

## Scioto Greenways

By Guy Worley

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**t**he Ancient Greek philosopher, Thales, held strong beliefs about water. He claimed that all things originate from water. In the absence of water, life and everything that comes with it, would cease.

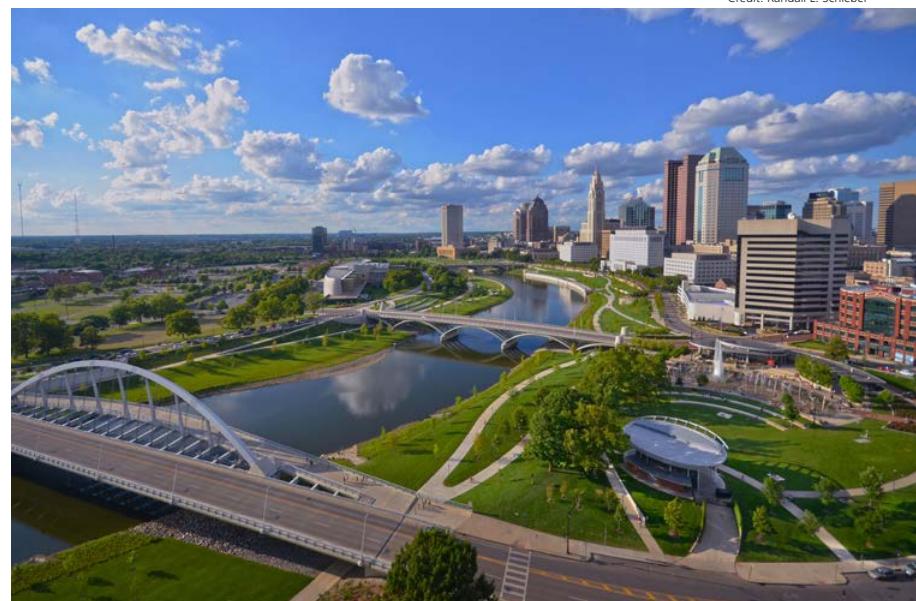
While science takes a more complex view about water and the origins of matter, much of what the philosopher said holds true when applied to development. Historically, empires and cities sprang up around waterways that provided the necessities for daily living. Healthy waterways are undeniable signs of life and vitality in a city. When it comes to a transformative project in Columbus, Ohio, it's no surprise that a life-giving waterway was the agent of change for the community. For the Scioto Greenways project, the Columbus Downtown Development Corporation (CDDC) harnessed the power of water to turn a once lifeless section of the downtown landscape into a bustling hub of activity.

It is fitting, then, that the first step in the creation of the Scioto Greenways was to let the water flow freely: it all began with the demolition of the formidable Main Street Dam.

## BACKGROUND

Of course, no event can ever occur in isolation. Culture and context influence everything that happens, especially in development. The removal of the Main Street Dam, though pivotal, occurred in the midst of an undeniable cultural shift in downtown Columbus.

As originally constructed, the dam served several purposes for the city of Columbus. It began as a wood structure constructed at the turn of the last century. The dam directed flow to the Ohio River and Erie Canal, and thus provided a route that linked Columbus to the world outside its city limits. When the original dam was later replaced by a concrete version in the 1920s, it took on an additional purpose: the dam's subsequent widening of



Credit: Randall L. Schieber

Today, the Scioto Greenways is the spine of civic life in the city, attracting over one million active and passive visitors annually.

the river permitted the waterway to occupy space that might have otherwise been used for shantytowns. Proponents of the concrete dam aimed to help create a beautiful, upscale center of the city, but the dam stopped the heart of the Scioto River. The waterway turned into a giant sedimentation pond. Nothing moved.

And it stayed this way for almost 100 years.

Meanwhile, after a century of concrete-centered urban development, Columbus was ready to shift its attention away from approaches that had rendered the downtown deserted and lifeless. In 1998, the city announced its Riverfront Vision Plan. This plan was ambitious and unambiguous in its goals: it was an early drive to create continuous parkland, a greenway, on the Scioto River corridor. The envisioned area was to be a memorable, defining part of the city.

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## A RIVER RUNS THROUGH IT

Running through downtown Columbus, the Scioto River used to be an artificially wide sedimentation pond that was both an underutilized and an overlooked area of the city. Instead of an active river, we had a mud flat. Instead of people strolling along the banks, we had walls and barriers preventing access. But the Scioto Greenways project transformed an aging, neglected civic resource into a vital network of public green spaces. It reconnected downtown to the Scioto River with an integrated system of parks, boulevards, bikeways, and pedestrian paths. The resulting waterfront scene is the subject of national accolades including the 2017 IEDC Silver Award for Public-Private Partnerships.



