WESTERN PENNSYLVANIA HISTORY SUMMER 2016

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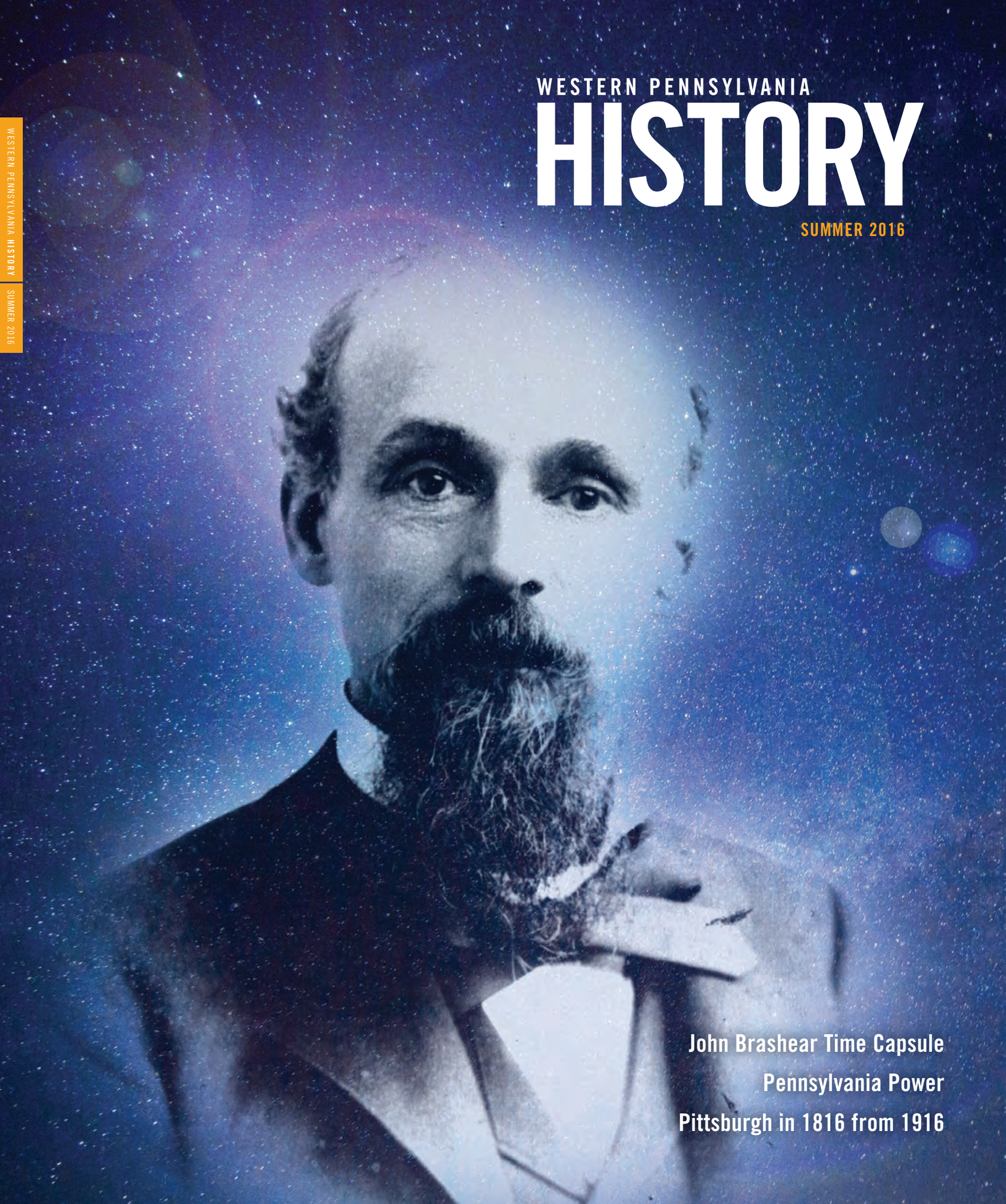
SUMMER 2016



John Brashear Time Capsule

Pennsylvania Power

Pittsburgh in 1816 from 1916

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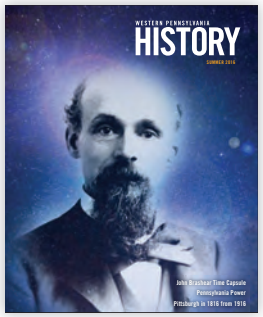

Cabinet card of John Brashear taken at Dabb's Photographic & General Portrait Studio in Pittsburgh, c. 1892. Read about this fascinating astronomer and instrument maker as well as the many items that were found inside his time capsule starting on page 18.

HHC Collections, L2015.50.

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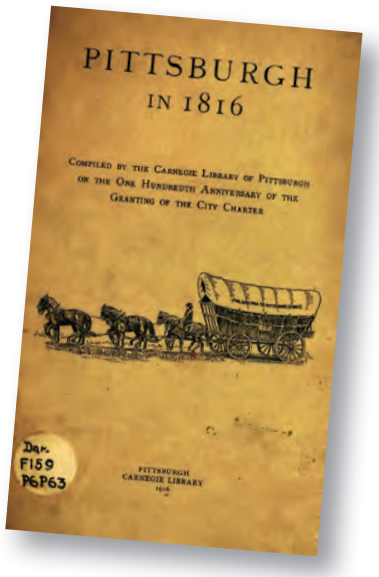
A Snapshot of Pittsburgh: Looking Back at 1816 from 1916
By Aaron O'Data and Carrie Hadley



Exhibits

Taking a Closer Look: The Gift of Art

Opens Fall 2016

In 1916 a group of art lovers, the "One Hundred Friends of Pittsburgh Art," began a unique effort to collect works of art. Members of the Associated Artists of Pittsburgh (AAP) raised money to purchase original art from the annual AAP show and donated those works to the Pittsburgh Public Schools. The first year, the group bought two paintings, and within a decade it had raised almost $10,000 and purchased 49 pieces for display in the city's public schools. Seeking to inspire an appreciation for art and a "love of the beautiful" among school students, the Friends of Art has continued its mission, building a collection that captures the evolution of art and culture in the region. This gift of art, shared with tens of thousands of school children over the last century, will now be shared with the public through an exhibit in the new Barensfeld Gallery on the fifth floor. The works on view will include one of the first two pieces purchased in 1916, as well as art created in the past decade—offering an interesting perspective on the work of regional artists as well as what that work tells us about this place and its people.

***Back of Isaly's*, by Abe Weiner, mixed media and oil on masonite, c. 1940.**
Pittsburgh Public Schools collection.

Summer 2016 — Ongoing Exhibits

Look for an enhanced visitor experience to the *Pittsburgh: A Tradition of Innovation* exhibit beginning on July 8.
Museum Division.

Pittsburgh: A Tradition of Innovation
See new additions to the exhibit beginning on July 8

Visible Storage
Sigo Falk Collections Center

From Slavery to Freedom
Explore 250 years of African American history in Pennsylvania

Western Pennsylvania Sports Museum

Heinz

Special Collections Gallery
Treasures that celebrate our ethnicity, industry, innovation, and lifestyle.

Glass: Shattering Notions

Rediscovering Lewis & Clark:
A Journey with the Rooney Family

Learn More Online
Friends of Art and the upcoming exhibit at the History Center

Prine Collection
of Woodworking Planes

Wrought Metal Treasures
from the Blum Collection

Clash of Empires:
The British, French & Indian War, 1754-1763

Expressions: Photographs From the Pittsburgh Post-Gazette
Features 75 photos from the past year, including the work of more than a dozen photographers

At the **Fort Pitt Museum**

Captured by Indians: Warfare & Assimilation on the 18th Century Frontier
Extended until October 2, 2016

At **Meadowcroft Rockshelter and Historic Village**:

Now open for its 48th season.

Learn More Online
Plan your visit to see Visible Storage

President's Message

by Andrew E. Masich
President & CEO

Taking a Look Behind the Scenes

Since 1879, the Senator John Heinz History Center has been collecting materials that tell the story of the people of Western Pennsylvania. Over nearly 140 years, the museum's collection has grown to more than one million objects, including a vast assortment of photographs, books, maps, and manuscripts in the Detre Library & Archives, along with an amazing compilation of three-dimensional objects from our region. To help showcase this collection, we recently opened *Visible Storage* in the Sigo Falk Collections Center on the museum's fourth floor.

This behind-the-scenes look into the History Center's storage complex offers a glimpse of our Museum Conservation Center and a sampling of how the museum preserves the vast collection of Western Pennsylvania history. Artifacts ranging from George and Marguerite Westinghouse's Tiffany china to John Cigna's legendary Harley-Davidson motorcycle provide a sense of the variety found in the museum's collection. Just about everyone who visits *Visible Storage* will find something interesting. Auto enthusiasts will enjoy a 1939 Bantam Speedster along with a Westinghouse electric car from the 1960s. Militaria experts will want to inspect Western Pennsylvania long rifles, along with Civil War swords, World War II pistols, and a Thompson machine gun used by the Pittsburgh Police in the 1930s. Fashionistas will marvel at vintage clothing, including Civil War-era bonnets and 1920s hats and flapper footwear. Glass aficionados will love the presidential china and glass, used by the Reagan, Clinton, and Bush administrations, created by the Lenox Company.

Visitors to *Visible Storage* will also see museum professionals in action as they process new collections and prepare them for exhibit. You'll get an insider's look into the photography studio and see museum staff cataloging some of the nearly 5,000 new artifacts donated to the museum each year alongside colleagues building intricate museum fixtures in the mount-making workshop.

Visible Storage, which is part of the recently opened LEED Gold-certified Museum Conservation Center, is accessed via a sky bridge (or "Falkway") across Mulberry Way from the Special Collections Gallery. We thank the Falk Foundation and the Hillman Foundation for their generous support of *Visible Storage* and our efforts to preserve Western Pennsylvania history.

The Museum Conservation Center's LEED Gold award.
Photo by Liz Simpson.

A stunning array of artifacts in a storage environment can be viewed in the new *Visible Storage* exhibit.
Photo by Brian Butko.

Jean and Sigo Falk at the media preview for *Visible Storage.*
Photo by Betty Arenth.

Learn More Online
More about food at Fort Pitt

Samuel Scott, *Men Loading a Boat with Barrels,* undated, watercolor and graphite on paper.
Yale Center for British Art, Paul Mellon Collection, B2001.2.1181.

Fort Pitt

By Jaclyn M. Sternick, Fort Pitt Museum

Deluge at the Point: Fort Pitt's Food Supply During the Flood of 1762

In April 1762, two missionaries stopped at Fort Pitt in search of flour to make bread for their journey. What they found, however, "to [their] great disappointment," was that Fort Pitt's "magazine had been overflowed by a tremendous inundation, and no flour was to be had. Neither could any be procured from the surrounding country, as there were no farms within hundreds of miles."[1] After Fort Pitt's completion late in 1761, the Point flooded twice in just over a year: once in January 1762, and again in March 1763.[2] The British, in their quest for land and economic power, had occupied the Forks of the Ohio River since 1758. Though strategic, Fort Pitt's location—on a narrow, low-lying plain at the confluence of three rivers—came with dire consequences.

During the winter of 1761–62, heavy snowfall gave way to steady rains, which caused massive flooding at the Point. Fort Pitt and all of its supplies were in jeopardy. The British outpost relied heavily on provisions sourced from colonial settlements hundreds of miles away, primarily from Philadelphia and Virginia. Contractors, traders, and soldiers transported thousands of pounds of goods westward to Fort Pitt by foot, horse, and wagon.[3] The frontier fort received droves of cattle, sheep, and hogs, as well as goods that could withstand long-term storage, such as flour, grain, and salted beef and pork.[4]

In October 1761, less than three months before the flood, commander of Fort Pitt Colonel Henry Bouquet wrote to two contractors,

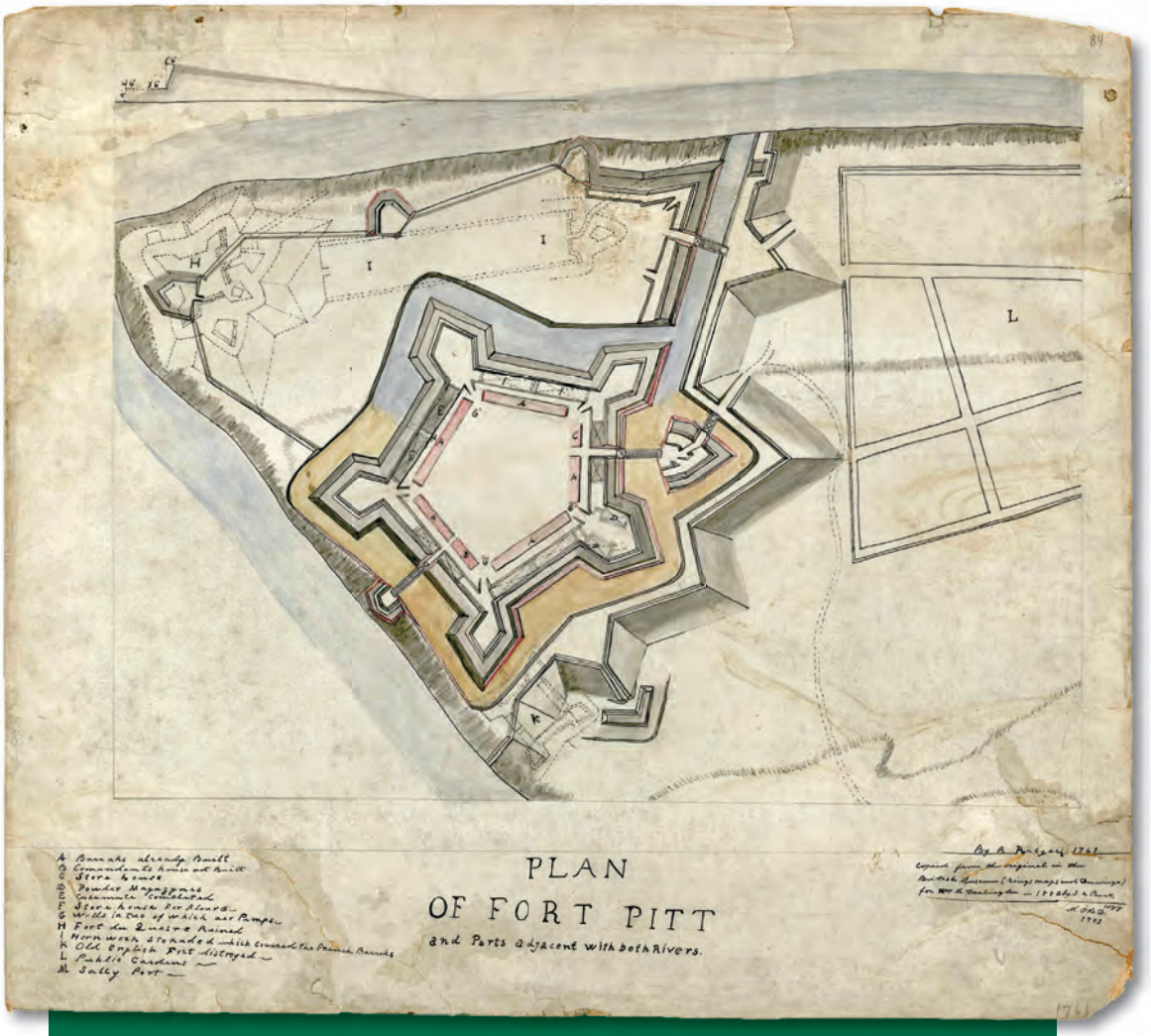
> We have actually here upwards of 300 Oxen & I am informed of 340 more coming up…. We have yet Ten Months Salt Beef & Pork (of last year) for 200 men; which with this prodigious Stock & the Hogs ordered from Virginia, will indeed form a Magazine for a Small Army.[5]

While Fort Pitt had an adequate supply of meat, it appears that the King's Garden had not yielded a good crop in 1761.[6] Without nutrient-rich fruits and vegetables, the troops were in danger of developing scurvy, a disease caused by vitamin C deficiency. In October, Arthur St. Clair wrote to Bouquet about a possible solution: "I shall give to Adam Hoops some Scurvey Grass seed which you may sow at any Season of the Year, it grows in Winter and … it is as good as Spinage dressed in the Same way; no frost can hurt it."[7]

Well supplied from the east, Fort Pitt seemed to have enough provisions to endure a Pittsburgh winter. The weather in the coming months, however, challenged the garrison and threatened to spoil its precious food supply. By December 24, 1761, snow had accumulated "above Two foot deep & in other places a yard."[8] Two weeks later, steady rains prompted what Bouquet called "a universal Thaw."[9] Ice covering the rivers melted, and the waters began to rise.[10]

By January 9, the rivers had risen a total of 34 feet, or 10 feet above the banks. Floodwater poured into the fort at depths of three feet in the barracks and nine feet in the partly subterranean casemates. On January 12, after the waters subsided, Bouquet wrote to Sir Jeffrey Amherst and described the beleaguered state of the fort and its garrison.

> All our Casemattes with our Provisions were under Water…. The Water came upon us thro' the Drains, Gate, and Sally Ports, and boiled in large Springs out of the ground in Several Parts of the Fort. I had the Battoes[11] brought in, and loaded them with Provisions;… As we had just done Salting, The Meat was Still in Bulk, or Barrels without heads. We have got it all out of the Casemattes, & it must be Salted over again…. The Flour in Bulk being in a Granary above Ground is safe, and what is in Barrells can not have Suffered much by the Water.[12]



Plan of Fort Pitt and Parts Adjacent with Both Rivers **shows roughly what the site looked like at the time of the flood. Copied from the 1761 original by Bernard Ratzer in the British Library (Kings' maps and drawings) for William Darlington by J.A. Burt, 1882, Mary O'Hara Darlington copy 1903.**
University of Pittsburgh, Darlington Digital Library, DARMAP0213.

While the meat was indeed re-salted and salvaged, Bouquet later reported a loss of 16,218 pounds of flour, enough for making 20,000 loaves of bread.[13] Bouquet also wrote to Adam Hoops in February, "The last flood of the 9th January has almost ruined us here, & the Provisions have suffered excessively."[14]

The flood of January 1762 was disastrous but not fatal. Fort Pitt replenished its food supply with goods from the east, and that summer the 10-acre King's Garden yielded its first plentiful crop.[15] Having done considerable damage to the fort, floodwaters remained at bay until the following March, when they returned to threaten the western outpost yet again.

[1] Edward Rondthaler, "Life of John Heckewelder," *The Tuscarawas Valley in Indian Days, 1750-1797,* ed. Russell H. Booth, Jr. (Cambridge, Oh.: Gomber House Press, 1994), 51. John Heckewelder accompanied Christian Frederick Post, a missionary, on a journey to an Indian village at Tuscarawas, where they attempted to establish a mission.

[2] Charles Morse Stotz, *Outposts of the War for Empire: The French and English in Western Pennsylvania: Their Armies, Their Forts, Their People 1749-1764* (Pittsburgh: University of Pittsburgh Press, 2005), 127-130.

[3] Alfred Procter James and Charles Morse Stotz, *Drums in the Forest: Decision at the Forks, Defense in the Wilderness* (Pittsburgh: University of Pittsburgh Press, 1958, 2005), 89-102.

[4] Stotz, *Outposts of the War for Empire,* 62.

[5] Louis M. Waddell, John L. Tottenham, and Donald H. Kent, eds., *The Papers of Henry Bouquet* (Harrisburg: The Pennsylvania Historical and Museum Commission, 1994), 5:832-833.

[6] Ibid., 5:331.

[7] Ibid., 5:792-794.

[8] John W. Jordan, ed., "Journal of James Kenny, 1761-1763," *The Pennsylvania Magazine of History and Biography* 37 (1913): 33, accessed at www.jstor.org/stable/20085624.

[9] Louis M. Waddell, ed., *The Papers of Henry Bouquet* (Harrisburg: The Pennsylvania Historical and Museum Commission, 1994), 6:36-39.

[10] Jordan, 35.

[11] French for the word boat, *battoes* or *bateaux* were large, flat bottomed boats used by the British to transport men and cargo on the rivers. They were typically rowed by a crew of three to five bateaux-men or soldiers, but could also be fitted out with sails for traveling upstream..

[12] Waddell, *Bouquet Papers,* 6:36-39.

[13] Waddell, *Bouquet Papers,* 6:53-54; Waddell, Tottenham, and Kent, eds., *Bouquet Papers,* 5:691-692.

[14] Waddell, *Bouquet Papers,* 6:42.

[15] Ibid., 6:90-91.

Learn More Online
Learn more about De Dion-Bouton tricycles like the one George brought home from France

Thomas & Katherine Detre
Library & Archives
Treasures

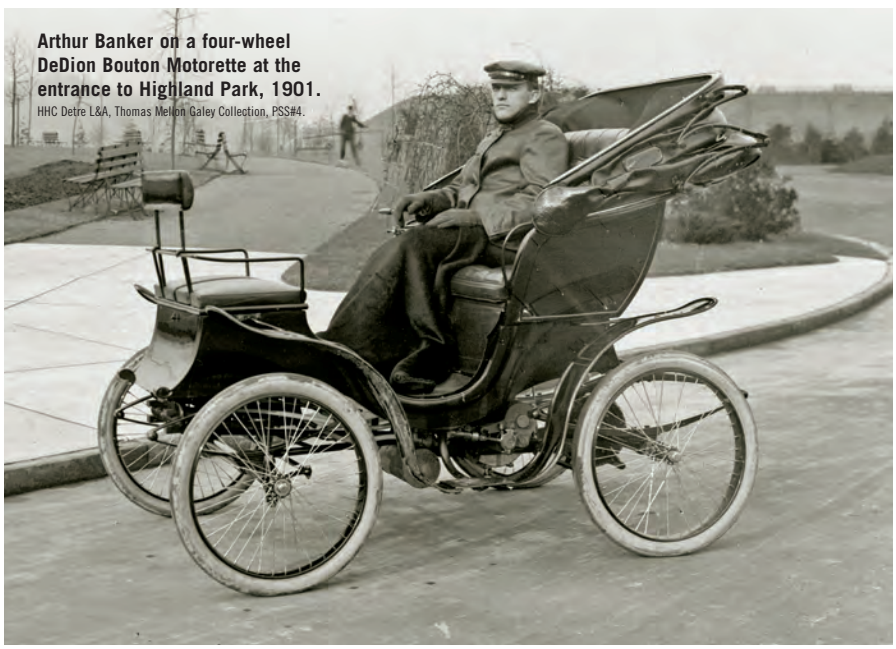
By Lauren Uhl, Museum Project Manager/Curator of Food & Fitness, and John Paul Deley, Director of the Detre Library & Archives

Innovation on the Roads

For any trip longer than that which could be accomplished by walking, Pittsburghers in the 19th century traveled by horseback, steamboat, and train. By the dawn of the 20th century, they were quick to trade up their carriage and wagon wheels to tires, or upgrade to a horseless carriage that incorporated the inventions of Harvey Firestone, Henry Ford, Karl Benz, Ransom Olds, David Buick, and Charles Nash. The new gasoline, steam, and electric engines enabled locomotion to evolve from two-wheeled vehicles to three and eventually four. Pioneers in this process were America's bicyclists, and chief among them were Pittsburgh's Banker brothers.

William H. Banker, a carriage maker, watched the cycling craze sweep the country in the 1880s, so he opened a bicycle store in the East End near the corner of Highland and Centre Avenues. His sons George and Arthur were avid cyclists; George regularly competed with other young men in the region, winning his first race in Brownsville in 1892. Unable to compete as a professional in the United States (where cyclists maintained strictly amateur status), George joined cycling phenomenon Arthur Zimmerman and moved to Europe to become a professional racer. There he won the Grand Prix de Paris, the Austrian Derby, and races in Antwerp, Roubaix, and Cologne.

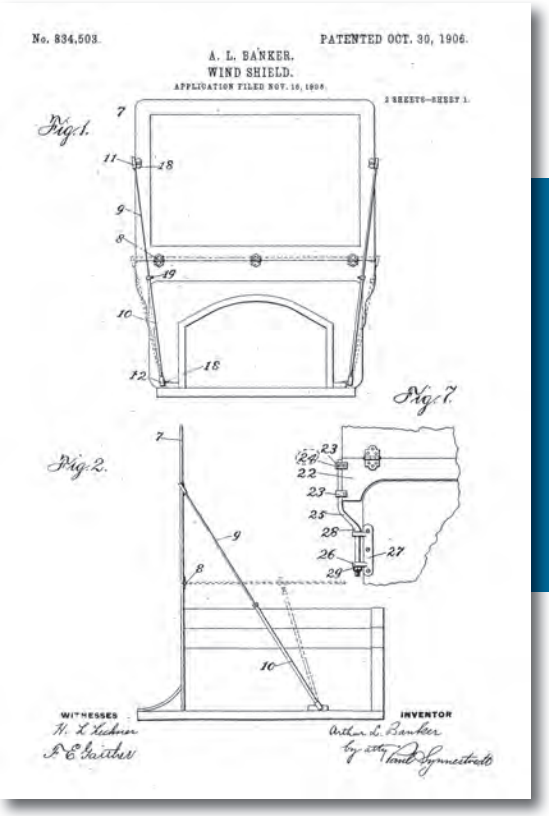
George Banker on his French motorcycle in front of the Banker Brothers Automobile Palace, Penn Avenue at Highland.
HHC Detre L&A, Thomas Mellon Galey Collection, PSS#4.



Arthur Banker on a four-wheel DeDion Bouton Motorette at the entrance to Highland Park, 1901.
HHC Detre L&A, Thomas Mellon Galey Collection, PSS#4.

