A new heritage trail, dedicated to Oregon’s pioneer iron industry, opened this January in Lake Oswego, Ore., eight miles south of Portland. The Oswego Iron Heritage Trail is small compared to New England’s Iron Heritage Trail, a driving tour of iron heritage sites in the Upper Housatonic Valley, and Michigan’s 48-mile Iron Ore Heritage Trail, however, Oregon’s eight-mile route can be walked in a day. The seven major destinations on the trail are located in city parks and on city property and include the sites of two furnaces, a pipe foundry, a worker’s cottage, an iron mine, a charcoal pit, and a pioneer cemetery.

The centerpiece of the trail is the 1866 Oswego Furnace, the first iron smelting operation on the Pacific Coast. Before 1867, when this furnace went into blast, virtually all iron on the West Coast was shipped around the Horn of South America. In 1865 a group of Portland merchants, hoping to capitalize on the discovery of iron in Oswego, incorporated the Oregon Iron Co., and recruited George D. Wilbur, of Sharon, Conn., to supervise construction of the charcoal hot blast furnace. A protégé of Connecticut’s master furnace builder, Isaac Newton Bartram, Wilbur modeled the facility on the furnaces of the Salisbury Iron District.

The Oswego Furnace’s basalt stack was originally 34-ft. high and had four Gothic arches formed in red brick at its base. In 1878 the stack was raised to 44 ft. to improve productivity. Three different companies owned and operated the works between 1867 and 1885. A larger ironclad furnace, half a mile north, replaced the first furnace in 1888. Production reached its peak in 1890, but Oswego’s dream of becoming the Pittsburgh of the West came to an abrupt end in 1894, when a series of financial and technological difficulties forced the second furnace to close.

The 1866 stack is the only charcoal blast furnace still

(continued on page 2)
Standing west of the Rocky Mountains. It was the centerpiece of an industry that once encompassed more than 23,000 acres of timberland in Oregon, Washington, and British Columbia, two town sites, workers' housing, railroads, mines, and power generating facilities. Located now in a city park beside the Willamette River, the furnace is the most visible remnant of this industrial complex.

The Oswego Furnace is the only site on the trail that has undergone archaeological investigation. In 2005 and 2006, Heritage Research Associates of Eugene exposed a section of the foundation more than ten feet down to bedrock and revealed iron-capped brick channels in the casting arch and the east tuyere arch.

In 2009, the City of Lake Oswego undertook a major preservation and stabilization of the stack, which was funded by a Save America’s Treasures Grant and an increase in the city’s hotel/motel tax. A scaffold erected around the stack made it possible to investigate the top where more than a century of sod had accumulated. Adjacent to the furnace is the partially exposed foundation of the blast house, which housed a Leffel turbine. This site has yet to be investigated.

The 1888 blast furnace and the pipe foundry were dismantled around 1929. All that remains of the second furnace is a stone wall and an iron-filled brick crucible. This brick “bowl” is about 9 ft. in diameter and rests on the riverbank near the slag dump. Nothing remains of the

The Oswego Iron Heritage Trail (continued from page 1)

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MARK YOUR CALENDARS to join the SIA’s Fall Tour of industrial sites in the Mohawk Valley and the Adirondacks, Oct. 18-21. The Erie Canal, in its several iterations, will be a prime attraction. This circa 1900-1915 photograph of the canal shows the Mohawk Valley Cotton Mills in the background.

Oswego Pipe Works, the first pipe foundry west of St. Louis, which produced gas and water pipe for Portland and other Northwest cities.

In 2003 the city purchased the last surviving worker’s cottage to save it from demolition. This box frame dwelling was listed on the National Register in 2009 and is presently being restored with the help of a Kinsman Foundation Grant.

The Prosser Mine is a drift mine with four tunnels that run into the south face of Iron Mountain. The entrances are blocked for safety reasons, and there are no plans at present to reopen them. However, investigation of the surviving tunnels might be possible in the future. In the meantime, visitors can hike the route of the narrow-gauge railroad that ran from the mine to the furnace.

The two other destinations on the trail are located in a state park and a pioneer cemetery. In Tryon Creek State Park, an old charcoal hearth has been identified with an interpretive sign. The last destination on the trail is the Oswego Pioneer Cemetery where more than 90 workers are buried. The cemetery was managed by the Oregon Iron & Steel Company for 42 years.

Eighteen interpretive signs along the trail give visitors a glimpse of iron making in 19th-century Oswego. Additional information and a trail map can be found at www.ci.oswego.or.us/parksrec/OIHT.htm.

Susanna Kuo
Mechanical advances in camera technology in the late 19th century allowed skilled photographers to take high-quality panoramic landscape photographs. When trained on industry, these cameras sometimes documented more than just factories; their broad sweep also captured surrounding environmental and social conditions.

Panoramic photography refers to images of great width-to-height ratio, taken with specialized cameras capturing horizontal scenes with a field of view, usually at least 160 degrees, wider than that of the human eye. Panoramic photography has existed almost as long as photography itself, with Daguerreotype examples as early as 1843. These and later glass plate negative images usually consisted of multiple, side-by-side exposures. These were not seamless images and contained several vanishing points.

The invention of flexible film in the late 1880s resulted in a wave of more sophisticated mechanical panoramic cameras with film mounted on curved backs or rolls and exposed through moving lenses or slits. These cameras made images with varying degrees of distortion and sharpness. Panoramic photography became an increasingly popular way of recording America’s growing cities, its natural wonders, and also large groups of people, hence the term “banquet camera.”

One of the most successful panoramic cameras was the “Cirkut,” patented by William Johnston in 1904. It was manufactured by the Rochester Panoramic Camera Co., which was absorbed by Eastman Kodak in 1905. Kodak, which incidentally recently announced it will no longer make cameras, built the Cirkut until 1949. This was a “full rotation” camera body that pivoted on a tripod using a clockwork mechanism that also scrolled the flexible film between a pair of internal rolls. The subject image was projected through a lens and a narrow vertical slit, essentially scanning the image onto the moving film. The subject image was projected through a lens and a narrow vertical slit, essentially scanning the image onto the moving film. Cirkut cameras were complex, requiring interchangeable gear sets for different focal length lenses and a skilled operator. They were also known as "yard longs" for their long negatives and correspondingly large contact prints, made by placing the negative directly on the photo paper and exposing it briefly to light. Cirkut cameras were made in model numbers corresponding to the height of their film in inches: No. 5, No. 6, No. 8, No. 10, and No. 16. The No. 16 accepted a negative up to 20 ft long. Commercial photographers fielded small teams to operate the larger cameras, and traveling photographers sometimes processed the huge negatives in hotel bathtubs.