Before, the Scioto River was an overly-wide sedimentation pond that was perpetually chocolate brown in color and smelled of rotten-eggs.

It's hard to imagine anyone looking over the lifeless downtown riverfront landscape at the time and deciding that it would become memorable for anything resembling today's vital Scioto Greenways, let alone a destination that fosters new development and community interaction. For starters, greenways are . . . green. They're hybrids between green belts, natural space reserved within a city, and parkways or thoroughfares. For many years, downtown Columbus wasn't green at all. Even the waterway that lined it, the Scioto River, was brown and stagnated.

Bringing life to miles of brown riverfront is a daunting task, even for a visionary community. But the monumental project was successfully approached, just as one might approach any mountainous task: one step at a time.

Baby steps first: in the project's infancy, the city developed small parks along the downtown riverfront as stepping stones for more expansive green development. These preludes set the stage for partnerships with the Columbus Downtown Development Corporation (CDDC) and private businesses that create award-winning parks like the Scioto Mile (2011) and the Scioto Greenways (2015). CDDC was especially suited to handle these larger undertakings as the nonprofit group had been formed to execute big ideas from the community and revitalize downtown through assembling public-private partnerships.

While North Bank Park provided an anchoring green space on one end of downtown, and the Scioto Audubon Metro Park sat at the other end, there was nothing to bridge the gap in between. That's where the Scioto Mile fit

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in. The Scioto Mile, developed by the CDDC, was a turning point in the revitalization of Downtown Columbus. Made possible by a \$44 million public-private partnership, the green space is composed of two main elements, a promenade and a park. The promenade is a linear garden pathway along the river with chess tables, swings, and water features. The park hosts a restaurant along with a 15,000-square-foot interactive fountain. This fountain provides recreational opportunities for families in the summer months, while its LED displays continue to delight onlookers when temperatures cool down. A crowd of thousands witnessed the opening ceremony in July 2011. Today, it hosts more one million visitors every year.

As the riverfront parks were in varying degrees of completion, CDDC was working with the community to form the Downtown Strategic Plan of 2010. And while a "strategic plan" might sound like a process that takes place in board rooms behind closed doors, the approach for this plan was different. It was an entirely open process. The plan was shaped by four public meetings that covered 12 catalytic ideas for development in downtown Columbus. Those face-to-face meetings, teamed with online interactions, garnered over 1,000 comments and ideas from the community. With expert analysis and public input, two things became clear: the Main Street Dam had to go and Columbus was ready, very ready, for the Scioto Greenways project and all it would bring to the city, including a continuous recreational passageway and the development of neighborhoods and businesses.

## TEAMWORK MAKES THE DREAM WORK

With the public firmly behind the vision, CDDC was charged with assembling a dream team that would put the plan into action and build the \$36 million Scioto Greenways project. Stantec, one of the largest design and engineering firms in the world, completed a feasibility study that addressed the challenges inherent in such a project. For example, there were concerns about historic preservation. While the dam itself was not particularly significant, changing the waterway would impact the aesthetics of neighboring structures such as the building that housed the Center of Science and Industry (COSI) and the Ohio Supreme Court Building. As such, the development site was subject to the National Historic Preservation Act of 1966 (Section 106). Stantec also assessed the potential ecological and hydrogeological impacts of the project; that is, how the new path of the river and its associated green space would impact the natural surroundings.

The findings of the feasibility study indicated that the dream was indeed possible. The removal of the Main Street Dam and restoration of a natural river path and a greenway could be accomplished while meeting all requirements and benefitting the city and its communities as a whole.

Stantec provided the engineering and environmental expertise to execute the dam removal, river restoration, multi-use trail connections, and public spaces. Messer, the successful team behind the now thriving Scioto Mile project, was on board to manage the construction process.

With the team in place, a few more steps provided the foundation for the successful greenways project.

Before work could begin, there was the matter of securing permits and approvals for the project from 17 different regulatory agencies. Moreover, a critical element of this process, removing the dam, required approval from the United States Army Corps of Engineers. The government shutdown of 2013 created a six-week delay before the agency could sign-off on dam removal.