Enthralled by speed and the latest technology, George returned from Europe in 1900 with the latest thing in racing—a French three-wheeled motorcycle. Investing his European winnings, he and his brother Arthur transformed their bicycle shop into the Banker Brothers Company to sell early automobiles. By 1907, their "Automobile Palace," in a new two-story brick building, contained a garage for 250 cars and an extensive parts room overseen by 75 workmen. The company sold the finest automobiles of the day—Pierce Great Arrow, Stevens-Duryea, Cadillac, Studebaker, and Pope Waverley models.

Arthur also went on to patent the "Banker Wind Shield," which the company manufactured for both American and European auto makers. George continued in the automotive business until his death in 1917. Arthur turned his attention to the manufacture of windshields until his death in 1932. Both brothers are acknowledged as Pittsburgh pioneers in the automobile business.



Above:
Banker Brothers Automobile Palace.
HHC Detre L&A, Thomas Mellon Galey Collection, PSS#4.

Left:
Patent drawing of the Banker Wind Shield, invented by Arthur Banker, which allowed a windshield to be lowered when not in use.
U.S. Patent 834503.

Learn More Online
Learn more about the murals and efforts to preserve them

Neighborhood Stories

By Bette McDevitt

Mary Petrich leads a tour of the Maxo Vanka murals at St. Nicholas Croatian Catholic Church in Millvale.
Photo by Richard Domencic.

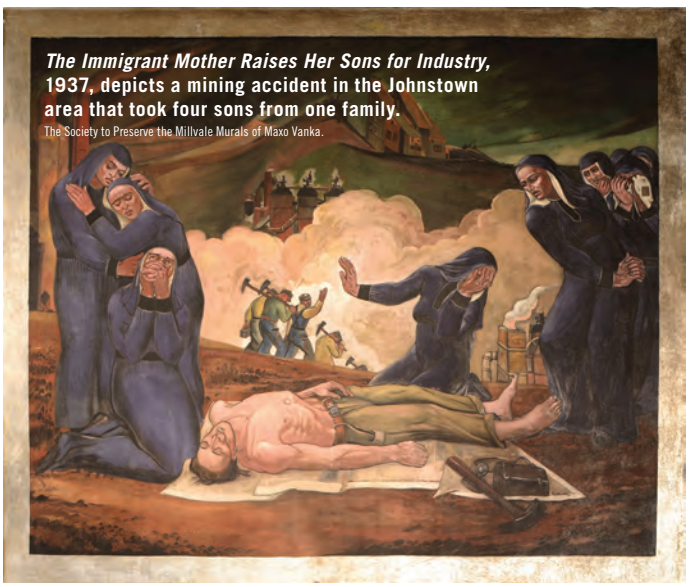
Mary and Maxo

Mary Petrich could describe the Maxo Vanka murals in St. Nicholas Croatian Catholic Church in Millvale, all 25 of them, in detail, even if her eyes were covered. As we sit in her apartment in Lawrenceville, she virtually places us in the church. "On the right side," she says, with a graceful gesture of her arm, "is the mother weeping for her son killed in the mines. And just across from it," with a sweep of her arm in the other direction, "is the mother weeping for her son lost to war." Each of the 25 murals is painted in her mind's eye.

The murals were created by Maxo Vanka, an artist with a spiritual sense of social justice. He moved from his homeland of Croatia to New York City in 1934, and Father Zagar, pastor of St. Nicholas, having seen an exhibition of his work, invited him to come to Millvale to "beautify the church and tell the story of this parish, the people." Vanka went at it.

"My walls have claimed me, every inch of the church must be painted," Vanka wrote to his family. During two sessions, in 1937 and 1941, he covered the walls and called it his "Gift to America." There are few people as connected to the murals as Mary Petrich.

Mary, now in her eighth decade, grew up going to the church and nearby school. She recalls, "We lived on Hatfield Street in Lawrenceville and my five siblings and I walked to school every day and to Mass on



***The Immigrant Mother Raises Her Sons for Industry,* 1937, depicts a mining accident in the Johnstown area that took four sons from one family.**
The Society to Preserve the Millvale Murals of Maxo Vanka.

***The Croatian Mother Raises Her Son for War*, 1937.**
The Society to Preserve the Millvale Murals of Maxo Vanka.

Sunday as a family. We saw the progress of the murals every day, while attending mass before school. Vanka came early and worked very late. We weren't supposed to bother him. I was nine years old, and was fascinated by the images."

She remembers, "Father Zagar was a simple man. For him to permit this type of painting was totally amazing. People were used to churches with saints and pious artwork. Vanka portrayed ordinary people experiencing the same things in life that Mary and Jesus experienced. He brought religion to people where they lived, with their feet on the ground."

Describing another mural, Mary continued:

> Over the altar, you see Mother Mary as a queen on a throne in the Byzantine fashion, holding the infant Jesus. Her muscular body and her large hands reveal that she is a peasant woman. Her eyes follow you around the room. On one side is the peaceful village in Croatia, and on the other side, the immigrant workers in Millvale. The workers are holding the church in their hands, and that is different from Europe where wealthy benefactors gave money to build the church, and their portraits would hang in the church. But here Vanka shows the workers who built the church, offering it as a gift to Mary. He dignifies the ordinary person. That always impressed me.

Mary, Queen of Croatians, **1937. The large altar painting portrays Mary in traditional Croatian colors and with large, working hands. Above her is "Mary, Queen of Croatians, Pray For Us.**
The Society to Preserve the Millvale Murals of Maxo Vanka.

It was logical, then, that Mary, after a career as a pubic health nurse and educator, became one of the first docents to lead people on tours of the murals. "In the year 2000, on our 100th anniversary, Francis Babic, an art historian of Croatian ancestry, came from Cleveland to talk about the murals." Babic made the connections between religion and the shared experience of humanity.

> I had always loved the murals—they are biblical, and I know my Bible—but what Frances did was open my eyes to the concept of motherhood as a unifying theme. I realized that I had a story to tell, with three themes at the core: the grieving mother, the contrast between the old and new country, and social injustice, revealed in war and exploitation of the worker. People who came to the tours gave me ideas, so the story grew.

Hurricane Ivan inundated Millvale in 2004, damaging the church and community. "We knew the murals needed cleaning, but the water damage showed up slowly. The water went through the wall, dissolved the plaster, and

***The Croatian Family,* 1941, depicts a simple meal of soup and bread in the presence of Jesus.**
The Society to Preserve the Millvale Murals of Maxo Vanka.

caused an incrustation," said Mary. "Ivan woke us up to the fact that the murals are a treasure." Since then, a fund raising campaign (supported by the entire community and, led by The Society to Preserve the Millvale Murals of Maxo Vanka) has allowed for the restoration of 10 of the 25 murals and the design of state-of-the-art LED lighting of the murals.

Mary led tours for 12 years and trained more than 10 docents, many of them members of the church. More than 2,000 people toured the church in 2015. In the beginning, Mary used a flashlight to illuminate the murals, but soon the murals will have museum-quality lighting that can adjust to the needs of the church community. Permanent lighting for eight of the murals will be completed by the end of 2016.

The murals touch visitors in unexpected ways. "I gave a tour to three women from Vietnam," Mary recalled, "three generations of women, and when they saw the suffering from war in the murals, they sobbed, because they've had that experience." Sobbing sometimes, perhaps a lump in the throat, but many times viewing the murals is a joy. One of the favorites, called *The Croatian Family,* shows a family praying before a simple meal. It is reminiscent of *The Potato Eaters,* by Van Gogh. "When I look at the mural of the family having a meal together," Mary said, "I think of my mother serving us soup, and I can smell the soup, and the bread!"

For Mary, the murals bring hope. "On the lower walls, you see all the agony people experience, and you raise your eyes up to upper murals, the heavenly scenes, and there you see hope. To this day, the murals affect me tremendously."

Bette McDevitt is a freelance writer and a longtime contributor to *Western Pennsylvania History.*

The completed display in *We Can Do It! WWII.* The propeller is for a SB2C Helldiver dive bomber made by the Curtiss-Wright propeller division, Beaver, Pa., c. 1943.
L2015.44.1. Photo by Liz Simpson.

Learn More Online
Recruitment video for the Curtiss-Wright plant in Beaver, Pa.

Curtiss-Wright Propeller

By Liz Simpson, Assistant Editor/Assistant Registrar

A propeller on loan to the History Center from the Smithsonian Institution's National Air and Space Museum helps tell the story of a local Curtiss-Wright plant that thrived briefly during World War II. The Curtiss-Wright Corporation was part of an industrial network producing components for a variety of airplanes in the late 1930s. As war intensified, Curtiss-Wright faced an increasing demand for airplane parts. Despite having plants operating at full capacity in Indiana, New Jersey, and Pennsylvania, Curtiss-Wright still could not keep up with demand.

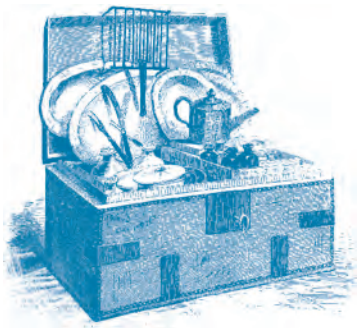
A search was undertaken to find a site for a new plant. In February 1941, the War Department announced the site—a farm in Borough (now Vanport) Township near Beaver, Pa.[1] The $5 million facility would be "the largest individual aircraft propeller manufacturing plant in the United States" according to the company's president.[2] Once open, the factory brought thousands of new jobs to the area between 1942 and 1945, employing both men and women, especially as welders. These workers fabricated more than 100,000 new propeller blades for a variety of aircraft each year.

The propeller at the History Center is from a Curtiss Helldiver, a carrier-based dive bomber used in squadron raids against Japan. It was displayed in the *We Can Do It! WWII* exhibit and will be part of the updates coming to the *Pittsburgh: A Tradition of Innovation* exhibit this year.

[1] Some newspaper accounts at the time refer to the land selected as being in "Beaver Township," probably a corruption of the township's original name "Borough Township." The official designation was changed to Vanport Township in 1970. The name shift was recorded by the *Beaver County Bicentennial Atlas* (1976), accessed online as part of the Beaver County History Online project: http://www.bchistory.org/beavercounty/BeaverCountyCommunities/VanportTwp/VanportTownship.html.

[2] "Big Propeller Plant Will Be Built Near City," *Pittsburgh Post-Gazette,* February 27, 1941.

Learn More Online
A history of tear gas



Curator's Corner

By Leslie Przybylek, Curator of History

This hat belonged to off-duty Pittsburgh patrolman Charles H. Schultz, who barely missed being shot in the head on June 10, 1921, when he confronted bandits on the North Side who had just held up a Boggs & Buhl bank deposit at gunpoint on Federal Street. Dramatic public crimes such as this helped spur experimentation with tear gas as a crime prevention tool.
HHC Collections, 94.51.218. Photo by Liz Simpson.

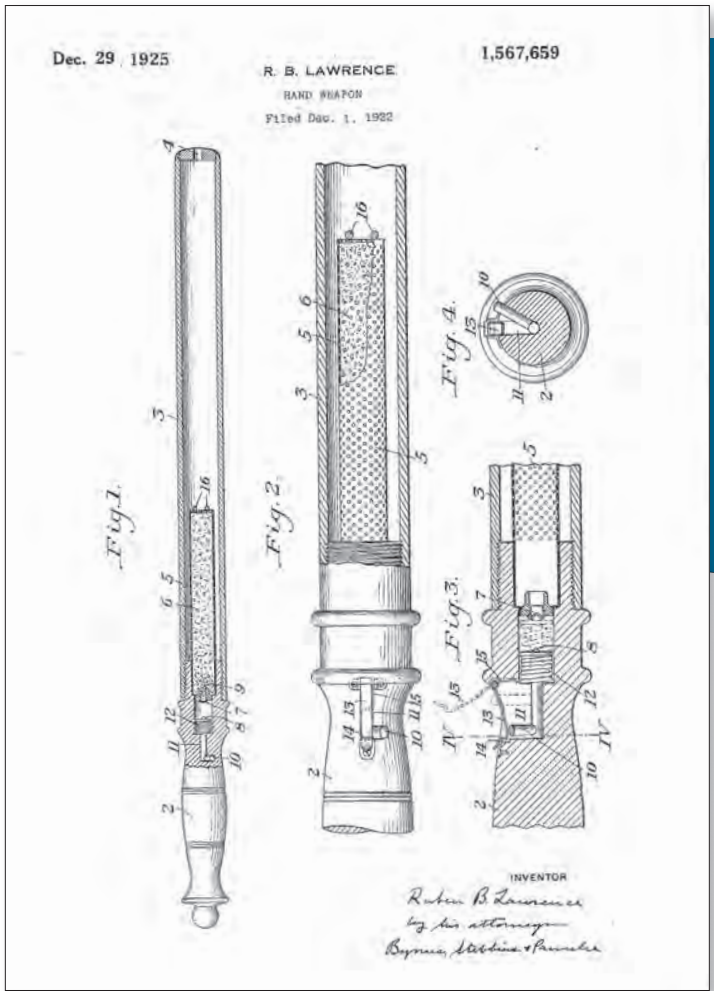
Fighting Crime with a Federal Gas Billy

One evening in October 1928, two salesmen for Pittsburgh-based Federal Laboratories stood outside a garage in Wilkes-Barre, Pennsylvania, along with local policemen. One salesman tossed a tear gas "bomb" into the garage, followed by a $20 bill, and shouted, "The money is for the man who can get it." Officers charged into the building but the gas quickly drove most back out. Those who attempted to retrieve the cash "wept tears for about twenty minutes."[1]

It sounds like a prank, but salesmen for Federal Laboratories conducted similar demonstrations across the country in the 1920s.[2] Artifacts in the Heinz History Center's collection illustrate what they were selling: tear gas products, including guns disguised as policeman's nightsticks. Called the "Federal Gas Billy," such weapons were a response to the wave of crime and unrest fueled by Prohibition and radical politics in the 1920s. Aided by better cars and roads, criminals seemed to be everywhere. By January 1921, a former superintendent of the Pittsburgh Police urged the creation of a national detective agency to fight crime.[3] In June 1921, a dramatic daylight hold-up on the North Side typified scenes repeated nationwide: three men jumped out of a car, grabbed a Boggs & Buhl bank deposit, and engaged in a running gun battle along Federal Street, killing one store employee and terrifying shoppers and pedestrians.[4]

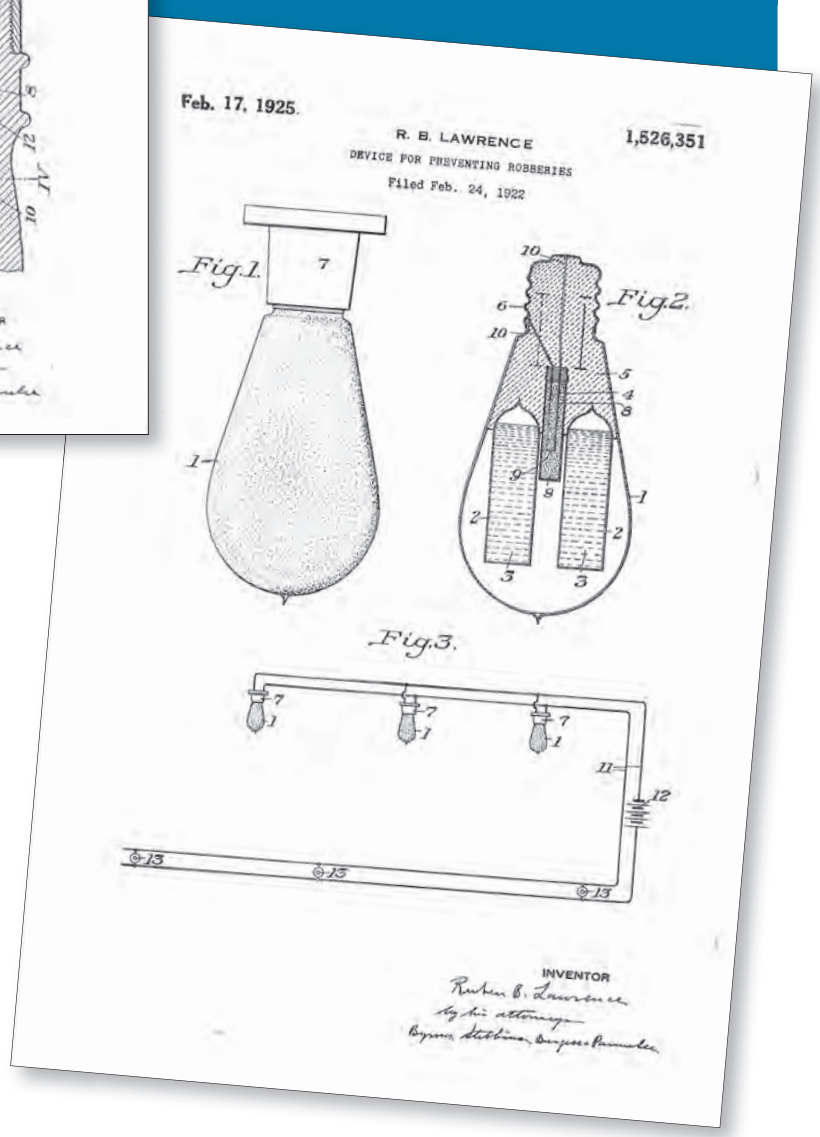
When a frightened public demanded action, companies such as Federal Laboratories began experimenting with a new crime prevention tool: tear gas. Introduced during World War I, tear gas was regarded as a "humane" weapon that incapacitated but did not kill.[5] The Federal Gas Billy was one of multiple gas-delivery devices patented by workers of Federal Laboratories between 1922 and 1927. The company even developed a robbery prevention system disguised as light bulbs: once installed in a bank vault, the bulbs flooded the space with tear gas if triggered during a break-in. The company's advertising for the gas billy shouted its goals: "A New Weapon that Gets Them All!"[6] Federal Laboratories became one of the nation's leading suppliers of gas weapons and other crime prevention products.

Examples of the Federal Gas Billy, all dated 1925. Invented in the 1920s, these policemen's nightsticks housed cartridges that enabled them to shoot tear gas in a continuous spray or (as the longer stick did) emit a blast cloud. They were manufactured and sold by Pittsburgh-based Federal Laboratories, Inc.
HHC Collections, gift of the Pittsburgh Police Historical Association, 2011.127.247, 2011.127.248, 2011.127.249, and 2011.127.472. Photo by Liz Simpson.



Left:
Ruben B. Lawrence of Bellevue, working for Federal Laboratories, applied for a patent for this hand weapon used to manually control a spray of "incapacitating gas" in December 1922.
U.S. Patent 1567659.

Below:
This patented robbery prevention system, also developed by Ruben Lawrence for Federal Laboratories, Inc., included a detonating charge and an electric igniter inside a receptacle resembling a light bulb. The bulbs, wired to a push button system, could be detonated by bank employees to help stop a robbery.
U.S. Patent 1526351.



Inevitably, a preventive tool born from the horrors of war raised darker questions about the intersection of technological innovation, civic fear, and civil liberties. By 1937, Federal Laboratories was one of many American munitions companies being investigated by the U.S. Senate for selling weapons abroad and profiting from anti-union activities.[7] Company officials never denied such charges, noting that it was standard practice to identify markets that needed their products. "We certainly are in one hell of a business when a fellow has to wish for troubles so as to make a living," the company's export manager reportedly once said.[8] True enough.

The nightsticks at the History Center remind us that technological innovation sometimes emerges in moments of duress, and technology's path is difficult to predict. As J. Robert Oppenheimer once said, "When you see something that is technologically sweet, you go ahead and do it and argue about what to do about it only after you have had your ... success."[9] It's a lesson that certainly keeps repeating itself.

[1] "Tear Gas Demonstration," *Wilkes-Barre Times Leader,* October 28, 1925.

[2] See for example: "'Gas Billy' for Protection of Bank Messengers will blind bandits who come within fifty feet," *The Journal News* (Hamilton, Oh.), April 17, 1925; "Tear Gas in Bank," *Washington Missourian,* December 24, 1926; "Demonstrator Here," The *Warren Tribune* (Warren, Pa.), April 21, 1928; "Use of Tear Gas Shown at Police Station Here," The *Escanaba Daily Press* (Escanaba, Calif.), July 21, 1928; and "Gas Billy and Hand Grenades Received by Police at Upland," *The San Bernardino County Sun* (San Bernardino, Calif.), March 20, 1930.

[3] "Former Police Head Advocates National Detective System," *The Pittsburgh Post,* January 4, 1921.

[4] The event dominated newspaper headlines for most of the week, see for example: "Bandits Stage Raid in Heart of Northside; Shoot Man; Escape with $34,000; One Caught," *The Pittsburgh Post,* June 11, 1921; and "Detectives Find $3,400 of Northside Bandit Loot," The Pittsburgh Post, June 12, 1921.

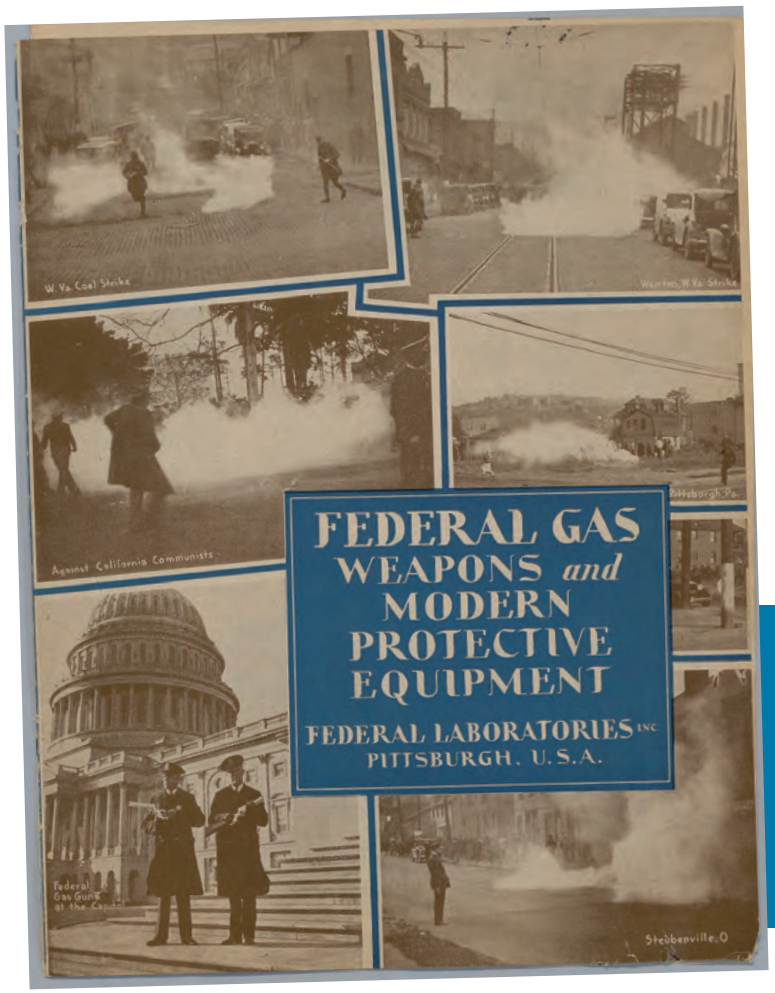
[5] Many scholars consider the first modern use of tear gas to have occurred during the Battle of the Frontiers, a series of clashes between Germany and France along the southern Belgium border in August and September 1914. See Anna Feigenbaum, "100 Years of Tear Gas," *The Atlantic* (August 16, 2014) as posted February 16, 2016, at http://www.theatlantic.com/international/archive/2014/08/100-years-of-tear-gas/378632/.

[6] The slogan appears on a postal mailer brochure for Federal Laboratories, Inc., that was sent to Dorchester Penitentiary, New Brunswick, Canada, c. 1929. Accessed at: http://anatomy-lesson.tumblr.com/post/92755554441/postal-brochure-mailed-to-dorchester-penitentiary.

[7] See, for example: "Navy Man Got Commission for Latin American Order," *Reading Times,* September 20, 1934; Munitions Industry: Hearings before the Special Committee Investigating the Munitions Industry, United States Senate, 73rd (74th) Congress (United States: Government Printing Office, 1934); and Violations of Free Speech and Rights of Labor, *Digest of the Report of the Committee on Education and Labor,* United States Senate, 76th Congress (U.S. Government Printing Office, 1939).

[8] Harold J. Ruttenberg, "Federal Laboratories: Strike-Breaker, Who Picks Cuba's President?" (Unpublished manuscript, 1935), Harold J. Ruttenberg Papers, Archives Service Center, University of Pittsburgh.

[9] In the Matter of J. Robert Oppenheimer, Transcript of Hearing Before the Personnel Security Board, Atomic Energy Commission (Washington, D.C.: U.S. Government Printing Office, 1954), 81.



Catalog covers for Federal Laboratories, Inc., emphasized the company's national prominence as a distributor for a range of gas weapons and munitions. The turmoil of the 1920s and early 1930s gave the company wide leeway in promoting its products, a situation that many people increasingly challenged.
University of Pittsburgh, Archives Service Center, Harold J. Ruttenberg Papers.

Wayne's Legion performing at the Whiskey Rebellion Weekend at Woodville Plantation, 2013.
All photos Neville House Association.