After 1900, when small cameras like Kodak’s “Brownie” popularized photography among amateurs, some commercial photographers capitalized on the complexity of panoramic cameras and the premiums paid by clients who commissioned portraits of their gatherings or property. The image featured in this article was taken with a No. 10 Cirkut camera by a notable practitioner of panoramic photography, the Haines Photo Company of Conneaut, Ohio. Haines first appeared in Conneaut city directories in 1907, and its letterhead from 1928 advertises a specialty in panoramic...
photographs. Haines also published travel photo books featuring destinations such as Yellowstone and New York’s Thousand Islands area. There are thousands of panoramic photographs, including industrial landscapes, in the Library of Congress American Memory collection, which includes 369 Haines Photo Company images (http://memory.loc.gov/ammem/collections/panoramic_photo/index.html).

A study of one industrial landscape, pictured here, reveals the ability of the panoramic camera to capture a wide variety of visual information relating to multiple environmental and social contexts including air and water pollution, industrial waste disposal, and worker living conditions. The exact location of this U.S. mineral processing plant view is unknown; the low mountains and wooded hills surrounding a U-shaped bend in a shallow river suggest an Appalachian setting. Following the process from right to left, multiple railroad tracks extend from benches cut into a bedrock quarry. The rock is processed in a plant set into tiers on a hillside to take advantage of gravity for materials handling. White dust covers large areas of plant rooftops, and black smoke wafts from at least nine chimneys, all shorter than the surrounding hills. Fine white solid waste tailings are pumped across a bridge over the right-hand bend of the river and through a launder on a timber trestle crossing at the center of the view. The tailings are dumped into an impoundment behind a massive earth dam constructed across half the width of the riverbed curving off to the left.

At the center of the landscape is a worker village separated from the factory by a low hill, its eroding flanks stripped bare of vegetation by acidic smokestack emissions trapped by periodic atmospheric inversion. The closest dwellings are situated almost under the toe of the tailings dam, a juxtaposition that suggests an imminent Johnstown Flood-like disaster. The house rows extend a way up both sides of an outhouse-lined creek, the washing flapping on the lines behind them. Near the top of the rows are a small chapel and a short transverse street that appears to be lined with tenements and stores. Beyond another bare eroding hillside at left, a line of more evenly spaced worker houses extends off into the distance.

This image is not just a visual essay capturing aspects of early 20th-century industrial and environmental attitudes and phenomena; it is also a technically remarkable photograph. It was physically challenging to shoot considering the size of the camera and elevated rural location, and technically challenging to expose and print the remarkably sharp image given the variation in light across the scene and the size of the negative. One can imagine Haines sending their “best people” for the job.

Readers interested in learning more about Cirkut cameras and imagery should consult America by the Yard: Cirkut Camera Images from the Early Twentieth Century, by Robert B. Mackay (W.W. Norton, 2006). Readers who can identify the location in the photograph should contact matthew.a.kierstead@gmail.com.

Matthew A. Kierstead
I

n March, the Society received welcome news that the J.M. Kaplan Fund has awarded a two-year $10,000 matching grant to support the SIA’s Industrial Heritage Preservation Grant Program (www.siahq-org/grants/about.html).

The SIA’s relationship with the Kaplan Fund dates back several years, with a number of SIA members contributing to creating and strengthening the relationship. With input from SIA members, the fund sponsored the Industrial Heritage Retooled workshop under the auspices of the National Trust for Historic Preservation in November 2010 (SIAN, Fall 2010). The Kaplan Fund also supported a track of industrial heritage sessions at the National Trust’s Preservation Conference in Buffalo in October 2011 (SIAN, Spring 2011). The SIA was well represented at these sessions, including a well-attended one focused on IA field work with Executive Secretary Pat Martin, IA Editor Fred Quivik, and industrial archeologist Bode Morin. SIA Vice President Duncan Hay also made a presentation in another session on the Boston Waterworks Museum, and led a tour of the significant sites of the Erie Canal/New York State Canal.

The Kaplan Fund has a rich history of support for historic preservation, though its interest in industrial heritage preservation is relatively recent. Quoting from the Kaplan Fund’s website: “Jacob Merrill Kaplan (1891-1987) established The J. M. Kaplan Fund in 1945 and was its president until 1977, his eighty-fifth year. The Fund was capitalized by profits from Kaplan’s business operations, most notably the sale of the Welch Grape Co. to the National Grape Co-operative Association in Westfield, N.Y. This growers’ organization, which Kaplan had sponsored and encouraged, became and remains one of the nation’s most successful agricultural cooperatives. The newly established Fund won recognition for major commitments to the New School (where Kaplan served as board chairman for twenty years), Carnegie Hall (which he helped save), and the movement for union democracy. The Fund also became known for small grants given quickly for emergencies or as seed money to attract other funding.”

In an intense team effort by the SIA’s Board and Industrial Heritage Grant Program committee, our proposal to the Kaplan Fund was submitted in late February 2012. At the fund’s board meeting in mid-March, the proposal was approved. We hope to continue to strengthen the relationship with the Kaplan Fund and explore other avenues of collaboration. The SIA gratefully acknowledges the support of the fund.

