



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

Volume 49

Winter 2020

Number 1

RENO AND BEYOND 2019 SIA FALL TOUR REVIEW

SIA's 2019 Fall Tour brought together more than 60 members in Reno, Nev. to explore industries ranging from mid-1800s silver mining to present-day lithium-ion battery manufacturing. Headquartered at the Whitney Peak Hotel in downtown Reno, from Sept. 19–22 attendees toured sites throughout the region, traveling to Virginia City, Donner Pass, Sparks, and Carson City.

The Thursday tour was an exceptional blend of rugged Western scenery, emigration and railroad history, and more. Leaving Reno, we headed west on I-80 (ex U.S. 40), following the Truckee River to Verdi (pronounced Verd-eye), where we stopped to visit the **Verdi Power Plant** (1911). By the late 1800s, as we learned from the excellent guidebook, Virginia City mines were so deep that they required constant pumping to remove groundwater. Between 1899 and 1911, the Truckee River General Electric Co. built four hy-

droelectric power plants along the Truckee to serve Virginia City and nearby communities. The Verdi plant is served by a two-mile-long surface canal from a diversion dam located about a mile below the Fleish Power Plant (1905). The immaculately maintained concrete powerhouse houses a single horizontal Allis-Chalmers Francis turbine rated at 3,200 h.p. connected to a General Electric generator. Now owned and operated by the Truckee Meadows Water Authority, the plant is rated at 2.4 MW.

From Verdi, we continued southwesterly on I-80, following the Truckee into California and passing through scenic mountain towns that once hosted diverse industries. These included **Floriston** (pulp and paper), **Iceland** (ice!), and the site of **Boca**, established as a construction camp for the Central Pacific RR, chartered by Congress in 1862 to build a railroad east from Sacramento to complete the western part

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James Bouchard

Consolidated Chollar Mine site.

In This Issue:

- Slate of Candidates for 2020 SIA Election
- West Point Foundry ASME Dedication
- Remembering Emory L. Kemp, 1931–2020
- Fall Tour Preview: Maine, Sept. 24–27, 2020
- Reminder: Register soon for the 2020 Annual Conference, Lehigh Valley, Pa.

RENO FALL TOUR *(continued from page 1)*

of the first transcontinental railroad in North America. By 1872, Boca was shipping more ice, wood, and shingles than any other point between San Francisco and Omaha. The Boca Brewery gained fame for its Boca beer, brewed with natural spring water, until it burned to the ground in 1893. The town was erased with the construction of Boca Dam in 1939.

Traveling ever higher, we passed through Truckee (elev. 5,820), site of epic snowfall—more than 200 in. each winter. As if to prove it, icy flurries had begun to fall. Truckee was an important stop for trains heading over **Donner Pass**. During the late 19th century more than a dozen sawmills were operating in the area, along with a chair factory, shingle mills, and charcoal and brick kilns. The cutting of cordwood, much of it used as fuel for steam locomotives, was principally done by Chinese workers, as was the production of charcoal, primarily used for smelting ores from mines in Nevada and Utah. Nearly 250 earthen charcoal kilns have been inventoried near Truckee, according to our guidebook, along with a large number of associated Chinese work camps. *California: A Guide to the Golden State* (1939)

The *SIA Newsletter* is published quarterly by the Society for Industrial Archeology. It is sent to SIA members, who also receive the Society's journal, *IA*, published biannually. The SIA through its publications, conferences, tours, and projects encourages the study, interpretation, and preservation of historically significant industrial sites, structures, artifacts, and technology. By providing a forum for the discussion and exchange of information, the Society advances an awareness and appreciation of the value of preserving our industrial heritage. Annual membership: individual \$50; household (joint) \$55; full-time student \$20; institutional \$75; contributing \$100; sustaining \$150; corporate \$500. For members outside of North America, add \$10 surface-mailing fee. Send check or money order payable in U.S. funds to the Society for Industrial Archeology to SIA-HQ, Dept. of Social Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295; (906) 487-1889; email: sia@siahq.org; website: www.sia-web.org.

Mailing date for Vol. 49, No. 1 (Winter 2020), March 2020. ISSN 0160-1067. If you have not received an issue, apply to SIA-HQ (address above) for a replacement copy.

The *SIA Newsletter* welcomes material and correspondence from members, especially in the form of copy already digested and written! The usefulness and timeliness of the newsletter depends on you, the reader, as an important source of information and opinion.

TO CONTACT THE EDITOR: Marni Blake Walter, Editor, *SIA Newsletter*, 11 Esty Rd., Westmoreland, NH 03467; sianeditor@siahq.org.

described Truckee as a railroad and stock-raising supply center, with “ramshackle frame houses . . . cheap saloons, and gambling halls overflowing with “lumberjacks, cow-punchers, and shepherds.” Today Truckee is a popular (and noticeably upscale) all-season tourist town.

We stopped at **Donner Memorial State Park**. The visitor center there has an excellent museum with exhibits devoted to the emigrant experience, the story of the ill-fated Donner Party, and the role of the Chinese in the construction of the first transcontinental railroad. In October 1846, the Donner Party from Illinois, acting on bad advice, crossed the Great Salt Desert and arrived too late to scale the high granite pass that today bears its name. Caught by heavy and unrelenting snowfall, they spent the winter of 1846–47 snowbound in the Sierra Nevada. Of the 87 members of the party, only 48 survived the ordeal. Some of the migrants resorted to cannibalism to survive, eating the bodies of those who had succumbed to starvation and sickness. (The harrowing story is well told in Ethan Rarick's *Desperate Passage: The Donner Party's Perilous Journey West* [2009].)

Following lunch at a picnic pavilion offering a magnificent view of Donner Lake, the bus began its slow climb to the summit of Donner Pass (elev. 7,135). We disembarked to admire the **Donner Summit Bridge**, a handsome open-spandrel concrete arch built in 1926 and restored in 1996. The first transcontinental railroad, completed in 1869, went through Donner Pass, requiring 15 tunnels cut by Chinese laborers using black powder and, later, nitroglycerine to blast through solid granite. The longest and most challenging was **Tunnel 6**, which crosses through the crest for a distance of 1,659 ft. Sixteen ft. wide and 19 ft. high, the tunnel took two years to build and remained in use until 1994. The bus parked at its west portal, allowing enough time for the hearty among us to walk the entire length. Other features of interest to be seen prior to our descent and return to Reno included the so-called **China Wall**, where Chinese laborers filled a ravine with the rock excavated for Tunnel 6 and faced it perfectly with dry-laid granite; and concrete snowsheds, built in the 20th century to replace the wooden sheds, which were prone to fire.



James Bouchard

Donner Summit Bridge.

2020 SIA Slate of Candidates

The SIA Nominations Committee is pleased to present the following slate of candidates for the 2020 SIA elections:

President Saul Tannenbaum
(2-year term)
You will vote for one

Vice President Arron Kotlensky
(2-year term) Tim Mancl
You will vote for one William McNiece

Directors Lynn Rakos
(3-year term) Mary Alfson Tinsman
You will vote for three Jacob Kaplan
Gerry Weinstein

Nominations Committee Marc Belanger
(3-year term) Brian Gill
You will vote for one

SIA bylaws state that the Nominations Committee shall notify the membership of the proposed slate at least 70 days in advance of the Annual Business Meeting. Additional nominations may be made in writing over the signatures of no fewer than 12 members in good standing (dues paid for the 2020 calendar year) and delivered to the Nominations Committee chair at the address below no later than **April 18, 2020**. Candidates must have given their consent to be nominated and must also be members in good standing. Ballots will be mailed in early May. Members must have paid their dues for the 2020 calendar year in order to vote.

