



SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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2015 SIA FALL TOUR GREAT FALLS, MONTANA

The 2015 SIA Fall Tour will be in Great Falls, Mont., Oct. 9-10, with an early bird tour to Helena on Oct. 8. Montana's second-largest city, Great Falls owes its prominence to a series of falls along the Missouri River that impeded Lewis & Clark's upstream expedition in 1805 and then, once the Great Northern RR reached the territory in the 1880s, became the power source on which boosters built their vision for an industrial future. The Fall Tour will visit a variety of operations that have developed around that industrial base.

The O'Hare Motor Inn in downtown Great Falls will serve as the conference hotel. The Great Falls airport is served by Alaska, Delta, United, and Allegiant airlines. Amtrak's Empire Builder crosses northern Montana but

does not serve Great Falls. The most convenient Amtrak stop will be Shelby.

During the 20th century, the Montana Power Co. developed five hydroelectric generating stations along the Great Falls of the Missouri River, one at Black Eagle Falls, right in the City of Great Falls, and four downstream. Participants of the Fall Tour will see two of them: Rainbow, built in 1910, and Ryan, built in 1915. Other tours planned for Great Falls include the Minuteman missile training simulator at Malmstrom Air Base, an airliner refurbishing company at the Great Falls Airport, and ADF, a fabricator of large steel structures.

Prior to the arrival of railroads to Montana, steamboat navigation on the Missouri River provided Montana Territory's main transportation link to states east of the

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Frederic Quintik, all photos

Interior of the Rainbow Powerhouse. Each generator is driven by a pair of horizontal-shaft turbines.

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FALL TOUR *(continued from page 1)*

Mississippi, and Fort Benton, about 40 miles downstream of Great Falls, was the head of steamboat navigation. The Saturday itinerary will include a trip to Fort Benton to see the historical fort site and the Montana Agricultural Center (an impressive agricultural museum, and to have lunch (weather permitting) on the 1889 Fort Benton bridge, the first bridge in Montana to cross the Missouri and the first bridge of iron or steel to be built in the state.

The early-bird tour will be a bus trip on Thursday, Oct. 8, to Helena, Montana's capital city. The tour will include stops at a Boeing facility, a cement plant, a plant that manufactures copper oxide and other metal-based chemicals, and the Archie Bray Foundation, a ceramic arts educational institution that owns the remains of the Western Clay Manufacturing Co., which was featured in Vol. 37 (2011) of *IA*.

Organizers of the tour are Fred Quivik (editor of *IA*), Brian Shovers (president of the Klepetko Chapter of the SIA), and Ellen Sievert (Great Falls' historic preservation officer). Details about the tour will be announced in the summer.



Ryan Dam and Powerhouse, built at the Great Falls of the Missouri (also called Volta Falls) in 1915. It supplied electricity to the Butte mines, the Anaconda smelter, and electrified railroads.

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; couple \$55; full-time student \$20; institutional \$50; 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; e-mail: SIA@mtu.edu; Website: www.sia-web.org.

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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.

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The interior of the Ryan Powerhouse features vertical-shaft turbine-generator units.

SIA Tours and Events Coordinator Julie Blair

The SIA is pleased to welcome Julie Blair as our new Tours and Events Coordinator! Julie lives in Michigan's Upper Peninsula and will be based at SIA's headquarters at Michigan Tech.

Julie has a long history with industrial archeology and heritage preservation. She grew up in the UP where she first encountered the ruins of mines while riding horses through the area's historic mining landscape. These remains then represented lost castles, but as she grew older and learned about Michigan's rich mining history, she became fascinated with the area's past, not only the mining history and landscape that remained, but especially with the process of abandonment.

These interests led her to obtain her two master's degrees. She received her first in industrial archeology from Michigan Tech in 2001, after which she worked as an archeologist. She received her second master's in library and information sciences from the University of Wisconsin, Milwaukee, in 2008. Since that time, she has worked as a

librarian in Michigan Tech's J. Robert Van Pelt and John and Ruanne Opie Library, and as an archivist in the library's Archives & Copper Country Historical Collection.

Her work as an archivist included managing the archives and staff, and developing and promoting library and archival programs, services, and events. She approaches archival collections not merely as documents but as artifacts in and of themselves. This background has given Julie a great respect for, and curiosity about, our industrial past, as well as practical experience coordinating and collaborating with a wide variety of groups and individuals.

Julie is excited to begin work as the SIA's Tours and Events Coordinator and looks forward to sharing her interest in IA with SIA members. She especially looks forward to forging new relationships and helping build awareness about IA, the SIA, and our events. If you are interested in exploring the option of hosting a tour or conference or would like to welcome Julie personally, please contact her at SIAevents@siahq.org. ■



Rainbow Powerhouse, built just below Rainbow Falls in 1910, supplied electrical power to the copper mines at Butte and to the Anaconda smelter.

Jet Lowe Photos at Roebling Museum

The Art of Engineering: Jet Lowe Photographs Roebling Works, an exhibit at the Roebling Museum in Roebling, N.J., opened on Apr. 11 and will be on view through the end of 2015. The photographs include images of the Brooklyn Bridge, Golden Gate Bridge, and George Washington Bridge, all works of the John A. Roebling's Sons Company. For 35 years as chief photographer for the National Park Service's Historic American Engineering Record (HAER), John T. "Jet" Lowe traveled the country to make a record of factories, mills, bridges, railroads, and examples of 19th- and 20th-century engineering ingenuity. The 17 photos in the exhibit are among 40,000 photos Lowe shot during his career with HAER. The originals are now in the Library of Congress as a record of American industrial history (www.loc.gov).

Lowe's photographs span the range of Roebling's and his company's work, from the 1847 Lackawaxen [Canal] Aqueduct in Lackawaxen, Pa., built in 1847—the nation's oldest wire suspension bridge—to the landmark Golden Gate Bridge in San Francisco, completed in 1937. Lowe used a large-format Canham 5 × 7 camera that offers high resolution and great depth-of-focus without distortion, which allowed him to photograph massive industrial buildings and bridges. The bulky six-pound camera and tripod also required considerable ingenuity to maneuver, especially atop a bridge.

After retiring from HAER in 2013, Lowe was

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Jet Lowe, HAER, 1986

George Washington Bridge cable anchorage, New Jersey side.

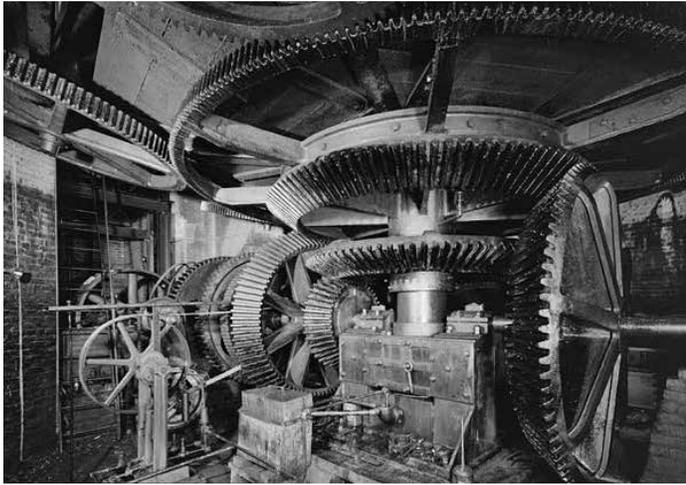
IA EXHIBITS

City Rising: San Francisco and the 1915 World's Fair is a two-part exhibit at the California Historical Society (CHS) and the Palace of Fine Arts in San Francisco through Jan. 10, 2016. The exhibit showcases objects and images from the 1915 Panama-Pacific International Exposition, which commemorated the opening of the Panama Canal in 1914 and celebrated the city's rejuvenation after the earthquake and fire of 1906. At CHS is an in-depth account of the fair capped by a projected light show called *Engineers of Illumination*. The Palace of Fine Arts features an illustrated map and animated video complementing historic images and artifacts. A companion book and a series of public programs fill out this yearlong celebration. Info: www.calhist.org/exhibitions/current_exhibitions. [To learn about the special precautions that were taken in 1915 to protect the 635-acre fairgrounds from fire, see <http://guardiansofthecity.org/sffd/>

companies/ppie/index.html. It was claimed there was no more safely protected place in the world].