Woodville Plantation

Spotlight on HCAP History Center Affiliates Program

- Woodville Plantation was built around 1775 by General John Neville, patriarch of one of southwestern Pennsylvania's iconic families. The one-and-one-half-story frame house and its two-and-a-half acres are all that remain of a vibrant, 270-acre estate that served as a residence until the early 1970s. Woodville's historic importance is underscored by the fact that it is one of less than 200 National Historic Landmarks (NHL) in Pennsylvania, and one of only 2,500 NHL sites in the United States.

- The estate is owned by the Neville House Associates (NHA), whose mission is to maintain and preserve the house, and to accurately interpret the period 1780–1820 through the lives of Woodville's owners: the Nevilles, the Cowans, and the Wrenshalls.

- The plantation became a focal point of the 1794 Whiskey Rebellion when angry farmers protesting the tax on whiskey gathered there but were rebuffed by its determined owner and his servants.

- Last year, Woodville was repainted, the exterior porches were rebuilt, and the historic and unique window glass throughout the house was stabilized and preserved thanks to grants from the Commonwealth of Pennsylvania and the Pittsburgh History and Landmark Foundation (PHLF). Additionally, landscaping improvements along the Route 50 side of the property have enhanced the historic beauty of the site.

- In addition to its loyal volunteers, Woodville also receives support from PHLF and the National Society of the Colonial Dames in Pennsylvania. The Fourth Sub-Legion of the United States, known as Wayne's Legion, also operates at the site. This talented group of living history re-enactors educates the public by recreating the camp life of the United States Army during the last decade of the 18th century.

- Woodville hosts a number of events during the year such as "A Day with the Nevilles," where visitors to the plantation interact with costumed interpreters as they spend a typical weekend afternoon at the estate. Woodville is also available for rentals and offers a unique setting for small receptions, showers, lawn parties, corporate meetings, or any important event or celebration.

- Woodville Plantation is located at 1375 Washington Pike, Bridgeville, PA 15017. It is open year-round for guided tours on Sundays, 1–4 p.m. The cost to visit is $5 per adult, $3 for children (6 through 12); under 6 is free. The grounds are also open year-round for free self-guided tours Wednesday through Saturday, 10 a.m.–6 p.m. Special tours can be arranged for groups of 20 or more. For additional information, including rentals and NHA membership, visit http://woodvilleplantation.org/ or contact nevillehouseassociates@gmail.com or (412) 221-0348.

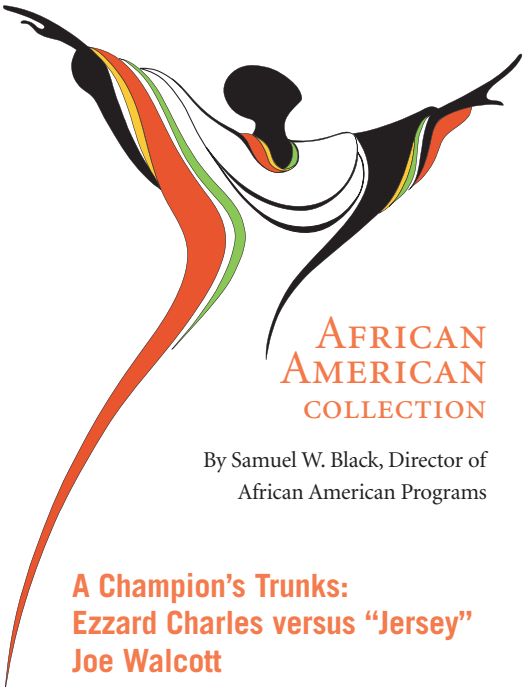
Woodville Plantation in Bridgeville.

The dining room inside Woodville Plantation.

The History Center Affiliates Program, HCAP, is a membership-based network that allows local and regional historical societies and museums access to museum professionals and best practice standards through the Senator John Heinz History Center.

To learn more about HCAP or to apply for membership for your organization, please contact Robert O. Stakeley, Educator, at rostakeley@heinzhistorycenter.org or (412) 454-6359.

Up Front



African American Collection

By Samuel W. Black, Director of African American Programs

Learn More Online
Video of the Ezzard Charles vs. "Jersey" Joe Walcott match

Black satin trunks with white trim worn by heavyweight champion of the world Ezzard Charles in his title fight against "Jersey" Joe Walcott, July 18, 1951. In the only heavyweight championship bout hosted at Forbes Field, Walcott upset Charles by knockout in the seventh round. Steelers owner Art Rooney and his partner in boxing promotion Barney McGinley promoted the bout. More than 28,000 fans attended what *Ring* magazine called the "Fight of the Year."
HHC Collections, gift of John R. McGinley, Jr., 2007.33.1. Photo by Liz Simpson.

A Champion's Trunks: Ezzard Charles versus "Jersey" Joe Walcott

When "Jersey" Joe Walcott was crowned the heavyweight boxing champion of the world, neither he nor his fallen opponent, Ezzard Charles, realized that Charles' boxing trunks would serve as material evidence of that historic occasion. Two years previously, in June 1949, Charles had defeated Walcott and claimed the heavyweight championship. The two pugilists came together again at Forbes Field on July 18, 1951, in the only heavyweight championship ever fought at that venue. Here, Charles' defense of his title served as a major milestone for Forbes Field and in Black sports nationwide.

Charles and Walcott had a long history together; they fought each other four times in three years. Today it is difficult to get top fighters in the ring together multiple times unless a world title is contended, but during boxing's heyday in the first half of the 20th century it was much more common. Major match-ups included Jack Johnson vs. Joe Jeanette (6), Charles vs. Walcott (4), Charles vs. Jimmy Bivins (5), Sugar Ray Robinson vs. Jake La Motta (5), Charley Burley vs. Holman Williams (6), and more recently Manny Pacquiao vs. Juan Manual Marquez (5).

Local sportsmen and owners of the Steelers, Art Rooney and Barney McGinley, promoted the Charles versus Walcott match. While Charles was entering a Pittsburgh ring for the 10th time in his career, the 37-year-old Walcott was fighting in the city for the first time. *Pittsburgh Courier* sports reporter Al Dunmore referred to Pittsburgh as Charles' "adopted hometown" because he fought here so much. However, as the boxers entered the ring, Walcott received the loudest applause.[1] Most people attribute the cool welcome for Charles to his unpopularity after defeating the beloved Joe Louis in the legends comeback title challenge in 1950. Charles found it hard to replace Louis as champion.

The 1951 bout was the ninth defense of the heavyweight championship for Charles. He spent most of his professional career that began in 1940 fighting at middleweight and light heavyweight.[2] In fact, he is recognized as one of the greatest light heavyweights of all time. Undersized as a heavyweight, Charles tipped the scales at 183 pounds — nothing like today's super-sized fighters, who rarely go below 220 pounds. Charles and Walcott were from a different era and fought at less than 200 pounds each. Nicknamed the "Cincinnati Cobra," Charles was the first man to defeat Joe Louis in a heavyweight championship fight in 1950. Louis was a national hero and such an icon of Black sport culture that Charles is said to have wept in the dressing room after the fight. Walcott too fought Louis but lost in his first bid at the heavyweight title in 1949. The 1951 Forbes Field fight would be Walcott's fourth shot at the title, and at age 37 his chances of becoming champion were fading fast.

Charles set up his training camp at a house owned by Earl Stroupe in Ligonier. Walcott trained at Rainbow Gardens in McKeesport.[3] Both men entered the ring with impressive records: Charles claimed 71 wins, 5 losses, and 1 draw, while Walcott entered at 49, 16, and 2. Their previous two fights had built-up an intensity between them, and with the title on the line it promised to be one of the more explosive bouts in heavyweight history. That Wednesday evening, 28,000 fight fans crowded into Forbes Field.[4] The live television audience in 46 cities nationwide tuned into what would be the largest audience to ever see a televised championship fight.[5]

Charles was the champion and favorite, and looked the part. He entered the ring with a bounce in his step. His white robe and black trunks clashed with Walcott's white trunks and plain robe. But once the fight started it was evident that Walcott's left hook would continue to find Charles' jaw. It was unlike their last fight, where Charles had dropped Walcott in round nine on his way to a unanimous decision win. This time Jersey Joe was smooth with his counter-punching, fade in and out style. Charles changed ring positions almost

Boxer Ezzard Charles poses with children wearing "Cheers for Charles" sashes, including Ethel Holt, Jacqueline Holyfield, Chestina Mallory, Barbara Jackson, Ernestine Allen, and Johnnie Allen, Donald Smith, and possibly Carl Redwood Jr. on left, in Ligonier High School gymnasium, 1951.
Charles "Teenie" Harris, © 2016 Carnegie Museum of Art, Pittsburgh: Heinz Family Fund, 2001.35.6200.

unnecessarily and his bounce began to fade. But whenever Walcott got close to land his patented left hook, Charles countered with a series of right and left hooks to the body and chin, then faded to Walcott's right to escape. Each man landed significant blows and the crowd cheered at every punch.[6] By the end of the sixth round Charles was ahead on points. Pittsburgh had never seen a heavyweight championship fight with so much action.[7]

In round seven, Walcott landed one of the best left hooks in boxing history and sent the champion Charles collapsing at his feet in the center of the ring. Charles fell face-first and struggled to get up. In fact, he never got up completely, as he fell backward into the neutral corner and onto the seat of his trunks, where he was counted out. Jersey Joe Walcott was mobbed by his handlers and the press—he was not only crowned heavyweight champion of the world, but was also the oldest fighter to ever claim the title. Never again would a heavyweight champion have so many losses (16). And not until George Foreman defeated Monessen's Michael Moorer in 1994 at age 45 would someone break Walcott's old-age record. The next heavyweight championship fight in Pittsburgh would be the 1981 Larry Holmes TKO of Renaldo Snipes at the Civic Arena. Charles versus Walcott was voted *Ring* magazine's fight of the year.

Both Ezzard Charles and Jersey Joe Walcott became Hall of Fame fighters. *Ring* magazine honored Charles as fighter of the year for 1949 and 1950 and the greatest light heavyweight of all time in 1994.[8] He was inducted into the International Boxing Hall of Fame in 1990. Walcott was honored as fighter of the year in 1951 and inducted into the International Boxing Hall of Fame with Charles. He served important capacities both inside and outside the ring. He refereed the Muhammad Ali versus Sonny Liston "phantom punch" rematch in Lewiston, Maine, in May 1965, and served as New Jersey State Boxing Commissioner from 1975 to 1984.

The trunks that Charles wore in his Forbes Field heavyweight title match are now preserved in the collection of the History Center. Made by Everlast, one of the leading boxing equipment companies at that time, the trunks are made of black and white satin and cotton, and were also worn by Charles during his historic fight against Joe Louis in 1950. These trunks not only document the thrilling championship fight but serve as a reminder of the many sporting activities once held at Forbes Field, as well as the dynamic world of Black sports in 20th-century America.

Boxer "Jersey" Joe Walcott with a baby on his lap, getting a haircut from barber Clarence "Speedy" Williams at the Crystal Barber Shop in the Hill District, July 1951.
Charles "Teenie" Harris, © 2016 Carnegie Museum of Art, Pittsburgh: Heinz Family Fund, 2001.35.6734.

1 Al Dunmore, "Did Crowd Reaction Beat EZ?" *Pittsburgh Courier,* July 28, 1951, 14.

2 Charles took a hiatus from 1944 to 1945 while he served in the army during World War II.

3 Images of both training camps are in the Charles "Teenie" Harris Archives of the Carnegie Museum of Art.

4 "Did Crowd Reaction Beat EZ?"14.

5 Ibid., 18.

6 Youtube.com/watch?v=p4jK73W0NBk; Boxing.com shows the full fight from an ESPN Classic broadcast. The original distributor of the film was Big Fights, Inc. The fight was shown live on television in the early days of televised fights.

7 This fight was the second major heavyweight fight in Pittsburgh following Jack Johnson's defeat of New Castle's Tony Ross at the Duquesne Gardens on June 30, 1909. *The Pittsburgh Post* did not count the Johnson versus Ross fight as a title fight. Johnson battered Ross around the ring at will for six rounds, sending him down for a nine count in the first round and an eight count in the third. Johnson was so confident that he spent much time entertaining his audience until he had to go to work and land meaningful blows to win.

8 *Ring* magazine was called the boxing bible as it was the leading boxing journal for most of the 20th century. *Ring* also was the official sanction of champions.

DISCOVERING JOHN BRASHEAR AND HIS FORGOTTEN TIME CAPSULE

By Liz Simpson and Anne Madarasz

The simple, brass box has a shallow lid and was soldered shut.
HHC Collections, L2015.50. Photo by Liz Simpson.

On March 24, 2015, as workers from the Jadell Minnifield Construction Company demolished the last wall of the John A. Brashear Astronomical & Physical Instrument Works building on the North Side, a small, brass box appeared in the wreckage. Placed in the cornerstone of that building more than 120 years ago, the box contained almost 60 documents, photos, and objects. Those material contents were carefully assembled by John Brashear, likely in 1894 after the building was completed. Brashear was a largely self-taught astronomer and instrument maker who rose to the peak of those professions in Pittsburgh through his hard work and desire for perfection. The material contents of the time capsule are much more than a simple record of the man, his building, or the times. They provide an intimate look at Brashear's career and life, documenting the people who helped him achieve his dream of building scientific instruments to explore the stars.

John Alfred Brashear was born to Basil Brown and Julia Smith Brashear in Brownsville, Pa., on November 24, 1840. His maternal grandfather, Nathaniel Smith, was a mechanic, tinkerer, and musician who helped to foster John's interests in those subjects. He also taught John to recognize the constellations and provided his first exposure to learning about the wonders of the night sky by taking him, at age 9, to meet a fellow amateur astronomer visiting their hometown of Brownsville. Brashear recalled his first glimpse through the small homemade telescope that "Squire" Joseph P. Wampler brought for the townspeople to look through: "young as I was, the scenery on the moon

Learn More Online
The forgotten history of John Brashear

The complete contents of the Brashear time capsule were carefully unpacked and documented in the Grace M. Compton Conservation Lab upon their arrival at the History Center.
HHC Collections, L2015.50. Photo by Liz Simpson.

and the rings of Saturn impressed me deeply."[1]

Brashear pursued some basic schooling, then as a teenager went to work as an apprentice in the pattern shop of steamboat builder John Snowden & Sons, where mechanical work and manual labor came more naturally to him. After his apprenticeship, work took him to Louisville, Ky., building engines for the city waterworks before the onset of the Civil War.[2] At age 21 he made his way back to Pittsburgh via Brownsville and settled into the city with various jobs, first as a millwright at the rolling mill of Zug & Painter in today's South Side and later briefly in the mold shop of Adams & Co., a glass factory.

While working at Zug & Painter, Brashear boarded at the home of Thomas Stewart and his daughter Phoebe. Brashear was also the choir director at the local Methodist church

John A. Brashear Astronomical & Physical Instrument Works located at 2016 Perrysville Ave. in Observatory Hill. Brashear and his workmen placed the time capsule in the cornerstone of this building on August 14, 1894 and it was not discovered until the building's demolition on March 24, 2015.
University of Pittsburgh Archives, Allegheny Observatory Records, 1850-1967, 6422.15.01.A0.

Learn More Online
John Brashear's fascinating autobiography

Conservator Csilla Crisanti was called in to the History Center to carefully open three envelopes in the time capsule that were sealed with adhesive. Here she applies steam to a narrow strip on the back of an envelope before gradually prying it open.
Photo by Liz Simpson.

where Phoebe taught, so the two came into contact frequently. Brashear recalls that, "Perhaps that was one of the most important episodes of my whole life; for an affection between us soon ripened into love, a love which abideth."[3] John and Phoebe married in a modest ceremony on September 24, 1862, and after putting away some savings, they made plans to build their own home on the South Side slopes to remain close to the mills. Together they would climb the hill to their plot of land on Holt Street where Phoebe "would help him put the boards in place, and either hold a lantern while he drove the nails or else hand the lantern up and drive nails herself."[4] The two also shared a deep love of the stars and, as soon as their home in the South Side was completed, they set out to fashion their own telescope in 1872. At night, in a small workshop behind their home after working long hours in the mill, Brashear pursued his true passion: fashioning a quality lens and building his own telescope.

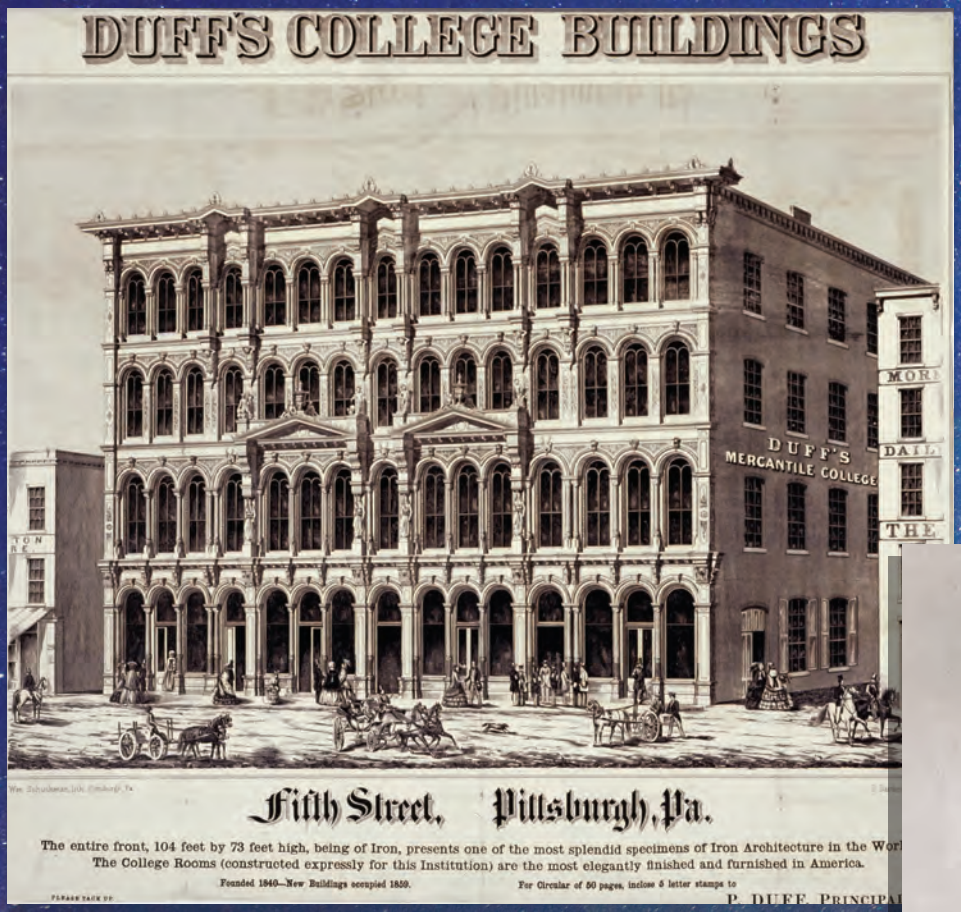
Brashear came of age as a scientist and inventor as the discipline of science emerged in America. Many noted inventors of his time, such as George Westinghouse and Thomas Edison, did not have extended formal schooling. They were tinkerers or mechanics whose observation and exploration of the physical world, matched with a creative and questioning mind, led them to new ideas. Structured programs to teach and share scientific learning at the university level were just beginning to form; the Massachusetts Institute of Technology, founded in 1861, began to offer classes in 1865.[5] MIT's emphasis on industrial science and its use of hands-on experimentation encouraged work in applied science and mirrored the processes of amateur scientists such as Brashear, who, through trial and error in his workshop laboratory, came to a new understanding of how to study the stars

Brashear relied on his relationships with other men of inquiry to further his studies. The letters to and from his contemporaries inside the time capsule document the importance of these connections to his life and career. After several setbacks, John and Phoebe completed their first five-inch refractor lens and were ready to have it examined by an expert. In a letter dated October 11, 1874, Brashear mustered the courage to write to Samuel Pierpont Langley, the first director of the Allegheny Observatory and a professor of astronomy at the Western University of Pennsylvania (now the University of Pittsburgh), to ask him to evaluate the quality of the lens and for his advice on improving it. As an amateur it must have been incredibly intimidating for Brashear to approach an established man of science like Langley. Brashear described when they met: "with fear and trembling, I unwrapped from a red bandana handkerchief my first five-inch objective which my wife and I had made. His encouragement then and afterwards made my subsequent work easier by far."[6] From that meeting Brashear was introduced to the larger scientific world and several wealthy patrons of the sciences.

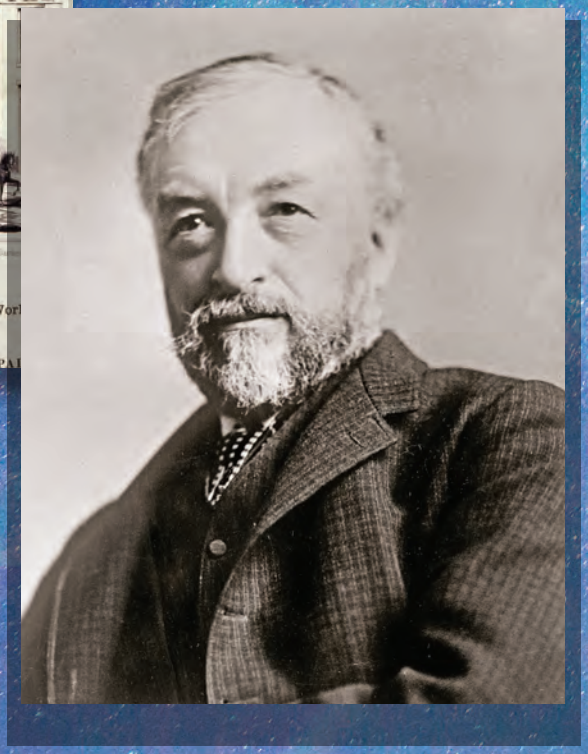
Chief among the reasons for Brashear's continued experimentations in making lenses and telescope apparatuses was his relationship with and monetary support from William Thaw, Sr. As a vice president for the Pennsylvania Railroad, Thaw became a wealthy patron of the sciences, donating generously to the Allegheny Observatory but also to many other causes throughout the country. Thaw first took notice of Brashear's astronomical expertise after reading of his findings and observations in local newspapers. The two were introduced to each other in person by Langley at the Allegheny Observatory and their dedication to advancing the knowledge of the stars bonded

Learn More Online
The history of the Allegheny Observatory

“They were tinkerers or mechanics whose observation and exploration of the physical world, matched with a creative and questioning mind, led them to new ideas.”



Brashear came to Pittsburgh around 1855 at age 15 to attend Duff’s Mercantile College, the first business school in the country. He returned home to Brownsville, Pa., after only a few months, as he was more suited for vocational training rather than studying bookkeeping.
HHC Detre L&A.



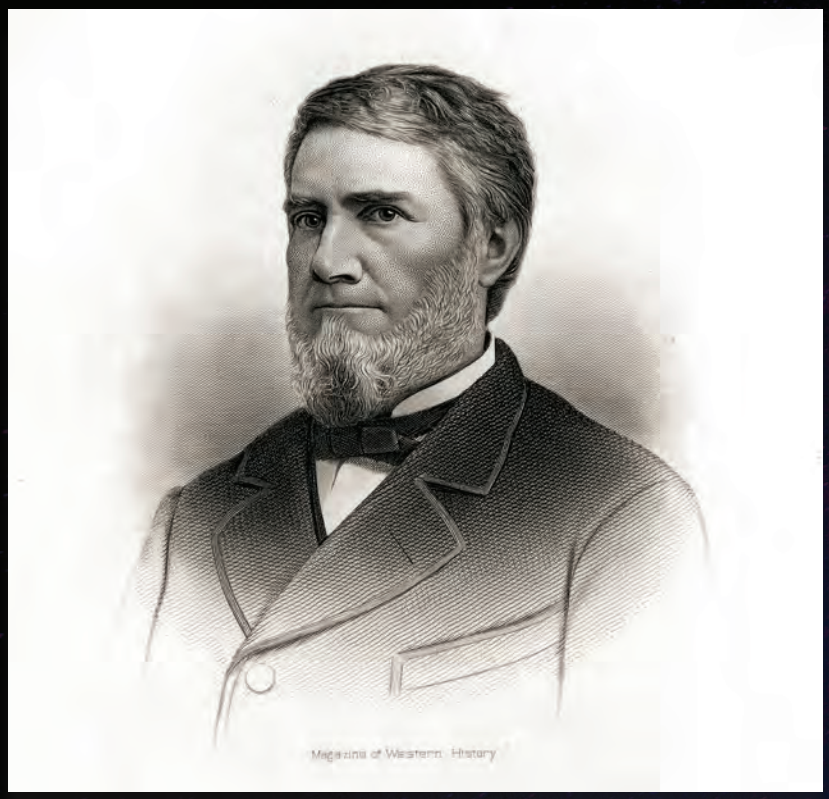
In 1867 Samuel Langley arrived in Pittsburgh to assume his post as the first director of the Allegheny Observatory. As evidenced in a letter in the time capsule, it wasn’t until 1874 that Brashear built up the courage to contact Langley and ask to meet for advice on his first lens. This meeting where Langley shared his books and enthusiasm with Brashear, helped professionalize his work and introduced him to the larger world of science.
Library of Congress, LC-H261- 9495-A.

Learn More Online
Video, John Brashear’s legacy

them. Thaw recognized Brashear's dedication to his craft and funded the enlargement of the shop behind his home that allowed him to produce more optical parts and do more complicated work for other astronomers. By 1881, the new shop was complete and Brashear was able to quit working at the mill to focus on making telescope equipment full time.