The 2020 Nominations Committee is John Mayer, Ian Hay, Diana Bouchard, and Maryellen Russo, SIA Past President (ex officio). Please direct all nominations and other correspondence to: SIA Nominations Committee, c/o John Mayer, Chair, 68 Cabot St., Portsmouth, NH 03801; 603-969-3913 (mobile); jmayer.nh@gmail.com. ■

Our first stop on Friday's Tour A was the **Ormat Steamboat Geothermal Plant**, one of 12 such plants in Nevada. Nevada is dry on the surface, but has lots of water (much of it hot) underground. Ormat is a global geothermal and waste-heat recovery company based in Israel. Their process uses a binary system with two closed loops, one for the extracted water and one for the working fluid (pentane or butane). The plant takes 350° flashing steam from the ground, extracts about 30% of the energy in an 1,800-rpm turbine, and then reinjects the lower-temperature brine underground. Power is sold to NV Energy (the local utility) and to California. Geothermal has the advantage of being baseload power (24/7), unlike solar or wind.

The next stop, the **Nevada State Railway Museum**, is the

largest railway museum in the state, with particular strengths in freight cars and early locomotives (around 1875). Highlights of the collection include a transfer car that made it possible to move narrow-gauge equipment over standard rails to the shop for servicing. Narrow gauge was popular in the mining district because of lower cost for cars and roadbed. The Virginia & Truckee (V&T) bought the car for \$800 rather than put in a third rail over the 10 miles to its shop for \$50,000. The car is being restored as a working piece to be displayed with one of the museum's narrow-gauge locomotives. Another highlight was the self-propelled McCain car, which was the first application of the internal combustion engine on rails. It ran from 1910 to 1940. Its well-upholstered seats and large (openable!) porthole windows created an ambiance of travel comfort. Their impressive collection of locomotives included two that have been "dressed up" a few times to recreate the golden spike ceremony at Promontory Point, Utah, in 1865. The movie industry has been very helpful in restoring and keeping up the Museum's collection of rolling stock.

Another stop was **AVK Hydrants and Valves**, founded in Denmark during WWII. They started out by repairing farm tools, moved to refrigeration units, and by the late 1960s were a plumbing contractor. Today the company is a leading U.S. manufacturer of accessories for the water, fire protection, and irrigation industries. All their plants worldwide have the same "U" shape and move from casting to finished product. Raw castings are received from a foundry in England, cleaned up, and shot blasted. They are then heated to



John Reap

SIA Group in Tunnel 6 at Donner Summit.

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RENO FALL TOUR *(continued from page 3)*

400° in an oven, and epoxy paint is applied from a fluidized bed by electrostatic attraction. Manual spray painting gets any spots that were missed. Their largest gate valve is 36 in., 8 ft. tall, and weighs about 7000 lbs. Everything is made to order and tested. Hydrants have three parts: upper barrel, lower barrel (cut to spec), and the branch. They are painted red, shades of yellow, or whatever the customer orders. One costs about \$1,500 and lasts about 50 years. They are made of ductile iron and are made to break off on impact. Most hydrants are dry (no water in the upper barrel)—so forget the movie scenes with all that gushing water.

The **Bently Heritage Estate Distillery** is located at Minden in the Carson Valley, known as the “breadbasket of Nevada” and the southern terminus of the V&T. “Estate” means that at least 85% of what is used is produced on-site. The site includes the former Minden Flour Mill and Butter Manufacturing building (1905–06), which was designed by architect Frederic Joseph DeLongchamps and is now on the National Historic Register. In converting the two historic buildings, they reused as much as possible of the original materials, often in the same place. Today the former butter manufacturing building houses a multi-spirit distillery, with a large copper still from Germany as the centerpiece. They handle multiple mash blends depending on the grain. The process is classic distilling, with mash cooking, fermentation, barreling, and storage in two rickhouses that emulate in real time the climates of Scotland and Kentucky. The main building, the former flour mill, is original except for the steel beams and operates as a traditional single-malt whisky distillery. Tasting of the final product provoked unanimous approval.

The Friday B tour visited sites east of Reno. The **Lahontan Dam and Powerhouse** project began in 1903 and was completed in 1915. It continues in operation as a water management and power generation complex. Its primary use is water impoundment with controlled release into a complex of canals and ditches for agricultural irrigation. The tour included explanations of the challenges, processes, and compromises involved in water collection and distribution in the area.

The **Tesla Gigafactory 1** is a joint venture between Tesla Motors and Panasonic. The site includes a Panasonic plant



John Reap

Verdi Hydroelectric Plant, turbine and alternator.

where lithium-ion batteries are made, connected directly to a Tesla plant where the batteries are assembled into battery packs for use in both vehicles and for stationery storage units. Additionally, the facility produces the drive motors and related gearing for Model 3 automobiles. Entry into the site required a two-stage identification process for visitors.

The next stop on the tour was **Havelock Wool**, which manufactures building insulation from natural wool. Wool is imported from New Zealand and processed into both loose-fill and batt insulation for use in home construction and van insulation. The insulation offers specific advantages to more conventional insulating materials.

Saturday's tour featured the **Comstock Lode**. Our introduction to Virginia City, the heart of the Nevada silver boom, was a ride up the **Geiger-Tilton road** that went up the canyon from Reno (change in elevation of 2,500 ft.). The first two V&T locomotives were disassembled and taken up this road by wagon. Even with the 1936 WPA improvements, I could not imagine how oxen could haul anything heavy up this road. Many of the mining structures have disappeared, although the relocated Keystone Mine headframe greets one at the entrance to Virginia City.

The Comstock Lode was visible as orange spots on the top



James Bouchard

Bently Heritage Distillery, small still in the Minden Butter Co. building.



John Reap

Exploring Butters Plant stamp foundations.

SIA's Annual Conference May 28–31, 2020—Lehigh Valley, Pa.

NOTE: Due to the conditions surrounding Coronavirus (COVID-19), registration for the 2020 SIA Conference has been suspended until at least April 1, 2020. Conference organizers and the SIA Board are closely monitoring the situation and will modify plans as necessary to ensure the safety of the SIA membership.

This year's Annual Conference will be here soon! Join the SIA May 28–31 for tours and events throughout the Lehigh Valley of Pa. The conference will be headquartered at the Historic Hotel Bethlehem (www.hotelbethlehem.com), and the itinerary features a full range of Pa. industries including steel, coal mining, slate quarries, railroad facilities, Martin Guitars, KCM Fire Trucks, and many others. For a more detailed description, see the preview that appeared in the Fall 2019 *SIAN*. Be on the lookout for conference registration information in your mailbox and on the SIA website (www.sia-web.org) very soon. See you in Bethlehem!



HAER PA-386-D, Jet Lowe, 1988

The blast furnace plant at the South Bethlehem Works, preserved as part of the SteelStacks campus.

of the ridge above Virginia City. From there, it sloped down at a 45-degree angle, meaning that mines to the east had to dig very deep to have any hope of encountering ore. This was made more difficult by copious and hot underground water; breakthroughs killed many miners by drowning or scalding. The response was huge Cornish pumps (later more modern ones), that burned 50 cords of wood per day to pump water. More wood went into the Comstock (largely deforesting the Lake Tahoe area) than the gold and silver that went out. Adolph Sutro (later mayor of San Francisco) built a tunnel 1,850 ft. underground to drain the mines to a spot out in the desert near Carson City. This prevented many mines from flooding completely in later years.

