to write a letter of support on behalf of Mahoning Movement - an interpreted accessible path along the Mahoning to connect the Stavich Trail with the Portage Co Hike & Bike trail. This will provide recreation, transportation, history, culture, and economic benefits for our valley. The entirety, in its still evolving state as an interactive map and paper, can be found [here](#).

As the State Representative for Ohio's 58th district, serving the Mahoning Valley, I know firsthand the importance and community impact this project will have. 36 miles of accessible trails will be constructed along the river between Struthers, Youngstown, Girard, Niles, Warren, Leavittsburg, Newton Falls, and Ravenna. It will intersect with the Western Reserve Greenway Trail (Canfield to Ashtabula) in Niles, OH in addition to connecting the Stavich and Portage Co. Hike and Bike trails. This would make the Mahoning Valley a hub for active transportation for the entire region and the nation east of the Mississippi, as these paths ultimately connect to Cincinnati and Washington, DC.

In conclusion, I fully support this request for Community Project Funding because. I urge you to support Mahoning Movement so that it can grow and expand regionally connectivity to benefit our community.

Thank you for your time and consideration.

Respectfully,

Representative Michele Lepore-Hagan
Ohio House District 58

134th General Assembly Committee Assignments
Economic Development, Commerce, and Labor, Ranking Member
Health
Transportation and Public Safety

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LETTER OF SUPPORT

Dear Congressman Ryan,

I would like to express my support for Jacob Haver and his project to create an interpretative accessible path connecting Youngstown, Girard, Niles, Warren and Newton Falls roughly following the historic P&O Canal Path. This path is rich in local and regional history and is significant in our nation's production of iron and steel in the twentieth century.

The Youngstown Historical Center of Industry and Labor houses exhibits, artifacts, documents, photographs, blue prints and more dealing with the Mahoning Valley's instrumental role in industry and labor. We have an annual visitation of 7,000 – 8,000 people from around the U.S. and overseas. Cultural organizations such as the Butler Institute of American Art, the Mahoning Valley Historical Society and the Trumbull County Historical Society (as well as others) also draw visitors from around the country. Construction of an accessible path with historic interpretation would be an asset to the valley and bring in more sightseers who come to the area. A trail would be an additional incentive to tourism and the money that brings in. Once visitors are here they would have an opportunity to visit local cultural institutions, stay in local hotels, visit Mill Creek Metro Park, eat at our many restaurants and shop at local malls and businesses.

Our support would be in the manner of providing access to the museum, archives, and professional guidance in research, writing, and construction of digital exhibits for the path. We would also promote it on our social media platforms and provide space for public presentation of the project as well as aid in creation of programs and exhibits to support the path.

The museum and staff fully support this project and will provide Jacob with any aid that we can to make it a success.

Sincerely,

Marcelle R. Wilson, Ph.D.
Site Manager

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Julius T. Oliver

1st Ward Council. Youngstown, OH

P.O. Box 6755. Yo,OH 44501.

Dear Congressman Ryan,

As you know I've been dedicated to serving my community as first ward Councilman, entrepreneur, and veteran. In my opinion, enacting the Steel Valley National Heritage Area combined with Universally Accessible trails for residents and visitors would greatly increase the quality of life in our Youngstown community and increase tourism to our city and neighbors along the Mahoning River.

The benefits would be profound including in transportation, recreation, economic impact, culture and history. Greater connectivity as municipalities along the Mahoning, from Struthers, Youngstown, Girard, Niles, and Warren will make for stronger communities.

Thank you,

Julius T. Oliver
First Ward Councilman Youngstown, OH