The Coca-Cola Bottle: An American Icon at 100 will be on display at the High Museum of Art in Atlanta through Oct. 4. The exhibit features more than 100 objects, including original design drawings, early and rare examples of the bottle, and more than a dozen works of art by Andy Warhol and 40 photographs by other artists. Originally designed by the Root Glass Co. in Terre-Haute, Ind., the bottle offered a distinctive package for the soft drink. The design was the result of a competition that challenged bottle manufacturers to develop a container recognizable even if broken on the ground or touched in the dark. Info: www.high.org/art/exhibitions/the-coca-cola-bottle.aspx.—*Atlanta Business Chronicle* (Feb. 3, 2015) ■

Jet Lowe, HAER, 1987



80-ton wire-rope machine, built in 1893, John A. Roebling's Sons Co., Trenton, N.J.

awarded the SIA's highest honor, the General Tools Award for Distinguished Service to IA. A selection of his photographs has been collected in the book *Industrial Eye: Photographs by Jet Lowe for the Historic American Engineering Record*. (Preservation Press, 1986.)

The Roebling Museum is an industrial history museum documenting the history of John A. Roebling, the company



Jet Lowe, HAER, 1983

Brooklyn Bridge at night.

he founded, and its workforce. Roebling's innovations in suspension cable construction revolutionized bridge design. Founded in 2007, the museum is located in the former company town of Roebling. The museum at 100 Second St. is open Wed.-Sun., 11-4, and by appointment seven days per week for groups of ten or more. Info: Varissa McMickens Blair, (609)499-7200; www.roebblingmuseum.org. ■

CHAPTER NEWS

Oliver Evans (Greater Philadelphia) met at the Fairmount Water Works on Feb. 23 for a presentation from photographer and author Matthew Christopher about his latest book, *Abandoned America*. The book captures evocative images of derelict factories, schools, churches, power plants, ship and streetcar graveyards, hospitals, prisons, military installations, hotels, and more. The chapter joined with the Society of Architectural Historians (Phila. Chapter) on Mar. 30th for a presentation by Patty McCarthy on the life of Joseph Harrison, Jr. (1810-74). A prominent engineer and inventor, Harrison was the creator of the Harrison Safety Boiler. His Philadelphia estate was documented in photographs by the city's water department in 1901, prior to demolition for the Torresdale Water Treatment Plant. These photographs were only recently rediscovered in the possession of a former neighbor of Harrison's daughter.

Roebling (Greater N.Y.-N.J.) held its annual meeting at the Rogers Building in Paterson on Jan. 31. The business portion of the meeting included election of officers followed by a show-and-tell. Prior to the meeting, members toured the Society for Useful Manufacturers (S.U.M.) hydroelectric plant of 1914 at the Great Falls of the Passaic. The chapter

kicked off its spring 2015 tour schedule with a 3-hr. hike around the iron-mining town of Hibernia, N.J. Joe Macasek and Bierce Riley led the tour, sharing their extensive knowledge of New Jersey's historic iron industry.

The **28th Annual New England Conference on IA** was held at Alden Laboratories in Holden, Mass. on Mar. 7, 2015. The **Southern New England Chapter** was this year's host. A slate of eight paper presentations covered the following topics: industrial Worcester; the introduction of the rolled I-beam in the U.S.; the Yankee Network of FM radio pioneers; the Metropolitan RR Co. complex in Roxbury, Mass.; the early history and construction of Mass. Route 128 in the 1950s; *Making Places*, an inventory of historic industrial sites in Connecticut; Worcester's metal industries, 1864-1911; and the M.M. Rhodes & Sons Co. of Taunton, Mass. For paper abstracts, see www.nec-sia-org. ■

Support Your Local Chapter. For info on a chapter near you or to start one, contact Ron Petrie, SIA Director, Local Chapter Chair (ron@siahq.org) or check out the local chapters section of the SIA website (www.sia-web.org).

IA ON THE NATIONAL REGISTER

The following is a compilation of industrial heritage and related sites listed on the National Register of Historic Places (U.S.) from Jan. 1 to Mar. 27, 2015.

3M Administration Building, St. Paul, Minn. Moderne-style office building, built in 1940, is the most intact and architecturally distinctive building surviving at 3M's St. Paul complex.

A.H. Rice Silk Mill, Pittsfield, Mass. This 2-story, brick, steam-powered textile mill was in operation from 1874 to 2006. It has been converted into a 45-unit apartment house.

Bridge No. 4969, Camp Ripley vicinity, Minn. A 5-span, steel, deck-girder bridge was built in 1930 to carry both State Highway 115 and the Northern Pacific RR over the Mississippi at the Minnesota National Guard's Camp Ripley.

Cat Creek Oil Field Sign, Mosby vicinity, Mont. Continent Oil Co. commissioned the concrete and cobblestone sign in 1946 to commemorate the Cat Creek oil booms of the 1920s to 1940s.

Cushman Hydroelectric Project Historic District, Hoodspott, Wash. This nomination combines the Cushman No. 1 and Cushman No. 2 hydroelectric plants of 1923 and 1935, previously listed, into a single continuous historic district. The district also comprises an incline tram, gatehouses, power tunnel, control house and switchyard, and transmission line.

Derrick Boat No. 8, Oswego vicinity, N.Y. Steam-powered vessel was built in 1927 to service locks and perform dredging on the N.Y. State Barge Canal.

Dillard Mill Historic District, Davisville vicinity, Mo. Grist mill with period of operation from 1853 to 1956; became a state historic site in 1977.

Eagle Paper and Flouring Mill, Kaukauna, Wis. Constructed in 1872, this stone mill has the distinction of being the first mill in Wisconsin to manufacture paper from ground pulp.



HAER 1998

Hilina Pail Road, Hawaii.

Fairmont Creamery Co. Ice Cream Building, Cleveland, Ohio. Refrigerated railroad cars ran directly into the plant for deliveries of butter, eggs, cheese, and milk. Built into the Cuyahoga Valley hillside in 1930.

Grand Avenue Garage, Kansas City, Mo. An early, single-ramp, concrete, parking garage, built in 1921-22.

Hellmann Lumber & Mfg. Co., Covington, Ky. Constructed between 1886 and 1894, this brick industrial warehouse and lumberyard supplied the local building trades.

Hilina Pali Road, Hilo vicinity, Hi. A 9-mi. drive in Hawai'i Volcanoes National Park was built by the CCC from 1933 to 1942.

Hull's Trace North Huron River Corduroy Segment, Brownstown Twp., Mich. This 380-meter log roadway is the only known surviving portion of a military road built on the eve of the War of 1812. It is mostly submerged near the mouth of the river, accounting for its preservation.

Louisville Gas & Electric Co. Service Station Complex, Louisville, Ky. This downtown public utility complex of the 1920s consists of a service station for the day-to-day operations of the utility crews and a cable warehouse.

Mauna Loa Road, Hilo vicinity, Hi. A 17-mi. scenic drive in Hawai'i Volcanoes National Park climbs to the summit of the 11,141-ft. Mauna Loa volcano. Opened to the public in 1963.

Murray City Diesel Power Plant, Murray City, Utah. Built in four phases between 1927 and 1959, this municipal plant was expanded each time to allow additional diesel generators to be installed and to maintain the open floor plan.

Nashawannuck Mills Historic District, Easthampton, Mass. A complex of brick mills, constructed between 1850 and 1963, for the Nashawannuck Mfg. Co. and the Glensdale Elastic Fabric Co.

Nevada Northern Ry., McGill Depot, McGill, Nev. Craftsman-style depot of 1910, served as a prominent center for the area's copper mines.

Oakland Lamp Works, Oakland, Calif. Light-bulb factory constructed by the local division of GE in 1912. Closed in 1961.