A visit to a mining district would not be complete without a real mine. A number of intrepid souls brushed aside the warnings of water, mud, tight passages, and low headroom to walk into an adit of the **Chollar Mine**. They formed a vivid experience of what mining was like “in the day.” For those less intrepid (and for the intrepid afterwards), a plethora of rusted old mining equipment awaited their inspection outside: stamps, Washoe pans, a drilling sled that was like a man cage with a drill under it and used to make the mine deeper, and even a two-hole rolling toilet to be moved where needed.

Lunch was at the **Fourth Ward School**, a large and stately wood building reflecting the size and prosperity of Virginia City at the time. It was built in 1876 (like much in Virginia City) after a disastrous fire in 1875. It has been rescued several times and is now a museum.

After lunch, we left for a drive down **Six Mile Canyon**, site of many mines and mills, now mostly in ruins or gone. We were reminded that large swaths of land in this region are seriously contaminated with mercury and other heavy

metals. Ten million tons of mercury entered the Comstock to be used in the refining process, and none of it left, so it's still there. Cleanup proceeds at a snail's pace given the amount of land involved and focuses on inhabited areas.

One survivor, which we visited, was the **Donovan Mill**. Located in Silver City, it nonetheless milled more gold than silver and operated until the 1950s. The complex included a trestle that was built across the canyon to drop ore into the mill. Several foundries started up in the 1870s to make mill parts and castings out of iron from elsewhere. The Comstock Foundation for History and Culture purchased the complex in 2014 and received an SIA Industrial Heritage Preservation Grant in 2017.

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James Bouchard

Valve assembly area at American AVK.



James Bouchard

A departing V&T steam train.



John Reap

Donovan Mill machine shop.

Work continues to preserve and interpret the mill.

The Saturday night banquet was held at the **Depot Craft Brewery and Distillery**, housed in a three-story brick building built in 1910 to serve as the headquarters for the Nevada-California-Oregon Ry.

An optional tour on Sunday took attendees on the **Virginia & Truckee RR** from Carson City to Virginia City. We were sitting in 100-year-old cars with wicker seats from the Lackawanna & Western RR (1914–16), pulled by a Baldwin steam locomotive from 1916. The V&T had 29 locomotives at one time. The maximum grade is now 4%; the line was engineered at 2.2%, but reconstruction to shorten some track loops required the increase in grade. During the ride up, we had ample opportunity to take in the sheer expanse of the dry and empty Nevada foothills, occasionally dotted with old mining equipment or open pits. Upon arrival, we were taken up to the main street to find lunch and explore. The wooden sidewalks on both sides created a period atmosphere, and the numerous extended porch roofs on the stores offered some welcome shade. Eventually we made our way down to the train depot to explore that area more before the buses took us back to Reno.

A detailed guidebook to the Reno Fall Tour (Marc Belanger, ed.), complete with photos, references, and more, is available for download on the SIA website: <https://www.sia-web.org/wordpress/wp-content/uploads/2019/09/Reno-FT-Guidebook-Color-smaller.pdf>.

Many thanks to the planning committee: Marc N. Belanger, Corri Jimenez, Robert W. McQueen, and Ronald Reno, with additional support from Courtney B. Murtaugh, Christopher H. Marston, Hans Muessig, and Saul Tannenbaum. The SIA also extends our gratitude to our tour hosts and the many historic sites and businesses who provided a welcoming and informative Fall Tour.

Marc N. Belanger, Diana Bouchard, James Bouchard, Bill McNiece, Carol Poh, and John Reap

NOTES & QUERIES

Help requested for historical computing research: finding core memory weavers. Memory in a computer hasn't always been stored in computer chips. Before integrated circuits, computers used "core memory" or "core rope memory" that was hand woven out of thin copper wires and small donut-shaped iron cores. Women typically were the creators of this memory, and their experiences working with this technology are largely undocumented. Core memory was made in the U.S. in the 1960s and perhaps even later, and I am looking to interview anyone that was a worker who manufactured this technology. In particular, the Apollo space missions used core rope memory that was woven in Waltham, Mass. by former textile workers and watch makers, and I would love to hear their experiences switching to making technology for space missions. If anyone has thoughts on how to get in touch with one of these technology artisans, please contact me at kbroida@gmail.com or on Twitter @kbroida.—Katie Broida ■



John Reap

California stamp at Donovan Mill.

One-Of-A-Kind Emory L. Kemp, 1931–2020

Industrial archeology in America lost one of its pioneers on January 20, 2020, when Emory L. Kemp died of heart failure at the age of 88 while recovering from surgery.

Emory Kemp was a true pathfinder. By happenstance, he became a founding member of SIA when the group met at the Smithsonian in 1971. While visiting Robert Vogel, he was invited to that first Saturday meeting. Kemp later recalled lively discussions over the nature of industrial archeology vis-à-vis other branches of archeology, as well as of the spelling of the word itself.

Industrial archeology was familiar to Kemp, for he had spent four years studying and working in Great Britain where the discipline was well established by scholars like Neil Cossons, director of Ironbridge Gorge Museum and an early acquaintance. A Fulbright Scholarship enabled Kemp to obtain a diploma from the Imperial College of Science and Technology in 1955. Three years later, he obtained a master's in engineering from the University of London. In London he joined several consulting firms, in particular Ove Arup and Partners, where he pursued one of his first passions: the design of thin-shell concrete roof structures. His complex manual calculations helped make Danish architect Jørn Utzon's revolutionary Sydney Opera House roof design a physical reality.

While in England, the expatriate engineer did not spend all his time designing concrete structures. There he met Janet Dodd, and they were married in 1958.

An offer of a full scholarship in the University of Illinois at Champaign's theoretical and applied mechanics doctoral program brought the Kemps back to the U.S. Emory's dissertation study of torsion in reinforced concrete beams was a previously little-explored area of inquiry. Leaving Champaign in 1962, he landed in West Virginia University's College of Engineering and headed the Civil Engineering Department from 1964 to 1974. Here the Kemps also parented a daughter and two sons.

Once settled at Morgantown, Kemp was encouraged by James Harlow, a former dean at the University of Oklahoma and recently named president of West Virginia University, to look into Oklahoma's history of science program. It was a natural fit, for Emory had been a lifelong student of history. In fact, his high school teachers—many of whom were also university faculty—had encouraged him to take up history as a profession, especially after winning a prize from the Daughters of the American Revolution. Instead, he followed his father's footsteps into the engineering field but never lost his



Emory L. Kemp.

West Virginia Univ. Archives

fascination with and dedicated study of the past. Upon returning to Morgantown, he initiated classes in the technology of the Industrial Revolution and history of technology in conjunction with WVU's Department of History. Kemp also became a dissertation director and doctoral committee member in the history of technology for the department. Even though he never convinced the College of Engineering to make courses in the history of science a degree requirement, he did establish a program in the History of Science and Technology at WVU that also operated jointly with the Smithsonian for nearly two decades. He also became a frequent lecturer for history, urban sociology, and photography classes at WVU.

Kemp's heavy involvement with academic history, along with civil engineering, was unquestionably the most distinctive element of his career. He was equally at home teaching college-level courses in history as he was elaborating mathematics to collegiate engineering students. His wholehearted embrace and deep understanding of both disciplines was a hallmark of everything he did.