Beyond permits, there was also a mussel dilemma, or rather, a mussels dilemma. Even in its stagnant state, the downtown riverbeds played host to nine species of mussels, including threatened species such as the pondhorn (*Uniomerus tetralasmus*). Removal of the dam would narrow the waterway and render thousands of mollusks exposed and homeless. So, before the dam was fully removed, the mussels had to be collected and relocated. What is fondly referred to as "The Great



*The notching of the Main Street Dam began in November of 2013 and before the start of 2014, what had been an impediment in the life of the river for more than 100 years was completely gone.*

**In the wake of the removal of the dam, the river narrowed to half of its former width and began to flow almost immediately, but that was just the beginning. The greenways project had three phases: dam removal, river restoration, and then greenways construction. Initial plans for the next step, river restoration, called for the removal of riprap, soil and concrete remnants from the bottom of the river.**

"Mussel Rescue" was a massive endeavor in and of itself. First, the rescue had to be executed under appropriate weather conditions: freezing temperatures could have easily turned rescue attempts into a mass extermination for the sensitive sea-life. Workers and volunteers invested 507 hours over the course of six days to pluck 4,455 mussels from the riverbed and transported them to a nearby site and new home along the Olentangy River near Fifth Avenue.

With permits and a plan for moving the mussels into place, the wheels started to turn. Dam removal occurred in three phases. On November 26, 2013, the first

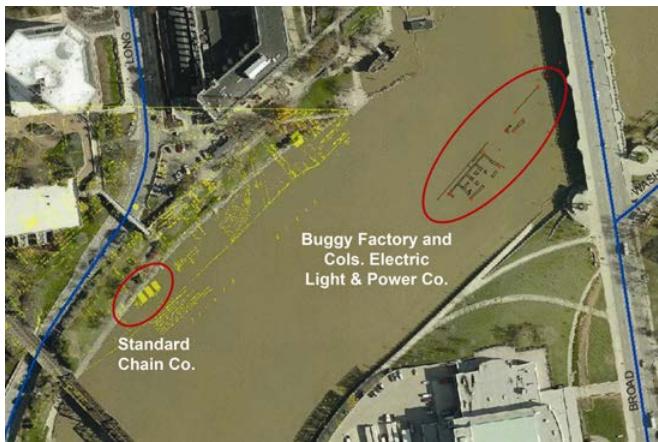
notching of the dam occurred, making a single incision in the concrete dam, allowing sedimentation to gradually flow downstream. Four days later, it was notched again. The final notching of the dam to bring it to grade began on December 3, and the structure was completely gone before the beginning of 2014.

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But beneath the surface of the muddy water lay a wonderland of other unexpected treasures, not the least of which were 50 shopping carts that were discovered when the dam was removed. There were also the surprise supports of multiple bridges from decades before, cosmetically removed by prior generations who engineered their partial demolition by chopping off the tops of the



*Dozens of hands worked quickly to rescue more than 4,400 mussels residing on the river's bed, transferring them to a new home in the Olentangy River before the dam removal and freezing temperatures would threaten to wipe-out the aquatic creatures.*



As the river banks receded, century-old building foundations from Columbus' industrial heyday were revealed.

bridges, and leaving the foundations out of sight, just below the surface of the water. Some discoveries were more anticipated, jutting out from the water were now the exposed foundations of the city's first Electric Light and Power Company, and also the Buggy Company from a bygone era.

Once the artifacts were removed from the waterway, then began the work of rebirth on the riverfront. It took 500,000 cubic yards of soil to form the foundation of the newly revived river banks, that's 39,300 dump trucks full of dirt, making endless trips during the course of construction. The dirt formed the foundation for 33 acres of uncovered urban greenspace, along with 1.5 miles of new bike and multi-use pathways, as well as electric and irrigation systems. With the addition of more sod, the team began to add 800 trees such as sweetgum, magnolia, and oak, along with more than 75,000 plant features including viburnum, dogwood, and porcupine sedge. For the river's riparian edge, hearty plants were selected; ones that could survive occasional flooding as their roots protected the soil against erosion. The Scioto Greenways debuted in November 2015: on budget and on time. In two years, the team completed a greening project that would have taken at least a generation for nature to do unassisted.

Then again, not everything on the greenways has been orchestrated by the development team. For example, Mother Nature has retained several significant responsibilities, including keeping the pools and riffles, formed when soil was removed from the riverbed, intact over time. Moreover the locations of point bars (areas where the earth builds up and occasionally peeks out of the water) have also been left to her discretion. Greenways, when successful, are built to thrive when nature takes its course, permitting channel diversity to create itself. Creating flourishing greenways requires teamwork with nature itself.