Oklahoma Iron Works, Tulsa, Okla. Oklahoma Iron specialized in steam engines, pumps, and hydraulic fittings for the oil industry. The plant, which opened in 1911, was purchased by a subsidiary of Bethlehem Steel in 1938. The 22-acre site features a foundry, machine shop, warehouse, assembly department, and welding shop.

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SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

PUBLICATIONS OF INTEREST

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COMPILED BY

Mary Habstritt, New York, NY., Justin M. Spivey, East Windsor, N.J., and Patrick Harshbarger, SIAN editor, Wilmington, Del.

GENERAL INTEREST

- ◆ John Christian. **Factory Fans Love to See ‘How It’s Made.’** *The Boston Globe* (Mar. 15, 2015). New England Factory Tours is a “meet-up” group formed through social media (www.meetup.com) and inspired by enthusiasts of the Science Channel’s How It’s Made television series. Members volunteer to organize factory tours in the New England region. Since late 2014, four tours have been offered, mostly of modern high-tech facilities.
- ◆ Bernard A. Drew [SIA]. **18th & 19th Century Waterpowered Industry in the Upper Housatonic River Valley.** Attic Revivals Pr., 2014. 792 oversized pp., 800 illus., maps. Published with the support of the Upper Housatonic Valley National Heritage Area. \$65 ppd., special offer to SIA members from the author. Avail: Bernard A. Drew, 24 Gilmore Ave., Great Barrington, MA 01230; bdrew@verizon.net. The rich industrial heritage of the area from Hinsdale and Lanesboro, Mass., to Kent, Conn. is examined in a 24-community survey of saw, grist, fulling and carding mills, textile factories, paper mills, stone sawmills, glassworks, iron furnaces, and foundries. Through review of published histories, newspapers, trade journals, and other archives, interviews and on-the-ground tours of sites, the author looks at waterpowered manufactories and their impact on the region up through the steam and electric age. The study looks at mills on the Housatonic River and major tributaries. It examines processes used in various industries. It looks at inventors and patents, changes in technologies, transportation, spats and feuds and the legacy of waterpowered industry in unexpected places. Heavily footnoted to serve as source for researchers.
- ◆ **Engineering Heritage Australia Magazine**, Vol. 1, No. 5 (Dec. 2014) includes *100 Years of the Header Harvester* (investigation of the blacksmith shop where Headlie S. Taylor designed and built a successful wheat harvester that was widely used in Australia); *John Monash & His Innovative Bridge Designs* (early Monier reinforced-concrete bridges in Victoria, c. 1899-1910); and *Catching a Train from Orbost: Building the Bairnsdale to Orbost Railway in Eastern Victoria, 1912-16*; *Blackall Woolscour & the Electric Light* (electric lighting at an artesian well, 1910); and, *J. Furphy & Sons Pty Ltd Celebrates Its 150th Year* (Furphy, an Australian maker of water carts). Info: www.engineerheritage.com.au.
- ◆ **IA News**, No. 169 (Summer 2014) includes Angus Buchanan, *The Origins and Early Days of the AIA*; Scott L. Smith, *Grytewiken, South Georgia Island*; Mark Watson, *Forth Bridge Nomination for World Heritage Listing*; Robert Carr, *Roller Flour Milling, White Bread and the Millenium Mills, London*; as well as a round-up of other IA news from Great Britain and beyond. No. 170 (Autumn 2014) includes a remembrance of industrial archaeologist Stuart Smith (1944-2014); Geoff Ward, *The AIA Dorothea Award Winning Hindley Steam Engine at Sherborne*; and Clive Thomas, *2014 AIA Tour to Moravia and Silesia*. Avail. quarterly with membership. Info: www.industrial-archaeology.org.
- ◆ Alexander McQuilkin. **Making It Here, OHNY and EDC on State of Manufacturing in NYC.** *Untapped Cities* (Feb. 4, 2015), www.untappedcities.com/2015/02/04. Open House New York specializes in opening difficult-to-access sites to the public, usually during a weekend every October. During 2014, OHNY broke from the mold to organize a yearlong series of tours on the theme of manufacturing, culminating with a panel to reflect upon the state of industry in the city.
- ◆ Jonathan Tarleton. **Unearthed: Alyssa Loorya on Urban Archaeology.** *The Architectural League’s Urban Omnibus* (Feb. 4, 2015); www.urbanomnibus.net. President of Chrysalis Archaeology discusses her work at New York City sites and how preservation and archeology intersect, that much urban archeology is driven by Section 106 of the National Historic Preservation Act.
- ◆ **TICCIH Bulletin**, No. 67 (First Quarter, 2015) includes the following articles within its round-up of world industrial heritage news and opinion: Stefan Balici and Irina Iamandescu, *The Rosia Montana Mining Landscape, Romania: An Update and Call to Action* (a new open-pit mining project threatens a mining landscape that has been worked since the Bronze Age); Alexandre Granger, *Les Forges de Trignac* (French steel mill, built in 1879); Pirouz Hanachi, *Adaptive Reuse of the Tabriz Khosravi Leather Factory* (Iranian factory complex, built in 1931, integrated a German industrial system with Middle Eastern architecture); and Eusebi Casanelles, *The National Industrial Heritage Plan, 15 Years On* (plan adopted by Spain in 2000 has been very useful in drawing attention and money to industrial heritage sites, although much has yet to be accomplished). Info: www.ticcih.org.
- ◆ Various Authors. **Who Made That?** *NY Times Magazine*. A series of short items titled “Who Made That?” appeared from Mar. 1, 2013 to Sept. 26, 2014 with subjects ranging from charcoal briquettes to Tabasco sauce, windshield wipers to Scotch tape, cellphones to Maraschino cherries. For a list of subjects and links, search www.nytimes.com for “Innovation—who made that?” (quotation marks required).