Jay McCauley, SIA President

SITES & STRUCTURES

As reported in prior issues of SIAN (Spring 2007, Winter 2007, Fall 2011), southern textile mill losses continue to mount from fire, neglect, and demolition. Located in Spartanburg, S.C., the Clifton Mill No. 2, built in 1888 and expanded in 1957, was demolished earlier this year. The 240,000-sq.-ft. brick mill had been the subject of legal and financial battles since closing in the 1990s. A developer had attempted to convert it into apartments but the property went into foreclosure in 2009. The Mayo Mill, built in 1896 in Mayodan, N.C., is being dismantled, its brick fated for resale as salvage. Residents of the cotton mill town have pleaded with their town council to preserve the property, but officials have said their hands are tied since the owner followed correct procedure for demolition of the National Register-listed property. The City of Columbus, Ga. has begun a $23M project to blast away the Eagle & Phenix Mill Dam and in its place construct a 2.5-mile-long white-water kayaking course on the Chattahoochee River. As part of the project, archeologists from Southern Research have been documenting the remains of a series of timber dams dating to the middle decades of the 19th century.—Charleston (S.C.) Post and Courier (Jan. 9, 2012), Greensboro (N.C.) News & Record (Feb. 25, 2012), and Columbus (Ga.) Ledger (Feb. 9 & 21, Apr. 7, 2012)

The Pinnacle Fire Tower atop Buffalo Mountain in the Cherokee National Forest near Unicoi, Tenn., has opened to the public following a major rehabilitation. The 1930s fire tower was used by U.S. Forest Service lookouts until the early 1980s, when it was closed. A long-term goal of the Forest Service and the Partners of the Cherokee National Forest was to convert the tower to a public viewing platform. During the past year, the tower’s legs have been reinforced, the deck repaired, and the stairs rebuilt. At the same time, the Forest Service completed a four-mile hiking trail between a parking area and the tower.—The Tennessean (Sept. 24, 2011)
Publications of Interest

Compiled by
Mary Habstritt, New York, N.Y.; Justin Spivey, Hightstown, N.J., and Patrick Harshbarger, SIAN editor, Wilmington, Del.

General Interest

- Peter Ackroyd. London Under: The Secret History Beneath the Streets. Nan A. Talese/Doubleday, 2011. 228 pp. $25. The layered cities beneath the city are revealed, from the ancient subterranean to the modern Underground railroad. The hero of the narrative is Joseph Bazalgette, the city engineer who after 1858 devised a sewer system that is still in use today. Many other "mole men" appear, including Marc Brunel who, inspired by a shipworm, built the first Thames tunnel.

- Chris Carola. Cities Considering Uses for Aged Industrial Plants. The Associated Press (March 18, 2012). This article, which ran nationally on the AP wire, notes a trend in cities throughout the country to preserve industrial sites. Mentioned are Detroit’s Michigan Central Station and Buffalo’s Central Terminal. Quotes Jay McCauley [SIA] and mentions the role of the SIA in advocating for industrial archeology and heritage.

- Hardy Green. The Company Town: The Industrial Edens and Satanic Mills That Shaped the American Economy. Basic Books, 2010. 264 pp. $26.95. A business writer traces the company town, from Lowell to Google’s high-tech campus, describing two general models—the paternalistic utopian version and the exploitative one focused on profits. Both sought to control the lives of workers beyond the factory floor.


Water Transport

- Paul Halpern. The Mediterranean Fleet, 1919-1929. Ashgate, 2011. 648 pp. £70. Following the end of WWI, Britain’s Mediterranean Fleet found itself challenged by Turkish nationalists and the collapse of the Russian empire, while studying how to make use of new weapons and airpower.


- Bill Trout [SIA]. The Roanoke/Staunton River Atlas. Va. Canals & Navigation Society (VCNS), 2011. 176 pp., illus. $28.57. Annotated atlas featuring fish dams, bateau and steamboat wing dams and sluices, mills, and other historic sites in this 381-mile river (named “Roanoke” at each end and “Staunton” in the middle) and its branches, including the Junction Canal. It incorporates a river mile system and UTM coordinates for canoeing, research, and corridor planning. Latest in a series of 17 Virginia river atlases now online at www.americancanals.org.
Typer Turpin [SIA]. Post-WWII Life of Landing Ships. Anchor Watch (Winter 2012), pp. 6-7. Marks the 70th anniversary of the start of construction of the U.S. armed services’ ocean-going landing ships and identifies the few rare survivors that were repurposed as freighters, ferries, and barges. Anchor Watch is published three times per year by the Historic Naval Ships Assn. Avail: www.hnss.org. Each issue contains a round-up of news about the preservation of historic naval vessels. Membership: $35/yr.

Unlocking the Canal. Style Weekly (Richmond, Va.) (Dec. 1, 2010). More than a decade ago, Richmond invested $52M in the James River Canal Walk, but revival of the city’s waterfront has failed to live up to expectations. This article describes in detail the effort to redevelop the former Reynolds Metals plant property, a 6-acre lot considered vital to the Canal Walk’s future.

RAILROADS

Kurt R. Bell. On the Shoulders of a Giant: A Profile of John H. White, Jr. RRH 204 (Spring-Summer 2011), pp. 6-23. Bell chronicles White’s notable career, which included a pivotal role in building the transportation collection of the Smithsonian Institution’s National Museum of History & Technology (now the National Museum of American History) and publication of dozens of books and articles on railroad history.

William O. Craig. The Smithsonian’s Warshaw Collection. RRH 204 (Spring-Summer 2011), pp. 24-27. Craig, a research assistant at NMAH, summarizes the contents of 107 boxes of railroad and manufacturing company records sold ca. 1965 to the museum by Isadore Warshaw, a used book dealer and early railroad and manufacturing company records researcher.

Russ Davies and Robert E. Gallamore. On the Spur to the Dome. RRH 204 (Spring-Summer 2011), pp. 52-63. Much of the material used to construct Nebraska’s state capitol, with its 400-ft.-tall Tower on the Plains, was transported on a 10-block-long urban railroad spur incorporated as the Lincoln, Haisch St. & Capitol Ry.

James D. Dikts. Photographic Gold, North of the Border. RRH 204 (Spring-Summer 2011), pp. 28-35. The collections of the National Archives of Canada and Canada Science & Technology Museum include a wealth of material on North American railroading, including photographs and drawings related to U.S. railroads and Great Lakes navigation.

CONTRIBUTORS TO THIS ISSUE


With Thanks.

Zusha Elinson. After 100 Years, Muni Has Gotten Slower. NY Times (Mar. 31, 2012). Travel on the San Francisco Municipal Ry. (Muni) is significantly slower—and more expensive—today than it was when Muni was founded in 1912, in part because of greater competition between streetcars and other traffic on city streets.


