

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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IA IN THE LONE STAR STATE 2017 ANNUAL CONFERENCE REVIEW

SIA's 46th Annual Conference was held in Houston, Texas, May 18 to 21. About 120 SIA members and guests gathered for the first national SIA event to be held in the Lone Star State. Petrochemicals and shipping were the main industries featured in the tours, which were organized around themes of oil & gas, the Houston Ship Channel, NASA's Johnson Space Center, concrete & bridges, and manufacturing & fabrication. The conference headquarters was the high-rise Houston Marriott Medical Center, located just south of Rice University and a short distance from the museum district.

The schedule of this year's conference followed SIA's customary format of pre-conference tours and opening reception on Thursday; process and historic site tours on Friday; paper sessions, business meeting, and evening banquet, held at the Saint Arnold Brewing Co., on Saturday; and post-conference site tours on Sunday. The conference opened with a reception featuring speaker Marty Melosi, author and Director of the Center for Public History at the University of Houston.

Drawing from his works including *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present*, *Energy Capitals*, and *Atomic Age America*, he delivered an insightful overview of Houston's industrial history and how the city was shaped, especially by the refining and petrochemical industries.

Thanks to the many member photographers and reporters who generously volunteered to provide the following tour summaries and photos.

Thursday Pre-Conference Tour: Johnson Space Center (NASA) and Galveston. The **Johnson Space Center**, located just outside Houston, has provided mission control services for NASA space missions from Gemini 4 (1965) until the present day. The tour consisted of a tram ride around the site plus a chance to wander around the visitor center with its many space-related displays. We visited Historic Mission Control (today a National Historic Landmark), familiar from many TV news specials, which controlled Gemini, Apollo, Skylab, and space shuttle missions until 1992. A new control center handles the International Space Station today. The

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Diana Bouchard

The Work, Water, & Recreation tour group poses for a photo at the Genesis test rig.

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consoles are original and are data monitors, not computers. Back in the day five IBM 360 mainframes in the basement offered a whopping total storage capacity of 9 MB! The Smithsonian now owns the equipment, and plans are to make it operational for the 50th anniversary (2019) of the first lunar landing. Other sights included an entire Saturn V rocket laid on its side inside a huge building (one engine nacelle is considerably taller than a person) and Rocket Park with a number of vintage NASA space vehicles on display.

Then on to **Galveston**, the great Texas port city that was almost wiped out by a hurricane in Sept. 1900. We saw a section of the 10-ft.-high seawall built after that, but Hurricane Ike in 2008 still flooded the city 8-ft. deep in places. Clearly this is an ongoing battle. As a reminder of Galveston's maritime past, the iron-hulled, three-masted, sailing ship *Elissa* has been preserved in Galveston harbor. Built in Aberdeen, Scotland in 1877, *Elissa* fulfilled various roles under a number of names before being laid up in the early 1970s. A ship restorer on the lookout for a project saw potential in the old hulk, brought her to Galveston in 1979, and restored her to sailing condition. I did not realize how exceptional it is for a ship this old to survive: their average

lifetime was 20 to 25 years. Drawings of similar ships by the same builder, Alexander Hall, (*Elissa's* having disappeared) were used as a guide to restoration. She is regularly sailed by volunteers from the Galveston Historical Society and rookie sailors who sign on for an instructional trip.

Moving on to modern Galveston industry, we visited the **Ocean Star** drilling rig, formerly operated by Schlumberger, a large oilfield services company, and now run by Offshore Energy Center as a museum. Built in 1969 in Beaumont, Texas, the Ocean Star operated in water up to 173-ft. deep (shallow by modern standards). We went up to the third floor of the rig to see how a drillstring is put together to power a drill bit. On the pipe deck (first floor), 90-ft. pipe sections are screwed together with power tongs in a four-man operation. The work is heavy, dirty, and dangerous, but well paid and much sought after. This visit definitely gave us a new appreciation for the hard work that gives us the petroleum products we all use.

Friday Tour 1: The Oil Industry. Houston native Joe Pratt, professor of history and business at the Univ. of Houston, provided entertaining and informative commentary about the petrochemical industry and some of its key players throughout the 1.5-hr., bumpy bus ride to Beaumont. At the **Texas Energy Museum**, we enjoyed wandering through the museum's exhibits and artifact displays that convey some of the science as well as the history of oil and natural gas in Texas. The collection of original drilling equipment from the Spindletop Strike of 1901 was especially interesting. Our next stop was the **Spindletop-Gladys City Boomtown Museum**, where we met with the Bridges & Concrete tour group for lunch. Next we visited the **Schlumberger Technology Center** (pronounced Shlum-bearzhay, instructed Joe before letting us off the bus) and the **Genesis Test Rig**, and **Baker Hughes**, a leading supplier of oilfield services and technology. See Friday tours 3 and 4 for further descriptions of the Spindletop and Genesis destinations.