Helping Brashear too was his son-in-law, James McDowell, who had worked in the Bryce glass factory. With McDowell's skill and eye for perfection, their superior lenses, prisms, and mirrored surfaces were sought by the most advanced scientists in the U.S. and Europe. By 1885, the volume of work was too much for Brashear and his five assistants to handle and Thaw suggested that they move their business to a new, larger building.[7] In the spring of 1886, Thaw allowed him to build on a plot of land he owned on Perrysville Avenue near Allegheny Observatory where the air was also much clearer to observe the night sky. Brashear and his men designed the new building and its machinery to produce and test a variety of very precise lenses and instruments — Brashear "had never dreamed of having anything so nice."[8] Without ceremony on August 14, 1894, Brashear and his employees placed the time capsule box in the cornerstone of that building with the hope that it would be discovered some time in the future.

The letters, photographs, and ephemera in the time capsule give rare insight into the people that John Brashear held dearest in his life and work while also demonstrating the breadth of his impact on Pittsburgh and the scientific world. To Brashear, the memories of "his friends in this profession are to-day treasures of greater worth than gold or precious stones."[9] We are fortunate that Brashear decided to place so many pieces of his life into this box so that one day others might learn from and be inspired by his accomplishments. As Brashear writes in a letter that was found at the top of the time capsule, "I hope when I'm gone that these pieces will never be forgotten by those in whose hands I leave it." With this time capsule, his legacy and desire to share his knowledge of the beautiful world in which we live is now firmly preserved at the History Center.



William Thaw, Sr., philanthropist and one of the Pennsylvania Railroad's vice presidents, became the patron of Brashear's astronomical pursuits after being introduced to him by Langley. Without his aid, it would have been impossible for Brashear to continue his meticulous and costly work.
HHC Detre L&A.

See also "At Long Last, a Recreation Park Photo Comes to Light" in the Spring 2016 issue of *Western Pennsylvania History.*

Liz Simpson is the Assistant Editor/Assistant Registrar at the History Center who has worked to record and photo document the contents of the Brashear time capsule.

Anne Madarasz is the Vice President of Museum Exhibits and Collections/Co-Director of the Western Pennsylvania Sports Museum at the History Center.

[1] John A. Brashear and William Lucien Scaife, ed., *John A. Brashear: The Autobiography of a Man Who Loved the Stars* (Pittsburgh: University of Pittsburgh, 2001), 8.

[2] Ibid., 15.

[3] Ibid., 19.

[4] "'Uncle John' Brashear," *The Monthly Evening Sky Map 6,* no. 61 (New York: Sky Map, 1912).

[5] MIT Libraries Archives, "Top Ten MIT History Facts," https://libraries.mit.edu/mithistory/mit-facts/.

[6] John A. Brashear, 131.

[7] Ibid., 92.

[8] Ibid., 96.

[9] Ibid., 38.

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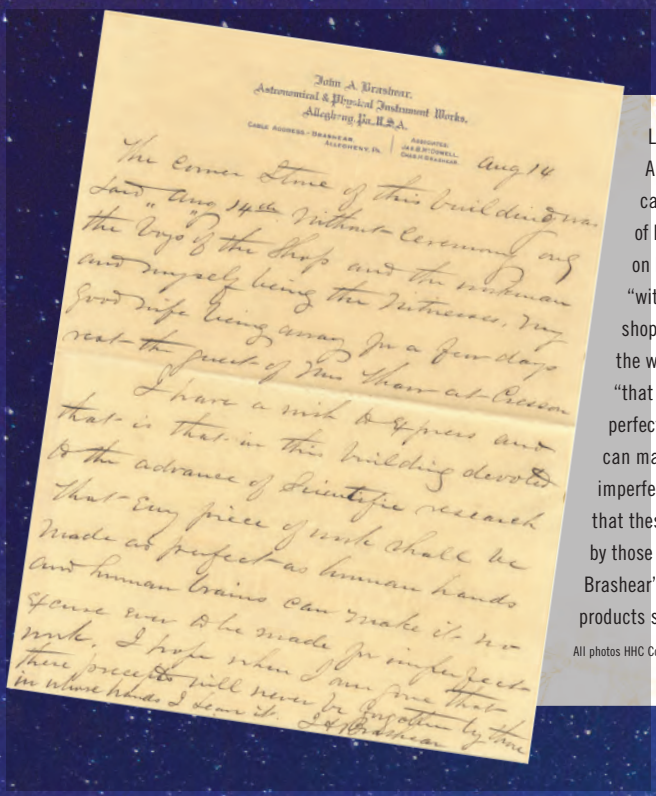
NOW

YOU CAN EXPERIENCE THE EXCITEMENT OF

OPENING JOHN BRASHEAR'S TIME CAPSULE FOR YOURSELF.

« Simply open the gatefold to explore a selection of the most meaningful items that were found inside.



Letter written by John Brashear on August 14, 1894, the day that the time capsule was placed into the cornerstone of his new astronomical workshop building on Perrysville Avenue. It was deposited "without ceremony and the 'boys' of the shop and the workmen and myself being the witnesses." Brashear states his wish "that every piece of work shall be made as perfect as human hands and human brains can make it, no excuse ever to be made for imperfect work. I hope that when I am gone that these precepts will never be forgotten by those in whose hands I leave it." It was Brashear's desire for perfection that made his products so valuable to scientists.

All photos HHC Collections, L2015.50.

Cabinet card of John Brashear. On the back, Brashear writes, "The 'Governor' or 'Pa' as the boys of the shop call him. At the building or rather laying of this corner stone he is 53 years 9 months and 20 days old. August 14, 1894."

Brashear was a beloved figure in the community and invited neighbors to visit him and look through the telescope he had in his home on Holt Street in the South Side. In his autobiography he writes, "I think that all my life I have been partial to old people and children, and it has always been a source of genuine pleasure to contribute to their happiness…. It is sharing the good I have received with the 'other fellow' that makes life worth living."[1]

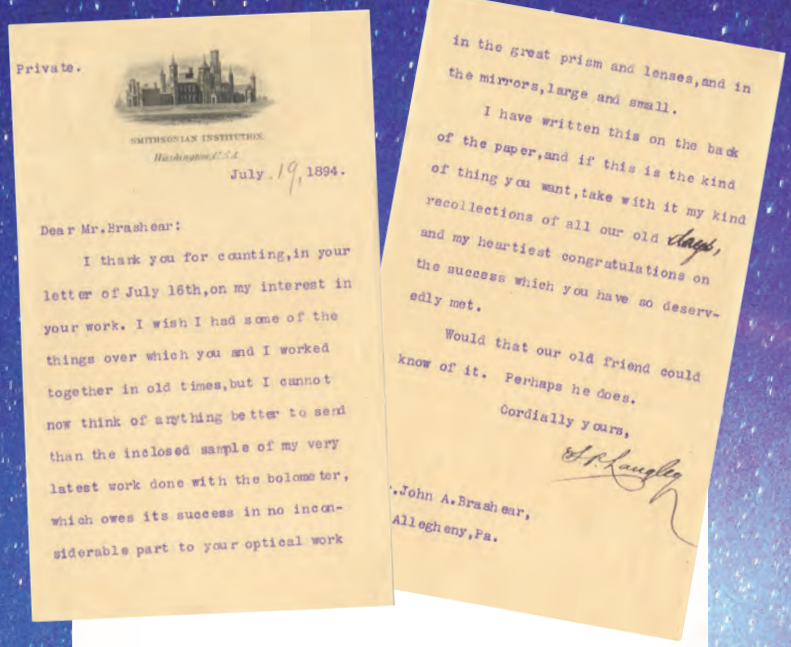
Cabinet card of Effie Afton McDowell, adopted daughter of John and Phoebe Brashear and wife of James McDowell.

Cabinet card of Brashear's wife, Phoebe. Brashear writes on the front of the image, "My Dear 'Girl' – 'Ma' as we all call her. To her we give all credit for our success—she deserves it. JABrashear."

Recalling their work to create their first five-inch lens in their little workshop behind their house on Holt Street in the South Side, Brashear writes:

> Night after night I came home from the rolling mill to find steam up and everything in readiness for work in the little shop. Ma kept the engine oiled, the tools and bottles in order, and the room neat and clean. After supper was over and the dishes washed, she would come back to help me in my mechanical work and later in my observations. Her material assistance was valuable, but the inspiration I had from her which helped me over the rough places of life to the next step is completely beyond my poor words of appreciation. She was a helpmate in the fullest sense of the word.[2]

Also included in the time capsule is a lock of Phoebe's hair and on the envelope Brashear writes, "It was she who stood by me through the darkest hours and whose good cheer & helping hands and loving sympathy were prime factors in my success."



Private.

SMITHSONIAN INSTITUTION.
Washington, D.C.

July 19, 1894.

Dear Mr. Brashear:

I thank you for counting, in your letter of July 16th, on my interest in your work. I wish I had some of the things over which you and I worked together in old times, but I cannot now think of anything better to send than the inclosed sample of my very latest work done with the bolometer, which owes its success in no inconsiderable part to your optical work in the great prism and lenses, and in the mirrors, large and small.

I have written this on the back of the paper, and if this is the kind of thing you want, take with it my kind recollections of all our old days, and my heartiest congratulations on the success which you have so deservedly met.

Would that our old friend could know of it. Perhaps he does.

Cordially yours,

S. P. Langley

Mr. John A. Brashear,
Allegheny, Pa.

Letter from Samuel P. Langley on Smithsonian Institution letterhead, dated July 19, 1894. Brashear received this letter to be placed in the time capsule almost 20 years after first writing to Langley for advice. Langley became the third Secretary of the Smithsonian in 1887, splitting his time between Washington, D.C., and the observatory in Pittsburgh. For three years, Brashear assisted Langley's investigations into the laws governing flight by making the mechanical apparatuses that he used in his testing.[5]

This small, rough piece of glass has "#16 Flint Macbeth" etched on the front. The inscription in ink is difficult to decipher but it appears to read, "One of the first pieces of optical glass made in America. May we hope that when this stone is opened America will lead the world."

Obtaining quality optical glass became one of the main challenges Brashear faced in making lenses. Much of what he used had to be ordered from Europe, so the glass took months to arrive and was often damaged in transit. This piece is likely from a factory opened by George Macbeth, a Brashear friend, in 1891. A Pittsburgh glass manufacturer who specialized in lamp chimneys, Macbeth bought a 13-acre piece of land in Elwood, Indiana, and built a two-furnace factory. He relocated about 150 glass workers from Pittsburgh to man the operation and they began producing lead glass chimneys. In one part of the facility called "The French House," probably in deference to French master glassman Edmond Feil, Macbeth began experimenting with the production of glass for lenses. With experimentation, some quality optical glass resulted. It is known that Brashear used Macbeth glass for the lens of a telescope made for the Tokyo Observatory and other later projects. Production halted after Feil left and Macbeth failed to find an accomplished glassman to replace him.

Photograph of the "Boys of the Shop," 1893, found inside the back of the book, *In Memoriam William Thaw*.

C. James McDowell married the Brashear's adopted daughter, Effie, in March 1880. McDowell worked for Bryce Glass Company and later brought his knowledge of glass making and polishing to Brashear's company. Upon the opening of the new Allegheny Observatory with equipment made by his company, Brashear praised McDowell's work, writing that he "left no stone unturned that we might have the very best."[3]

M'. "Jackie" John A. McDowell was married at 22 and listed as an optician at Brashear's company. Later, on company letterhead, he is referred to as the treasurer. Jackie died in 1920 at age 39 from influenza.

M. "Walt" James W. McDowell was listed with the Brashear company personnel and worked on lenses. He died of pneumonia in 1916 at the age of 32.

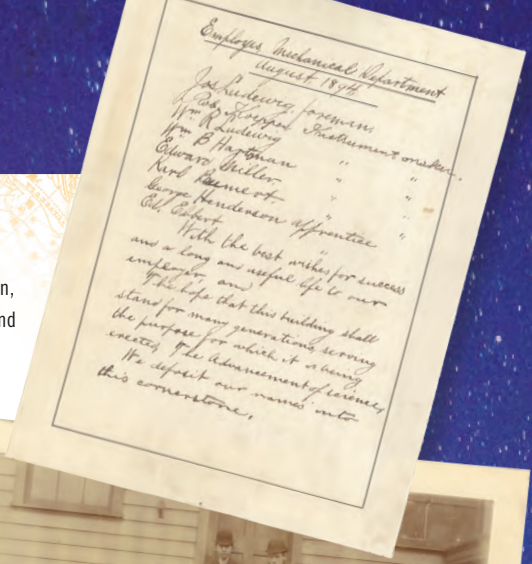
Walt and Jackie were Effie and James' children and the grandchildren of the Brashears.

J. Charles Harry Brashear was the adopted son of John and Phoebe. He was an associate in Brashear's company and later died of typhoid fever after contracting it on vacation in 1896.

Cyanotype of the Western University of Pennsylvania (now University of Pittsburgh), 1893, taken by John Brashear, who asks on the back, "What will it be in — when this stone is opened. May it be a second Harvard or Yale."

Cyanotype of the Allegheny Observatory spectroscope. Brashear writes on the back, "One of our best Spectroscopes. Made for 'Allegheny' U.S. Naval and Yerkes Telescopes."

The new field of astrophysics created many customers for the Brashear factory. Instruments could be ordered from a standard catalog or custom made to meet the customer's specific needs. The Allegheny spectroscope was used by James Keeler to discover that the rings of Saturn were made of particles.



Employees Mechanical Department
August 1894

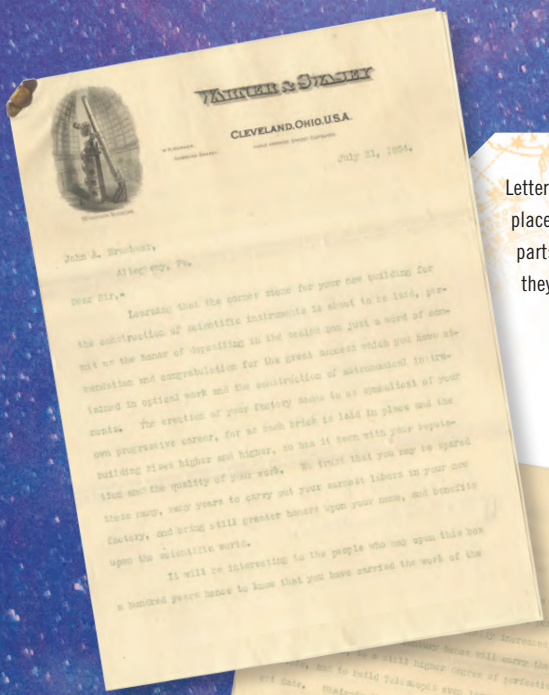
Joe Ludewig foreman
Wm. R. Ludewig
Wm. B. Hartman
Edward Miller
Rud. Pfenneot
George Henderson apprentice
Ed. Sobert

With the best wishes for success and a long and useful life to our employer, and The hope that this building shall stand for many generations serving the purpose for which it is being erected, The Advancement of science, We deposit our names into this cornerstone.

Albumen print of the employees of Brashear's Mechanical Department, August 1894.

Written on the back are the names of the men, all makers of telescope mounts, tubes, dials, and focusers. The text reads, "With the best wishes for success and a long and useful life to our employer, and The hope that this building shall stand for many generations, serving the purpose for which it is being erected, The Advancement of science, We deposit our names into this cornerstone."

Etched into the underside of the lid of the metal time capsule box is the name E. Miller, likely Edward Miller, who is seated at the top of the steps on the left. It is probable that he is the person who fabricated the box.



WARNER & SWASEY
CLEVELAND, OHIO, U.S.A.

July 21, 1894.

John A. Brashear,
Allegheny, Pa.

Dear Sir,—

Learning that the corner stone for your new building for the construction of scientific instruments is about to be laid, permit us the honor of inserting in the sealed box just a word of congratulation and congratulation for the great success which you have attained in optical work and the construction of astronomical instruments. The erection of your factory seems to be symbolical of your own progressive career, for as each brick is laid in place and the building rises higher and higher, so has it been with your reputation and the quality of your work. We trust that you may be spared these many, many years to carry out your earnest labors in your new factory, and bring still greater honors upon your name, and benefits upon the scientific world.

It will be interesting to the people who may open this box a hundred years hence to know that you have carried the work of the

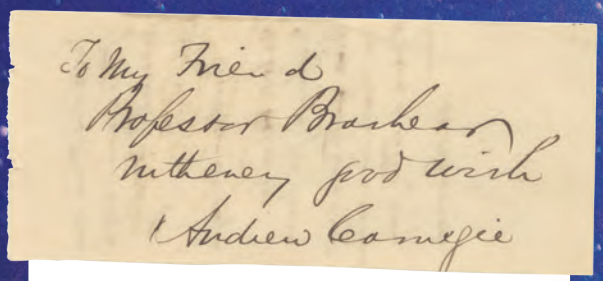
the largest Tele-
illuminating power
increased area, and we
will carry the work, so far
a still higher degree of perfection, if that is
date. Whatever they may do, they will look back with grateful
pride to what you have accomplished, for you have given them all the
secrets which you have wrought out from nature's laws, so we can
truthfully congratulate both you and your successors in the coming
centuries on the work you have done, and on the splendid building
you are erecting for carrying this work to a still greater degree of
perfection.

Most sincerely yours,

W. R. Warner,
Ambrose Swasey

Letter to Brashear from W.R. Warner and Ambrose Swasey to be placed in the time capsule. Warner & Swasey made mechanical parts for telescopes that were ordered by Brashear. In their letter they write:

> It will be interesting to the people who may open this box a hundred years hence to know that you have carried the work of the optician to that stage of perfection which enables the largest Telescope Objective to excel the small ones in space penetrating power by the full amount of their proportionally increased area, and we hope that those people a century hence will carry the work, so far advanced by you, to a still higher degree of perfection, if that is possible, and to build Telescopes even larger than those of the present date. Whatever they may do, they will look back with grateful pride to what you have accomplished, for you have given them all the secrets which you have wrought out from nature's laws, so we can truthfully congratulate both you and your successors in the coming centuries on the work you have done, and on the splendid building you are erecting for carrying this work to a still higher degree of perfection.

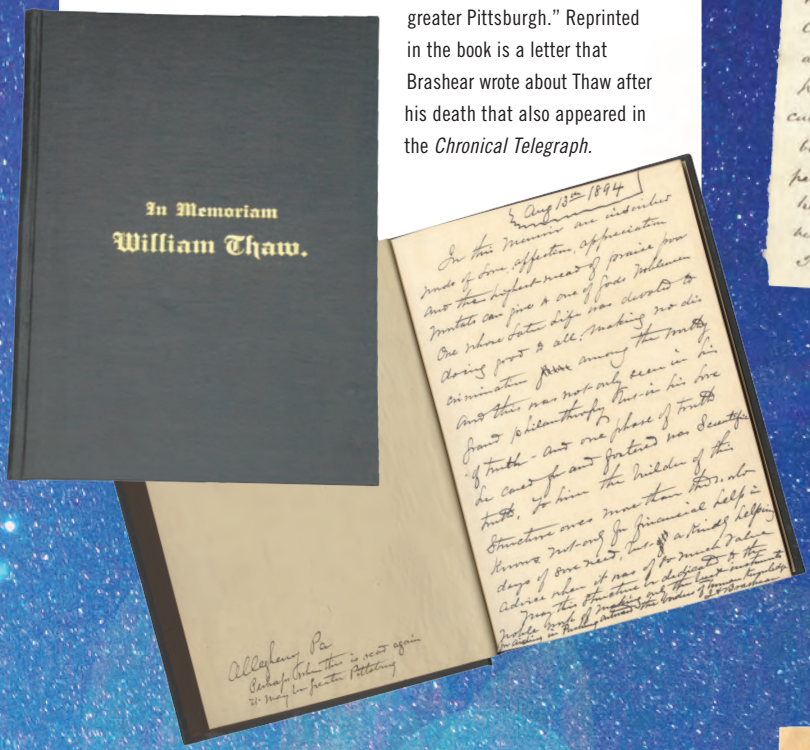


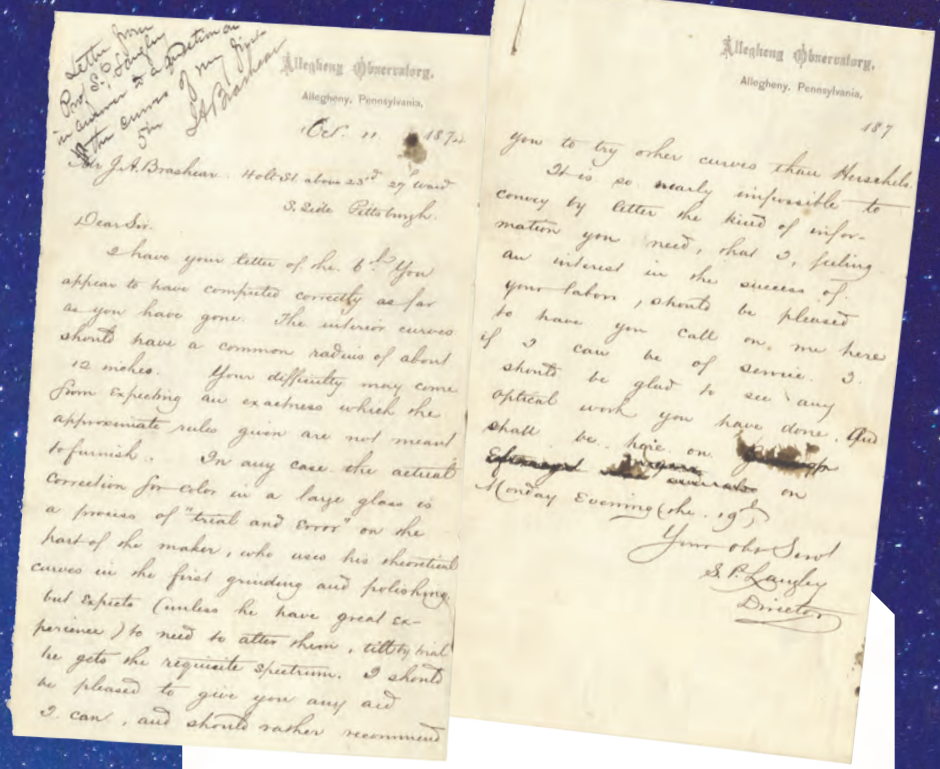
To my friend
Professor Brashear
with every good wish
Andrew Carnegie

Clipping from one of the many books that Brashear borrowed from Andrew Carnegie. Brashear could not reach Carnegie in time to ask for a contribution for the time capsule since he was in England and decided to include this small piece that he already possessed. Carnegie was among Brashear's personal friends and one of the sponsors of the new Allegheny Observatory, donating $20,000 to the project. From 1898 until 1912 when the new observatory opened, Brashear worked almost single-handedly to raise the $300,000 needed for the new building and equipment.

Book from William Thaw, Sr.'s memorial, 1891. Samuel Pierpont Langley, director of the Allegheny Observatory, introduced Brashear to William Thaw, Sr., who was a patron of the observatory. Believing in Brashear and seeing the passion behind his optical work, Thaw funded many of his endeavors and paid for his new factory on Perrysville Avenue in which the time capsule was placed.

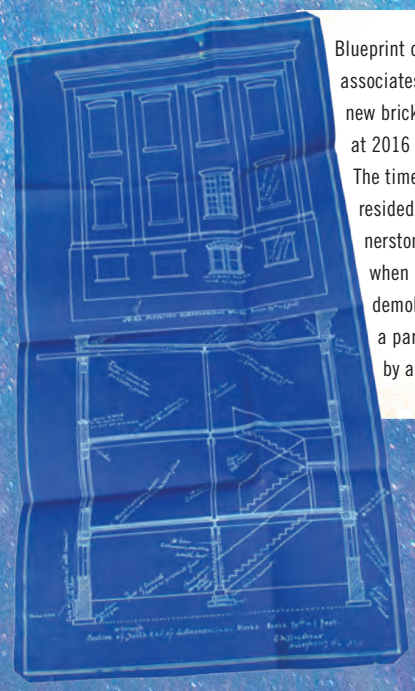
Inside the front cover of the book is a note from Brashear ruminating on his friend and the building the day before the time capsule was deposited: "May this structure be dedicated to the noble work of making only the best instruments for aiding in pushing outward the bounds of human knowledge…. Perhaps when this is read again it may be [a] greater Pittsburgh." Reprinted in the book is a letter that Brashear wrote about Thaw after his death that also appeared in the *Chronical Telegraph.*




Allegheny Observatory.
Allegheny, Pennsylvania.
Oct. 11 1874
Mr. J. A. Brashear. Holt St. above 23rd 27 ward
S. Side Pittsburgh.
Dear Sir.
I have your letter of the 6th. You appear to have computed correctly as far as you have gone. The interior curves should have a common radius of about 12 inches. Your difficulty may come from expecting an exactness which the approximate rules given are not meant to furnish. In any case the actual correction for color in a large glass is a process of "trial and error" on the part of the maker, who uses his theoretical curves in the first grinding and polishing but expects (unless he have great experience) to need to alter them, till by trial he gets the requisite spectrum. I should be pleased to give you any aid I can, and should rather recommend you to try other curves than Herschel's. It is so nearly impossible to convey by letter the kind of information you need, that I, feeling an interest in the success of your labor, should be pleased to have you call on me here if I can be of service. I should be glad to see any optical work you have done. I shall be here on Monday Evening (the 19th)
Your obt Servt
S. P. Langley
Director

Letter dated October 11, 1874, from Samuel P. Langley, then director of the Allegheny Observatory, to Brashear in response to a question he asked about the curves of the first five-inch lens that he and his wife made. Langley says that, "I, feeling an interest in the success of your labor, should be pleased to have you call on me here if I can be of service. I should be glad to see any optical work you have done."