It was this highly effective combination that made Kemp the perfect candidate to organize and supervise a wide array of Historic American Engineering Record (HAER) projects in West Virginia. In the early 1970s alone, he advised on more than a dozen recordation projects that included coke ovens, a machine shop and foundry, covered bridge, concrete bowstring bridge, steel truss bridge, suspension bridge, endless wire oil pumping station, market building, lumber company, glass factory, grain mills, and railroad station. He also took special pride in two 16-mm documentaries that filmed the production of lead stemware at a glassworks and coke production in beehive ovens—the first ever done in conjunction with a HAER project. In the process, Kemp became a skilled practitioner of large-format photography. Supervising the use of surveying equipment and preparation of measured drawings came as a natural offshoot of his broad knowledge of engineering practices.

During this period, Kemp also became active in the SIA. Joining the board of directors in 1974, he was elected vice president in 1986 and served as president from 1988 to 1990, when he made a point to visit several local chapter meetings. Because of his university resources and while on the board, he was asked to be the premier editor of *IA*, and we still benefit from the decision he made then to use an 8 1/2-x-11-in. format that facilitates full-page or quarter-page drawing reproductions. The head of the WVU print shop

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EMORY L. KEMP (continued from page 7)

proved critical in designing the cover and selecting the distinctive paper stock that was maintained until supplies were no longer available. When SIA's General Tools Award for Distinguished Service to Industrial Archeology was created in 1993, Emory Kemp was the first recipient.

His work with SIA was indispensable preparation for a major career accomplishment: the 1989 establishment of the Institute for the History of Technology and Industrial Archaeology (IHTIA) as part of WVU's Eberly College of Arts and Sciences. Mandated and partially funded through the efforts of Congressman Alan Mollohan, it was authorized to document, preserve, and interpret historically significant industrial, engineering, and technological sites, primarily in West Virginia but also throughout the Mid-Atlantic region. Including the documentation work done by IHTIA, Emory Kemp's impact on leading and inspiring documentation to HAER standards was immense. By the time Emory retired in 2003, more than 150 sites had been added to lists of recorded sites in West Virginia, Pennsylvania, and Maryland. They ranged from workers' housing to nail works, coal mine complexes to oil field power systems, pulp mills to steel works, and dozens of bridges.

Kemp administered much more than HAER projects at IHTIA. *Industrial Archaeology: Techniques* (1996), *Bridges Over Time: A Technological Context for the Baltimore and Ohio Railroad Main Stem at Harpers Ferry, West Virginia* (1997), *American Bridge Patents: The First Century (1790–1890)* (2005), and *An Educational Guide on the History of Covered Bridges in the United States for Students in Kindergarten Through 12th Grade* (2011) were among the notable publications produced during his tenure.

Still, Emory's design efforts and supervision of actual preservation projects remain among his most enduring legacies. Three West Virginia projects, in particular, stand out: the Wheeling Suspension Bridge, Wheeling Custom House, and

Philippi Covered Bridge.

As early as 1962, his interest in the Wheeling Suspension Bridge, the longest in the world when completed in 1849, was piqued through an enthusiastic local preservationist. Always interested in context, it led him to a major research interest in suspension bridge history dating back to the Chinese. Kemp's "Links in a Chain: The Development of Suspension Bridges, 1801–1870" published in *The Structural Engineer* in August 1979 has become a standard reference for any serious bridge historian.

Major state-funded rehabilitations in the 1980s and 1990s allowed Kemp to become directly involved in extending the functional life of the Wheeling Suspension Bridge while maintaining its historical integrity. In 1983, along with researching the static and dynamic responses of the bridge, he experimented with a neoprene wrapping system for the cables. But when it leaked badly, he worked in a second 1990s project to restore the original wire wrapping system—although minus the once highly-effective but now banned red lead! He also devised new articulated connector blocks to prevent wear at points where the suspenders and stays crossed for the latter project.

Kemp's engineering expertise also proved critical in the restoration of the Wheeling Custom House, also known as West Virginia Independence Hall for its role in the state's creation in 1863. Constructed between 1856 and 1859, Emory conducted an intensive structural analysis of the composition and fabrication of the 9-in. wrought iron I-beams supporting the interior structure. His research determined that these were very likely among the earliest wrought iron I-beams to be rolled in America. Earlier structural analyses of the beams had concluded they were insufficient for public use, but his reassessment revealed a capacity of 100 lbs. per sq. ft.

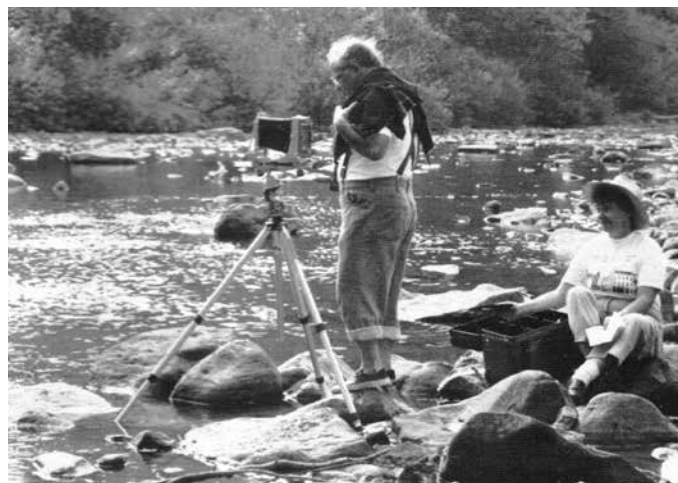
When the famous Philippi Covered Bridge burned in Feb.

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Christopher Marston

Janet and Emory Kemp.



Paul Boxley, 1990s

Emory and Janet Kemp shooting large-format photographs of King's Bridge, a covered bridge in Somerset County, Pa., that Emory later helped rehabilitate.



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

PUBLICATIONS OF INTEREST

Vol. 49, No. 1

Winter 2020

COMPILED BY

Mary Habstritt, New York, N.Y., Patrick Harshbarger, Wilmington, Del., and Marni Blake Walter, SIAN editor, Westmoreland, N.H.

GENERAL INTEREST

◆ **IA News**, No. 189 (Summer 2019) includes an interesting article on the origins of the term “industrial archeology,” tracing its earliest use to Marie Pierre Le Pelletier de Saint-Remy in 1842, in the French language and in the context of discussion of a dictionary of commerce. The earliest English-language use appears to be in *The Builder* (U.K.) and *Forest and Stream* (U.S.) in 1881. Also in this issue, Peter Crew, *Dolgun Blaster Furnace—300th Anniversary* (well known for its Quaker connections and for the blast furnace planned by Abraham Darby); Mary Mills, *George Landmann* (builder of the Greenwich Ry. and its viaduct); *Good Progress at the Hetty Pit* (volunteers work on restoration of the engine house and steam winding engine near Pontypridd, South Wales); *SL Lady Elizabeth* (conservation of the engine and boiler of the c.1895 steam launch); Robert Gambrell, *It’s Only a Winch* (restoration of late-19th-c. winch at the Hollycombe steam engine collection); and Bruce Hedge, *Industrial Chimneys* (first part of an article on the origins of tall industrial chimneys, beginning with late-18th-c. steam engine houses).