Ashley Halsey III. Aging Baltimore Tunnel a Threat to Shipping Economy for the City and Maryland. Washington Post (Mar. 28, 2012). Baltimore’s Howard Street Tunnel, a (now) single-track tunnel constructed in 1895, has a vertical clearance two feet short of that required for double-stack container traffic. CSX Transportation is considering a new transfer yard to avoid the estimated $1-to-3-billion cost of enlarging the tunnel.

Aaron W. Marrs. Railroads in the Old South: Pursuing Progress in a Slave Society. Johns Hopkins Univ. Pr., 2009. 268 pp. $55. The ways that southern states conceived of and operated railroads were not that different from practices in northern states, although slave labor built railroads and construction costs tended to be lower in the South. Rev.: T&C (Apr. 2010), pp. 510-11.

William D. Middleton [SIA]. The Middle East from Berlin to Baghdad: The Bosphorous Crossing. RRH 204 (Spring-Summer 2011), pp. 36-41. This excerpt, from a forthcoming book on railroads of the world by the late author, describes terminals and rail-to-ship transfer facilities in Istanbul, which he compares favorably to those surrounding New York Harbor and San Francisco Bay.

Douglas J. Puffert. Tracks across Continents, Paths through History: The Economic Dynamics of Standardization in Railway Gauge. Univ. of Chicago Pr., 2008. 360 pp. $55. Examines choices of gauge, country by country, with the basic explanation that railroads put many gauges to work without compelling technical reasons, and mostly lacking the foresight that one day local lines would become part of a national network. Rev.: T&C (Apr. 2010), pp. 511-13.

Tony Reevy. Men at Work: Lewis Hine’s Photographs of Railroad Workers. RRH 204 (Spring-Summer 2011), pp. 42-51. Hine (1874-1940) focused on the positive aspects of American railroad work, showing laborers alongside the equipment they maintain.

Eric A. Sibul. Medical Railroading During the Korean War, 1950-1953. RRH 204 (Spring-Summer 2011), pp. 64-80. The U.S. Army, which first used hospital trains to evacuate the wounded from active fronts during the Civil War, pressed a remarkable variety of improvised and purpose-built equipment into service during the Korean War. The South Korean army still maintains a Hospital Train Unit.

AUTOMOBILES & HIGHWAYS

Angus Gillespie. Crossing under the Hudson: The Story of the Holland and Lincoln Tunnels. Rutgers Univ. Pr., 2011. 256 pp. $24.95. Planning and construction of the two tunnels, from the technological prowess and bi-state political cooperation between ever-contentious N.Y. and N.J. that made them possible, to the music, art, literature, and motion pictures that they have inspired over the years. Also, Robert W. Jackson. Highway Under the Hudson: A History of the Holland Tunnel. NYU Press, 2011. 304 pp. $29.95. Explores
the tortuous bi-state bureaucratic and political prelude to construction of the 1.6-mile underwater corridor named for its first chief engineer.


**AEROSPACE & AERONAUTICS**

- **Kim Foster-Tobin.** Development Group Looking at Historic Hangar as Restaurant. *The Columbia (S.C.) State* (Jan. 25, 2012). The 1929 Curtis-Wright Hangar (NR) at Owens Field Municipal Airport in Columbia is one of just a handful of its era surviving in the U.S.

- **Jeff Hampton.** Business Riding High for Aerostat Maker TCOM. *The Virginian-Pilot* (Mar. 18, 2012). Describes the manufacture of aerostats, unmanned balloons used by the military and the border patrol as aerial camera platforms. The aerostats are made in Elizabeth City, N.C. in a World War II-era blimp hangar. While low-tech compared to drones, the aerostats have advantages including lower operating costs. Commanders in the field like them because they do not have to be shared with other units and have long periods of continuous service.

- **J.D. Sumner.** Albany Has History Up in the Air. *Albany (Ga.) Herald* (Mar. 31, 2012). Short history of Albany’s airport including its use as a training base for British and French pilots during WWII.

**BUILDINGS & STRUCTURES**


- **Marto A. Chiorino.** Art and Science of Building in Concrete: The Work of Pier Luigi Nervi. *Concrete International* (Mar. 2012), pp. 32-40. Italian engineer Nervi (1891-1979) created imaginative long-span concrete structures, testing scale models to check his analyses. He “reinvented” ferrocement (thin concrete on wire mesh) panels for use in iconic structures such as the Scope Arena in Norfolk, Va., and St. Mary’s Cathedral in San Francisco.


- **Edward Losch.** The Textile Block System. *Concrete International* (Mar. 2012), pp. 45-54. This system, developed by architect Frank Lloyd Wright, utilizes precast concrete blocks set without mortar joints, with steel reinforcing bars concealed in grooves around the perimeter of each block. While used for a number of structures designed by Wright, including ten buildings on the Florida Southern College campus, the system was never commercially successful because of its zero tolerance for variation in block size.


- **Matthew Seymour.** A Brief History of Lightning Protection and the Components of a Lightning-Protection System. *APT Bulletin XLII, No. 4* (2011), pp. 53-56. These systems are remarkable in that their basic components have changed very little over their 250-year history. This short article includes a rapid-fire summary of the development and standardization of this often-overlooked building system.

- **Andrew Taylor and Ian Aiken.** What’s Happened to Seismic Isolation of Buildings in the U.S.? *Structure* (Mar. 2012), pp. 10-13. Japan has thousands of buildings and bridges built on flexible foundations that isolate them from ground shaking during an earthquake, a concept that dates back to at least 1885. This article explores the cultural, economic, and regulatory reasons why the U.S. only has about 125 seismically isolated buildings.

**MISC. INDUSTRIES**

- **Ulrich Fichtner.** A Century on Film: How Kodak Succumbed to the Digital Age. *Der Spiegel* (Feb. 23, 2012). Kodak’s failure to capitalize on the digital camera, which it invented in 1975, set the company on the road to technological oblivion. Interviews a number of highly placed employees who discuss the corporate mindset and managerial missteps. In English, www.spiegel.de/international.