This may very well be the first piece of correspondence between these two men whose work would be intertwined for decades. Brashear recalls in his autobiography that his first visit to the observatory was in 1876, but we now know from this letter that they were in contact two years earlier, in 1874.[4]



Blueprint drawn by Brashear and his associates showing a section of his new brick astronomical workshop at 2016 Perrysville Avenue, 1894. The time capsule Brashear created resided in this building's cornerstone until March 24, 2015, when it was discovered during demolition of the building after a partial wall collapse caused by a storm.

Tintype of Charles Harry Brashear and his friend Walter Dearth, taken July 1894. This piece was sealed inside an envelope in the time capsule and was one of the items that the History Center had carefully unsealed by a conservator. This is likely the last professional portrait of Charles Harry before his death in 1896.

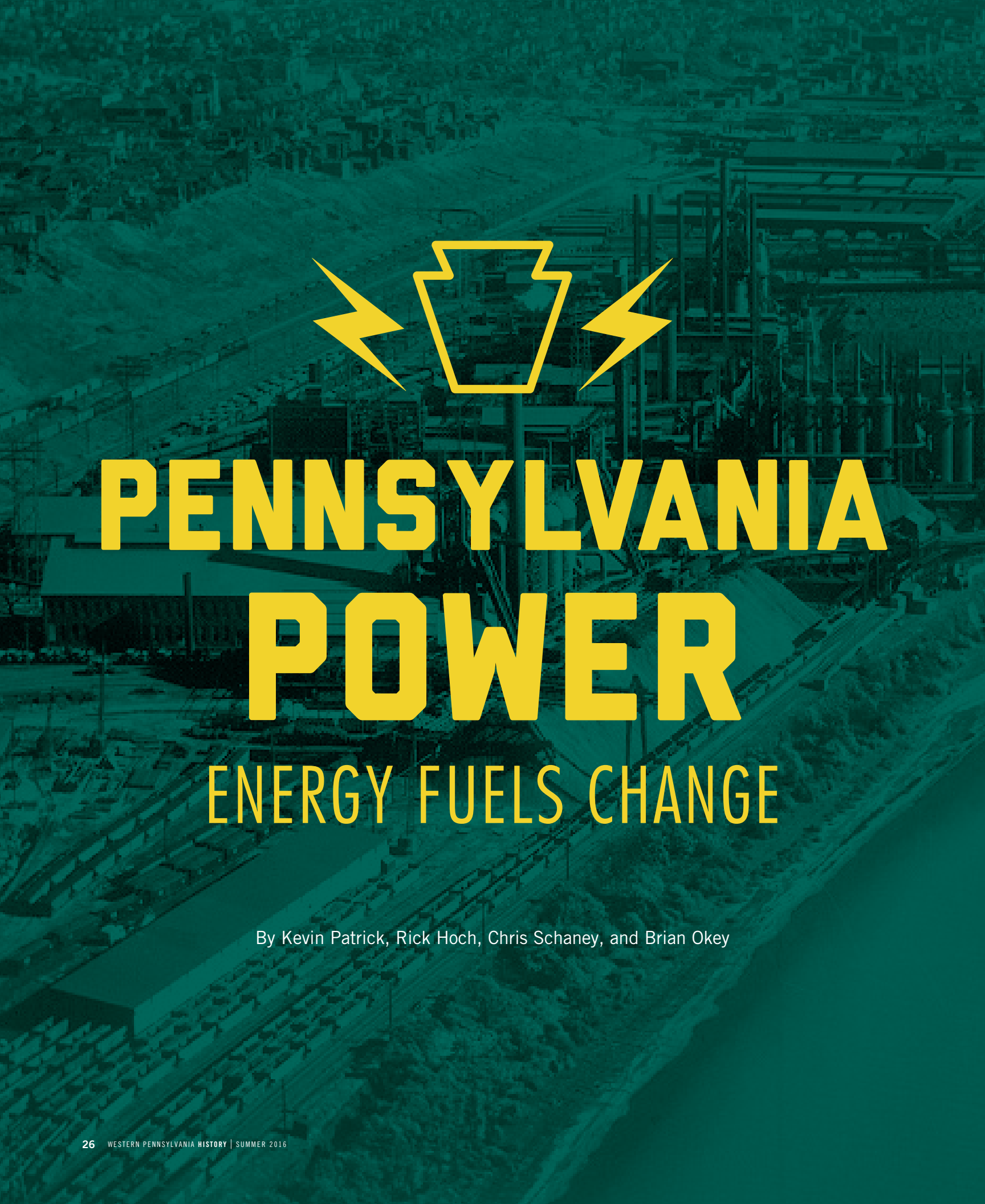
[1] John A. Brashear and William Lucien Scaife, ed., *John A. Brashear: The Autobiography of a Man Who Loved the Stars* (Pittsburgh: University of Pittsburgh, 2001), 61, 153.

[2] Ibid., 61-62.

[3] Ibid., 143.

[4] Ibid., 128.

[5] Ibid., 130.



PENNSYLVANIA POWER

ENERGY FUELS CHANGE

By Kevin Patrick, Rick Hoch, Chris Schaney, and Brian Okey

McConnells Mill water-powered grist mill, 2008.
All modern photos by Kevin Patrick.

If you're driving from Indiana County to Pittsburgh, somewhere west of Saltsburg you will notice the sky ahead is glowing orange. Getting closer, you will see a massive tongue of fire flickering above the darkened tree tops. It's the new Marcellus gas flare stack set ablaze to test the pressure in the well after the drilling phase. It is unearthly, completely controlled yet seemingly out of control, a symbol of Pennsylvania's latest energy boom.

The energy industry is not new to Western Pennsylvania. Not far away in Murrysville, a forgotten monument marks the site of the Haymaker Well. Inspired by Edwin Drake's first well in 1859, Michael and Obediah Haymaker were searching for oil but struck a huge natural gas pocket instead. With no capping technology available, the well roared uncontrollably for three years, caught fire, and burned for another year and a half as the region's most famous tourist attraction. The Haymaker well is part of Pennsylvania's far-reaching energy heritage. Oil and gas stand on the shoulders of humble wood, charcoal, and water power. These are all tied inextricably to bituminous coal and coke. Today, they allow us to look forward to new energy resources. From the wood lots of 18th-century frontiersmen to 21st-century wind turbines making electricity from the breezes that blow over its ridges, Western Pennsylvania is tied to an energy economy of its own making.

Learn More Online
Video tracing the history of converting natural resources into energy in Pa

Buena Vista Furnace in Indiana County, 2007.

Forests also fueled the first stage of Pennsylvania's iron industry as wood was cut and roasted into charcoal to fuel the furnaces that smelted iron out of local iron ore.

WOOD AND WATER FROM FOREST TO FARM TO FURNACE

The vast forests that Pennsylvania pioneers pushed into west of the Allegheny Mountains were the region's first energy resource, easily accessed with unlimited potential to light cooking fires and heat homes. Soon an army of axmen descended upon Penn's Woods to chop, then float, the timber down the Allegheny River to Pittsburgh and into the Ohio Valley. Although the timber rafts included cord wood, most of this was lumber to build cities rather than heat them. Fuel wood harvesting occurred on a more localized scale. In rural areas, woodlots for home heating and cooking fuel were part of nearly every farmstead, with the average colonial household burning the equivalent of one acre of woods every year.

Forests also fueled the first stage of Pennsylvania's iron industry as wood was cut and roasted into charcoal to fuel the furnaces that smelted iron out of local iron ore. The first charcoal-burning ironworks was established near Pottstown in 1716, and the technology made its way west, to Fayette, Greene, Westmoreland, and Allegheny Counties, before shifting northward to Armstrong, Clarion, and Venango Counties where forest fuel was readily available, and iron bars could be shipped down the Allegheny River to markets in Pittsburgh and beyond.[1]

In addition to wood for heat, the early industrial age was fueled by water for mechanical power. The harvesting of falling water required a dammed stream from which a ready supply of water could be diverted. The weight of the falling water turned a power wheel, which turned a central power shaft connected to machinery that either reciprocated (like a saw blade or textile loom), turned (like a grinding wheel or circular saw), or hammered (as in a forge or bloomery).

Learn More Online
Brief history of Western Pa's energy production

Even iron furnaces required water power to operate the bellows that provided the blast.

The forests of Western Pennsylvania were converted to farmland through the use of water power. Nearly every good-sized stream was dammed for saw mills and grist mills. The water-powered saw mill/grist mill combination was the foundation of village manufacturing in the rural countryside. The restored McConnells Mill in Lawrence County is Western Pennsylvania's best surviving example of a water-powered flour mill dating back to 1852, when Daniel Kennedy built it on the steep, stony shores of Slippery Rock Creek. By 1860, a water-powered saw mill was operating next to the grist mill. Thomas McConnell bought the mill in 1875, replacing the waterwheel with a turbine, and the grind stones with iron rollers to increase the mill's efficiency and allow it to stay in business until 1928.

By 1849, Pennsylvania had 228 charcoal iron furnaces and 112 charcoal iron forges, nearly 80 percent of them powered by water.[2] The industry, however, was on the verge of a radical change as it actively scaled up to produce much larger batches of higher quality blast furnace iron. This required a switch in fuel from charcoal to coke made from bituminous coal, another Western Pennsylvania treasure.

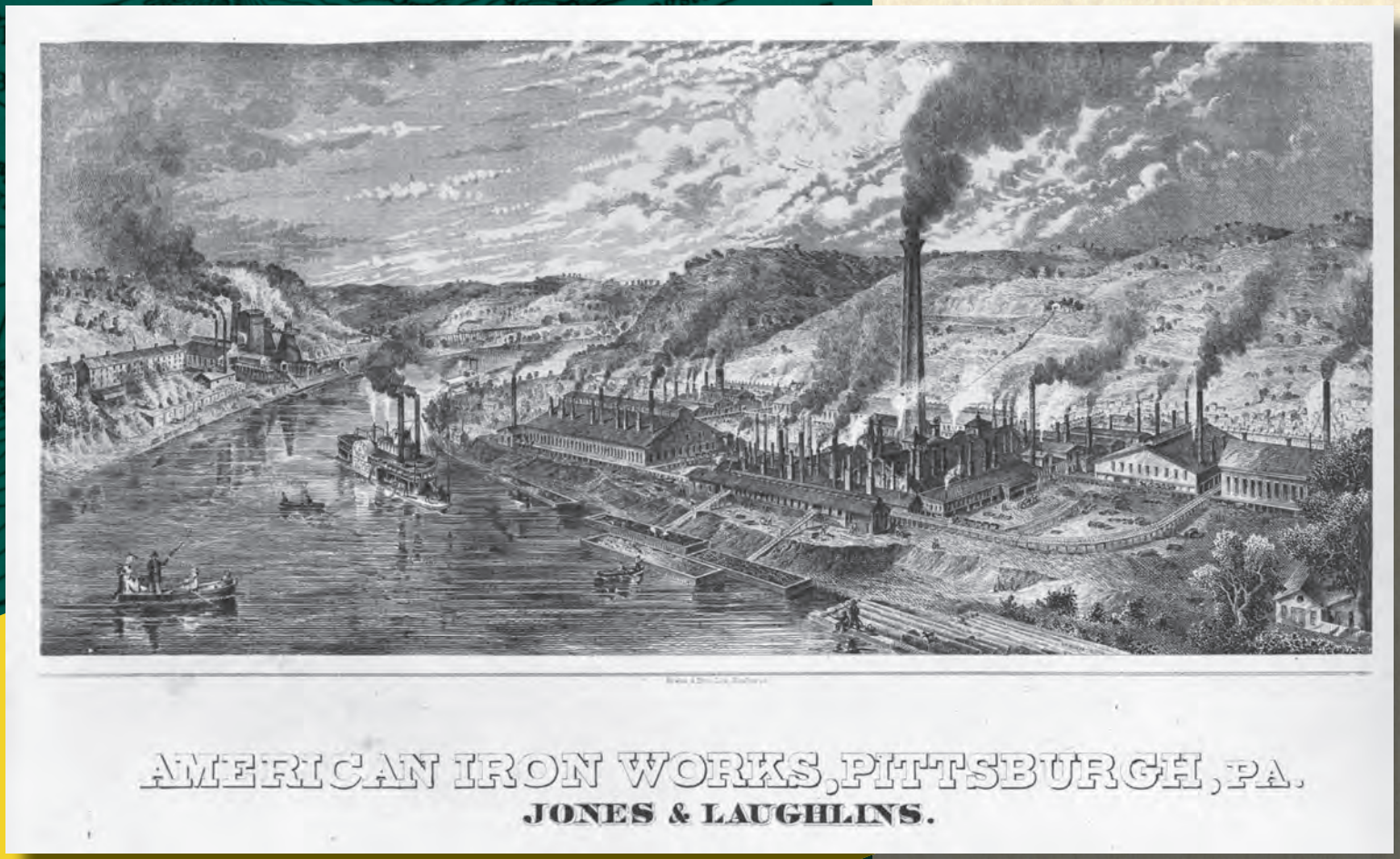
KINGDOM OF COAL AND COKE

Western Pennsylvania's bituminous coal seams are essentially fossilized forests that grew in the tropical heat of extensive coastal swamps some 300 million years ago. The coal formations are stacked youngest to oldest from the southwestern corner of the state where the Pittsburgh seam (the richest mineral deposit on the planet by the total value of rock extracted) outcrops in Fayette, Washington, Allegheny, and Westmoreland Counties towards the east, and northeast where the Freeport and Kittanning seams outcrop in Cambria, Somerset, Armstrong, Indiana, and Clearfield Counties, plus in isolated patches farther north.

By 1800, Pittsburgh was already being described as a "smoky city" due to its coal fires.[3] It took a lot of effort to chop, cord, and tote wood, but coal dug from Coal Hill across the Monongahela River sold cheaply on the streets of Pittsburgh. Unlike hard-to-burn anthracite from northeastern Pennsylvania, bituminous coal readily caught fire, requiring no special stove. Even in the countryside, house coal mines—called "country banks"—were common to many farmsteads.

Western Pennsylvania's bituminous coal was also used to manufacture gas for light in the 19th-century cities of the Ohio Valley, and to fuel steam engines that replaced the water-powered mills of early manufacturing. Railroads opened the region's bituminous fields, carrying the steam coal to markets north, west, and east. Along the tendrils of tracks came the company coal patches, and their modest, lookalike houses thrown up at the mine portals that attracted wave upon wave of Eastern and Southeastern European laborers. By 1880, the Connellsville Coke District, a corridor of coal mining that stretched along

The Radiant Home Stove made by the Germer Stove Company in Erie captured the shift from wood to coal as a home heating fuel.
Author's collection.



American Iron Works, c. 1875, with coal-fired steam power represented by steamboats, trains, and the central power plant at the J&L Mill identifiable by its tall smokestack.
HHC Detre L&A, Jones & Laughlin Steel Corporation Collection Photographs, MSP33.B007.F10.I01.

The Connellsville Coke District peaked at 38,986 beehive coke ovens in 1918.

the west side of Chestnut Ridge through Fayette and Westmoreland Counties, had 54 new coal patch communities, such as Bessemer, Buckeye, Frick, Henry Clay, Tip Top, West Overton, and Wheeler. By 1916, there were almost 150 settlements.[4] Bituminous coal production and employment peaked in 1918 with approximately 170 million tons of coal mined by more than 187,000 miners.[5]

Although the Freeport and Kittanning seams were also mined in the Connellsville Coke District, the low-ash, low-sulfur coal from the overlying Pittsburgh seam was the real money-maker, being the perfect metallurgical coal to fuel a new generation of larger iron-making blast furnaces needed for the flourishing steel industry. With the adoption of the Bessemer Converter used to make large batches of steel from molten iron in the 1860s, the steel industry shifted away from the anthracite furnaces of Eastern Pennsylvania and re-centered

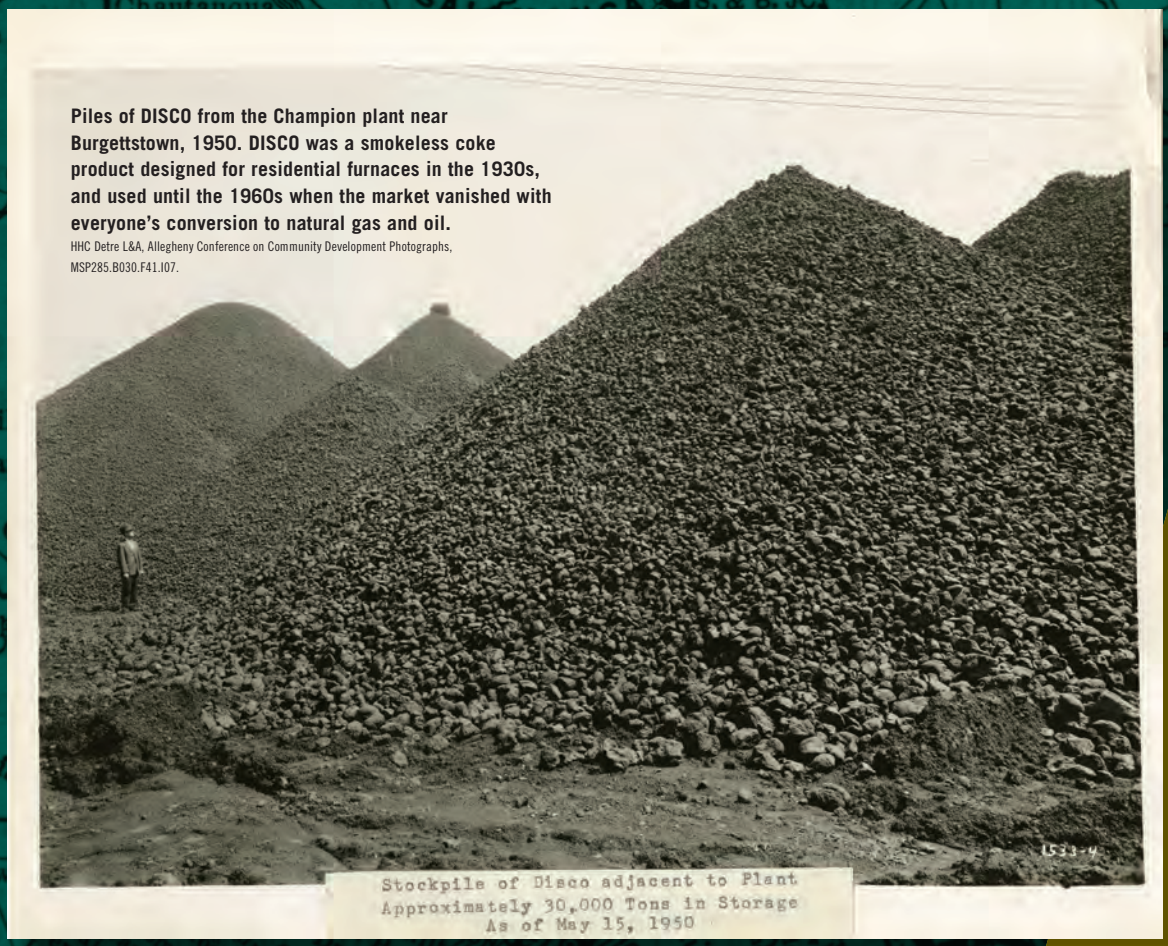
around Pittsburgh to be near the source of Connellsville's superior blast furnace fuel.

Much as wood is turned into charcoal to increase its heating potential, coal is baked into coke in ovens deprived of oxygen. The carbon-rich coke is structurally stronger, and more able to bear the weight of larger batches of iron ore and limestone in the blast furnace.[6] The first pair of beehive coke ovens was constructed at Hickman Run down the Youghiogheny River from Connellsville in 1842.[7] The design became an industry standard, built in single rows or double banks at the mine site until the adoption of the more sophisticated by-product coke plant. Arriving first at Connellsville's Dunbar Furnace in 1894, the by-product oven, which used the gases driven off the roasting coal to produce a wide range of chemical by-products, ultimately shifted production of coke from the mine to the steel mill site. The Connellsville Coke District peaked at 38,986 beehive coke ovens in 1918, most of them built by the H.C. Frick Company before its 1901 merger into U. S. Steel.[8] In 1914, the Koppers Company moved to Pittsburgh to build by-product coke plants for the steel industry, and five years later U. S. Steel opened the world's largest coke plant at its Clairton Works on the Monongahela River. In 1915, 54 percent of the nation's coke came

The significance of the coke industry in early 20th-century Western Pennsylvania is illustrated by the double coke arch that H.C. Frick workers built over Connellsville's main intersection for the Fayette County Centennial in 1906.
Coal and Coke Heritage Center, Penn State Fayette Library, Lemont Furnace, Pa.

This 1949 photo shows the six blast furnaces at U. S. Steel's Carrie Furnace site in Rankin, which smelted all of the iron for the Homestead Steel Works in the distance. The magnitude of the operation illustrates how coke led to the relocating of iron and steel industries from rural charcoal furnaces to integrated steel mills closer to Pittsburgh.

University of Pittsburgh Archives Service Center, William J. Gaughan Collection, 943.64945.GN.



Piles of DISCO from the Champion plant near Burgettstown, 1950. DISCO was a smokeless coke product designed for residential furnaces in the 1930s, and used until the 1960s when the market vanished with everyone's conversion to natural gas and oil.
HHC Detre L&A, Allegheny Conference on Community Development Photographs, MSP285.B030.F41.I07.

from beehive ovens in the Connellsville Coke District, but as the steel industry expanded into the Great Lakes region using by-product coke plants, Western Pennsylvania's beehive coke industry collapsed. Shoaf in Fayette County had the last operating beehive coke plant, shut down in 1972 for not being able to comply with new clean air standards.

Production of Pennsylvania coal declined after World War II, suffering from competition by natural gas, oil, and other sources of coal. In 2014, Pennsylvania produced 61 million tons of coal, ranking it fourth among states after Kentucky, West Virginia, and Wyoming.[9] Western Pennsylvania employed 7,287 miners in both surface and underground mines in 2013, and two-thirds of its coal is used to produce electricity, half of which is sent to cities outside the state, with much of the remainder exported overseas.

OIL AND GAS IN THE AGE OF ILLUMINATION

Oil and natural gas were not first discovered in Pennsylvania. Several ancient cultures used easily extracted or collected oil and gas, including the region's Native Americans, who trapped oil from natural seeps for medicinal purposes. The significance of Drake's Well, brought into production on August 27, 1859 just outside of Titusville, was instead the technology used to create the first commercially

In 2014, Pennsylvania produced 61 million tons of coal, ranking it fourth among states.

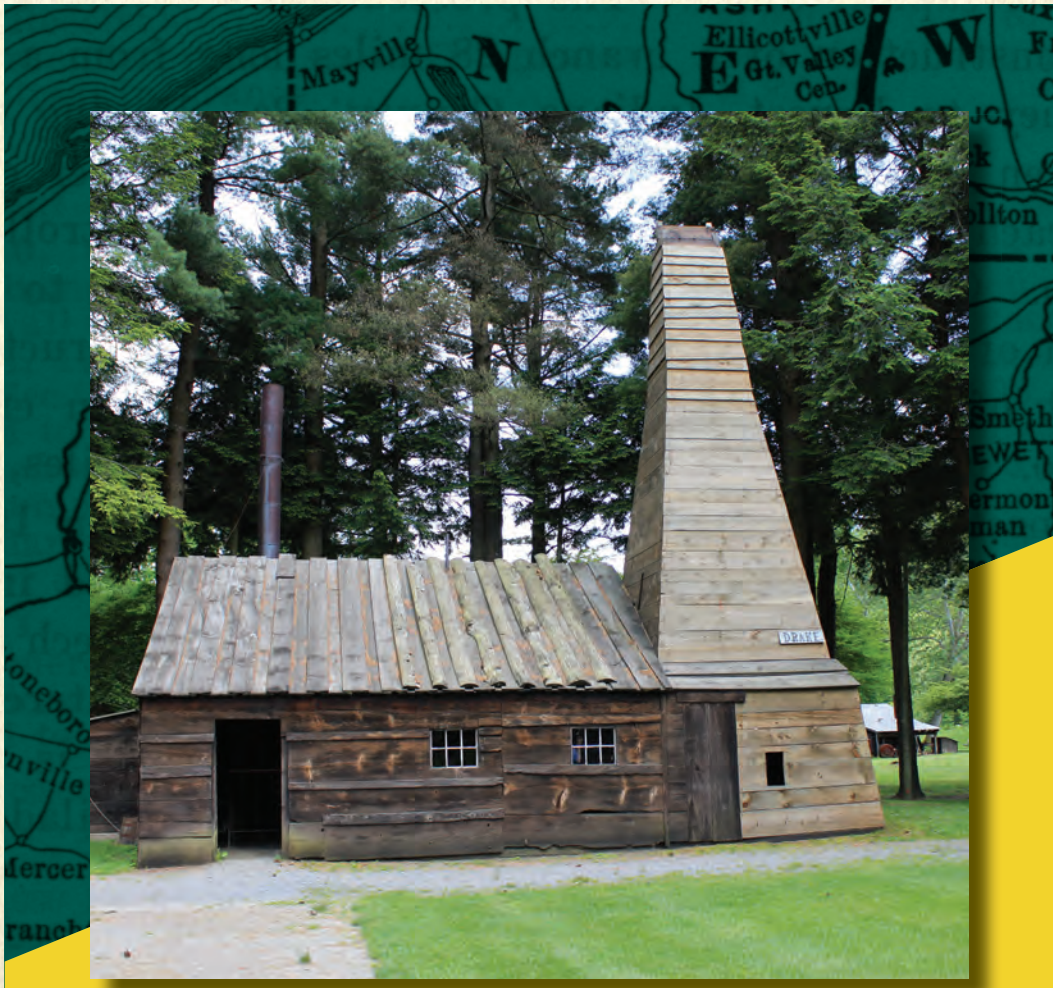
productive well, and subsequently touch off what became the first American oil boom.