TEXTILES

- ◆ Lars Olsson. **Women’s Work and Politics in WWI America: The Munsingwear Family of Minneapolis**. London: Palgrave Macmillan, 2018. 302 pp. \$89.95. Producing Munsingwear brand underwear, the Northwestern Knitting Co. was the largest workplace for gainfully employed women in Minnesota and the largest garment factory in the U.S. by WWI. The company used various strategies to bind the women, who worked long hours for low pay in roles strictly divided along ethnic and gendered lines, to the “Munsingwear Family.”
- ◆ Joe Sugarman. **Stepping Stones**. *Preservation* (Spring 2019), pp. 34-40. Historic buildings form a path toward renewal of the textile mill company town of Graniteville, S.C. Remembered most recently for the derailment of a freight train loaded with chlorine in 2005, Graniteville’s architecture reflects the vision of its original owner, William Gregg, who in the 1840s constructed mills and workers’ houses in a Gothic Revival-style reminiscent of New England.

IRON & STEEL

- ◆ Jake Halpern. **Scrapers: The Big Business of Scavenging in Postindustrial America**. *NYT Magazine* (Aug. 25,

2019), p. 50–59. How metal scrap is collected and processed, accompanied by full-page photos.

MINES & MINING

- ◆ Gregg Aamot. **‘The Lifeblood’: On the Iron Range, Small Businesses Build Off Mining’s Success**. *MinnPost* (Oct. 20, 2019), www.minnpost.com. The interplay of small businesses and iron mining in northern Minnesota through the fits and starts of the industry. Focuses on some of the small manufacturers supplying the mines in the Hibbing, Minn. area.
- ◆ Brian James Leech. **The City That Ate Itself: Butte, Montana and Its Expanding Berkeley Pit**. Mining and Society Series. Univ. of Nev. Pr., 2018. 376 pp. \$39.95. Operations of the open-pit copper mine from 1955 to 1982, based on oral interviews and documentary evidence. How the pit changed the lives of workers and residents against a backdrop formed by Butte’s long history of underground mining. The pit lowered the skills needed by miners, created new environmental hazards, and nibbled away at neighborhoods as its expanded outward. Rev: *Mining History News* (Winter 2018).

WATER TRANSPORT

- ◆ Paul A. Lynn. **World Heritage Canal: Thomas Telford and the Pontcysyllte Aqueduct**. Whittles Publishing, 144 pp., illus. An 11-mi. section of the Ellesmere Canal (now the Llangollen Canal), designed by Telford in 1793, was recently made a World Heritage Site. This book places Telford into historical and social context, showing him to be a remarkable mix of good-natured ambition, talent, and resilience. Rev: *IA News* (Autumn 2019).
- ◆ Randall Whitestone. **Decades After Closure, Brooklyn Navy Yard Sails On**. *New York History Blog* (Nov. 11, 2019), www.newyorkhistoryblog.org. In a review of historic vessels launched and fitted out at this shipyard, takes note of the last vessel still working and built from the ground up at the Brooklyn Navy Yard—a humble barge.

RAILROADS

- ◆ Center for Railroad Photography and Art. **After Promontory: One Hundred and Fifty Years of Transcontinental Railroading**. Indiana Univ. Pr., 2019. 268 pp., photos.

\$60. Celebrating the sesquicentennial anniversary of the completion of the first transcontinental railroad in the U.S., this book profiles the history and heritage of this historic event. Starting with the original Union Pacific—Central Pacific lines that met at Promontory Summit, Utah, in 1869, the book considers all of the transcontinental routes in the U.S. and examines their impact on building the nation. A related traveling exhibition continues into 2021 (see IA Exhibits in this issue).

- ◆ Reed Karaim. **Ticket To Ride.** *Preservation* (Spring 2019), pp. 73–74. Suggests eight places across the U.S. for visits to honor America’s railroad heritage: Golden Spike National Historical Park, Nevada State RR Museum, Chinese RR Workers Memorial, Union Station (Washington, D.C.), Montpelier Station Train Depot (James Madison’s Montpelier, Va.), Mt. Washington Cog Ry., Pullman National Monument, and King St. Station (Seattle).
- ◆ Eric K. Washington. **Boss of the Grips: The Life of James H. Williams and the Red Caps of Grand Central Terminal.** Liveright, 2019. 352 pp. \$27.95. Celebration of Williams (1878–1948), chief porter of GCT and a black New Yorker who achieved authority and influence as a member of Harlem’s ambitious middle class, set amid the golden age of train travel and the Harlem Renaissance.

AUTOMOBILES & HIGHWAYS

- ◆ Steven Dornfeld. **1969 Bus Strike: Twin Cities Mass Transit Turning Point.** *Minnesota History* (Fall 2019), pp. 274–284. Twin City Rapid Transit, a streetcar company became Twin City Lines and the largest privately-owned bus company in the metropolitan area. As politicians argued over public ownership of the company, and company owners looted and redirected funds, employees suffered and service and equipment deteriorated. The 1969 labor strike finally pushed the company into public ownership.

AGRICULTURE & FOOD PROCESSING

- ◆ Tony Dierckens & Pete Clure. **Naturally Brewed, Naturally Better: The Historic Breweries of Duluth & Superior.**

CONTRIBUTORS TO THIS ISSUE

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With Thanks.

Duluth: Zenith City Pr., 2018. 214 pp., illus. \$24.95. The Twin Ports’ brewing industry from its start in 1859 to today. One of the brewers profiled is Fitgers, the last of Duluth’s regional breweries. Its historic facility has served as an incubator for the modern craft brewing industry and was a tour site during the SIA 2000 conference.

- ◆ Patrick Reynolds. **Jesse Williams: The Big Cheese.** *New York Archives* (Fall 2019), pp. 33–37. Industrial-scale cheese manufacturing began on a farm in Rome, N.Y. in the 1850s.
- ◆ Patricia M. Salmon. **Staten Island’s Brewery Barons.** Self-published, 2016. Avail.: <https://patsalmonhistory.com>. 124 pp., illus. \$19.99. A thriving tradition of lager brewing began on Staten Island in the 1850s with the arrival of German brewers who included Frederick Bachmann, August Schmid, George Bechtel, Charles Bsichoff, Joseph Rubsam, August Horrmann, and Monroe Eckstein.

BRIDGES

- ◆ **Historic Bridge Bulletin**, Vol. 6, No. 3 (Nov. 2019) includes Arlyne Reichert, *Sweeping Arches: The Tenth Street Bridge in Great Falls* and *More Than Meets the Eye: The Design and History of the Tenth Street Bridge* (open-spandrel, reinforced-concrete arch bridge, built in 1920, will be celebrated on its centenary in Aug. 2020. Also see *SIAN* (Summer 1996) for more on the preservation of this Montana landmark); *Battleground Bridge, Deer Park, Texas* (pin-connected, Pratt, through-truss bridge, fabricated by the Clinton (Ohio) Bridge Co. in 1891); and Rebekah Dobrasko, *A Plan for Austin Bridges* (Austin’s city beautiful plan of 1928 resulted in 21 reinforced-concrete bridges to serve boulevards and parks).
- ◆ Philip S. C. Caston. **Remington’s Bridges—Karl Culmann Meets John R. Remington.** *CBT*, Vol. 77, No. 4 (Fall 2019), pp. 4–14. Culmann, a young engineer with the Royal Bavarian State RR, traveled to the U.S. in 1849–50. There he met Remington, a bridge builder of Lowndes County, Ala., who for several years had been working on an innovative, patented, suspension bridge made of wood. In 1850, Remington completed a stupendous bridge of 436-ft. span over a ravine in Montgomery, Ala., regarded by some as the longest single-span wooden bridge ever built in the world. Culmann was clearly impressed, eventually preparing a German-language technical report with seven figures and three pages of text.