- **John Markoff.** It Started Digital Wheels Turning. *NY Times* (Nov. 7, 2011), p. D1. Researchers at London’s Science Museum will use a partial set of drawings from the 1830s to complete Charles Babbage’s Analytical Engine, arguably the world’s first programmable computer, only a portion of which was constructed during his lifetime. The simpler Difference Engine No. 2 was successfully created from Babbage’s drawings in 1991 and viewed during SIA’s annual conference in San Jose in 2008.

- **Cai Guise-Richardson.** Redefining Vulcanization: Charles Goodyear, Patents, and Industrial Control, 1834-1865. *T&C*, Vol. 51, No. 2 (Apr. 2010), pp. 388-402. Follows a confusing business trail to better understand how the patent system and court decisions allowed Goodyear and his backers to lay claim to the core concepts in the vulcanization process.

**BRIDGES**

- **Jeff L. Brown.** Crossing the Canyon: The Navajo Bridge. *Civil Engineering* (Jan. 2012), pp. 42-43. With a main span of 616 ft., this steel deck arch was one of the first crossings of the Colorado when completed in 1929. Its design, developed by Arizona Hwy. Dept. engineers Ralph A. Hoffman and L. C. Lashmet, was driven by material transportation and constructability requirements on a remote site in Grand Canyon National Park.

- **Joan Marans Dim.** New York’s Golden Age of Bridges. New York: Fordham Univ. Pr., 2011. 132 pp. $34.95. Illustrated with paintings by Antonio Masi, whose grandfather worked on the
Queensboro Bridge, this collection of essays tells the story of eight major bridges, from the 1883 Brooklyn Bridge to the 1964 Verrazano-Narrows, offering fascinating details of social, cultural, economic, political, and environmental history.


- Frank Griggs, Jr. General Edward W. Serrell. Structure (Feb. 2012), pp. 34-36. Serrell's Lewiston-Queenston Bridge over the Niagara Gorge held the record for the world's longest suspension bridge from 1851 until it was destroyed by wind following removal of stay cables in 1864. His other accomplishments include military service, railroad engineering, a number of ambitious (albeit unbuilt) suspension spans, and a proposed alternate routing of the Panama Canal.


- Daniel A. Rogers and David E. Hoglund. Relocating a Local Landmark. Civil Engineering (Mar. 2012), pp. 70-79. Keller's Bridge, a Burr arch-truss constructed in 1891 in Lancaster County, Pa., was relocated to a new site where it continues to carry vehicular traffic. A new bridge constructed alongside the old alignment was used as a working platform for disassembly.

- J.D. Summer. Broad Bridge Decommissioning Set for Feb. 11. Albany (Ga.) Herald (Feb. 2, 2012). The handsome open-spandrel-arch bridge over the Flint River in Albany was decommissioned in a ceremony to remove memorial plaques honoring WWI veterans. Built in 1920, the bridge will be demolished because of erosion of its footings.

- Jim Talbot. Portland's 1912 Steel Bridge: Setting the Standard for Multi-modal Transport. MSC (Mar. 2012), p. 56-59. With independent counterweights and lifting mechanisms, the lower (railroad) deck of Portland's Steel Bridge telescopes into its upper (roadway and streetcar) deck, making it the world's only vertical-lift bridge to function this way. Talbot gives proper credit to John Lyle Harrington, the mechanical engineering partner of designer J. A. L. Waddell, and includes a sidebar listing all of Portland's Willamette and Columbia River bridges.

- Donald Wolf. Crossing the Hudson: Historic Bridges and Tunnels of the River. Rutgers Univ. Pr., 2010. 288 pp. $26.95. From the first bridge across the Hudson River in 1805, examines the where, why, when, and how the tunnels and bridges were built.

Agriculture & Food Processing

- Ian Frazier. Out of the Bronx: Private Equity and the Cookie Factory. The New Yorker (Feb. 6, 2012), pp. 52-61. Chronicles the aftermath of Brynwood Partners’ 2006 purchase of the former Stella D’Oro bakery in the Bronx, which was shut down after an unsuccessful strike two years later. The brand was later re-sold to Lance, Inc., which now manufactures the Stella D’Oro product line alongside Archway cookies in Ashland, Ohio.


- Tanner C. Latham. New Life for an Original Dr. Pepper Plant. Preservation Magazine (Jan. 2012). The Dr. Pepper syrup and bottling plant, built in the 1930s and closed in the 1980s, encompassing 13 buildings in Birmingham, Ala., is making a comeback housing an upscale farmers’ market and retail shops.


- Lori Sturdevant. The Pillsburys of Minnesota. Minneapolis: Nodin Pr., 2011. 438 pp. $29.95. Beginning with the arrival of John S. Pillsbury, his brother George, and two nephews at St. Anthony Falls in the mid-19th c., tracks the careers of successive generations of the family and the rises and falls of their milling and allied businesses. Also looks at the family’s far-reaching impact in state politics and philantropy.

Communications Technology

- Steven Bingen, Stephen X. Sylvester, and Michael Troyan, eds. MGM: Hollywood’s Greatest Backlot. Santa Monica Pr., 2011. 312 pp. $34.95. www.mgmbacklot.info. Elaborate treatment of the studio’s physical plant including many photographs by the studio’s still-photography department. Prominent structures are featured and represented on historic maps, many produced by SoCal Edison to locate its utilities and generating system to convert distribution voltage from AC to DC for set lighting.

- Ron Cowen. Restored Edison Records Revive Giants of 19th-century Germany. NY Times (Jan. 30, 2012). Thomas Edison National Historical Park (West Orange, N.J.) unveiled recordings recovered from about a dozen wax cylinders that had been in storage at the park for more than a half-century. The unlabeled cylinders were discovered to contain recordings made in 1888-89 by one of Edison’s assistants on a trip to Europe. They include the only known recording of the voice of Otto von Bismarck as well as recordings of German and Hungarian singers and pianists.

Textiles

- Mary Christine Bader. Made in Minnesota: The Rise and Fall of an Apparel Industry. Minnesota History, Vol. 62, No. 7 (Fall 2011), pp. 248-257. Traces the state’s apparel industry, composed mostly of small family companies that focused on outerwear and warm underwear to suit the cold climate, from its beginnings to its death throes and modern vestiges.