Mid-19th century America was in the midst of its first energy crisis—it sourced its best lamp oil from whales, which were being driven to the edge of extinction in far-flung oceans. Increasing industrialization was also driving up demand for a cheap, reliable illumination fuel to keep factories running at night, as well as strengthening the need for lubricating oils used in machines. Oil had been fouling the salt wells of Western Pennsylvania for decades, most of it drawn off and dumped before Samuel Kier tested some of the oil poisoning his Tarentum wells and found it could be distilled into lamp oil. In 1853, Kier opened a one-barrel still on Seventh Avenue in Pittsburgh, the first U.S. oil refinery.[10]

Once it was determined that the region's crude oil could be distilled into lamp oil, the Pennsylvania Rock Oil Company was formed, the first oil company in the United States. Bankrolled by investors from Connecticut, the company (reformed in 1858 as Seneca Oil) sent Edwin Drake to investigate oil seeps in Titusville. Drake was completely inexperienced, but resourceful. After his first attempt at digging a hole in an oil seep failed because of groundwater infiltration, he hired an experienced salt well driller, William "Uncle Billy" Smith, and devised a method of casing the well with pipe to keep the water out. Seneca Oil withdrew its funding, but Drake pressed on and, with a steam engine as a power source, he struck oil at 69.5 feet, an astounding stroke of luck that could have happened only at the site he was drilling. Most subsequent wells would not find oil within 500 feet. Oil production quickly spread throughout the Venango County area during the 1860s.[11] While Seneca expanded into many more wells, Drake failed to purchase more land or patent his invention, and he lost his investments.

As the early Venango Field played out in the late 1860s, the oil industry shifted farther down the Allegheny watershed to the Butler-Clarion Field, opening wells at Parker's Landing in 1869, Brady's Bend in 1871, and at Karns City and Petrolia in 1872.[12] Then in 1875, the Crocker Well started a boom in the Bradford Field farther north in McKean County that dominated for the next 10 years. By 1881, the Bradford Field was producing 100,000 barrels a day, 83 percent of all the crude oil produced in the U.S. and 77 percent of that produced on the entire planet.[13] Pennsylvania's last great gusher came in 1937, surprising even the Niagara Oil Company responsible for drilling the well at Music Mountain in McKean County, where it tapped into the narrow, previously unknown Sliverville Sand responsible for a flow of 500 barrels an hour.[14]

Throughout the oil industry's early age of illumination, the main product was kerosene, used primarily as a lamp oil. Control of the industry quickly shifted from producers to refiners after the formation of John D. Rockefeller's Standard Oil Company in 1870. Its subsidiary South Penn Oil eventually controlled a quarter of Pennsylvania's output, as well as much of the state's crude oil pipelines through its Oil City-based National Transit



Drake's Well was reconstructed in 1945 as the centerpiece of the Drake Well Museum in Titusville.
Photo by Kelly Anderson Gregg.

In 1853, Samuel Kier opened a one-barrel still in Pittsburgh, the first U.S. oil refinery.

Company. Even after the oil industry shifted to the Gulf Coast, and turned from making kerosene to gasoline, Pennsylvania Grade crude was valued for its properties as a lubricating oil. Wolf's Head Oil, Pennzoil, and Quaker State were at one time all headquartered in Oil City with refineries nearby. Although these brand names are no longer refined in Pennsylvania, Kendall Oil is still produced in the Bradford refinery of its 1881 origin. Founded in 1902, Warren's United Refining Company continues to make gasoline for Kwik Fill and Keystone. In Butler County, the Bear Creek refining complex at Karns City and Petrolia specializes in white mineral oil for cosmetics and pharmaceuticals.

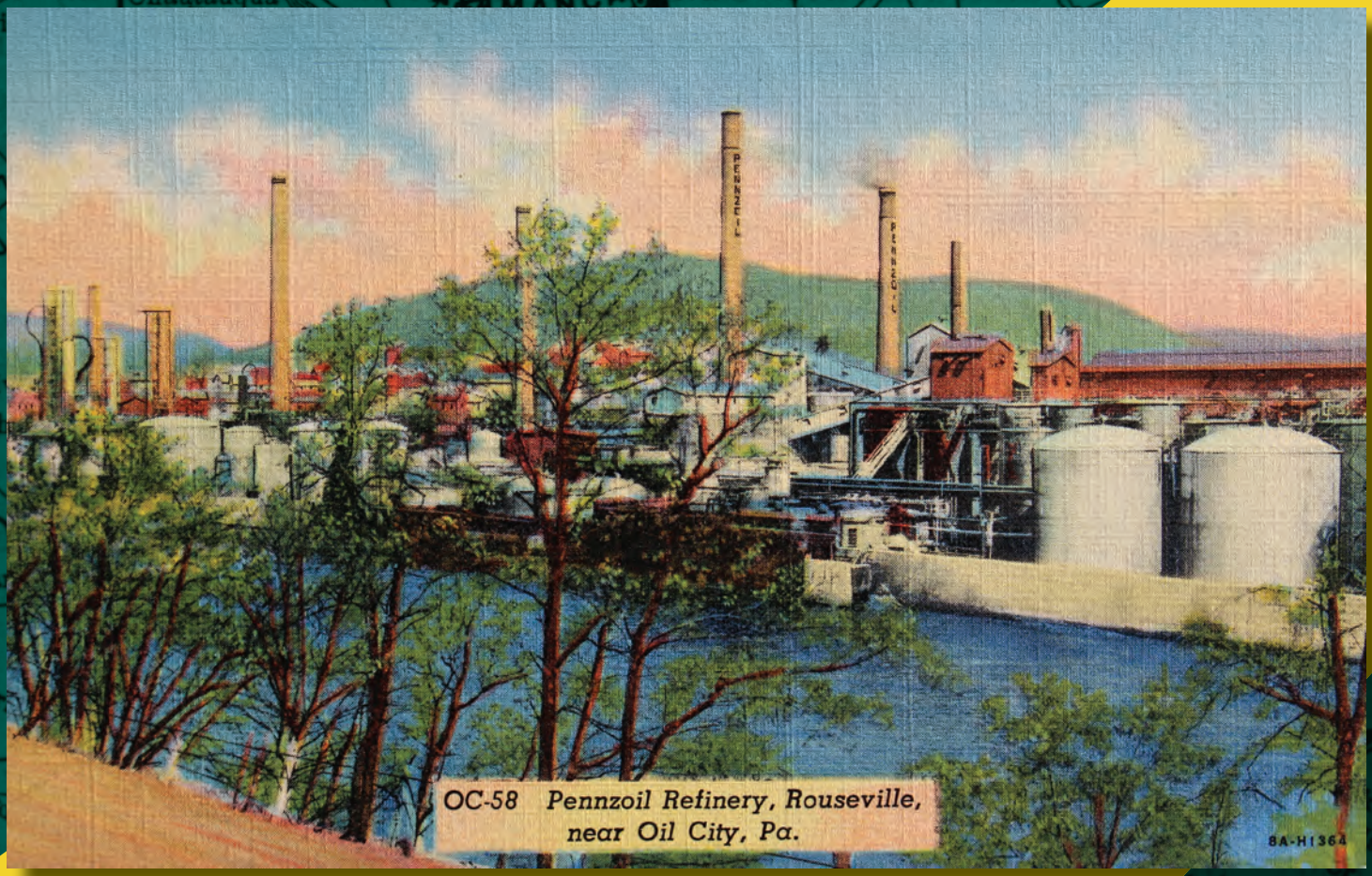
With natural gas, the Haymaker brothers weren't the only ones to light up the Western Pennsylvania sky: George Westinghouse did it too. Natural gas had been a fickle, hard-to-find and harder-to-control energy resource that was as explosively dangerous as it was useful. It was initially used at the point of production or piped short distances to a specific end user. In 1884, natural gas was piped to the Painter

An extremely rare, virtually intact oil well from the 1910s in Heidelburg.

Iron Works, and nearby Taylor Salt Works on Pittsburgh's South Side from the McGuigan #1 Well located 22 miles away in Washington County, also serving an additional 50 houses along the route.[15] Even the wild Haymaker well was brought under control in 1883, and the gas piped 16 miles west to 16th Street in Pittsburgh, making it the first major city to be served by natural gas.[16]

George Westinghouse was so intrigued by the potential of natural gas that when geologists told him his mansion, Solitude, in Pittsburgh's Point Breeze neighborhood, sat over a gas deposit he had four gas wells drilled in his backyard to experiment with natural gas production, control, and distribution equipment. The pressurized gas he struck on May 29, 1884, obliterated the well and scattered the twisted junk throughout his yard. The ire of his wealthy neighbors (H.J. Heinz and Henry Frick among them) was subdued by the free gas he piped to their homes. Within a year, Westinghouse had patented 28 new gas delivery related inventions to distribute this cleaner form of home heating and cooking fuel.

With new technology available and an expansion in pipeline networks, gas production increased throughout Western Pennsylvania during the late 19th and early 20th centuries, culminating in the McKeesport gas boom of 1919. The Hamilton #3 Well working the Devonian Speechley Sand in Snake Hollow roared to life on August 30, 1919. Producing twice the amount of the best Marcellus gas wells now, the gas gusher touched off a frantic scramble to drill wells. A forest of derricks went up in the established town of Versailles, where people leased their back yards and tore down their houses for gas wells. With 22,000 wells poked into the same deposit, it was sucked dry by 1921. In the end, $35 million was invested for $3 million worth of gas. The effects of the boom plague Versailles Borough even now, where legacy gas accumulates beneath the houses and requires venting.[17]



Postcard showing the old Pennzoil refinery near Oil City, when all the lubricating motor oils had refineries in the region.

Penreco's current white oil refinery in Karns City makes mineral oil for cosmetics and pharmaceuticals.

Gas production in Western Pennsylvania culminated in the McKeesport gas boom of 1919.

PENNSYLVANIA POWER TO MAKE ELECTRICITY

Thomas Edison's greatest invention was not the lightbulb, but the complicated system needed to generate and distribute the electricity that bulbs needed. Ever-larger central power plants spread to other municipalities, producing electricity by using coal-fired boilers to generate steam to turn turbines that spun generators. Electric lights quickly supplanted kerosene and gas lamps. George Westinghouse, heavily involved in municipal utilities, soon became more famous for his company's electric power equipment and appliances than for his natural gas distribution innovations.

It should be recognized, however, that electricity is a second-stage power resource requiring the conversion of some primary power source like the falling water used at a hydroelectric dam to turn the turbine, or the wind against a wind turbine blade, or oil / gas/ coal / uranium fuel rods used to boil water for steam turbines. Western Pennsylvania's electricity generation is a function of its primary power source: coal.

Prior to World War II, coal was railed from the bituminous fields of Western Pennsylvania to municipal power plants operating in eastern cities. After the war, the development of a national power grid allowed the electricity to be shipped by wire from even larger generating stations located at the fuel source in the bituminous fields, or along the Ohio River and its navigable tributaries where Appalachian coal can easily be barged to the power plant. The largest generating station in Western Pennsylvania is First Energy's Bruce Mansfield coal-fired power plant on the Ohio River at Shippingport. Built between 1976 and 1980, Bruce Mansfield's three units have the capacity to generate 2,490 megawatt

(MW) hours of electricity per year, enough to service over 16 million homes.[18] First Energy also owns the adjacent 1,815 MW Beaver Valley power plant, Western Pennsylvania's only nuclear generating station.

In the 1960s and '70s, three large mine-mouth power plants opened in Indiana and Armstrong Counties. The 1,711 MW Keystone generating station opened at Shelocta in 1968, followed by the first two units at Homer City in 1969. A third Homer City unit in 1977 brought its generating capacity up to 1,884 MW. The Conemaugh generating station opened at New Florence in 1971 with a capacity of 1,872 MW.[19] As the nearby mines exhaust their coal, the railroads built in the early 20th century to take coal out are now being used to bring coal in.

With the rising interest in environmentally friendly "green energy" there has been a renewed appreciation for water power, specifically small hydroelectric generators retrofitted to pre-existing U.S. Army Corps of Engineers flood and navigation dams. Since 1989, Allegheny River Lock & Dams 5 (Freeport), 6 (Clinton), 8 (Templeton), and 9 (East Brady) have all been fitted with run-of-river generators. That year, Armstrong County's Mahoning Dam (1941), the Youghiogheny Dam above Confluence (1943), and Indiana County's Conemaugh Dam (1952) were also retrofitted with hydroelectric generators. While the power produced by these dams can service thousands of homes, their electrical output is relatively small. The four Allegheny River navigation dams plus the three headwater flood control dams collectively generate about 70 MW-hours of electricity per year—less than four percent of a Homer City power plant.[20] The region's largest hydroelectric facility is the Seneca Pumped-Storage Generating Station at the Kinzua Dam site above Warren. The facility built c. 1970 generates 435 MW-hours of electricity per year.

SHALE GAS BONANZA

Pennsylvania's current energy boom in deep shale gas from the Devonian-aged Marcellus formation, and the even deeper Utica shale, has propelled the state to number two in natural gas production after Texas. Four trillion cubic feet of gas was brought to the

Haymaker Gas Well monument in Murrysville.

A primitive form of fracking was pioneered in Pennsylvania in the 1860s when nitroglycerin torpedoes were used in "shooting" oil wells to increase production.

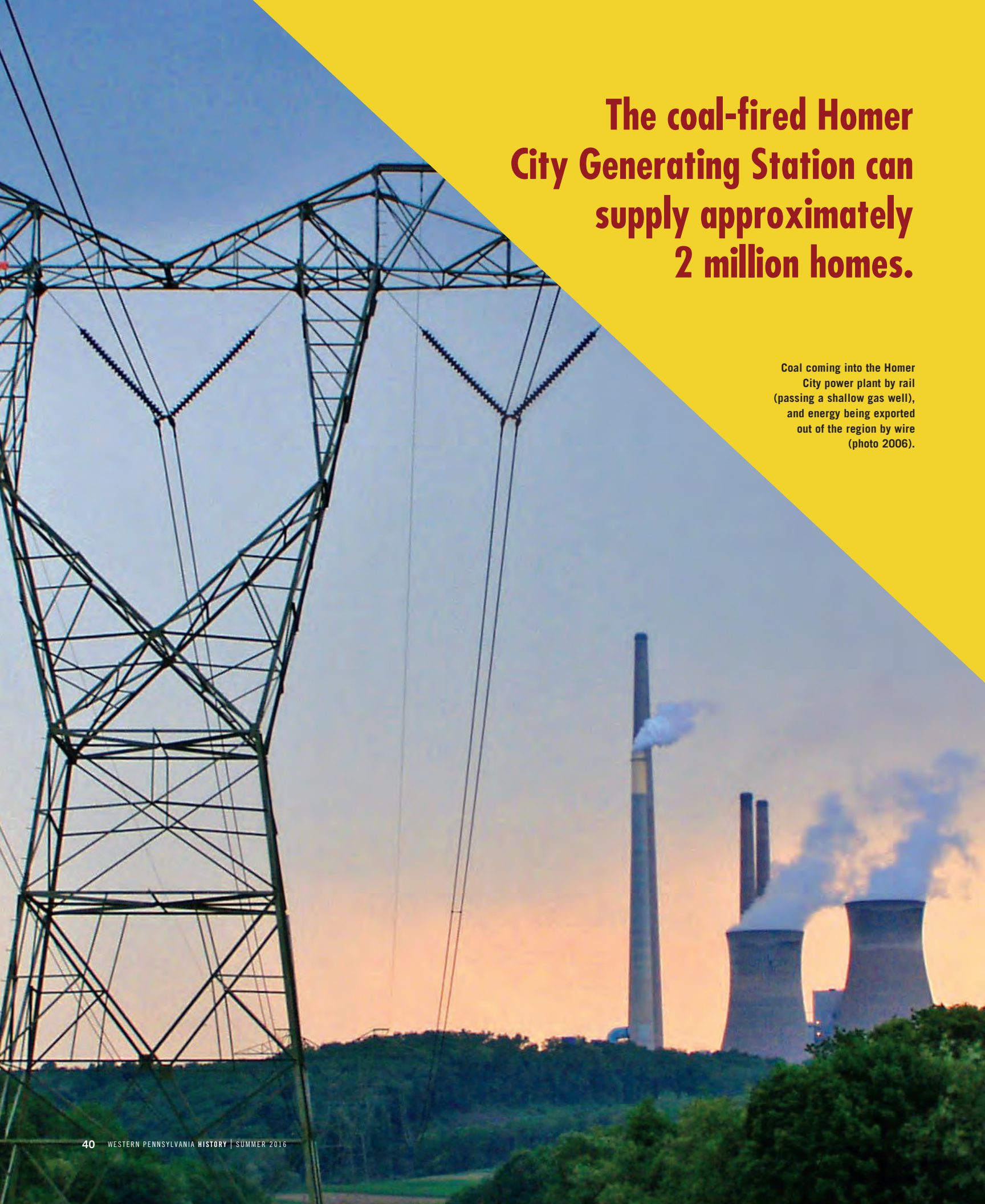
surface in Pennsylvania in 2014, double what was produced two years earlier. Most of that increase was from Marcellus shale, which is located beneath the Allegheny Plateau in Northern and Western Pennsylvania.[21]

Geology, however, isn't the only reason why Pennsylvania is experiencing this shale gas boom. Much of the research and development for exploiting shale gas resources began back in the 1970s at the U.S. Department of Energy (DOE) in Morgantown, West Virginia. The DOE's Unconventional Gas Research Program was stimulated by the Energy Crisis of 1973. It laid the foundation for the Eastern Gas Shales Project, an initiative whose research and technological developments resulted in five test wells drilled in Pennsylvania to provide data on the geologic characteristics of the Marcellus formation.[22] Tools such as nitrogen stimulation to release gas from the shale, seismic testing, directional drilling, and hydraulic fracturing advanced in use after the federal investment and research was conducted.[23]

Fracking, using a pressurized fluid to shatter the rock around a drill hole to facilitate the movement of gas or oil, is not new. A primitive form of fracking was pioneered in Pennsylvania in the 1860s when nitroglycerin torpedoes were used in "shooting" oil wells to increase production. Directional drilling, however, is a critical recent innovation in which the bit, having descended through more than a mile of layered rock, can be turned to drill horizontally through the productive shale strata, allowing the subsequent fracking to shatter more rock to release the gas into several drill holes.

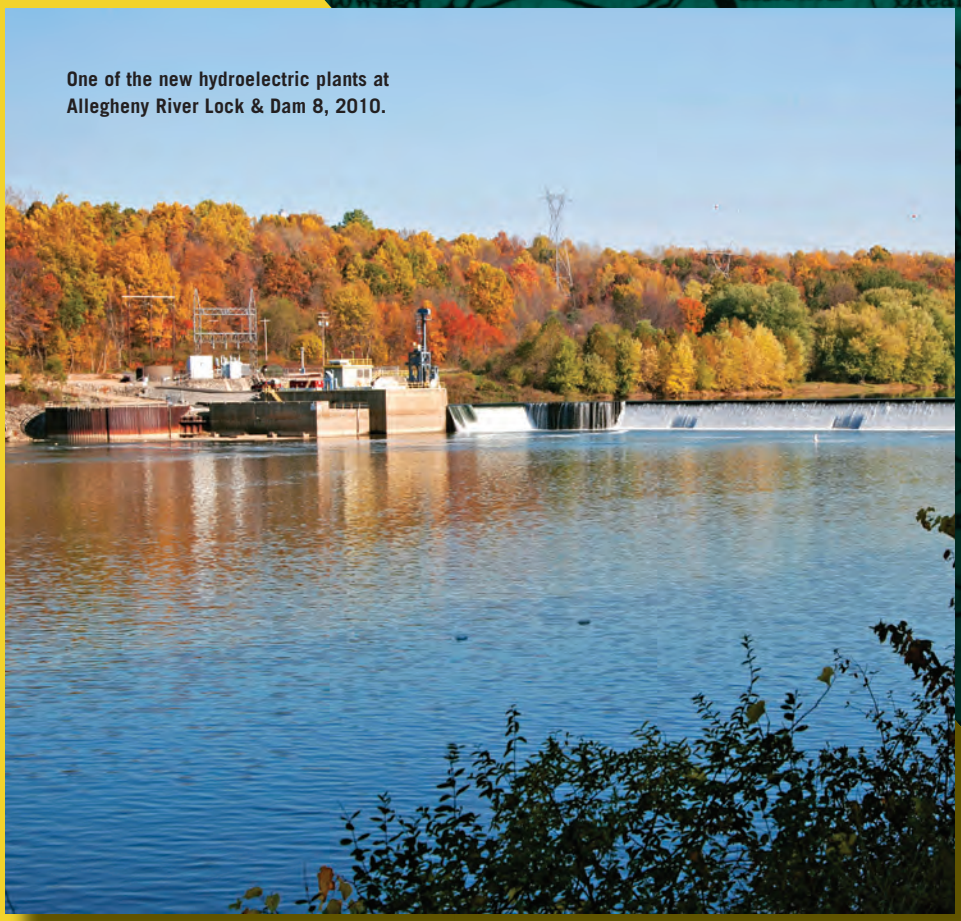
In Pennsylvania, the Marcellus gas boom struck first at opposite ends of the Allegheny Plateau: to the northeast in Bradford, Susquehanna, and Tioga Counties where the Marcellus shale is thick, yet relatively shallow; and to the far southwest in Greene and Washington Counties where "wet gas" comes to the surface with other liquid valuables like ethane, propane, pentane, and butane. Greene and Washington Counties also contain the state's largest underground longwall coal mines, which have chewed beneath more than half of both counties. The coal, gas, and wet gas byproducts produced here have turned this corner of Pennsylvania into a great carbon energy field of international significance with much of the fossil fuel bound for overseas markets.

A stunning postcard view of the Snake Hollow Gas Boom in Versailles.
From the book *1894-1994 Memories Versailles Borough Centennial.*



The coal-fired Homer City Generating Station can supply approximately 2 million homes.

Coal coming into the Homer City power plant by rail (passing a shallow gas well), and energy being exported out of the region by wire (photo 2006).



One of the new hydroelectric plants at Allegheny River Lock & Dam 8, 2010.

Marcellus gas derrick in Washington County, 2011.

LOOKING TO THE FUTURE

Pennsylvania's commercial wind energy was ushered in at the turn of the millennium following the deregulation of electric utilities. This opened up competition among electricity suppliers and allowed for consumer choices, including "green" energy from renewable resources like wind. Compared to the rest of the country, Pennsylvania possesses adequate wind speeds for commercial power generation and, more importantly, a good relative location amidst the concentrated demand of the northeastern population centers. Pennsylvania wind energy development is closely tied to the Allegheny Mountains, resulting in clusters of turbines that exploit updrafts along ridgetops extending from the Laurel Highlands to the Pocono Mountains. The greatest concentration of wind farms is in Somerset County, where elevations are highest. According to the state Department of Environmental Protection, a total of 27 facilities with an installed capacity of over 1,300 MW can power approximately 350,000 homes. By comparison, the coal-fired Homer City Generating Station can supply approximately 2 million homes.

Green Mountain, a Vermont-based company that markets renewable energy, paved the way for Western Pennsylvania's first wind farm at Garrett in 2000. Construction of wind energy facilities was predicated on bulk power purchasing agreements with institutions, due to the higher generation cost per kilowatt compared to conventional sources. Carnegie Mellon University was the first to demonstrate its environmental commitment by purchasing power from Garrett, and was soon followed by Penn State and other colleges and universities that supported the expansion of the industry. Federal production tax credits were also instrumental in achieving this outcome.

While initially viewed as a novelty, and even a tourist attraction, fault lines over wind energy emerged among public stakeholders by 2002. The wind farms' large footprint and the size of the turbines themselves aroused concerns over aviation,

Learn More Online
Shippingport Atomic Power Station

Left:
Gas from the Snake Hollow Boom continues to accumulate beneath people's houses in Versailles, leading homeowners to use legacy gas vents.
Kevin Patrick.

Below:
Wind turbines in Somerset County, 2007.

aesthetics, and ironically, environmental harm. The slow march of turbines along the ridges into the central portions of the state has continued, albeit more gradually following the boom in shale gas production and a lapse in the federal tax credit.

With the many possibilities that the future holds for the nation's energy industry, it is clear that Pennsylvania will play an important role in that conversation. Its incredible natural resources, as well as its long history of innovation in the field, indicate that Western Pennsylvania will be part of the national and international energy economy for decades to come.

The authors are professors in the Indiana University of Pennsylvania Geography and Regional Planning Department with interests in cultural and historic landscapes, energy, sustainable development, and environmental studies.

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16 Hax McCullough and Mary Brignano, *The Vision and Will to Succeed; The Centennial History of the Peoples Natural Gas Company* (Peoples Natural Gas Company, 1985), 9-10.

17 Anya Litvak, "Stranded methane gas in Versailles a century in the making," *Pittsburgh Post-Gazette,* June 14, 2014.

18 U.S. Energy Information Administration, Pennsylvania State Profile and Energy Estimates, www.eia.gov/state/maps.cfm. One MW = 650 homes.

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21 Ibid.

22 U.S. Department of Energy, Unconventional Gas Research Programs 1976-1995, An Archive of Important Results, Strategic Center for Natural Gas and Oil, National Energy Technology Laboratory, January 31, 2007.