ABBREVIATIONS

- CBT = *Covered Bridge Topics*, published by the National Society for the Preservation of Covered Bridges
 IA News = Bulletin of the Association for Industrial Archaeology (U.K.), www.industrial-archaeology.org.
 NYT = *New York Times*

Publications of Interest are compiled from books, articles, and digital media brought to our attention by you, the reader. SIA members are encouraged to send citations of new and recent books, articles, CDs, DVDs, etc., especially those in their own areas of interest and those obscure titles that may not be known to other SIA members. *Publications of Interest*, c/o Marni Blake Walter, Editor, *SIA Newsletter*, 11 Esty Rd., Westmoreland, NH 03467; sianeditor@siahq.org. ■

West Point Foundry Designated an ASME Historical Mechanical Engineering Landmark

On Oct. 5, 2019, the West Point Foundry (WPF) in Cold Spring, N.Y. was designated Historical Mechanical Engineering Landmark #272 by the American Society of Mechanical Engineering (ASME). The ceremony, hosted by the property owner, Scenic Hudson, included the president of ASME, Richard Laudenat, Section Chair Robert Marcinik and other members of the ASME Mid-Hudson Section, and Sr. VP Erin Riley and Director of Parks and Community Engagement Rita Shaheen of Scenic Hudson. Arron Kotlensky (SIA board member), who wrote the nomination, and Steven A. Walton (SIA Exec. Sec.) as the representing member of the ASME History and Heritage Committee both gave short speeches on the history and importance of the foundry.

President Laudenat noted that the “West Point Foundry Preserve is not only a beautiful park, but an outdoor museum that educates visitors about the early days of American industry and engineering. ASME is pleased to formally recognize the foundry’s historical significance as part of the American Industrial Revolution and the evolution of mechanical engineering, as well as its role in inspiring new generations of engineers.” About fifty people from the community and region attended the ceremony. An hour-long tour of the site (and a surprise tour of the privately-owned adjacent 1829 William Kemble House that is being restored to its former glory) followed the ceremony.

Since 1971, the ASME has designated its landmarks based upon “their engineering attributes, role in the evolution of the mechanical engineering profession, and significance to society in general.” More specifically, they seek to designate sites or collections that represent “a significant step forward in the evolution of mechanical engineering and is the best known example of its kind.” The WPF fits both of these cri-

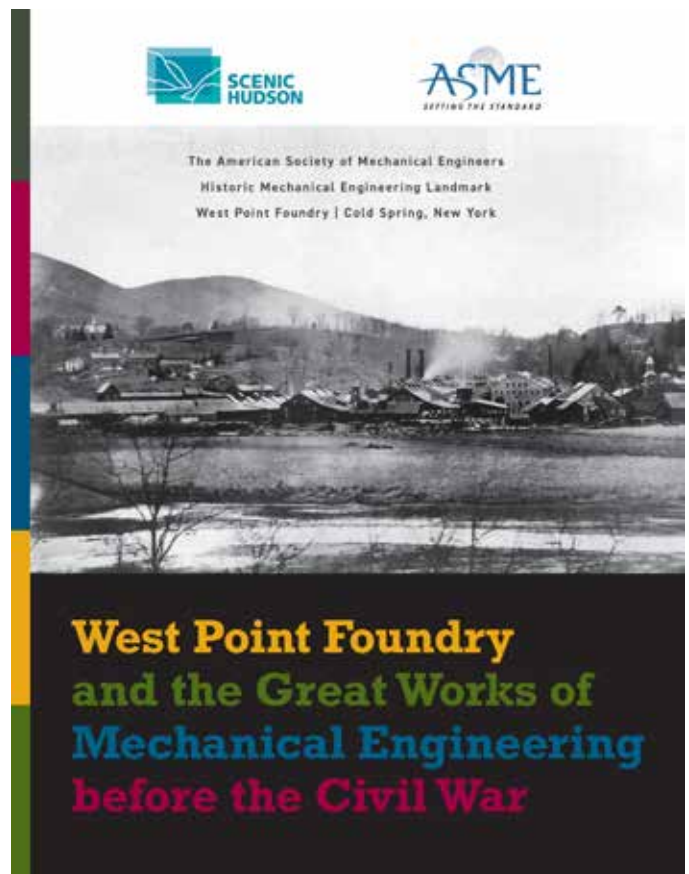
teria well. The WPF’s nomination was based upon its unique survival as a largely un-redeveloped parcel of an early 19th-c. iron foundry and its contribution to the development of manufacture of heavy capital goods. Founded in 1818 and thriving through the Civil War, the foundry produced cast iron engines and machinery for mills of all sorts (especially sugar), pumping engines, cast iron infrastructure like water pipes and structural building members, locomotives, steam engines, and marine engines that built American industry, and even for the WPF’s notable history of the Parrot Gun (though ASME prefers not to designate militaristic landmarks). Its importance also lies in its role in the early careers of a generation of antebellum American mechanical engineers who went on to develop important sectors of the American engineering profession, including Chief Engineer of the U.S. Navy, Charles H. Haswell; chief of the Navy’s Bureau of Steam Engineering, W.W. Wood; and Charles W. Copeland, one of the founding members of ASME.

Scenic Hudson acquired the 45-acre property more than two decades ago, sponsored a decade of archeological research by Michigan Tech’s Industrial Archaeology program, and has redeveloped the site into the West Point Foundry

(continued on page 14)



Dedication ceremony of West Point Foundry, Oct. 5, 2019. Left to right: Rita D. Shaheen (Scenic Hudson), Richard T. Laudenat (President, ASME), Arron Kotlensky (SIA), Steven Walton (SIA and ASME H&HC), Erin Thérèse Riley (Sr. VP, Scenic Hudson), and Robert Marcinik (Chair, ASME Mid-Hudson Section).



Brochure cover from the West Point Foundry dedication ceremony.

CHAPTER NEWS

Oliver Evans (Greater Philadelphia) held a tour of American Keg Co. in Pottstown, Pa., on Nov. 4. American Keg is a stainless steel keg manufacturer which has been crafting kegs since early 2015, when the company operated under the Geemacher name. It continues to be the only steel beer keg manufacturer in the U.S.

Roebling (Greater N.Y.-N.J.) held its Annual Great Falls Symposium on the Industrial Archeology of the New York–New Jersey Area in the Great Falls National Historical Park, Oct. 26, 2019. Presentations included Patrick Harshbarger, *A Ghost of Mount Morris: The Quarry & the Allied Textile Printers (ATP) Site*; James S. Lee, III, *Guided Tour of the ATP Quarry Lawn & Archaeological Field Work* (see also below); Darren Boch, *Paterson Great Falls National Park Updates & Outlook*; Matthew Kierstead, “*Large and Lofty*”: *HAER Documentation of the Erie Railroad’s 1875 Portage Viaduct*; Richard Hunter and Patrick Harshbarger, *Investigations of the Camden & Amboy Railroad’s South Amboy Terminal*; Elizabeth Cole, *From “Black” Mill to “White” Mill: A History of Clinton’s Mill & Machinery*; and Gianfranco Archimede, *Meeting Mandates of the E.P.A. at the Great Falls National Park: Recent Section 106 Reviews & Assessing Impacts to Industrial Heritage Resources*. A reception for “The Iron Hand in the Silk Glove: Ruins and Story of the ATP Site in Paterson’s Great Falls National Historic Park” exhibition for RCSIA members was held featuring large-format silver photography by Gianfranco Archimede.