RAILROADS

- ◆ Howard Ande. **Signals**. *NRHS Bulletin*, Vol. 78 (Winter 2013), pp. 4-44. Photographic essay covers technological improvements, color lights, searchlights, position lights, block signals, central and positive train controls, and a summary history of George Westinghouse's Union Switch & Signal Co.
- ◆ Dana Martin Batory. **A Dynamite Story**. *Timeline* (Apr./June 2015), pp. 42-53. Details a massive explosion in the yard of the Pennsylvania RR in Crestline, Ohio, on Nov. 1, 1903. One of the more spectacular of such railway incidents of the time, the accumulating evidence of unsafe explosive handling procedures prompted Congress to regulate the transportation of explosives starting in 1908.
- ◆ Justin Faulconer. **Lynchburg Train Tunnel to Become Exhibit**. *Washington Times* (Oct. 11, 2014). A 150-ft.-long tunnel, built in 1874 by the Lynchburg & Danville RR, is to become an exhibit at the proposed Amazement Square education center. The idea is for an amusement ride on the historic themes of transportation, energy, and architecture.
- ◆ Steve Fry. **History Takes New Track at Santa Fe Railway**. *The Topeka Capital-Journal* (Oct. 12, 2014). Locomotive and car maintenance is still going strong at the Topeka Shops, which opened at their current location in Oakland, Kans., in 1878.
- ◆ **Great American Railroad Stories: 75 Years of Trains Magazine**. Kalmbach, 2014. 256 pp. \$24.99. Features popular stories, many of which have not been reprinted since first appearing in the magazine. The selection is intended to provide some of the best historical insights into what it was like to ride a passenger train, work on the railroad, and grow up in an era of steam locomotives.
- ◆ Lynda Edwards. **A Century of Steam: Rare Locomotive Built in 1911 Has Been Reborn Following Three-Year Restoration**. *Chattanooga (Tenn.) Times Free Press* (Sept. 6, 2014). The Tennessee Valley RR Museum celebrates the return of the 2-8-2 Mikado No. 4501, which saw original service on the Southern Ry. Several videos of the 4501 in action at the TVRM's fall Railfest are posted on YouTube.
- ◆ Ken Fitzgerald. **The Big Move**. *Tourist Railroads & Railway Museums*, No. 17 (Summer 2014), pp. 12-20; www.atrrm.org. The incredible logistics of moving the Museum of the American Railroad a distance of 55 miles from Dallas to Frisco, Texas, in 2012-13. A 42-piece collection was moved, including the giant Union Pacific Big Boy #4018.
- ◆ Michael W. Flick, Dennis J. Kogan, and Terry W. Lehmann. **Sleeping Cars of the Santa Fe**. The Santa Fe Ry. Historical & Modeling Society, Inc. (www.atsfrr.com). 406 pp., illus. \$65. The fifth volume in a series intended to document all of the primary types of passenger cars the Santa Fe operated before 1971. Rev.: *NRHS Bulletin* (Winter 2013), p. 46.
- ◆ Chase Gunnoe. **New River Gorge**. *NRHS Bulletin*, Vol. 78 (Spring 2013), pp. 4-25. Photographic documentation of CSX's New River Subdivision, formerly the C&O main line through southern W.Va.
- ◆ Larry Haeg. **Harriman vs. Hill: Wall Street's Great Railroad War**. Univ. of Minn. Pr., 2013. 376 pp. \$29.95. Details the fight between Edward H. Harriman, head of the Union Pacific and Southern Pacific, and James J. Hill, head of the Great Northern and largest shareholder of the Northern Pacific. Stock manipulation set off the first modern-day panic on the New York Stock Exchange. Rev.: *Ramsey County (Minn.) History* (Winter 2014), pp. 26-27.
- ◆ Frank Heppner. **Railroads of Rhode Island**. The History Pr., 2012. 208 pp., illus. \$19.99. A thorough history of the state's railroads includes tips on locating traces of those abandoned. Rev.: *NRHS Bulletin* (Spring 2013), p. 33.
- ◆ Adolf Hungrywolf. **Vintage Cubano: Adventures with Old Cars, Antique Trains, and Friendly People**. Canadian Caboose Pr., 2012. 320 pp., illus. \$75. Photographic documentation of Cuba's transportation system in the 1990s, when it still included wooden Brill interurban trains, General Electric steeple-cabs from the 1920s, and sugar mill steam railroads. Rev.: *NRHS Bulletin* (Spring 2013), p. 32.
- ◆ Thomas R. Lee. **Union Pacific's M-10000 and the Early Streamliner Era, 1934-1941**. Union Pacific Historical Society, 2012. 208 pp., illus. \$75. Traces the development and operation of the first ten Streamliners, including the technical difficulties due to their light weight and high center of gravity. Draws heavily from corporate correspondence and telegrams. Rev.: *NRHS Bulletin* (Spring 2013), p. 34.
- ◆ M. John Lubetkin. **Custer and the 1873 Yellowstone Survey: A Documentary History**. Univ. of Okla. Pr., 2013. 335 pp., maps, photos. \$39.95. The Northern Pacific's second survey of its rail route along the Yellowstone River through Indian territory employed 1,600 infantry and cavalry, accompanied by numerous journalists.
- ◆ Terry Michaud. **Savannah to Tybee Island**. *NRHS Bulletin*, Vol. 78 (Spring 2013), pp. 26-31. History of the Central of Georgia Ry. branch line that delivered tourists to the seaside resort from 1887 to 1933.
- ◆ Andria Simmons. **For Streetcar Driver, 92, What Goes Around Comes Around**. *Atlanta Journal-Constitution* (Aug. 1, 2014), www.myajc.com, search on "streetcar driver 92". Interview with Earline Seale, who was among the first women to drive Atlanta's streetcars in the early 1940s, filling in for men serving in the military. On-line version of the article includes 2-min. video with historic images.
- ◆ Andrew J. Sparberg. **From a Nickel to a Token: The Journey from Board of Transportation to MTA**. Fordham Univ. Pr., 2014. 192 pp. \$35. Three decades of the NYC subway system portrayed by 20 specific events from the start of public ownership to demolition of the elevated lines and replacement of streetcars by buses.
- ◆ **Tourist Railroads & Railway Museums**, No. 18 (Fall 2014) includes Preston Cook, *Layover and Stay-Warm Systems* (methods of charging batteries, maintaining engine temperatures, and protecting diesel locomotives during cold-weather operations); Dick Morris, *Restoration of Engine 557* (WWII-era 2-8-0, operated on the Alaska RR); Jim Porterfield, *Off and Running* (activities of the Center for Ry. Tourism at Davis & Elkins College, which offers courses for students in business management, hospitality or history); Aaron Isaacs, *Lessons from Japan* (The National Railway Museum, considered one of the world's best); Aaron Isaacs and Jim Vaitkunas, *On the Road to Indy* (snapshot reviews of railway museums visited on a road trip from Minneapolis to Indianapolis). No. 19 (Winter 2015) includes Aaron Isaacs, *The Texas State Railroad and East Texas Road Trip* (review of local tourist railways and museums). Info: www.atrrm.org.
- ◆ Christian Wolmar. **The Great Railroad Revolution: The**

Publications of Interest (Winter 2015) incorrectly priced Simon Barley's **British Saws & Saw Makers from 1660**. Choir Pr., 2014. 729 pp., illus. The listed price should have been \$75 US (post free) rather than \$65. Contact: Simon Barley at: Stafford Croft, Brookside, Bradwell, Hope Valley S33 9HF, England; barleys@mac.com.

History of Trains in America. Public Affairs, 2012. 400 pp. \$29.99. A concise and very readable history covering the period from the 1830s to the 1970s. Examines technology, the physical discomfort and comfort of travelers, competition from automobiles, and contributions to military affairs. Rev.: *NRHS Bulletin* (Winter 2013), p. 47.

MINES & MINING

- ◆ Ben Benton. **Copper Basin's Burra Burra Mine Targeted for Restoration Work.** *Chattanooga (Tenn.) Times Free Press* (Nov. 3, 2014). The mine opened in 1899, belowground operations ceased in 1958, the site was vacated in 1975, and it was purchased by the Tennessee Historical Commission in 1988. Recent stabilization and restoration work allowed the commission to open the Ducktown Basin Museum in a small building, previously used as offices, overlooking the site. See, www.ducktownbasinmuseum.com.
- ◆ Howard Blum. **The Floor of Heaven: A True Tale of the Last Frontier and the Yukon Gold Rush.** Crown, 2011. 432 pp. \$16. Follows three men (a cowboy turned Pinkerton detective, a U.S. Marine deserter, and a gambler) who converge when a fortune of gold is stolen from a safe of the Treadwell Mine in Juneau. Rev: *Quarter Inch Drive* (Winter 2015, No. 81).
- ◆ Jeremy T.K. Farley. **The Ghosts of Mingo County: The Story of America's Bloodiest County.** CreateSpace Independent Publishing, 2014. 72 pp. \$10.99. History of a W.Va. coal mining county covers events from the founding of the county as a result of an illegal liquor still through the Mingo mine wars, Matewan massacre, and the Kermit Mine explosion.
- ◆ Suzy Hansen. **It Had the Strange Light of Hell.** *NYT Magazine* (Nov. 30, 2014), pp. 38-48. Account of Turkey's worst mining disaster, which killed 301 coal miners in May 2014.
- ◆ Ron Pearson. **Smokeless! Coal Cleaning along the East Broad Top.** *Timber Transfer* (Spring 2013), pp. 10-16. Schematic diagrams and machine drawings illustrate the flow of coal through the cleaning process at the EBT RR's plant at Mt. Union, Pa. Picks up on a series of two articles first published in this journal in 1987 with new annotated schematic and flow-process drawings.
- ◆ Hector Tobar. **Deep Down Dark: The Untold Stories of 33 Men Buried in a Chilean Mine, and the Miracle that Set Them Free.** Farrar, Strauss, Giroux, 2014. 309 pp. \$26. The survival of the miners trapped underground for 69 days in 2010. Rev.: *NYT Book Review* (Nov. 23, 2014), p. 11.