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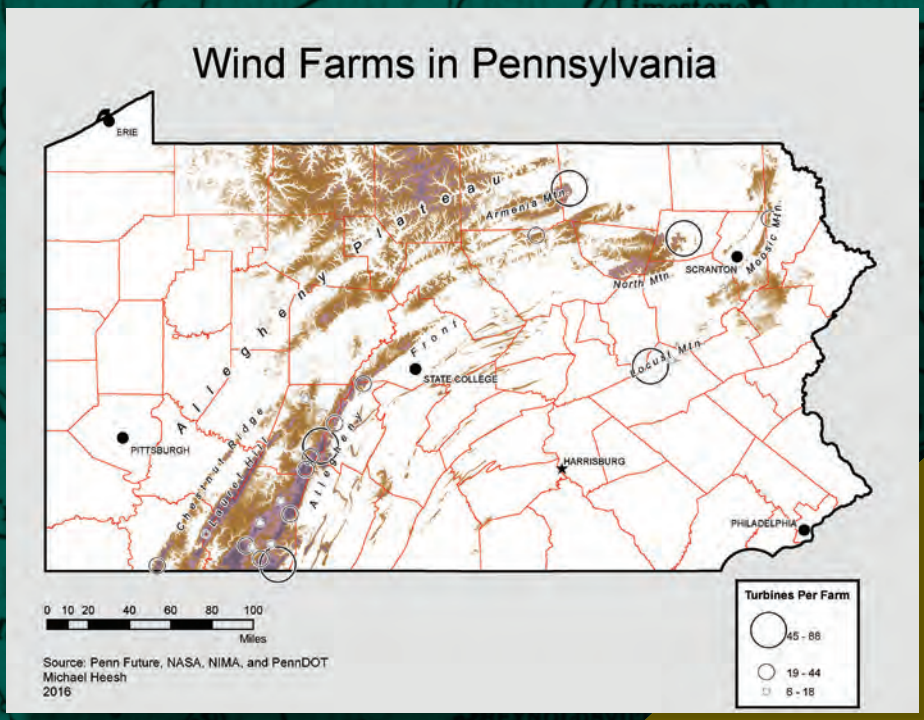


Wind farms in the state, 2016.
By Michael Heesh, with wind turbine data from pennfuture.org.

The wind farms' large footprint and the size of the turbines aroused concerns.

PITTSBURGH BICENTENNIAL

1816–2016

A snapshot of Pittsburgh

LOOKING BACK *at* 1816 from 1916

By Aaron O'Data and Carrie Hadley

Learn More Online

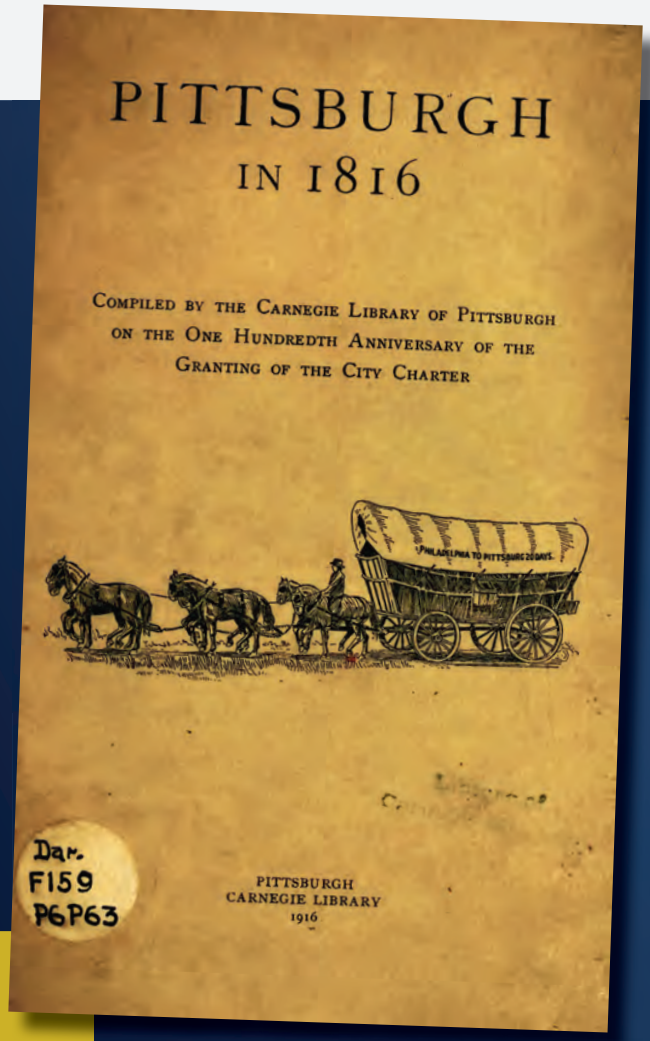
The 200th anniversary of Pittsburgh's incorporation explained

"This morning about sunrise, we left Pittsburgh with all the joy of a bird which escapes from its cage. 'From the tumult, and smoke of the city set free,' we were ferried over the Monongahela, with elated spirits."

"[John Byrne] at his Umbrella Manufactory, Fourth, Between Market and Ferry Streets. Just received and for sale at his Oyster House, a few kegs of the most excellent Spiced Oysters [but] continues to make and repair Umbrellas and Parasols in the newest manner."

~ both from *Pittsburgh in 1816,* published 1916 [1]

These two spirited, offbeat quotes are a tiny but entertaining window into the world of Pittsburgh in 1816, the year of its official incorporation as a city. In 1916, Pittsburghers saw fit to mark the centennial of the incorporation by gathering small sketches about the city for a book, *Pittsburgh in 1816.* The slim volume was compiled by unknown authors from the Carnegie Library of Pittsburgh, and is structured like a written photo album, with snapshots of information to "interest the Pittsburgher of 1916 chiefly because the parts and pieces of which it is made were written by men who were living here or passed this way in 1816."[2] To mark the bicentennial of the incorporation of Pittsburgh, it is fitting to look back on both the city's founding and its centennial year.



Cover of *Pittsburgh in 1816.*
Carnegie Library of Pittsburgh.

Map of Pittsburgh c. 1817, drawn in 1850.
HHC Detre L&A, General Print Collection.

Pittsburgh's first mayor, Ebenezer Denny, was elected in 1816 and served for five months. As discussed by T*he Commonwealth,* he was a native of Carlisle, Pa.
HHC Detre L&A.

We see an example of a perceived insult by a Boston newspaper, which was apparently unaware of Pittsburgh's location as well as the origin of its new mayor.

Pittsburghers of 1916 lived during a tumultuous period, not entirely unlike their counterparts from the previous century. European nations were already fighting the Great War, while America was still dealing with the aftermath of the sinking of the Lusitania a year earlier. When the ship was sunk by a German torpedo, it took with it nearly 1,200 passengers, including Margaret Kelly from Maginn Street on Pittsburgh's North Side.[3] At home, Pittsburghers were grappling with labor problems: martial law was declared in Braddock following riots at the Edgar Thompson Works, and in May some 50,000 coal miners walked off the job on strike.[4]

In spite of trouble abroad and labor disputes at home, Pittsburghers were able to pull together and celebrate their progress over the previous century. In March 1916, as the William Penn Hotel in downtown was finished at a cost of $6 million, the cornerstone was being laid for a new City-County Building. August saw the purchase of a site at Smithfield Street and Oliver Avenue by the Mellon family for their new bank, and the following month, Schenley High School in Oakland opened.[5] By the close of 1916, residents could look back on a lot of changes, from an explosive population increase, an influx of immigrants, the parallel growth of industry, and the advancement and improvement of services provided by the city. The spirit and optimism of the Progressive Era is evident in Pittsburgh as the city began to celebrate all it had achieved in the last 100 years.

One of the largest celebration events was the Charter Centennial Parade, held Friday, November 3. Newspapers called it the "Greatest Parade in [the] City's Annals," causing traffic to be delayed for hours by the "great throng" of both parade participants and spectators—of which there were reported to be 250,000 to 300,000.[6] One account reported that "half of Pittsburgh stood on curbs, sat on rickety boxes, hung out of windows, dangled from fire escapes and clung to poles, billboards and cornices—anything that would afford a vantage, however precarious—to watch the charter centennial parade, long heralded and actually realized as the most elaborate procession ever seen in this city."[7]

The parade featured an array of floats and organizations. Indeed, "much that has gone in the last 100 years to bring honor and fame to Pittsburgh as a city of commerce, manufacture, education and patriotism, passed in review through Fifth avenue to the Oakland district."[8] Included were floats featuring branches of municipal government, fraternal and ethnic organizations, and at least one float featuring a birthday cake with 100 candles.[9] Many of the floats portrayed differences between 1816 and 1916:

> The old Conestoga wagon that made its bi-monthly trip from and to Philadelphia; the canal boat, that held as much freight as a box car now contains; the first street car, drawn by mules; the hand-pump fire engine, followed by types of the fire-fighting engines in the order of their development; the archaic horse car, preceding the modern electric trolley car; the little log school house, in juxtaposition to replicas of the highest type of educational institution; the first local efforts in art, contrasted with the magnificent development of today in painting, sculpture and architecture; the blacksmith's forge alongside the modern steam-hammer; the old-time iron furnace overshadowed by the great blast furnaces and rolling mills of 1916—all passed in review before the many thousands who trod the concrete sidewalks.[10]

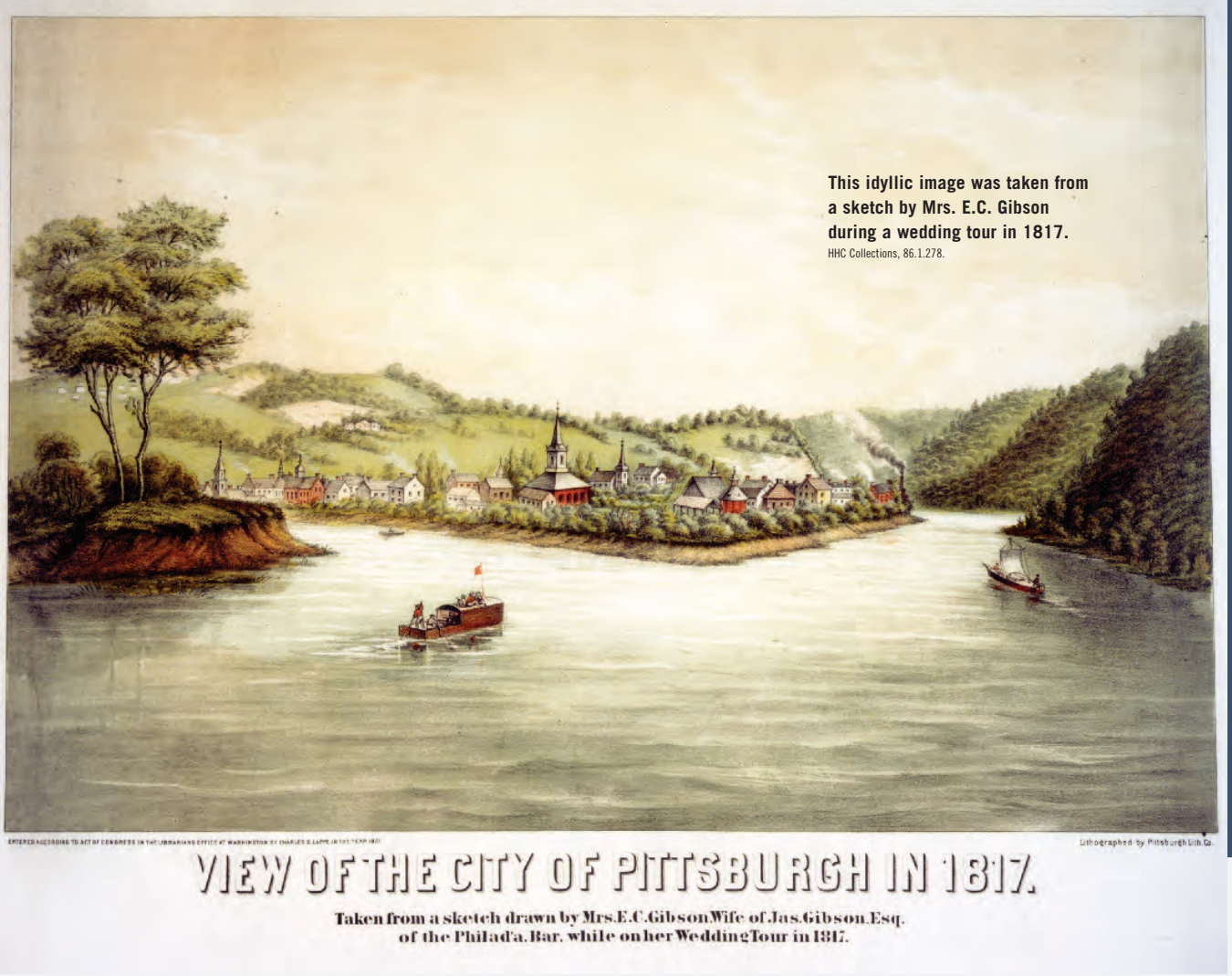
Spectators "were taken to and from the scene in trolley cars and horseless vehicles that are of a type that the Pittsburgher of 100 years ago would never dared even to dream of," emphasizing just how far the city had come.[11]

The emphasis on historical reflection is embodied by the *Pittsburgh in 1816* book. The text uses articles from three newspapers of 1816—The Gazette, Pittsburgh Mercury, and The Commonwealth—as well as quotes from travel books and memoirs. When a primary source was not available to quote, summarized information was added from various histories of the city, their sources as mysterious as the authors themselves. This questionable source material aside, the text is valuable for its window into the minds of Pittsburghers of 1916 seeking to celebrate their city's innovation by comparing the past to their present. In that era of Progressive politics, it was only natural that the city's residents and leaders might pause to review how far they had come in a hundred years. The following paragraphs from the book range from nostalgic to self-congratulatory.

Pittsburgh in 1816

Pittsburghers of 1816 were certainly proud of their new city, as the book's unnamed authors make clear. Here, we see an example of a perceived insult by a Boston newspaper, which was apparently unaware of Pittsburgh's location as well as the origin of its new mayor. An author at The Commonwealth—one of Pittsburgh's papers—however, was quick to defend the city and Mayor Denny and to deliver a stinging rebuke.

> Ebenezer Denny, esq. has been elected mayor of the city of Pittsburgh, Ohio.—This gentleman we believe is from Massachusetts and is highly regarded for his integrity and patriotism.
> ~ Boston Yankee
>
> We congratulate the editor of the Yankee upon the knowledge of men and places, exhibited in the foregoing article. It has been a custom at the Eastward to censure and burlesque the people of Western Pennsylvania on account of their ignorance. Let the editor of the Yankee now blush at his own. Could it be believed that any man of common geographical knowledge... would have located Pittsburgh—a city containing ten thousand inhabitants—possessing a manufacturing capital of many millions—having three banking institutions, and a commerce extending to every part of the union—a place



This idyllic image was taken from a sketch by Mrs. E.C. Gibson during a wedding tour in 1817.
HHC Collections, 86.1.278.

which has long been considered the emporeum [sic] of the West, and which makes a more conspicuous figure in books of travels than even the Town of Notions itself;—could it, we ask, be believed, that such a place should be so little known or thought of in the town of Boston, as to be located in the state of Ohio? Mayor Denny possesses all the virtues that are attributed to him by the Yankee, and many more, that render him an ornament to the station to which he has been elected;—but he does not boast an ancestry in the land of steady habits, the seat of Hartford Convention politics. He is a native of Carlisle, in this state.
~ Commonwealth, Aug. 6, 1816[12]

Pittsburgh in 1816 looked to the region's colonial history as a source of pride. Since the beginning of the settling of North America, colonists sought to push further and further into the frontier. This desire to acquire western lands can be seen through a number of examples, including the conflicts that sprung up from the post-Seven Years' War expansion west. These clashes resulted in Britain's attempt to secure the frontier with the Proclamation Line of 1763, forbidding settlement west of the Allegheny Mountains. But Western Pennsylvania proved too alluring. Desire for western lands was so great that this action in part led to the formation of "revolutionary alliances" between colonists, and later to the War for Independence itself.[13] Such fascination with the west drove many Americans to move. It also gave interest to the genre of travel narratives written throughout the 19th century. Below are some of the impressions authors of these narratives had of Pittsburgh.

Fort du Quesne, built by the French, formerly stood here; its site has almost disappeared in the Ohio. The remains of Fort Pitt (from whence the town has its name) are very faint; we can yet perceive part of the ditch, its salient angles and bastions ... but several houses, stores, and a brewhouse, are built on the ground.
~ Palmer's Journal of travels in the United States and Canada, 1817[14]

Although Pittsburg, a few years since, was surrounded by Indians, it is now a curiosity to see any there; a few traders sometimes come down the Alleghany, with seneca oil, &c.
~ Palmer's Journal of travels in the United States and Canada, 1818[15]

When this city and vicinity was surveyed by the author of this treatise, in October, 1815, there were in Pittsburg 960 dwelling houses, and in the suburbs, villages, and immediate outskirts, about 300 more, making in all 1260, and

including inhabitants, workmen in the manufactories, and labourers, upwards of 12,000 inhabitants.
~ Darby's Emigrant's guide, 1818[16]

Pittsburgh is laid out to front both rivers; but as these do not approach at right angles, the streets intersect each other obliquely. It is not a well built city. The south-west part is the most compact, but many years must elapse before it will resemble Philadelphia. Wooden buildings, interspersed with those of brick, mar the beauty of its best streets; and as few of these are paved, mud, in showery weather, becomes abundant. A short period, however, will probably terminate this inconvenience.
~ Thomas's Travels through the western country in 1816[17]

The authors of Pittsburgh in 1816 included information about the city's past with slavery—an institution not limited to the South. With the "Act for the Gradual Abolition of Slavery," Pennsylvanians in fact held slaves into the 1840s. By 1850, there were none recorded.[18]

Nearly all of the first residents of Pittsburg and vicinity who were wealthy enough to afford the luxury were owners of slaves. The Nevilles, John Gibson, James O'Hara, Alexander Fowler, Adamson Tannehill, the Kirkpatricks and many others owned them, and several thousand continued to do so as late as the war of 1812. The old newspapers contained advertisements for runaway slaves even as late as 1820.
~ Wilson's History of Pittsburg[19]

Pittsburgh has been often referred to as the Smoky City. This image, attributed to the rapid growth and success of industry, is probably most often associated with the second half of the 19th century and a majority of the 20th. These quotes from Pittsburgh in 1816 demonstrate that Pittsburgh was an industrial city even before its incorporation.

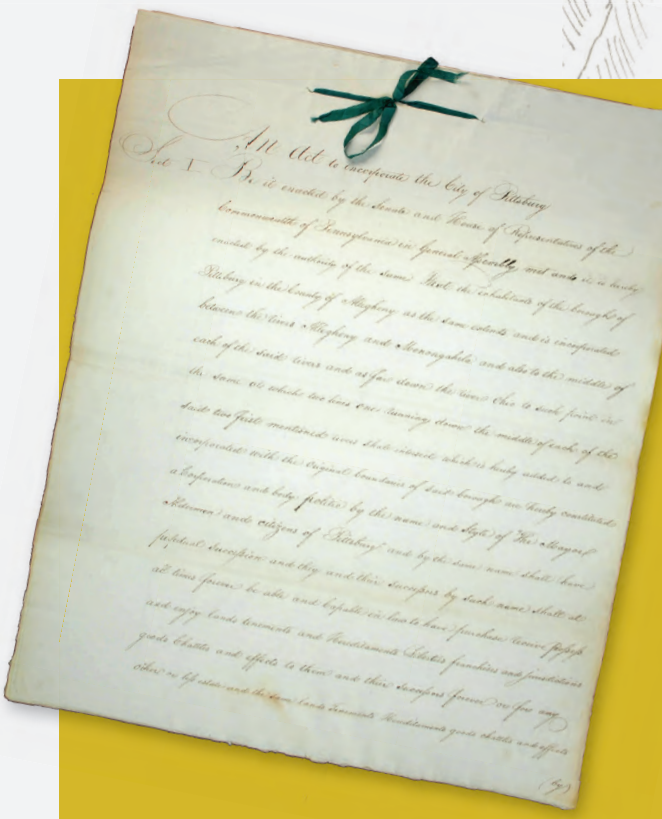
In 1813 there were five glass factories, three foundries, a new edge tool factory, Cowan's New Rolling Mill, a new lock factory built by Patterson, two steam engine and boiler works, one steel factory and a goodly number of small concerns manufacturing various articles. In 1817 the city councils appointed a committee to collect and publish a list of all the large factories in the city. This was done perhaps to let the world know of the industry and thrift of Pittsburg, and is valuable because it is an official list and is to be relied upon. It must also be remembered that these figures represented the industries of Pittsburg when barely emerging from the panic of 1815–17, a financial depression that has scarcely been equalled [sic] in Western Pennsylvania in all its history.
~ Boucher's Century and a half of Pittsburg[20]

There are many good stores in Pittsburg, and a great trade is carried on with Philadelphia, Baltimore, and the States of Pennsylvania, Ohio, Kentucky, &c.; exclusive of the carrying trade, and the number of boats that are always proceeding down the Ohio, with vast quantities of foreign merchandize, destined to Ohio, Kentucky, Tennessee, Indiana, &c. The inhabitants send up the Allegheny, Monongahela, and their forks, whisky, cyder [sic], bacon, apples, iron, and castings, glass and foreign merchandize; in return they receive many thousand bushels of salt from Onondago, and immense rafts from Alleghany and French creeks. The quantity of rafts imported into Pittsburg annually, is computed at 4,000,000 feet; average nine dollars per 1000 feet.
~ Palmer's Journal of travels in the United States and Canada, 1817[21]

Pennsylvania does not seem to be very wide until one has to traverse the distance between its two largest cities, Pittsburgh and Philadelphia. Pittsburgh in 1816 offers a glimpse into a time when this distance was not only inconvenient or potentially unpleasant, but downright difficult and certainly excruciating.

Before the time of railroads between

"The remains of Fort Pitt ... are very faint; we can yet perceive part of the ditch ... but several houses, stores, and a brewhouse, are built on the ground."



"An Act to Incorporate the City of Pittsburgh," passed March 18, 1816. This 25-page document establishes the city of Pittsburgh as a legal entity with its own system of government. The charter, approved by the state Senate and House of Representatives in General Assembly, describes the method for electing and appointing government officials including the city's first mayor, outlines the role of the mayor's court, and empowers the county sheriff and the mayor to uphold city laws.
Pennsylvania State Archives, Pennsylvania Historical Museum Commission, Record Group 10, Proclamations (series 10.3). L2016.3.1. Photo by Nicole Hayduk.

Rivers offered natural highways to the early settlers of the west, and in particular Pittsburgh—long prized for its access to these waterways.

Pittsburgh's Monongahela wharf, 1911.
HHC Detre L&A.

the east and west of the Allegheny mountains, the freight business to the Monongahela was carried on by means of the Conestoga road wagons drawn by six horses. By this way the freight to Pittsburgh was carried exclusively, but after the completion of the Pennsylvania canal, transportation was divided between the canal-boat and the wagon. As early as 1817, 12,000 wagons, in twelve months, passed over the Allegheny mountains from Philadelphia and Baltimore, each with from four to six horses, carrying from thirty five to forty hundred weight. The cost was about $7 per 100 weight, in some cases $10. To transport one ton of freight between Philadelphia and Pittsburgh, therefore, would cost about $140, and in so doing two weeks, at least, of time would be consumed.
~ Van Voorhis's Old and new Monongahela[22] (Printed in 1893)

With the Conestoga wagons originated our modern "stogie" cigars which have become so common in Pittsburg and which have been in recent years, sent from Pittsburg to every section of the Union. They were made in that day of pure home grown tobacco and being used very largely, at first by the Conestoga wagoners, took the name 'stogies' which clings to them yet.
~ Boucher's Century and a half of Pittsburg[23]

Overland transportation, though, was not the only way to travel. Rivers offered natural highways to the early settlers of the west, especially in Pittsburgh—long prized for its access to these waterways. As a center for river traffic, Pittsburgh was unsurprisingly the home of the first steamboat to travel on western waters.[24] Pittsburgh in 1816 provides a few snapshots of Pittsburgh's early relationship with these technologically revolutionary watercraft as well as some of the smaller vessels used to transport goods.