With sadness, the SIAN reports that Carol Litchfield, 75, a current member of the SIA’s Board of Directors, passed away on April 3, 2012 of pancreatic and liver cancer at her home in Arlington, Va. Carol had been an active member of the board up until the very last stages of her illness, taking particular interest in the SIA’s Industrial Heritage Preservation Grants program. She had many friends in the SIA who will remember her for her intellect, kindness, and good cheer.

Carol was the daughter of the late Donald and Melba Ross of Cincinnati, Ohio, and the widow of the late Charles Carter Litchfield, who was also an active SIA member. Many of our members will recall that Carol had a passion for the history of the salt industry, and Carter a passion for the history of fatty oils, particularly the linseed oil industry. Both gave various papers related to their areas of interest at SIA and Roebling Chapter conferences, and often manned a table featuring books by Oelarius Editions, a press started by Carter as an outlet for publications on the history of oils. Carol was an active member of the International Commission for the History of Salt, and traveled the worldwide visiting historic salt mines and processing centers. She had an impressive library of the history of salt, which will be donated to the Hagley Museum & Library in Wilmington, Del.

Carol graduated from the University of Cincinnati in 1960 with a M.S. in Biochemistry and from Texas A&M University in 1969 with a Ph.D. in Organic Biochemistry. She served on the faculty of Rutgers University from 1970 to 1980 in the Dept. of Microbiology. From 1980 to 1990 she worked for DuPont in several positions including Senior Environmental Scientist. Beginning in 1993 she joined the George Mason University faculty as Associate Professor in Biology and later in Environmental Science & Policy. From 2005 to the present, she was a Research Professor at George Mason. Throughout her long career Carol served on many professional and government panels and committees including, from 1985 to 1989, the New Jersey Governor’s Panel on Coastal Waters and in 1989 on the Environmental Biotechnology Working Group of the U.S. Dept. of Energy and the Technical Advisory Committee of the UCLA Engineering Center.

She was a member of numerous professional societies and served as President of the Society for Industrial Microbiology (SIM) from 2007 to 2008. That organization presented her in 2012 with their Charles Porter Award for her achievements in applied microbiology and her exceptional service and dedication to SIM.

Donations may be made in Carol’s name to the American Cancer Society, 901 E St., NW, #500, Washington, DC 20004; (202) 661-5700 or the Arlington Food Assistance Center, 2708 S. Nelson St., Arlington, VA 22206; (703) 845-8486.

**Iron & Steel**


**Mines & Mining**

- Laura Graff. *Winston-Salem’s ‘Secret’ Quarry Goes Public*. Winston-Salem (N.C.) Journal (Feb. 26, 2012). The city has acquired the old Piedmont Quarry with plans to convert it into a recreation center. From 1917 to 1982, it provided building stone that was used in constructing many local landmarks.

**Abbreviations:**

- APT = Association for Preservation Technology International
- MSC = Modern Steel Construction, published by the American Institute of Steel Construction.
- RRH = Railroad History, published by the Railway & Locomotive Historical Society
- T&C = Technology & Culture, published by the Society for the History of Technology

**Publications of Interest** is compiled from books and articles brought to our attention by you, the reader. SIA members are encouraged to send citations of new and recent books and articles, 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 SIA Newsletter, 305 Rodman Road, Wilmington, DE 19809; phsianews@aol.com.
WORKSHOPS & CONFERENCES

The Construction History Society of America will hold its third biennial meeting at MIT in Cambridge, Mass., on Nov. 2-3. The first day will be devoted to Construction History in the Americas, 1850-1950, and the second day to Guastavino Construction to coincide with a public exhibition at the Boston Public Library on the work of the Guastavino Construction Co. CHSA was formed in 2007 and operates as a branch of the Construction History Society of the U.K.

Call for Papers: A wide range of papers on construction history will be considered; however, the program committee will give preference to presentations that focus on the urban development of 19th and early 20th-century American cities. Authors interested in presenting papers should submit an abstract (250-400 words) by June 1. The submittal should include full contact details and be sent by e-mail as a PDF to chs@coa.gatech.edu. Info: www.constructionhistorysociety.org.

The Pioneer America Society: Association for the Preservation of Artifacts & Landscapes (PAS:APAL) will hold its 44th Annual Conference at the historic Loews Hotel in Philadelphia, Sept. 26-29. The theme of the conference is Philadelphia: the Vernacular to the Spectacular and will feature tours and paper sessions. PAS:APAL is soliciting proposals for papers, special sessions, and panel discussions relating to the conference theme; however, papers on all material culture and landscape topics are welcome. Presentations are limited to 20 minutes. For consideration submit an abstract no longer than 300 words including the author’s name, affiliation, and title to Wayne Brew, ubrew@mc3.edu. Deadline: Aug. 31. Info: www.pioneeramerica.org.

The Second National Covered Bridge Conference will be held June 5-8, 2013, at the Crowne Plaza Hotel in Dayton, Ohio. Co-sponsored by the Federal Highway Administration’s National Historic Covered Bridge Program (NHCBP), the National Park Service’s Historic American Engineering Record (HAER), and the U.S. Forest Service’s Forest Products Laboratory, this event is being held ten years after the first conference in Burlington, Vt. It will build on the recommendations and observations of the first conference and revisit the Burlington Charter for the Preservation of Covered Bridges. Discussion will include the continuing threats to covered bridges, most recently illustrated by the 2011 floods in the Northeast that resulted in the loss of the Blenheim Bridge and damage to several others (SIAN Fall 2011).

Call for Papers: Papers are sought addressing covered bridge research, rehabilitation projects, best practices, history, and challenges to preservation. Proposals may be for individual papers (30 minutes) or a group of themed papers. Proposals should be submitted electronically in MS-Word or PDF and include title, abstract (300-500 words) and brief resume of the presenter. Deadline: Jan. 7, 2013. Send proposals to David A. Simmons, dsimmons@ohiohistory.org. Additional info: www.woodcenter.org.