As part of the annual Symposium on Oct. 26, Roebling Chapter toured a portion of the former Allied Textile Printing (ATP) site within the Paterson Great Falls National Historic Park. The accompanying photo is approximately within the remains of Building 18, which was used for dye-

ing and finishing. This area will become the River Walk (the left side is by the Passaic River, which isn’t visible through the trees and walls) and the Quarry Lawn (on the right).

Then on Nov. 18, Roebling Chapter had a lovely tour of the Kings Theater in the Flatbush neighborhood of Brooklyn. Originally the Loew’s Kings Theater, designed in a French Renaissance style and one of the five “Wonder Theaters” in the N.Y.C. area, it sat empty for decades after it closed in 1977. The theater’s interior spaces were restored to their 1929 appearance, and its stage facilities completely rebuilt to modern standards. It reopened as a performing arts venue in 2015.—Aron Eisenpress



Aron Eisenpress

The interior of Kings Theater.

Support Your Local Chapter. For info on a chapter near you or to start one, check out the local chapters section of the SIA website (www.sia-web.org). ■

IA EXHIBITS

After Promontory: 150 Years of Transcontinental Railroading is a traveling exhibition for the 150th anniversary of the joining of the Central Pacific and Union Pacific RR in Promontory, Utah in 1869. It is part of an initiative by the Center for Railroad Photography and Art that also includes a book (see Publications of Interest) and a 2019 conference. The exhibition examines the significance and lasting impact of the transcontinental railroads on the American West through both historical and recent photography. It is currently on display at the Architectural Heritage Center, Portland, Ore., through April 24, 2020, and San Mateo County History Museum, Redwood City, Calif., through May 1, 2021. Info: <http://www.railphoto-art.org/exhibits/after-promontory/>.

(continued on page 15)



Aron Eisenpress

Roebling members explore the remains of the ATP site (Building 18) during the Annual Symposium.

SIA 2020 Fall Tour Preview

Central and Mid-Coast Maine, Sept. 24–27

Based in historic Bath, Maine, the 2020 SIA Fall Tour will explore several historic Maine industries, including textiles, shoes, bricks, and narrow gauge railroads. SIA attendees will also witness lumbering, boat building, quarrying, and high-tech manufacturing, as well as an active paper mill, all of which are important economic drivers for the state. Nine process tours have already been arranged, as well as multiple museum visits, and events planned for each evening. Seven distinct group tours have been planned for this four-day event (events subject to changes as itineraries are finalized). Sitting along the Kennebec River in Bath's historic district, the Hampton Inn Bath has offered SIA a rate of \$139/night.



WW&F.

Originally built by the Portland Co. in 1891, and restored by the Wiscasset, Waterville, & Farmington Ry. Museum's volunteers, the two-foot gauge Locomotive No. 9 is the first engine to cross the reconstructed 1918 Boston & Maine boxed pony Howe truss as part of the WW&F's extension of its excursion line.

The hotel is a 40-minute drive from the Portland International Jetport, and is centrally located off of U.S. Route 1 for accessing all the sites in Central and Mid-Coast Maine.

The Maine Maritime Museum is hosting the opening reception Thursday evening. Though the museum was a tour stop at the 2014 SIA Portland conference, there are many new exhibits. They are arranging a tour of their Bath Iron Works (BIW) exhibit which includes a one-hour boat cruise on the Kennebec River past the BIW industrial site, and the Doubling Point and Kennebec Range lighthouses.

Other highlights include the Museum L-A in Lewiston, which is putting together a custom tour of their museum and a corresponding walk of the canals and other significant industrial sites in the area. This tour will highlight the Franco-American workers who kept the mills going and the history of the industry.

In Brunswick is TechPlace, a manufacturing incubator which currently houses over 30 up-and-coming industrial innovators. Located in a former Naval Air Station, five

(continued on page 14)



Wikipedia: Alexius Horatius

Under new ownership, the ND Paper-Rumford Mill is a major producer of pulp and paper and has occupied the site along the Androscoggin River since 1901.

Membership Renewal Reminder

Membership renewal notices for 2020 were sent to all members. Please remember to renew your membership and continue your support for the Society for Industrial Archeology! We have much to look forward to in 2020 including the Annual Conference in Bethlehem, Pa., and Fall Tour in Maine. Your annual dues support publication of *IA: The Journal of the Society for Industrial Archeology*

and the *SIA Newsletter* and support the general operations of the SIA. You can pay your 2020 dues online at www.sia-web.org/join-or-renew-online/, or send payment by check along with the form that accompanied the renewal notice. Renewal forms that can be printed and mailed are also available on the SIA website at the address given above.

FALL TOUR PREVIEW *(continued from page 13)*

different tour guides will take small groups around the site so members can get a more intimate view of these groundbreaking companies.

A tour to the ND Paper Mill in Rumford will be another major highlight. This large mill, along with its connecting rail lines, should satisfy attendees' many areas of interest. Along the way, we will view the lumber processing facility at the JD Irving Mill in Dixfield.

Located in Thomaston, Dragon Products provides the top quality masonry cements for highways, bridges, and buildings. The Maine Section of the American Society of Civil Engineers (ASCE) has designated the Dragon Cement plant and quarry as a State Significant Historic Civil Engineering Landmark. A two-hour tour is scheduled for this facility.

On Saturday, a half-day is planned at the Wiscasset, Waterville & Farmington Ry. Museum in Alna. The WW&F's amazing volunteers will offer behind-the-scenes tours of their shops and ongoing locomotive and car restoration projects, and take us on a steam excursion along their 2.6-mi. narrow-gauge line, which they've recently extended to cross a rebuilt 1918 boxed Howe pony truss, the byproduct of a unique HAER project.

In all, nine process tours have been arranged, as well as visits to museums and historic sites. A harbor cruise or other maritime-related activity is in the works for Saturday afternoon.

New England fall foliage attracts tourists from around the world to witness the spectacular colors, and the late Septem-

ber timing will bring out some of the best viewing. Maine is a friendly state and has many activities to entertain as well as educate the diverse SIA membership.

Matthew Mueller and Christopher Marston



HAER NH-48-1, Jet Lowe, 2009.

The Boston & Maine built the Moose Brook Bridge in 1918 in Gorham, NH. After being arsoned in 2004, it was recorded and reconstructed in 2009–2012 by partners including HAER, FHWA, Case Western, and the National Society for the Preservation of Covered Bridges. It was reassembled at the WW&F in 2017–2019.

EMORY KEMP *(continued from page 8)*

1989, the governor's office asked Kemp to put on a general contractor's hardhat and also serve as chief engineer for the \$2 million restoration. The timbers had been charred but sufficient cross sections remained to preserve many of them. Kemp designed a giant plastic house covering so that every component could, in turn, be examined and assessed. He also developed "Dutchman" techniques to insert within damaged original timbers that would have otherwise been removed. Epoxied in place, they were executed to maintain the exterior appearance. The bridge reopened to traffic in 1991.

The world of industrial archeology will likely never again see anyone like Emory Kemp. Capable of conducting authoritative historical research, he could, at the same time, perform essential structural analysis. He was the literal embodiment of British novelist C. P. Snow's celebrated "Two Cultures" of science and humanities. What's more, his wide-ranging interests and knowledge in the arts, politics, religion, and culture made him a joy to be around. We will all profoundly miss him.

David A. Simmons

WEST POINT FOUNDRY *(continued from page 11)*

Preserve, a unique amalgam of nature preserve and arguably the most intact example of a manufacturing site of its kind dating from the early decades of American industrialization. The WPF is already on the National Register and has been nominated as a National Historic Landmark (pending).