A company, stiled [sic] the 'Ohio steam boat company,' has lately been formed, who intend building steam boats to run between this place and the Falls of Ohio. The dimensions of the boats will be 100 feet keel and 20 feet beam. They contemplate having two running this fall or winter, 1815–6…. This line of Steam Boats, though not attached to those belonging to the Mississippi Steam Boat Company, will form a chain of conveyance from New Orleans to this place, which must result very much to the advantage and prosperity of Pittsburgh and intermediate towns.
~ Cramer's almanack [sic], 1816[25]

Steam-boat, ark, Kentucky, barge, and keel-boat building is carried on to a considerable extent. Sea vessels have been built here, but the navigation is too far from the sea, and attended with too much hazard for it to answer. The following vessels, besides steam-boats, have been built at Pittsburgh and on its rivers: ships, Pittsburgh, Louisiana, General Butler, and Western Trader; brigs, Dean, Black Walnut, Monongahela Farmer, and Ann Jean; schooners, Amity, Allegheny, and Conquest (navigator).
~ Palmer's Journal of travels in the United States and Canada[26]

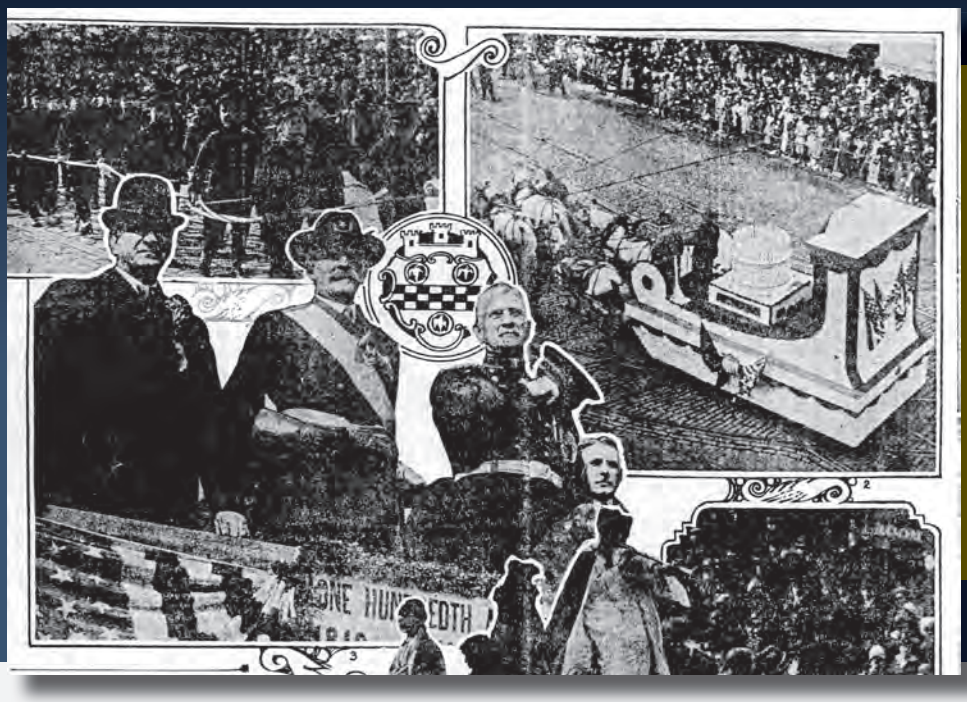
The best mode perhaps in descending the Ohio, in time of low water, is in keel boats.... Merchants are beginning to prefer this method for safety and expedition; and instead of purchasing boats and taking charge of them

themselves, they get their goods freighted down from Pittsburgh in keel boats by the persons who make them, and who make it their business to be prepared, with good boats and experienced hands for such engagements.
~ Cramer's Navigator, 1817[27]

The manners of the boatmen are as strange as their language. Their peculiar way of life has given origin not only to an appropriate dialect, but to new modes of enjoyment, riot, and fighting. Almost every boat, while it lies in the harbour has one or more fiddles scraping continually aboard, to which you often see the boatmen dancing.
~ Flint's Recollections of the last ten years, 1826[28]

Today Pittsburgh is known as the City of Bridges with a record 446 bridges in the city as of 2006—perhaps there is one less for the moment with the recent demolition of the Greenfield Bridge.[29] However, when Pittsburgh officially became a city in 1816, it did not have any. The first two bridges were not completed until 1818 (crossing the Monongahela at the

Pittsburgh, c. 1825.
HHC Detre L&A, GPC.



Collage featuring (left to right) Mayor Joseph G. Armstrong; Colonel James M. Shoonmaker, the chief marshal; S.W. Jefferis, adjunct of staff; and William H. Stevenson, president of Western Pennsylvania Historical Society; and the Birthday Cake Float complete with 100 candles.
The Gazette Times, November 4, 1916, 1.

site of the Smithfield Street Bridge) and 1819 (crossing the Allegheny River between Sixth Street and Federal Street).[30] Until then, ferries were needed, as discussed below.

> Between 1764 and 1819 the only means of crossing these streams, at Pittsburgh, was by way of ferries. The first of these, it is believed, was operated from the foot of Ferry street, Pittsburgh to the opposite shore, and this was the origin of the name Ferry Street.... Early in the nineteenth century a ferry was established from the mouth of Liberty street, called Jones Ferry. Foot passengers desiring to cross the river employed skiffs, while stock was taken over on flat-boats. Such boats were pushed by means of poles, at low stages of water, and by oars in high water periods.
> ~ Boucher's Century and a half of Pittsburgh[31]

In relation to water, in 1816 Pittsburghers obtained their drinking water from wells. Municipal running water would not be available for a number of years. In 1916, the Bureau of Water included two floats in the Centennial Parade, displaying Pittsburgh's advancements in this vital public service from its earliest days.

> The water supply was gained, up to 1802, from wells and springs which flowed from out the hillsides, these being sufficient for a small town. An ordinance passed August 9, of that year, called for the making of four wells, not less than forty-seven feet in depth. Three of these were to be located on Market street, and were to be walled with stone.... Wells, with the springs at Grant's Hill, furnished the supply of water for public use until 1826.
> ~ Boucher's Century and a half of Pittsburgh[32]

Newspapers from 200 years ago were similar to modern newspapers in a number of ways. Below is a sampling of one of these similarities—advertisements. While Pittsburgh in 1816 gives a number of interesting and humorous examples, these are some which may prove most interesting to the reader of 2016.

> LITERARY NOTICES.
> John Binns of Philadelphia proposes to publish a splendid edition of the Declaration of Independence, which shall be in all respects American: The paper, the types, the ink, the designs, the engravings,—the publication throughout shall afford evidence of what our citizens have done in politics, and can do in art.[33]

> NOTICE
> My wife Fanny having thought proper to withdraw herself from my protection, without the least cause given on my part for her doing so, I am compelled, though very reluctantly, to forbid all persons from trusting her on my account, as I will pay no debts which she may contract hereafter. J. Tibbette N.B. I also inform those who wish to be shaved in Imperial Style, that I am always to be found at my Shop in Market Street, between Front and Water Streets.[34]

> WANTED
> At the United States' Arsenal, now erecting near Pittsburgh. Forty good Stone Masons, and Twenty Labourers, to whom constant employment and good wages will be given for one or two seasons. Apply to the subscriber on the ground. Christopher Armstrong[35]

> THREE CENTS AND A POUND OF OLD HORSE-SHOE NAILS REWARD!
> Strayed away from the subscriber on the 11th instant.
> John Donaldson,
> an apprentice to the blacksmith business—aged 18 years—five feet 7 or 8 inches high—stout built—very slow in the motion—very fond of playing ball or being idle—more proud of dress than of his work;—He took with him no more clothes than what was on his back, which consisted of one common shirt, a dark marsailles waistcoat, a dark grey coattee and pantaloons, one pair stockings, one pair shoes half worn, a neck-handkerchief, and one new black fur hat, made by Wm. Church. No other marks are recollected. The above

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Complete listing of all the bicentennial events

reward, no charges and no thanks, will be given to any person who will return said stray. James Yourd.[36]

Two centuries have passed since the incorporation of the City of Pittsburgh, and today residents have even more to look back on. Summed up positively by the Kaufmann & Baer Co. in its 1916 Centennial Sale advertisement, the story of Pittsburgh "is the story of 'Ever Onward and Upward.' Pittsburgh's progress and prosperity are due to work and service, not luck or chance.... Pittsburgh serves all the Earth. This store serves all of Pittsburgh."[37] No doubt at the tercentennial and beyond, Pittsburghers will look back and consider their past in a similar light.

Aaron O'Data is a graduate of Duquesne University's Public History Program and Geneva College. He is employed by the University of Pittsburgh's Office of Institutional Advancement and the Heinz History Center.

Carrie Hadley is a graduate of Duquesne University's Public History Program. She is a part-time cataloger of the Elaine B. and Carl Krasik Collection of Presidential and Pennsylvania Political Memorabilia at the Heinz History Center.

1 *Pittsburgh in 1816* (Pittsburgh: Carnegie Library of Pittsburgh, 1916), 16, 67.

2 Ibid., 3.

3 "Will Administer Kelly Estate," *Pittsburgh Gazette-Times,* June 4, 1915, 7. The newspaper account reported that Ms. Kelly was buried in Queenstown, Ireland, and that her father, Thomas Kelly, settled her estate, which included an account containing $2,450 at the Dollar Savings Bank.

4 Stefan Lorant, *Pittsburgh: The Story of an American City* (Pittsburgh: Esselmont Books, 1999), 692; Robert I. Vexler, *Pittsburgh: A Chronological & Documentary History* (Dobbs Ferry, N.Y.: Oceana Publications, 1977), 53.

5 Ibid., 53.

6 "Traffic Held for Hours By Great Throng," *Pittsburgh Gazette-Times,* November 4, 1916; "Pittsburgh Suspends Work As 250,000 Crowd to See Charter Centennial Parade," *Pittsburgh Daily Post,* November 4, 1916.

7 "Pittsburgh Suspends Work."

8 "Progress of City Is Reviewed in Charter Pageant," *Pittsburgh Daily Post,* November 4, 1916.

9 "8,600 March in Celebration of Centennial," *Pittsburgh Daily Post,* November 4, 1916, 3.

10 "Pittsburgh's 100 Years of Growth Shown," *Pittsburgh Gazette-Times,* November 4, 1916.

11 Ibid.

12 *Pittsburgh in 1816,* 9.

13 "Proclamation Line of 1763, Quebec Act of 1774 and Westward Expansion," Milestones: 1750-1775, Office of the Historian, U.S. Department of State, https://history.state.gov/milestones/1750-1775/proclamation-line-1763 (accessed March 19, 2016).

14 *Pittsburgh in 1816,* 13.

15 Ibid., 13.

16 Ibid., 14.

17 Ibid., 17.

18 "An Act for the Gradual Abolition of Slavery - March 1, 1780," 1776-1865, Our Documentary Heritage, Pennsylvania Historical & Museum Commission, http://www.phmc.state.pa.us/portal/communities/documents/1776-1865/abolition-slavery.html (accessed March 18, 2016).

19 *Pittsburgh in 1816,* 63.

20 Ibid., 21.

21 Ibid., 21.

22 Ibid., 26.

23 Ibid., 27.

24 Carnegie Library of Pittsburgh, "Pittsburgh Iron & Steel: Transportation," eCLP, http://www.carnegielibrary.org/eCLP/ironsteel/transportation.html (accessed March 19, 2016).

25 *Pittsburgh in 1816,* 34.

26 Ibid., 34-35.

27 Ibid., 35.

28 Ibid., 35-36.

29 Pittsburgh's Action News 4, "Just How Many Bridges are There in Pittsburgh?," wtae.com, September 13, 2006, http://www.wtae.com/Just-How-Many-Bridges-Are-There-In-Pittsburgh/7685514 (accessed March 19, 2016).

30 Rick Sebak, "The (Official) Birth of Pittsburgh," *Pittsburgh Magazine,* February 19, 2016, http://www.pittsburghmagazine.com/Pittsburgh-Magazine/March-2016/The-Official-Birth-of-Pittsburgh (accessed March 19, 2016).

31 *Pittsburgh in 1816,* 40.

32 Ibid., 56-57.

33 Ibid., 67.

34 Ibid., 68.

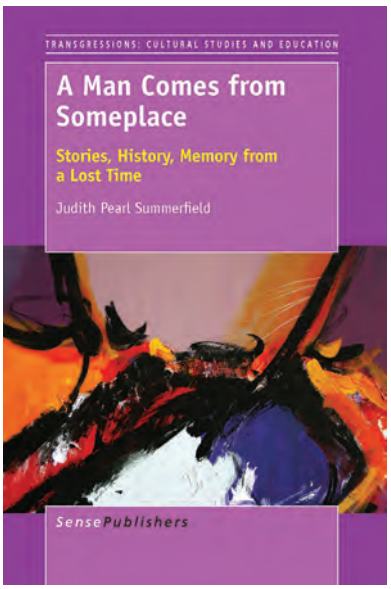
35 Ibid., 68.

36 Ibid., 73.

37 *Pittsburgh Gazette-Times,* March 12, 1916, 4-5.

View of the H.J. Heinz Company's Main Plant from Troy Hill from 1916, in which downtown is barely visible.
HHC Detre L&A, H.J. Heinz Company, Photographs, 1864-1991, MSP57.B021.I04.

Book Reviews



A Man Comes from Someplace: Stories, History, Memory from a Lost Time

By Judith Pearl Summerfield
Sense Publishers, 2015
252 pp.
Paperback, $32

Reviewed by David M. Schlitt,
Director, Rauh Jewish History Program & Archives

A Man Comes from Someplace, Judith Pearl Summerfield's study of family history and folklore, defies easy description. Drawing on literary and cultural criticism, history, memoir, and storytelling, the book creates something that feels both innovative and familiar. Summerfield, Professor Emerita in English at Queens College, The City University of New York, has her origins in small-town southwestern Pennsylvania. Her parents, Martin (Motye) Pearl and Bessie Judd (Judkovitz) Pearl, connected after Motye's journey in 1921 from an Eastern European shtetl (small towns in Central and Eastern Europe with large Jewish populations) to Western Pennsylvania, and settled eventually in Fredericktown. This book chronicles her family's wanderings, drawing from hours of recorded interviews between Summerfield and her father, and an extraordinary cache of letters and images belonging to her Uncle Meyer.

A Man Comes from Someplace is not a conventional narrative. Summerfield spends much of the first three chapters preparing her readers to hear her father's voice: "My objective is to represent the stories as 'performances,' to engage the reader as he did when he told the stories." (xxiv) We read the same story—the foundational story of Motye's survival in the Ukrainian winter, crossing the Dniester River—twice in the book. The first time, in the introduction, the story is narrated by Summerfield. In the second instance, in chapter 4, Going to America, the story is told wholly in her father's voice. Summerfield is transparent about her subjectivity: "I am the 'naratee,' the daughter/listener to whom the stories are being told, and also the narrator, the 'I', who re-presents Motye's stories and tells, as well, about the effects of the stories on her own life." And she has a persuasive argument about storytelling as a creative act of resistance, "that stories could make a difference in how we see that world and how history is told" (212).

This book offers teachers and students a way of processing larger historical events through storytelling, and it directs genealogists toward a more socially expansive view of family history, along the lines of Summerfield's father's approach: "it was always *story in history* [emphasis mine], the two interconnected. It wasn't just him or his family, it was what was happening in the whole world." (xviii)

In terms of subject matter and readability, *A Man Comes from Someplace* recalls Irving Howe and Kenneth Libo's bestselling *World of Our Fathers,* published in 1976 by Harcourt Brace Jovanovich. It is perhaps a sign of the times that *A Man Comes from Someplace* is published as part of a specialized academic series and may be denied the popular audience Howe and Libo enjoyed. It may further be a sign of the times that *A Man Comes from Someplace* lacks the editorial rigor a book of this significance deserves. Typos and errors (e.g., the Bessarabian dish mamaliga is transcribed as "marliga" on page 70), inconsistent typesetting, and map illustrations borrowed from Wikimedia detract from the reader's experience. Nonetheless, *A Man Comes from Someplace* represents an original chapter in cultural studies and social history, one that takes up the challenge of *World of Our Fathers*' final sentence: "Let us now praise obscure men."

Summer Books in the ’Burgh Events

Italian American Stories
Thursday, July 21, 2016
7:00 p.m.–8:30 p.m.
History Center Detre Library & Archives Reading Room

The Italian American Program at the History Center presents an evening of riveting storytelling. Paul Gentile, author of *Salvatore and Maria: Finding Paradise,* and Isabel (Belle) Comis Degenaars, co-author of *Casada: A History of an Italian Village and Its People,* will highlight Italian American immigration stories. They will be joined by architect and artist Guglielmo Botter of Treviso, Italy, author of *Un’americana a Treviso,* a biography about his mother, Italian American painter Lyù de Cortà Fumei. Together, Gentile, Degenaars, and Botter will share personal stories about the Italian immigrants in their families who made Western Pennsylvania their home.

Pittsburgh N’at: What Makes Pittsburgh, Pittsburgh
Thursday, August 18, 2016
7:00 p.m.–8:30 p.m.
History Center Detre Library & Archives Reading Room

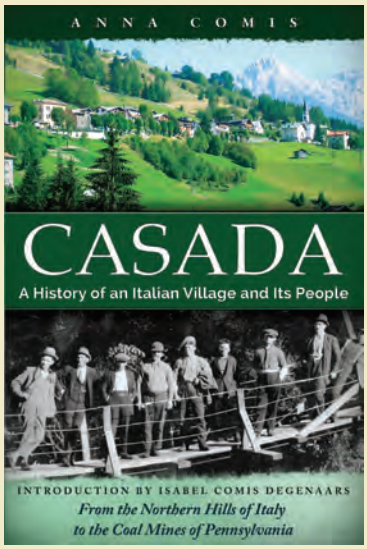
Yinz should worsh your clothes, finish yer jumbo hoagie, and git dahn to the History Center … for a special program, “Pittsburgh N’at: What Makes Pittsburgh, Pittsburgh,” featuring the new book *Pittsburghese: From Ahrn to Yinz written* by Heinz History Center staff members.

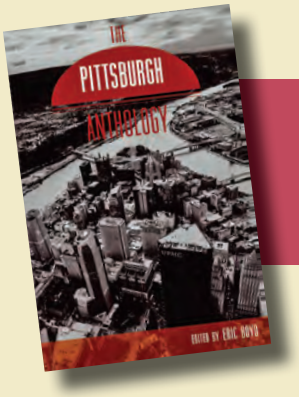
City of Steel, Ken Kobus
Thursday, September 22, 2016
7:00 p.m.–8:30 p.m.
History Center Detre Library & Archives Reading Room

Join us for a reading, discussion, and book signing with Ken Kobus, third-generation steel worker and author of *City of Steel: How Pittsburgh Became the World’s Steelmaking Capital during the Carnegie Era.*

All events are free and open to the public but do not include admission to the rest of the museum.

For more information, please contact Caroline Fitzgerald at ccfitzgerald@heinzhistorycenter.org or 412-454-6373.





Look for more reviews at
www.heinzhistorycenter.org/blog/category/online-book-reviews

Legacies

By Elizabeth A. McMullen,
Senior Development Associate

Member Profile: Frank and Faye Rohm

Members since 2009

The Senator John Heinz History Center is honored to have many loyal members that are longtime supporters and friends. Frank and Faye Rohm kindly shared why they support the History Center and encourage friends and family members to visit with them.

Frank and Faye Rohm.
All photos courtesy of Frank and Faye Rohm.

What made you decide to become members?
Frank has had a longtime interest in history as an American History teacher for 40 years. Our children gave us a membership for Christmas one year. We enjoyed using it and renewed every year after, adding to the membership level over time.

Tell us about your first or a memorable visit to the History Center.
We do not remember our first time, there have been so many memorable trips. Frank enjoyed the David McCullough talks. Faye likes the flag folding ceremonies—one of which she attended with her granddaughter, Abigail. She was so excited she told everyone about it for days.

What member benefit is your favorite?
Attending member-only events, including the special exhibitions enhanced with special groups and individuals with first-hand knowledge regarding the exhibition.

What is your favorite member event?
Aside from the David McCullough book talks, Frank enjoyed the *Clash of Empires* exhibition. It made us aware of the importance of Western Pennsylvania in a worldwide conflict. Faye liked the evening we could choose an area of interest at the History Center. We learned about the acquisitions for display and how they go about preserving items. We also enjoyed the ultimate fan festival. We brought family to meet and greet sports personalities in a pleasant venue.

What is your favorite part of the History Center?
Frank likes the exhibits and anything Civil War-related. Everything is done well and with great attention to detail. Faye enjoys the sports-related sections and Meadowcroft Rockshelter and Historic Village. We enjoy learning new things about Pittsburgh and Western Pennsylvania's place in history and sports.

How did you learn about the commemorative items program?
We had seen the items displayed when we visited, not really knowing what they were all about. We wanted to honor the memory of a friend who had passed away. He was an

Frank and Faye participate in a flag folding ceremony in the History Center's Great Hall.

Faye, Frank, and their granddaughter Abigail visit the Mister Rogers' Neighborhood display.

avid Penguin's fan. I thought if we could do a commemorative hockey puck, it would be a great way to honor his memory. This is something we will do in the future for different reasons—retirements, birthdays, etc.

Anything else you would like to share?
We like the History Center because of its personal touch. We love showing it off to friends, we bring them to events, and some have joined after visiting with us at the History Center. We have brought out-of-town visiting relatives and their children. It gives the kids an opportunity to see where their parents grew up and the many special things about the area. We enjoy the two magazines—*Western Pennsylvania History* and the *Smithsonian*—and share them with others. We like that everything is done so well at the History Center.

The History Center values its members, who play an essential role in the success of the History Center's mission. Our members, supporters, and friends make it possible for the History Center to preserve the rich history of Western Pennsylvania and to present award-winning exhibitions and public programs that engage visitors of all ages. For as little as $57, members can enjoy:

- Unlimited access to the History Center, the Western Pennsylvania Sport Museum, Fort Pitt Museum, and Meadowcroft Rockshelter and Historic Village
- Invitations to member-only events
- Subscription to *Western Pennsylvania History* magazine
- Subscription to *Making History* quarterly newsletter
- 15% discount on all purchases in the Museum Shop
- Discounts on tours, lectures, classes, Detre Library & Archives services, and even parking

History Center members also receive a membership to the Smithsonian Institution, including a subscription to *Smithsonian* magazine.

For more information on becoming a member or to give the gift of membership to someone you know, contact Shirley Gaudette, Membership Manager, at sagaudette@heinzhistorycenter.org or (412) 454-6436.

Information

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HISTORY CENTER
IN ASSOCIATION WITH THE SMITHSONIAN INSTITUTION

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An affiliate of the Smithsonian Institution, the 275,000-square-foot Senator John Heinz History Center is the largest history museum in Pennsylvania. The six floors include the Western Pennsylvania Sports Museum, covering a wide range of interests and events, and the Detre Library & Archives, containing 700,000 photographs, 40,000 books, and many more maps, records, and archival collections.

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HOURS
Museum and Shop: 10 a.m. to 5 p.m., daily.
Library & Archives: 10 a.m. to 5 p.m., Wednesday through Saturday.
Closed on New Year's Day, Easter, Thanksgiving, and Christmas.

ADMISSION
Members Free
Adults $16.00; Students $6.50 with a school ID; Seniors (62+) $14.00; Ages 6-17 $6.50; Retired and Active Duty Military $6.50; Age 5 and under Free.

Admission includes the History Center, the Western Pennsylvania Sports Museum, and the Library & Archives. *Admission to only the Library & Archives is free for all visitors.*

PARKING:
History Center members showing a valid membership card can park for a $4 flat rate across the street from the museum at 12th and Smallman, subject to availability. Parking is also available at 13th and Smallman, 15th and Smallman, the Convention Center Garage, and the Grant Street Transportation Center Garages.

FACILITY
Members enjoy a 15% discount at the Museum Shop.
Wheelchair accessible. Café on site.
Discovery Place and Kidsburgh for children.

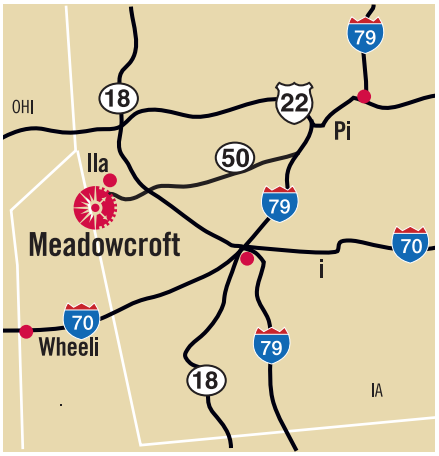
GROUP SALES
Discounted rates for group admission, advance booking required. Call (412) 454-6304.

FACILITY RENTAL
The History Center's distinctive setting, with superb dining provided by Common Plea Catering, is the perfect place to host your next banquet, party, reception, or seminar. Call (412) 454-6435 for information and reservations.

MEADOWCROFT
ROCKSHELTER AND HISTORIC VILLAGE

AVELLA, WASHINGTON COUNTY, PA
www.heinzhistorycenter.org/meadowcroft.aspx
(724) 587-3412

Take a step back in time less than an hour west of Pittsburgh near West Virginia. Meadowcroft contains a 16th-century Indian Village, a 19th-century rural village, and the 16,000-year-old Rockshelter, the oldest site of human habitation in North America, and now a National Historic Landmark.



HOURS
Memorial Day through Labor Day
Wednesday through Saturday: 12 to 5 p.m.
Sunday: 1 to 5 p.m.

May, Sept, Oct.
Saturday: 12 to 5 p.m.
Sunday: 1 to 5 p.m.

ADMISSION
Admission includes Rockshelter, Village, and Museum
History Center Members Free
Adult $14.00; Seniors (62+) $13.00; Ages 6–17 $6.00; Students $6.00 with a school ID; Retired and Active Duty Military $6.00; Age 5 and under Free.

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#PIXBURGH

William Frank, a native of Bavaria, moved to Pittsburgh in 1846 to open a dry goods store. While many Jews stayed in merchandising, he and his brother-in-law branched out by building a glassworks in 1858. William and his wife Pauline were among the first Jews to permanently settle in Pittsburgh and helped create many of the first Jewish institutions in the city. The Franks had eight children, five of whom lived to adulthood. Pictured here about 1855 are Abraham, Isaac, Pauline, and Julia (top) and Himan, William, and Samuel (bottom). Stay tuned for more information about the upcoming *#Pixburgh* exhibit.

HHC Detre L&A, Photographs of the Frank Family, 1846-2000, gifts of Ruth O. Frank and James A. Frank, MSP 474.