Friday Tour 2: The Houston Ship Channel. Houston, founded on the shores of Buffalo Bayou in 1836, just months after Texas' hard-won independence from Mexico, is the fourth largest city in America and one of its fastest growing and most diverse metropolitan areas. One of the largest drivers of Houston's economy is its port, which includes the largest petrochemical complex in the country. On this tour, SIA

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 bi-annually. 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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John Reap

SIA conference-goers view the Saturn V Rocket second stage.



The tall ship Elissa, with jack-up rigs in the background.

conference attendees had a firsthand view of the **Port of Houston** and gained a deeper understanding of the ways our maritime heritage has shaped the modern world.

Departing from the conference hotel at the heart of the Texas Medical Center, the largest complex of hospitals and research institutions in the world, and traveling through rapidly densifying midtown, past downtown with its juxtaposition of historic buildings—like the recently restored Harris County Courthouse—and glittering skyscrapers, the first stop was the **Willow Street Pump Station**. In the 1890s, Houston appealed to the federal government for aid to create a deepwater port, but the government was unwilling to invest due to the high levels of sewage in the bayou. So, in 1902, the city built the station to pump wastewater out of the bayou to a treatment plant. With the reduction in pollution, the federal government was satisfied and agreed to contribute half the cost of dredging the Houston Ship Channel, which finally opened in 1914, marking the beginning of the modern port.

Our next stop was five miles further downstream, where we boarded the Port Authority's M/V *Sam Houston* for a 90-minute guided tour of the **Ship Channel**, a National Historic Civil Engineering Landmark. Beginning at the Turning Basin, we continued downstream about six miles while our guide for the day, Whit Drake, a retired engineer with years of experience working at various sites along the Ship



The first shuttle aircraft carrier and a replica shuttle Independence mounted on top at Johnson Space Center's Independence Plaza.

Channel, expertly pointed out the concrete rice silos, massive oil and gas refineries, and bulk terminals as we passed. This small portion of the channel gave a sense of the activity of the port, but it is hard to comprehend the full scale of the overall development, which stretches more than 50 miles, from near downtown Houston to the Gulf of Mexico, and constitutes one of the largest ports in the world.

For lunch, we made a quick stop at the **San Jacinto Monument**, which was built in 1936 to celebrate the centennial of Texas independence, then toured the nearby **USS Texas (BB-35)**, which was commissioned in 1914 and is the only remaining dreadnought to fight in both world wars. The *Texas's* pair of four-cylinder, reciprocating steam engines are the largest survivors of this type. She became a permanent battleship memorial museum in 1948 (the oldest in the country), was designated a National Historic Landmark in 1976, and a National Mechanical Engineering Landmark by the American Society of Mechanical Engineers. Today the Texas Parks and Wildlife Dept. is undertaking a series of critical repairs to ensure that her legacy continues for generations.

The final stop of the day was the **Houston Maritime Museum**. Opened in 2000, the museum features exhibits on the history of the ships that have carried the designation **USS Texas**, the importance of the Ship Channel to Houston, a wide array of shipping artifacts, and more than 100 precisely

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The historic mission control room at Johnson Space Center.



The USS Texas (BB-35).

crafted scale models. With Houston's deep ties to the petroleum industry, there is also a unique collection of model oil rigs. The museum is currently planning a new, larger facility on the banks of Buffalo Bayou scheduled to open in 2019.

Friday Tour 3: Work, Water, & Recreation. This tour took us to five sites around Houston. Though disparate in both age and function, each site provided a quick glimpse into a unique facet of the city's history and community development. Arron Kotlensky [SIA], local resident and conference planner extraordinaire, served as our tour guide, providing astute commentary and fun facts throughout the day.

Our first stop was the **Genesis Test Drilling Facility** at the **Schlumberger** complex in Sugar Land. Established more than 80 years ago, Schlumberger Limited is the world's largest oil field services provider. The Genesis Test Drilling Facility was constructed at the Sugar Land campus in 1988. It is a 142-ft.-tall, cantilever-type, skiddable, land-drilling rig. It was designed as a training tool for Schlumberger employees, as well as a product testing platform to assess the feasibility and reliability of new products. The rig is used to reproduce field conditions for various types of tests including mud viscosity and flow, and downhole tool vibration and rotation. Employees also use the rig to practice their "fishing" skills: the term fishing here is used to describe the process by which rig operators attempt to draw out (often very expensive) materials and tools that become stuck in the well hole.

A quick trip down the highway brought us to our next stop at one of Houston's most iconic sites, the "Eighth Wonder of the World"—the **Astrodome**! The world's first multi-purpose, domed sports complex, the Astrodome opened in 1965 and was used until 2009. Over the years it has been host to numerous sports teams, political conventions, musical events, and rodeos. To facilitate all of the different events,

the Astrodome's engineers installed movable platforms that could rotate around the edge of the arena making room for more, or less, seating as needed. The Astrodome was listed on the National Register of Historic Places in 2014. Moving forward, the municipality of Houston hopes to find a way to repurpose the stadium for public use. According to our tour guide, among the more interesting ideas that have been floated to the planning board are sealing the stadium and filling it with water to recreate naval battle scenes, or making it into the world's largest animatronic doll museum.