NOTES & QUERIES

Norfolk Southern is celebrating its 30th anniversary by painting 18 of its new locomotives in color and logo schemes honoring its predecessor companies. Each paint scheme will be modified to fit contemporary GE ES44AC or EMD SD70Ace locomotives. Railroads being honored are the Central of Ga.; the Central of N.J.; the Delaware, Lackawanna & Western; Erie; Illinois Terminal; Interstate; Lehigh Valley; N.Y. Central; Nickel Plate; Norfolk Southern; Norfolk & Western; Pennsylvania; Reading; Savannah & Atlanta; Southern; Virginian; and Wabash. The paint schemes can be viewed at www.nscorp/nscportal/nscorp/media/images/heritage_images.html.

Call for Papers: New Materials: Their Social and Cultural Meanings. Historians of science, technology, and medicine, and scholars in science and technology studies, anthropology, the visual arts, cultural studies, and related fields are invited to submit essays for an edited volume on the historical and cultural meanings of new materials. The resulting collection, focused on the creation, testing, and definition of materials in all historical settings, will be published in the Hagley Perspectives on Business and Culture series of the Univ. of Pennsylvania Press and edited by Amy Slaton (Drexel Univ.).

The processes by which materials are developed and deployed provide a powerful lens on industrial cultures. The means by which materials are regularized for production and use—their quality analyzed and controlled, their behaviors predicted—are particularly revelatory of epistemic and cultural commitments. This collection seeks to compile papers on the processes (broadly defined) through which the materials of interest to commerce are distinguished, their nature and value established, and authoritative expertise in industrial settings asserted. Cases from any historical setting or period, and addressing any materials encountered or produced in industrial, scientific, technical, agricultural or medical contexts (whether in “expert” or “lay” hands) are welcome. All of these matters and others will be welcome subjects for proposals. Essays should not exceed 10,000 words (exclusive of endnotes), and must be received for consideration by Nov. 1, 2012. Interested scholars are urged to contact the editor prior to submission to discuss their planned essays. Info: Amy Slaton; slatonae@drexel.edu.
Efforts to preserve the Memorial Bridge over the Piscataqua River between Portsmouth, N.H. and Kittery, Maine, came to an official end during the first week in February when the lift span was disconnected from its cables and lowered onto a barge to be taken away for scrap. Preservation groups, including the SIA, had made appeals to the officials of both states to consider more carefully alternatives for saving the bridge, which was considered eligible for the National Register of Historic Places (SIAN, Winter 2009). The cost of rehabilitation, however, was considered too high by the New Hampshire Department of Transportation, which eventually decided to replace the bridge. The Memorial Bridge was built in 1923 and featured a 297-ft.-long vertical lift span, designed by J.A.L. Waddell, a consulting engineer who is closely associated with the development of modern vertical-lift bridge technology. At the time of its construction, the bridge was the longest span of its type in the United States.—Boston.com (Feb. 3, 2012)

The City of Portland, Ore., has nominated four Willamette River movable bridges to the National Register of Historic Places. The Hawthorne Bridge, built in 1910, is the oldest operating vertical-lift bridge in the nation, and like the Memorial Bridge (above) is the work of J.A.L. Waddell. The Broadway Bridge, completed in 1917, is considered the longest bascule railroad bridge in the world. The other two bridges are the Burnside Bridge, a double-leaf bascule completed in 1926, and the Morrison Bridge, the youngest of the four nominated bridges completed in 1958, also a double-leaf bascule.—djcoregon.com (Feb. 17, 2012)

Oregon’s bridge heritage is also on display along the newly established Covered Bridges Scenic Bikeway. The 36-mile bikeway near Cottage Grove features six covered bridges including the Chambers Bridge, the only covered railroad bridge west of the Mississippi. The scenic bikeway is a project of the Oregon Parks & Recreation Department and the Oregon Tourism Commission. Info: www.oregon.gov/OPRD/Parks/Bike/CBSSB_main.shtml.

Norfolk Southern and the N.Y. Department of Transportation have committed funding to the replacement of the Portage Viaduct over the Genesee River (Letchworth Gorge) near Portageville, N.Y. The Erie Railroad built the first Portage Viaduct, a timber trestle rising 240 ft. above the floor of the gorge, in the early 1850s. This burned in 1875 and was replaced that same year by iron deck trusses supported by built-up, wrought-iron towers. The trusses were replaced by steel trusses and girders in 1907, but the 137-year-old towers continue to carry the superstructure, perhaps making them the oldest iron substructure still in use on a main line railroad in North America. Due to limited load-carrying capacity, trains crossing the bridge currently are limited to 10 mph, creating a bottleneck in operations. According to the Livingston County News (Dec. 6, 2011) pleas to preserve the historic viaduct for use as a pedestrian walkway in Letchworth State Park have largely been brushed aside by the railroad and NYDOT.

The Apache Creek Bridge near Santa Fe, N.M., has been officially listed on the State Register of Historic Places and nominated to the National Register. The short-span timber stringer bridge was built about 1850 and is notable for being located on the Santa Fe Trail. The dry desert climate has no doubt contributed to the bridge’s preservation, since bridges of this type were once ubiquitous throughout the U.S. but had short working lives. The Santa Fe Trail had few bridges and crossed most streams by fords but at Apache Creek the stream’s channel, dry much of the year, was considered deep enough to merit a bridge. The timber bridge was supported at one end by a stone abutment and at the other end by a natural rock ledge. The bridge was associated with the Battle of Apache Canyon, a skirmish between Confederate and Union forces that preceded the Battle of Glorieta Pass in March 1862.—Santa Fe New Mexican (Apr. 13, 2012)
British Telecom (BT) Archives (http://www.coventry.ac.uk/newconnections). BT, the University of Coventry (UK), and The National Archives (UK) are working to create a digital archives including almost 500,000 photos, documents, reports, and correspondence preserved over 165 years by the world’s oldest communication company. Info on the project and its progress can also be found at www.nationalarchives.gov.uk/news/660.htm.

DuPont Magazine is the newest addition to the Hagley Digital Archives (http://digital.hagley.org). Published from 1913 to 2003, the magazine was an internal publication of the DuPont Co. It carried extensive coverage of the chemical giant’s operations, products, and business ventures.