POWER GENERATION

- ◆ Rob Pavey. **Photos Give Glimpse into Stevens Creek Dam's History.** *Augusta (Ga.) Chronicle* (Oct. 18, 2014). Includes timeline of hydroelectric plant on the Savannah River from 1911 to present. An anonymous visitor to the dam recently dropped off about 450 photos of its construction, found in a house later identified as having been rented by the construction manager in the early 1910s. The photos are now archived at the Augusta Museum of History.
- ◆ Cliff Sims. **How a Century-old Steam Plant May Play a Huge Role in Downtown Birmingham's Resurgence.** *Yellowhammer News* (July 9, 2014). Alabama Power has announced plans to repurpose the Powell Ave. Steam Plant, which began operations in 1896 and closed in 2013. The concept is to turn the plant into space for retail and entertainment.
- ◆ David A. Simmons [SIA]. **Peddling Petroleum.** *Timeline* (Apr./June 2015), pp. 22-27. The discovery of a wheeled, welded-metal, storage tank, measuring 12 ft. long and 4 ft. at widest, is the starting point for this fascinating history of bulk kerosene usage in the farming community of Versailles, Ohio. The tank

was owned by Louie C. Ilgen, a mechanic who operated an automobile garage from the late 1910s to 1940s, with sidelines in new car and bulk kerosene sales. The tank was fabricated by the Ohio Welding & Mfg. Co. of Cincinnati.

- ◆ John H. White, Jr. **Pygmy Steam Power.** *Timeline* (July/Sept. 2014), pp. 38-43. A small walking-beam engine of the 1850s—less than 3-ft. long—is among the artifacts on exhibit at the Pioneer and Historical Society of Muskingum County in Zanesville, Ohio. Similar engines were used to power steam launches on local waterways.
- ◆ **Windmillers' Gazette**, Vol. 33, No. 1 (Winter 2014) includes T. Lindsay Baker, *Evolution of Sectional-wheel Windmills of America, Part Two* and Christopher Gillis, *Stanley A. Anderson (1925-2013), A Tribute to the "Windmill Man"* (Aermotor windmill salesman and branch manager) and *Aermotor's Omaha Branch: A View from the Inside*. Vol. 33, No. 2 (Spring 2014) includes T. Lindsay Baker, *Windmills of the Heller-Aller Company: The Early Years* (history of Heller-Aller of Napoleon, Ohio from 1886 to WWI). Vol. 33, No. 3 (Summer 2014) includes *Windmills of the Heller-Aller Company: The Later Years* (history from WWI to 1995). Vol. 33, No. 4 (Autumn 2014) includes Christopher Gillis, *FIASA: How an Argentine Manufacturer Became a Major Windmill Producer* (Fabrica de Implementos Agricolas, S.A. in Bragado has been making Aermotor windmills since the mid-1960s) and T. Lindsay Baker, *The Story of the Mishler Windmills* (Lester F. Mishler made windmills in Beverly, Kans., from 1977 to the late 1980s).

TEXTILES

- ◆ Mike Cronin. **Textiles Making Comeback in Western North Carolina.** *Asheville Citizen-Times* (Dec. 1, 2014). Restructuring of the regional textile industry into the Carolina Textile District has allowed manufacturers and supply-services companies to locate near each other and form business relationships that can perform quick turnarounds for small, customized orders. Jobs in textile mills in the 24 westernmost counties of North Carolina and Greenville and Spartanburg counties in South Carolina fell by about 67 percent from 30,056 to 9,245 in 2010. Employment has since rebounded to 10,028 in 2013.
- ◆ Linda Eaton. **Printed Textiles: British and American Cottons and Linens, 1700-1850.** Winterthur Museum/Monacelli Pr., 2014. 384 pp., illus. \$85. A major update of a sourcebook first published by Winterthur and compiled by curator Florence Montgomery in

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With Thanks.

1970. More than 600 new images have been added along with new research material covering the technological and cultural origins of textile designs, textures, patterns, and colors.

- ◆ Marty Roney. **Prattville Seeks to Save Industrial History.** *Montgomery (Ala.) Advertiser* (Aug. 23, 2014). The mayor of Prattville, Ala., and others struggle to find options for preserving the Pratt Mills (later Continental Eagle), established in 1832 by Daniel Pratt for the manufacture of cotton gins. Known by locals as the “gin shop,” the complex’s three oldest surviving masonry buildings were constructed from 1848 to 1854. Continental Eagle still makes gins but moved overseas in 2010. The paper reported on Dec. 3, 2014, that the Historic Prattville Redevelopment Authority had been the sole bidder in a mortgage foreclosure sale.
- ◆ Lynn Sorge-English. **Stays and Body Image in London: The Staymaking Trade, 1680-1810.** Pickering & Chatto, 2011. 285 pp. \$99. A history of the trade drawn from archival sources including probate inventories, legal records, trade cards, and details of the garments themselves. A picture of a complex technology emerges, combining raw materials ranging from paper to cotton, silk, and wood. Rev.: *T&C*, Vol. 54, No. 2 (Apr. 2013), pp. 398-99.
- ◆ Jeff Wilkinson. **Financier Caplan to Buy, Redevelop Former Cotton Warehouse.** *Columbia (S.C.) State* (Mar. 16, 2015). The 1917 Palmetto Compress & Warehouse Co. building, a National Register-listed landmark, will be redeveloped for residential use. The massive brick warehouse had a capacity of 60,000 bales of cotton.

MISC. INDUSTRIES

- ◆ Beth Macy. **Factory Man: How One Furniture Maker Battled Offshoring, Stayed Local--and Helped Save an American Town.** Little, Brown & Co., 2014. \$28. 451 pp. The story of the Bassett family of Bassett, Va., their furniture factory, and how they survived the competitive onslaught of cheap Chinese imports and kept local jobs. Rev.: *NYT Book Review* (Aug. 17, 2014), p. 14.
- ◆ Gerald E. Scalze. **Fighting to Keep Seeger Running: Ralph M. Scalze and His Leadership of Local No. 2-459, AFL-CIO, 1949-1955.** *Ramsey County (Minn.) History* (Winter 2014), pp. 18-25. Drawing upon family and employee memories among other sources, son of the business agent for the Refrigerator Workers local describes union achievements at the Seeger Co., later Whirlpool, one of the largest employers in St. Paul.

TOOLS

- ◆ H. G. Brack. **Tools Teach: An Iconography of American Hand Tools.** Astragal Pr., 2013. 254 pp. Over 800 illus. \$22. Explores the evolution of hand tools from the colonial period to the Industrial Revolution, specifically the development of machine-made tools and the wide variety of tool forms that characterized the American system of production.
- ◆ Michael Emery and Irwin Richman. **Living Crafts, Historic Tools: The Craftspeople & Collections of the Landis Valley Museum.** Astragal Pr., 2013. 160 pp., illus. \$29.99. The museum works to preserve Pennsylvania German culture and this book captures the museum’s vast collection of tools.
- ◆ James M. Gaynor. **Mr. Marquis’s Most Useful Pair of Scales.** Astragal Pr., 2015. 86 pp., illus. \$20. Marquis scales were originally devised around 1780 by Cpt. Thomas Marquis, a London military academy instructor. The scales consisted of a right-angled triangle and two parallel rules for proportional scaling. Up until the early 20th century, knowledge of their use was required by the British military.

BRIDGES

- ◆ **Covered Bridge Topics**, Vol. 72, No. 3 (Summer 2014) includes *Joseph C. Elliott, Pennsylvania Builder, Moves West* (active in Pennsylvania, Illinois, and Missouri from the 1830s to 1870s); *The New Brunswick Giants* (long multiple-span bridges built in the early 20th c.); *Northern Pacific Railroad Bridges in the State of Washington*; *Akers Studio Tours, Northern New England* (negatives of bridges taken by Maine studio during the 1920s and later, now in the National Society for the Preservation of Covered Bridges archives).
- ◆ Romeo Firme and Gary Buelow. **1st Street Bridge over Los Angeles River.** *ASPIRE* (Summer 2014), pp. 40-41. Summary of project to rehabilitate the iconic, reinforced-concrete, open-spandrel-arch bridge, which opened to traffic in 1929. Also, Thomas Brian Hall. **Wolf Creek Bridge.** *ASPIRE* (Winter 2015), p. 32. Rehabilitation of 1926 open-spandrel arch over the French Broad River in eastern Tennessee. Info: www.aspirebridges.com.
- ◆ Jaxon Van Derbeken. **San Francisco Bay Bridge’s Troubles: How a Landmark Became a Debacle.** *San Francisco Chronicle* (Jan. 18, 2015). The Oakland Bay Bridge’s new eastern span has finally been declared complete after more than 16 years of planning and construction. One of the most complex public works projects in California history, the self-anchored design was selected over simpler, potentially less costly, designs based on the judgment of government officials and consultants rather than experienced bridge engineers.