Sea gulls now dot the river skyline. When asked if we believe aquatic life has returned, I merely mention their presence – the gulls discovered a new habitat for fish before the anglers did. Nature is often the best indicator of success.

## WATER, REDUX: REVIVAL

Thales thought that water was the source of all existence, but he wasn't the only Ancient Greek philosopher to take an interest in the substance. If you've ever heard the saying, "You can't step in the same river twice", you've heard the work of Heraclitus. For Heraclitus, the water that flows through rivers is a symbol of *change*. Even a modern scientist would agree with him here: rivers flow, so the water that's in the river today, is different than the water that was there yesterday.

The water that flows through the Scioto River in Columbus today is most definitely different than the water that flowed between its banks in 2012. The Scioto Greenways project recreated and restored the natural flow of the river. The removal of the dam allowed for improved sediment transport and oxygenation, and lower water temperatures needed for a healthy habitat filled with diverse aquatic life. The river is no longer stagnant and brown. It's a place where both wildlife and humans thrive together, as the community also enjoys more access to the waterway with a wide range of new recreational options made possible by the project.

But the water isn't the only thing that changed.

The completion of the Scioto Greenways added the missing link to a 60-mile regional trail system, making the final connection in the 326 mile Ohio to Erie trail. The trail spans the entire state of Ohio, from Cincinnati to Cleveland. The trail hosts cyclists, skaters, hikers, walkers, joggers, families with strollers, bird watchers, nature lovers, and adventurers of all ages.

Connections are what it's all about. The Scioto Greenways provides a new connection between Columbus and the rest of the state, in much the same way that the original wooden dam connected the city to water routes.

And the project makes connections within the city too. The Greenways project initiates and paves the way for the westward-bound process of revitalization on the Scioto Peninsula. Once a blighted area in a flood plain, neighboring communities will merge with new developments to create a harmonious neighborhood with an un-



Credit: Randall L. Schieber

The 1.5 miles of new multi-use paths serve as a critical connector, linking downtown Columbus to other regional destinations including German Village to the south and the Short North, The Ohio State University, and Clintonville to the north.

undeniably inspiring view of the downtown skyline. At the waterfront, visitors can stand on lush green areas, ones formerly drowned in a stagnant waterway. It's a new, firm footing upon which to build.

With new development and investment, come new opportunities and amenities for the Columbus community as a whole. CDDC is once again creating green fields out of gray fields by transforming the surface parking lots behind COSI, one of the top science museums in the country and popular regional destination, into a new underground garage. Atop the garage, is a new signature park, replete with playgrounds, gardens, and an additional interactive water feature at its center. In 2018, the National Veterans Memorial Museum will join COSI as a museum destination for young and old to learn and revere in awe the contributions of those who have served our communities in military service. The area will be a cultural hub that fosters education, appreciation, and wonder.

Two new bridges work with the Scioto Greenways project to provide the catalytic connection that will continue to bring development westward. Moving west, the Scioto Peninsula will have the opportunity to bloom, as surface parking lots will be replaced by mixed-use development. This design will support a walkable community with residential buildings, boutique hotels, restaurants, office space.

## CONCLUSION

In the last two decades, the public sector has invested over \$127 million in 179 acres of parkland. That investment has been amplified by \$1.4 billion in private support for the neighborhoods and districts surrounding the river. This connection, too, is important to the story. It's the public-private connection and collaboration that builds success in Columbus. The downtown area, once barren, has doubled in residential population and now is



*The Scioto Greenways is now an inextricable part of Columbus' brand and signature image for marketing the city.*

home to 83,200 jobs. While it occupies only 1 percent of the city's landmass, it contributes 17 percent of its jobs and \$100 million in annual tax revenue. As growth and development continue westward, these exponential economic patterns of opportunity will expand for the Columbus community.

A river that was once dead now hosts new life. In addition to the restored natural diversity in plant life and animal species, it's also a destination for a bevy of urban anglers, and a thriving watercraft scene with kayaking, canoeing, and paddle boarding. People of all ages and all walks of life are welcome in the waterway. There's plenty of room for beginners to learn a new water sport, getting their feet wet right alongside seasoned athletes.

Meaningful riverfront revitalization requires a great deal of collaborative effort. It requires the collaboration of both private and public entities, it requires the collaboration of development teams representing a wide swath of disciplines, and it requires collaboration with nature itself. The positive results of this collaborative process are indisputable: Columbus is growing; it's changing. The city has come alive. ☺

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