The WPF joins ten other mill complexes that are ASME Landmarks, though it is arguably the most extensive, complex, and intact of them. Notably, two previous ASME landmarks—the Hacienda La Esperanza Sugar Mill Steam Engine (1861; ASME Landmark #35) and the Barker Turbine at Hacienda Buena Vista (1853; ASME Landmark #177), both in Puerto Rico—were manufactured by the WPF, a point noted by the president of ASME at the ceremony.

SIA members may recall the theme issue of *IA* on the WPF from 2009 (Vol. 35, no. 1/2), and the full-color 16-page brochure for the ASME Landmark designation may be downloaded at <https://www.scenicudson.org/news/parks/kudos-to-west-point-foundry/>. For more on all the ASME landmarks, many of which will be familiar to SIA members, see <https://www.asme.org/about-asme/engineering-history/landmarks>.

Steve Walton and Arron Kotlensky

IA ON THE WEB

Industrious Light. (<https://www.muralarts.org/artworks/industrious-light/>). Philadelphia is well known for its mural arts program, bringing together artists with neighborhoods to transform blank walls and building elevations into works of art reflecting the city's culture, history, and aspirations. Now the city has a new series of murals depicting its industrial past. Artist Phillip Adams has created murals depicting breweries, machine works, and locomotive manufacturing in neighborhoods where these industries were once supreme.

Mines, Mills, Museums: My Year as a Professional Industrial Heritage Tourist. www.sah.org/publications-and-research/fellowship-reports/brooks-fellowship-reports/brooks-report-detail/sah-blog/2019/09/03/mines-mills-museums-my-year-as-a-professional-industrial-heritage-tourist. Essay with many photos about tourism at a variety of industrial heritage sites.

Photography and Corporate Public Relations: The Case of U.S. Steel, 1930–1960. <https://www.library.hbs.edu/us-steel>. Extensive photo essay on U.S. Steel by the Harvard Business School, arranged in several different topics.

The Slate Belt. sites.google.com/view/theslatebelt. Compilation of information about the slate industry in Lehigh and Northampton Counties, Pa. Includes sections on the processes and tools of quarrying, ancillary industries, geology, historical maps, photos, and a database of quarries. Researched and developed through a project by the University of Pennsylvania Graduate Program in Historic Preservation.

IA on the Web is compiled from sites brought to the editor's attention by members, who are encouraged to submit their IA Web finds: sianeditor@siahq.org ■

IA EXHIBITS (continued from page 12)

Art of Precision: The Engineered Sculpture of Christopher Bathgate will be on display at the National Museum of Industrial History (NMIH), Bethlehem, Pa., during the SIA's Annual Conference and continues through May 31. The exhibit features more than 20 sculptures by Bathgate, a self-trained machinist employing handmade tools, automated CNC milling machines, and metal lathes to create complex artistic expressions inspired by industry. Playing with the tension between aesthetic vs. utility, form vs. function, and industrial vs. handmade, these pieces serve as an example of how computer-mediated fabrication may bridge the divide between art, craft, and industrial production in the Digital Age. Info: www.nmih.org.

Dreaming of Utopia: Roosevelt, New Jersey is an exhibit at Morven Museum & Garden in Princeton, N.J. through May 10, 2020. Working with the New Deal Resettlement Administration, Russian immigrant Benjamin Brown established the town of Roosevelt, originally named Jersey Homesteads, in 1937. It was a community of Jewish garment workers who escaped city tenements to farm and operate a cooperatively owned garment factory. Jersey Homesteads' flat-roofed buildings, designed by architect Alfred Kastner with his assistant Louis Kahn, were built on half-acre lots that backed onto communal green spaces and woods. After the death of President Roosevelt in 1945, the town was renamed in his honor. When the communal farm and factory failed, the town evolved into an artist colony known for artists who worked for civil rights, economic equality, immigration, labor issues and fair pay, the right to free speech, peace and justice. Included in this exhibition are more than 100 objects and works of art shown together for the first time. Info: www.morven.org/dreaming-of-utopia. ■

Historic Bridge News

Pennsylvania Department of Transportation (PennDOT) has upped its game, more aggressively marketing the availability and potential reuses of the state's historic metal truss bridges. PennDOT in partnership with the State Historic Preservation Office is using social media (Facebook, Twitter, and LinkedIn) to get the word out through a news column called *Bridge to Success: Opportunities for Reusing Pennsylvania's Metal Truss Bridges*. Issue #3 (Oct. 2019) features a look at metal trusses fabricated with Phoenix columns, and offers data on three Phoenix Bridge Co. trusses, which are currently programmed for replacement and available for relocation and reuse. PennDOT has also revamped its Bridge Marketing website (www.penndot.gov/ProjectAndPrograms/Cultural%20Resources/Bridge%20Marketing/Pages/default.aspx). A half-dozen reuse success stories are featured, and more than 30 currently available metal-truss bridges are now sorted by span lengths and include larger images, quick at-a-glance facts, narrative histories, character-defining features, and guidelines for bridge acquisition and contact information.

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INDUSTRIAL
ARCHEOLOGY**

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CALENDAR

2020

Mar. 14: NEW ENGLAND INDUSTRIAL ARCHEOLOGY CONFERENCE, PLYMOUTH, N.H. Sponsored by Northern New England Chapter SIA. Info: nec-sia.org.

Mar. 18–21: National Council on Public History Annual Meeting, Atlanta, Ga. Info: <https://ncph.org>.

Apr. 2–4: Petroleum History Institute Annual Symposium & Field Trip, Santa Barbara, Calif. Info: petroleumhistory.org.

Apr. 29–May 3: Society of Architectural Historians Annual International Conference, Seattle, Wash. Info: www.sah.org/2020.

May 6–9: Vernacular Architecture Forum Annual Meeting, San Antonio and Central Texas. Paper sessions and tours. Info: www.vafweb.org.

May 28–31: SIA 49th ANNUAL CONFERENCE, LEHIGH VALLEY, BETHLEHEM, PA. Info: www.sia-web.org.

May 28–30: Ry. & Locomotive Historical Society Annual Meeting, Bryan/College Station, Texas. Info: www.rlhs.org.

May 29–30: Construction History Society of America 7th Biennial Meeting on Construction History, Bloomington, Ind. Info: www.constructionhistorysociety.org.

June 2–4: Preserving the Race for Space: Small Steps and Giant Leaps Symposium, Cape Canaveral, Fla. Info: <https://www.ncptt.nps.gov/events/preserving-the-race-for-space/>.

June 5–7: Society for Commercial Archeology Summer Tour: NYC, The Golden Age of Air Travel, New York, N.Y. Info: <https://sca-roadside.org>.

June 10–15: Mining History Assn. Annual Conference, Elko, Nev. Tours and paper sessions. Info: www.mininghistoryassociation.org.

Aug. 20–27: Assn. for Industrial Archaeology, Annual Conference, Liverpool, England, U.K. Paper sessions and tours. Info: www.industrial-archaeology.org.

Sept. 24–27: SIA FALL TOUR, CENTRAL AND MID-COAST MAINE. Info: www.sia-web.org.

Oct. 1–3: Society for Preservation of Old Mills (SPOOM) Conference, sites throughout eastern Mass. Info: <https://www.spoom.org>.

Oct. 7–11: Society for the History of Technology (SHOT) Annual Meeting, New Orleans, La. Info: www.historyoftechnology.org.

2021

April 14–18: Society of Architectural Historians Annual International Conference, Montréal, Qué. Info: www.sah.org/2021. ■