BUILDINGS & STRUCTURES

- ◆ Joe Bills. **Quonset Huts: Up Close.** *Yankee Magazine* (Mar./Apr. 2015), p. 30. Very brief article celebrates the Rhode Island-born, prefabricated, military building that found its way into a variety of domestic uses after WWII.
- ◆ Robert M. Frame III [SIA] and Richard E. Mitchell. **Constructing Suburbia: The Hidden Role of Prestressed Concrete.** *Minnesota History*, Vol. 64, No. 4 (Winter 2014-15), pp. 158-172. From a small picnic shelter to major parking ramps and airports, the development of Minnesota’s prestressed-concrete industry during the 1950s.
- ◆ Ed Ram. **Will the UK’s Gas Holders Be Missed?** *BBC News* (Feb. 9, 2015); www.bbc.com. Most of Britain’s local gas networks functioned with gas holders until the mid-1960s, when North Sea gas started to be transported by high-pressure pipelines. All but a few are now obsolete, and since the late-1990s National Grid has been dismantling them and selling off the land. English Heritage has listed 12 gas holders for preservation, with the focus on the mid- to late-19th century examples, usually more ornate than the larger 20th-century ones.
- ◆ Robert K. Reitherman. **Earthquakes and Engineers: An International History.** ASCE Pr., 2012. 742 pp., illus. \$130. A comprehensive treatment of the engineering techniques that have historically developed in various countries to address their particular seismic challenges.
- ◆ Douglas C. Towne. **Aerial Highways.** *SCA Journal* (Spring 2013), pp. 2-6. A brief history of aerial tramways and their popularity as tourist attractions in the automobile age.

WATER TRANSPORT

- ◆ Peter Brix. **The Brix Maritime Story: A Century of Towboating and Barging.** Blm LLC, 2014. 209 pp., illus. \$39.95. Brix Maritime, originally Knappton Towboat Co., began as a small outfit out of Portland on the Columbia River. This history shows how towboats and barges played a central role in the economic

(continued on page 15)

IA NOTES: MERCURY AND PCB ELECTRICAL DEVICES

Many of the historic artifacts sought during environmental assessments of IA sites are routine and, therefore, can be anticipated. Storage tanks and drums of hazardous substances are prime examples. Other items may be much less common. In the author's experience, mercury devices and PCB-containing electrical equipment (other than transformers) are very good examples of uncommonly encountered artifacts that are important to recognize and document.

Mercury is one of the Priority Pollutant Metals designated by the U.S. Environmental Protection Agency (USEPA). It is also one of the metals that is classified as a hazardous toxic waste under the federal Resource Conservation and Recovery Act (RCRA). In an industrial setting, mercury is most often encountered in switches located in boiler and mechanical rooms. The most common type of old mercury switch is the trade-named "Mercoïd," manufactured by The Mercoïd Corp. of Chicago, and patented in 1926 (Patent No. 1,598,874). The advantage claimed for this device was its extended service life, which was attributed to the use of improved (nickel-iron) electrodes, high-purity mercury, and filling of the void in the glass vessel with hydrogen rather than nitrogen. The tilting type of Mercoïd switch is most often seen, in which the electrical circuit is completed or broken when the vessel is shifted (usually by a thermostatic element) and the mercury moves into or out of contact with the electrodes. The Mercoïd switch was also non-sparking, meaning it presented no fire hazard, and it was silent.

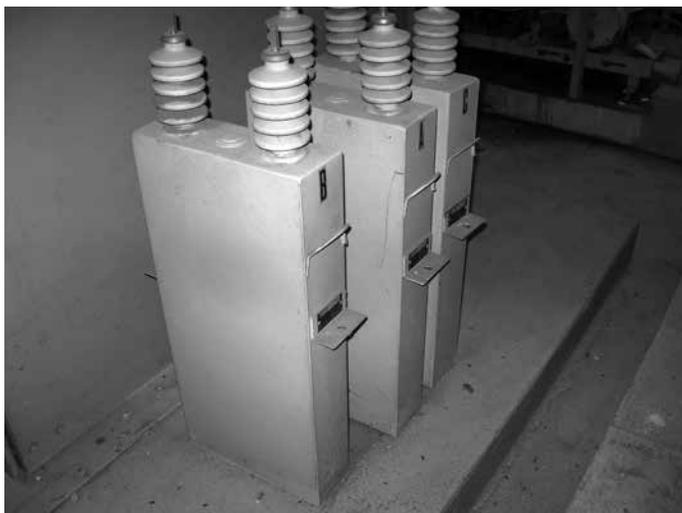
In 1994, the author encountered dozens of Mercoïd switches while assessing a closed coal-fired electric generating station from 1925 in Pennsylvania. Trespassing curiosity-seekers were a possible explanation for the disembodied mercury vessels that were found inside and outside

the building, where they could be stepped on and broken. Releases of mercury can be attributable to the fascination people have with the shiny liquid metal. The author observed a puddle of mercury due to deliberate breakage of a large barometer or thermometer that controlled a component of the HVAC system in the mechanical penthouse of a 1928 office building in Philadelphia. Beads of mercury (referred to as "blebs") are highly mobile. Freestanding liquid mercury can be recovered by use of a vacuum device after the addition of a chemical, e.g. sulfur, which converts the liquid to a more easily recovered powder. Microscopic

(continued on page 12)



Mercury vessels removed from two Mercoïd switches. Height, 2 inches. For comparison, the small mercury switch is for residential use.



Three disconnected Dykanol capacitors in the main electrical room of a 1913 magazine printing plant. Height, about 2 feet. Philadelphia, Pa., 2014.



Manufacturer's plate on a Cornell Dubilier Electric Corp. capacitor. Note "non-flammable Dykanol." Philadelphia, Pa., 2014.

Michael Bernstein, all photos

MERCURY AND PCB *(continued from page 11)*

blems can become irretrievably incorporated into a porous material like wood flooring, in which case the boards have to be removed and disposed of as hazardous waste.

Various types of electrical equipment may contain coolant oil. Transformers are the most conspicuous artifacts in this regard, but other electrical devices can also contain oil as a liquid dielectric, e.g., capacitors, breakers, and switches. Such fluid is suspect for PCBs if the device was manufactured prior to the 1979 federal ban on PCBs. Used as a fire retardant and insulator, PCBs enable the oil in electrical equipment to withstand high temperatures. One reason why transformers were often installed inside concrete vaults in basements was to contain an explosion or fire in the event a transformer overheated. PCBs reduced the potential for this to happen.

A capacitor is a sealed vessel; unlike a transformer, its

fluid cannot be sampled for analysis. The vital information is invariably found on the manufacturers' plates, where PCB trade names may be identified. Many of the trade names are suggestive of function. For example, capacitors manufactured by Westinghouse Electric Corp. may be marked "Inerteen," which implies the inert (non-flammable) character of the fluid. Capacitors manufactured by General Electric Co. may be marked "Pyranol." Other clever PCB trade names include Kulhman Electric Corp.'s "Saf-T-Kuhl" and Wagner Electric Corp.'s "No-Flamol." Newer units always say "No PCBs."

In 2014, while assessing a 1913 magazine printing plant located in Philadelphia, the author encountered three capacitors manufactured by Cornell Dubilier Electric Corp. The plates affixed to the capacitors identified "Dykanol," another PCB trade name. Capacitors can be difficult to



Large oil circuit breakers at a 1940s industrial plant located in Pennsylvania. The manufacturer's plate states that the breakers were manufactured in 1959, and each contained 285 gallons of oil. Note the taps for draining the oil. Highly suspect for PCBs.



A small, never-used General Electric Co. oil switch. Height, 8 inches. Even more uncommon than a capacitor.