The Greatest Dam in the World (www.nps.gov/history/NR/twhp/wwwlps/lessons/140Hoover_Dam/140Hoover_Dam.htm). Lesson plan developed by the National Register of Historic Places provides teachers with historic context, maps, documents, and archival photographs to lead students through an exploration of the construction and significance of the Hoover Dam.


HistoryPIN (www.historypin.com). This site links historic photographs superimposed on Google maps to show the same location today. Some museums, libraries, and archives have used the site to develop their own “tours” based on their photographic collections.

Linotype: The Film (www.printweek.com/design/article/1116581/review-linotype-film). Trailers and reviews of a new documentary film on the history of the Linotype machine—“the most complicated machine ever built”—and the passion of a few individuals trying to preserve hot-metal typesetting machines, which in the digital age are now obsolete.

Network Rail (www.networkrail.co.uk/virtualarchive/). A beautifully designed digital archive of plans and diagrams of Victorian and Edwardian railroad stations, tunnels, and bridges, among them Brunel’s plans for the Maidenhead Bridge.


U.S. Dept. of Defense Cultural Resources Home Page (www.denix.osd.mil/cr). Contains links to policy documents, historic contexts, and reports related to the more than 16,700 known archeological sites and 3,200 historic buildings located on DoD property.

Harnessing the Hudson, Waterwheels to Turbines is an exhibit of historic photographs at the Beacon Institute, Beacon, N.Y., through Oct. 7, 2012. The traveling exhibit is on loan from the Chapman Historical Museum in Glens Falls, N.Y. (SIAN, Spring 2011). It tells the story of waterpower in the Hudson Valley from the colonial period to the 20th century. Of particular note are archival photographs from the Schenectady Museum & Science Center that document the history of General Electric. Info: www.thebeaconinstitute.org.

News Paper Spires from Park Row to Times Square at the Skyscraper Museum in New York City explores the city’s great newspaper buildings through architectural plans and photographs. The first chapters in New York’s high-rise history were written in the 1870s through the early 1900s when the city’s great newspapers—The Times, Tribune, and World, among others—erected tall towers as signature headquarters. The buildings were advertisements but their innovation lay in the advanced technology of the structural systems, state-of-the-art presses, and typesetting machinery. The exhibit runs through July 15, 2012. Info: www.skyscraper.org.

Andrew Carnegie: Forging Philanthropy at the Museum of American Finance (New York, N.Y.) through October features objects and documents that spotlight Carnegie’s love of Scotland, business life, and philanthropic activities. Highlights include George Soros’s Carnegie Medal, a $100,000 gold bond certificate issued to Carnegie for part of the sale of Carnegie Steel to J.P. Morgan, and the two-sided American/Scottish flag that flew at Carnegie’s Scotland estate, Skibo Castle.

Visions of Empire: The Quest for a Railroad across America, 1840-1880 will be at the Huntington Museum, San Marino, Calif., through July 23. The exhibit honors the sesquicentennial of the passage of the Pacific Railroad Act in 1862 and features rare maps, photographs, newspapers, letters, and diaries. Info: www.huntington.org/huntingtonlibrary_02.aspx?id=10450.
Oliver Evans (Philadelphia) with the Roebling Chapter held a joint event at the archeological excavations in the Port Richmond Section of Philadelphia on Feb. 8. The dig, which is part of the I-95/Girard Ave. improvement project, has uncovered foundations associated with a variety of industrial sites including the 1774 Hewson Calico Printing Works, the 1816 Hewson Glass Works, and the 1830s Dyott Glass Works. The chapter toured the anchorages of the 1922-26 Ben Franklin Bridge over the Delaware on Apr. 27. Some of what the chapter saw can be viewed on a YouTube video, originally produced by WHYY (www.youtube.com; browse on Ben Franklin Bridge and select the video subtitled “Abandoned/ Never Used Trolley Line”). On May 7, the chapter hosted a presentation by Torben Jenk on the Transit of Venus 1769, describing the technical process used by David Rittenhouse and other Pennsylvania astronomers to measure the earth’s distance to the sun using 36-ft. and 42-ft. refractor telescopes.

Samuel Knight (Northern Calif.) has been exploring the history of the Bay Bridge in anticipation of completion of the new East Span, a self-anchored suspension bridge, which is scheduled to open in 2013. On March 8, the chapter co-sponsored a lecture on the history of the bridge with the Oakland Heritage Alliance. On May 24, Caltrans offered the chapter a two-hour boat tour of the construction site.

Roebling (N.Y.-N.J.) toured Colbar Art in Long Island City, N.Y., on Apr. 12. Colbar specializes in custom acrylic mold making and casting, and is perhaps best known as the exclusive licensee of the Statue of Liberty-Ellis Island Foundation to make official replicas of the statue.

Support Your Local Chapter. For info on a chapter near you or to start one, contact Ingrid Wuebber, SIA Director, Local Chapter Chair (Ingrid_Wuebber@urscorp.com) or check out the local chapters section of the SIA website (www.sia-web.org).
## Calendar

### 2012


**Sept. 20-23:** Preserving the Historic Road 8th Biennial Conference, Indianapolis, Ind. Info: [www.historicroads.org](http://www.historicroads.org).


**Oct. 4-7:** Society for the History of Technology Annual Meeting, Copenhagen, Denmark. Info: [www.historyoftechnology.org](http://www.historyoftechnology.org).


**Oct. 31-Nov. 3:** National Trust for Historic Preservation Annual Conference, Spokane, Wash. Info: [www.preservationnation.org](http://www.preservationnation.org).


**Nov. 4-11:** The XV Congress of the International Committee for the Conservation of the Industrial Heritage (TICCIH), Taiwan. Info: [www.mnactec.cat/ticcih](http://www.mnactec.cat/ticcih).


### 2013


**Apr. 10-14:** Society of Architectural Historians Annual Conference, Buffalo, N.Y. Info: [www.sah.org](http://www.sah.org).


**June 5-8:** Second National Covered Bridge Conference, Dayton, Ohio. Call for papers in this issue. Info: [www.woodcenter.org](http://www.woodcenter.org).