Advertisement for Mercooid switches. Plant-Production Directory, Vol. 3, No. 1, 1943 (Conover-Mast, Chicago, Ill.).

spot, because they can be mounted almost anywhere: on top of large transformers, on the floor, on columns, or at high overhead locations.

Breakers and switches can be difficult to assess. Whether the equipment is oil-cooled or air-cooled may not be obvious. The components are usually enclosed within steel-panel cabinets and are not visible. Information on the manufacturer's plate may not reveal whether oil-cooled components are present or the date of manufacture (unless the serial numbers and other data can be researched in detail), and the assessor should never attempt to open the enclosure of energized equipment. Occasionally, the interior components are visible through a window and an oil vessel may be seen. In 25 years of work, including many industrial facilities, the largest number of visible oil switches the author has encountered were eight unenclosed switches in the basement of a 1936 movie theater located in New Jersey.

The usual recommendation for intact PCB-containing electrical devices is to attach a PCB sticker to them, periodically observe them for possible leakage, and manage them in accordance with applicable regulations if they are to be removed and disposed of.

A notable situation of mercury and PCBs was the 1958 food preparation and distribution warehouse the author assessed in 2000. The obsolete facility had supplied supermarkets in and around Philadelphia. Eighteen intact Mercoide switches were mounted on a wall in the control room for the ammonia refrigeration system, and seven Dykanol and Inerteen capacitors were located in the electrical rooms. The Inerteen capacitors had been disconnect-

ed and were resting on the floor. The building was vacant and in need of maintenance. Roof leaks resulted in pooled water on the concrete floor, which had begun to corrode the capacitors. These two capacitors might eventually have released six gallons of fluid containing a high concentration of PCBs. Remediation of the floor could have involved scarification (scratching away the contaminated concrete by abrasion with a belt or rotary-disk device), shotblasting (erosion of the contaminated concrete by air-blown steel pellets), or chemical extraction (use of a solvent to remove the oil that hosts the PCBs).

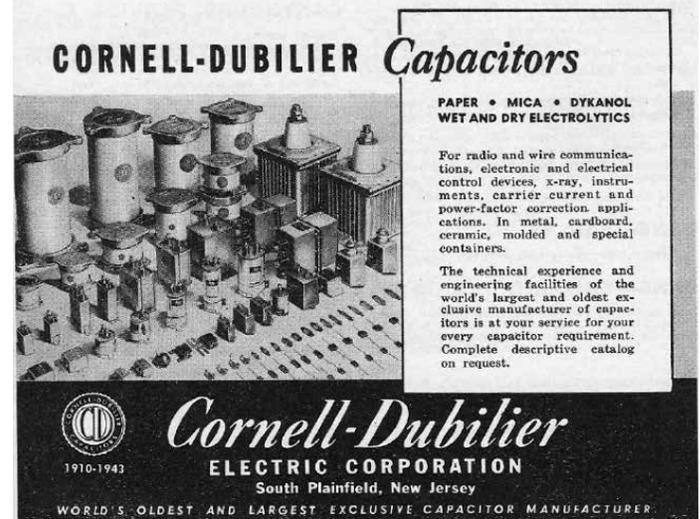
An intact mercury switch, capacitor, oil breaker, or oil switch is not an immediate concern to human health and the environment. However, in a derelict building, a mercury device or an oil-cooled electrical device and the floor beneath it should be approached with caution and scrutinized for evidence of a release. If a release of mercury is suspected in a poorly ventilated room where the air is stagnant, photographs should be taken and the assessor should leave. In some instances, those exposed may be advised to provide a blood sample for mercury analysis.

Mercury devices and PCB-containing electrical devices other than transformers are not common finds during an environmental assessment of an IA site and are always interesting to see. But the discovery of a release of mercury or PCB-containing oil is a potentially serious matter, and the investigator's interest should not be allowed to overcome a sense of caution.

Michael Bernstein



Intact Mercoide switch, patented Sept. 7, 1926. The mercury-containing glass vessel is visible behind the window. Diameter 5.8 in. The Mercoide Corp., Chicago, Ill.



Advertisement for capacitors manufactured by Cornell-Dubilier Electric Corp. of South Plainfield, N.J. Note the reference to Dykanol. Plant-Production Directory, Vol. 3, No. 1, 1943 (Conover-Mast, Chicago, Ill.).

SITES & STRUCTURES

The 1873 **Troy (N.Y.) Gas Light Co. Gasholder Building** was turned into a circus ring by the F.A.Q. Circus for shows held in Feb. 2015. The Montreal-based circus troop presents European-style acts of gymnastics, juggling, and contortion. The gasholder's round plan and interior dirt-floored space, which once housed a telescoping iron storage tank for coal gas, reminded performers of French circus buildings. This inspired the gasholder's current owners, Sage Brothers Painting Co., to fit out the space with the necessary rigging for circus acts. The gasholder is depicted in the SIA's logo.—*NY History Blog* (Feb. 18, 2015)

The 1793 **Fritchley Tunnel** in Derbyshire has been given protected status as an ancient monument by English Heritage. The masonry arch structure is claimed to be the



Troy Gas Light Co. Gasholder Building.

world's oldest surviving railway tunnel. It was built for a horse-operated railway that linked the Cromford Canal with limestone quarries. The line first saw steam service in 1813 and continued in operation until 1933. The tunnel was sealed up in the 1980s, then uncovered by archaeologists in 2013.—*BBC News* (Mar. 15, 2015 and May 1, 2013)

Plans are being developed to rehabilitate the **Hecla Iron Works Building** in the Williamsburg section of Brooklyn, N.Y. (tour site—SIA Annual Conference, 2002). The owners hope to turn the building into a hotel, although it will be challenging. Among the many issues will be treatment of the ornate cast-iron façade and metal-frame windows. The four-story building was built in 1896-97 using an unusual process of treating its cast-iron panels with super-heated steam to convert rust to magnetite, creating a very black, velvety, rustproofed surface. Another unusual feature is the vaulted interior floor framing reminiscent of Gothic architecture. As the company's headquarters, the building was a showpiece for Hecla's ornamental ironwork.—*New York Landmarks Conerancy* (Aug. 2014)

A Google subsidiary, Planetary Ventures, has signed a long-term lease with the federal government to make use of **Hangar One** at the former Moffet Field Naval Air Station near San Francisco. The historic 350,000-sq.-ft. structure was built in 1932 to house the *USS Macon* dirigible. The Navy transferred the hangar to NASA in 1994. The iconic building located on Highway 101 had been threatened with demolition, but will now be used to develop technologies related to private space travel and exploration.—*USA Today* (Nov. 11, 2014) ■

NATIONAL REGISTER *(continued from page 6)*

R&H Simon Co. Silk Mill, Easton, Pa. Brick factory complex, dating to 1883 with later additions, is located in the Bushkill Creek valley. It was regarded as a model silk mill in its time, praised for its equipment and administration.

Riverside Iron Works Office Building, Wheeling, W.Va. A late-19th-century Richardsonian Romanesque-style office was headquarters for the company that operated the state's first Bessemer steel converter in 1884.

San Diego Fire Dept. Shops at Station 6, San Diego, Calif. Mission-style firehouse, built in 1915 to serve the Little Italy neighborhood and provide a centralized maintenance and machine shop for five other stations. In the late 1910s, the shops built what is reputed to have been the world's first internal-combustion, gas-powered fireboat, the *Bill Kettner*.

San Jose Central Fire Station, San Jose, Calif. This 1951 fire station, noteworthy for its International Style, was designed by architects Binder & Curtis, an important San Jose firm.

Standard Oil Co. Headquarters, Charleston, S.C. Constructed in 1926 as offices for a refinery, the building's unusual style mimics a traditional Charleston single house with its piazzas.

Standard Paper Box Corp., Pawtucket, R.I. This factory complex consists of three buildings built between 1914 and 1939, primarily for making boxes for the jewelry industry.

Tazewell Depot, Tazewell, Va. Brick passenger depot of 1928 served the Clinch Valley Line of the Norfolk & Western Ry.

U.S. Playing Card Co. Complex, Norwood, Ohio. Founded in Cincinnati in 1894, U.S. Playing Card moved into an impressive Renaissance-Revival style plant in suburban Norwood in 1900. Famous for Bicycle, Bee, Aviator, and Hoyle, the company was the largest manufacturer of playing cards in the world.

IA on the National Register is compiled from the National Register Weekly List supplemented by information gleaned from other sources. ■

PUBLICATIONS OF INTEREST (continued from page 10)

- growth of the region's lumber industry, ultimately providing service into Idaho, California and Alaska. Photographs of over 260 tugboats. Also a companion book, **The Brix Logging Story: In the Woods of Washington and Oregon**. Blm LLC, 2014. 151 pp., illus. \$39.95. Follows the lives and careers of four German-born brothers who arrived in the big timber country of the lower Columbia in 1881 and who worked their way into regional business circles with interests in forest products, maritime transportation, and politics.
- ◆ Douglas W. DeCroix. **The Black Rock Lock Celebrates Its Centennial**. *Western New York Heritage*, Vol. 17, No. 3 (Fall 2014), pp. 40-45. An album of historical photos documents the construction of the lock, 1908-13. Building the lock, which was needed to allow vessels to move north from Black Rock harbor and down the Niagara River, called for the creation of a large cofferdam, a project awarded to the Lackawanna Steel Co. The company's newly patented interlocking sheet piling was first used here.
 - ◆ Bernard G. Dennis, Jr., ed. **Engineering the Panama Canal, A Centennial Retrospective**. ASCE Pr., 2014. 412 pp., illus. \$100. A collection of nine papers presented at the ASCE Global Engineering Conference 2014, held in Panama City, focuses on the lives and experiences of the engineers and planners who were instrumental in the construction and operation of the canal.
 - ◆ Justin Faulconer. **Lynchburg Seeks Input on Canal's Future**. *Richmond (Va.) Times-Dispatch* (Sept. 28, 2014). Preserving a section of the James River & Kanawha Canal, which operated from 1840 to 1880, is considered vital to revitalization of Lynchburg's downtown.
 - ◆ Jacob Franke and Bob Barth, Linda Barth, John Drennan, Ron Rice, and Gary Kleinedler. **Field Guide to the Morris Canal of New Jersey (a Greenway in the Making)**. 2014. 160 pp. wirebound. \$30 ppd. (Avail: Jacob Franke, 424 Tappan Rd., Northvale, NJ 07647; www.morriscanalguide.com). A mile-by-mile, turn-by-turn guide for following the 102-mi. Morris Canal between Phillipsburg and Jersey City. Includes brief history, table of significant features, glossary, and bibliography.
 - ◆ Kalle Id. **From the Great Lakes to the Baltic Sea: The Brahe (ex-USS PCE 830, HMS Kilchrenan) at 70**. *Martin Cox's Maritime Matters* (May 24, 2013), www.maritimematters.com. The small Finnish coastal cruise ship *Brahe*, still in service, was built in 1943 at the Pullman-Standard Car Co. in Chicago as a patrol craft escort (PCE) and loaned to the British navy as the *HMS Kilchrenan* based out of Gibraltar until 1946.
 - ◆ Ron Nixon. **Barges Sit for Hours Behind Locks That May Take Decades to Replace**. *NYT* (Feb. 4, 2015). Fixing aging locks on the Mississippi, Ohio, and Kentucky river systems is necessary, claim farmers who and barge companies that report bottlenecks from delays at broken or outdated locks.
 - ◆ Jay Price. **Terry Stark, Iconoclastic Founder of Carolina Skiff, Dead at 68**. *Raleigh News & Observer* (Aug. 29, 2014). Stark founded Carolina Skiff in Newport, N.C., during the early 1980s. The distinctive boxy, open fiberglass boats are relatively inexpensive and popular, often described as the "Volkswagen" of boats. Also see, www.terrystrarkmemorial.com.
 - ◆ David A. Simmons [SIA]. **Bringing the Canals to Ohio**. *Timeline* (July/Sept. 2014), pp. 24-37. The political, economic and technical challenges of establishing Ohio's state canal system during the late 1810s to mid-1820s.

AUTOMOBILES & HIGHWAYS

- ◆ Robert Gabrick. **Traveling with Greyhound: On the Road for 100 Years**. Enthusiast Books, 2014. 128 pp. \$36.95. Greyhound's goal of providing city-to-city service, supported by construction of bus depots and Post Houses, made it an industry leader. This heavily illustrated book features dozens of photographs, ads, and timetables.
- ◆ Peter Kennedy. **New Spin on the Big Apple: Bus Turntables**. *SCA Road Notes* (Summer 2013), pp. 4-5. A brief note on a bus turntable located in the basement of the Hotel Dixie at 250 W. 43rd St. The hotel's bus terminal operated from 1930 to 1957. The turntable remained in place until 2009.
- ◆ Andrew Kenney. **Historic Carolina Coach 1939 Depot in Raleigh Up for Demolition**. *Raleigh (N.C.) News & Observer* (Mar. 3, 2015). The 60,000-sq.-ft. depot was a service station for the Carolina Trailways bus line, which eventually merged with Greyhound.

ABBREVIATIONS:

- ASCE = American Society of Civil Engineers
NRHS = National Ry. Historical Society
NYT = *New York Times*
SCA = Society for Commercial Archeology
SPOOM = Society for the Preservation of Old Mills
T&C = *Technology & Culture*, published by the Society for the History of Technology
TICCIH = *The International Committee for the Conservation of the Industrial Heritage*, www.mnactec.com/ticcih
Timeline = published by the Ohio Historical Society, \$40/yr. Back issues \$12 each from www.ohiohistorystore.com. Info: (614) 297-2315.

NOTES & QUERIES

2015 European Industrial & Technical Heritage Year. The Committees of the Regions of the European Union are highlighting industrial heritage with a yearlong program of meetings, conferences, and events. The goal is to demonstrate the importance of industrial heritage to the general public, politicians, and authorities through international cooperation among the many museums, associations, and volunteer groups that conserve industrial sites across the EU. Info: <http://industrialheritage2015.eu/Brussels20150306>. ■

Publications of Interest is 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 SIA Newsletter, 305 Rodman Rd., Wilmington, DE 19809; phsianews@aol.com

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CALENDAR

2015

Sept. 4–9: Assn. for Industrial Archaeology Annual Conference, Brighton, England. Info: <http://industrial-archaeology.org>.

Sept. 6–11: 16th International TICCIH Congress, Lille, France. Info: www.ticcih.org.

Oct. 8–10: SIA FALL TOUR, GREAT FALLS, MONT. See article in this issue. Info: www.sia-web.org.

Oct. 8–11: Society for the History of Technology (SHOT) Annual Meeting, Albuquerque, N.M. Info: www.historyoftechnology.org.

Nov. 1–5: Assn. for Preservation Technology International Annual Conference, Kansas City, Kan. Info: www.apti.org.

Nov. 3–6: National Preservation Conference, Washington, D.C. Sponsored by the National Trust for Historic Preservation. Info: www.preservationnation.org.

Nov. 4–8: Society for the Preservation of Old Mills (SPOOM) Annual Conference, Santa Rosa, Calif. Info: www.spoom.org.

2016

Mar. 16–19: National Council on Public History Annual Conference, Baltimore, Md. Joint meeting with the Society for History in the Federal Government. Info: www.ncph.org.

Apr. 6–10: Society of Architectural Historians Annual Conference, Pasadena, Calif. Info: www.sah.org.

May 25–29: Railway & Locomotive Historical Society Annual Meeting, Moscow, Idaho. Info: www.rlhs.org.

June 2–5: SIA 45th ANNUAL CONFERENCE, KANSAS CITY, MO. Info: www.sia-web.org.

June 11–14: Mining History Assn. Annual Meeting, Virginia City and Gold Hill, Nev. Info: www.mininghistoryassociation.org.

June 16–19: 6th International Early Railways Conference, Newcastle-upon-Tyne, England, U.K. Info: www.earlyrailways.org.uk.

June 22–26: Society for the History of Technology (SHOT) Annual Conference, Singapore. Info: www.historyoftechnology.org. ■