After a quick lunch break at Hermann Park in downtown Houston, our tour headed to the **Frost Town** site, where archeologists from the Texas DOT have been involved in ongoing investigations since 2004. Adjacent to the Buffalo Bayou, the 15-acre Frost Town community was established in 1837. One of the city's first additions, Frost Town was a working-class, ethnically diverse community until the early 1990s. Excavations at the site have provided a fascinating snapshot of daily life for those living at the edge of Houston's urban development.

Our next stop took us further down the Buffalo Bayou to the **Buffalo Bayou Cistern**. Built in 1926, the 15-million-gallon, underground, concrete cistern provided Houston's residents with drinking water and a means of fire suppression. It was decommissioned in 2007 after an irreparable leak was discovered. Since then it has been refurbished and repurposed as an interpretive site and backdrop for numerous art installations. The cistern has amazing acoustics, which we sampled by shouting out over the concrete pillars. The resulting echo lasted an impressive 17 seconds!

Our final stop of the day brought us to the **Yellow Rose Distillery** for a site tour and whiskey tasting. Founded in 2010, the distillery is part of a micro-distilling movement

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Ocean Star offshore drilling rig.



Schlumberger employee and tour guide Deon explains the power tongs on the Genesis test rig.



Patrick Harshbarger

2017 General Tools Award Recipient

The following citation was read at the 2017 Annual Business Meeting in Houston, Texas, by Bob Frame, chair of the General Tools Award committee.

My name is Bob Frame and I'm honored to present the 2017 Society for Industrial Archeology General Tools Award on behalf of this year's committee: Jet Lowe, Duncan Hay, and myself.

The award was created in 1992 to "give formal recognition to an individual who has given sustained, distinguished service to the cause of industrial archeology." It was established by Gerry Weinstein [SIA] as Chairman of General Tools Manufacturing Company, and continues through an endowment created by the Abraham and Lillian Rosenberg Foundation.

The General Tools Award consists of a handsome, custom-made case containing a polished General Tools plumb-bob, a citation in the journal *IA*, and a check for one thousand dollars.

The recipient for the 2017 General Tools Award is a historian and preservation planner with vast experience in cultural resources identification, interpretation, and management. He has devoted his career to surveying, evaluating, interpreting, documenting, and rehabilitating historic properties, with a special focus on historic transportation, engineering, and industrial resources. He is a nationally recognized authority on historic roads and bridges and has conducted statewide historic bridge surveys in 12 states. As part of a team developing national guidelines for the evaluation and treatment of historic road corridors, he was the primary author of a section on how to identify historic roads by using appropriate historic contexts to identify those features that contribute to historic significance and integrity.

While earning a B.A. in history from Brown University, he lived hard by the Fox Point railroad bridge, a Scherzer rolling-lift span in which he would find inspiration for his eventual career path. After graduation, he cut his *IA* teeth as deputy director of the Slater Mill Historic Site in Pawtucket, R.I., subsequently spending a summer documenting historic bridges for the Historic American Engineering Record. After earning an M.A. in History and Museum Studies from the University of Delaware's Hagley Program in Industrial History & Heritage, he joined the bridge-engineering firm that sent him into the field to conduct the statewide historic bridge surveys—work that he has described as "the best job in the world." Over many years since, he has maintained a keen interest in educational outreach, developing historic interpretive plans for several National Heritage Corridors and researching and designing a variety of exhibits, interpretive waysides, and publications.

His professional accomplishments during his many years



James Bouchard

Patrick Harshbarger, 2017 Recipient of the General Tools Award (left), with committee chairman Bob Frame.

with TranSystems Corp. and its predecessor, A. J. Lichtenstein & Associates—and, since 2010, as vice president of Hunter Research in Trenton, N.J.—are indeed impressive.

But it is for his singular and unparalleled contributions to the Society for Industrial Archeology as editor of the *SIA Newsletter* that the SIA proudly recognizes Patrick Harshbarger as the 2017 General Tools Award recipient.

Beginning with Vol. 25, No. 1, in 1996, and concluding his service with Vol. 45, No. 4, in 2016, Patrick served as editor of the *SIA Newsletter* for a remarkable two decades—twenty years!

We all know and agree that the *SIA Newsletter* is the finest in the field of historic preservation. During this long tenure, Patrick raised a high bar even higher—increasing the number of pages, tweaking the newsletter's graphic design and production values, and contributing his own superb photography. Each of the 80 issues Patrick produced included a box within which he named and thanked the contributors to that particular issue. It was invariably a *large box*, indicative not only of the faithful following Patrick developed over the years, but also of the innumerable hours he devoted to communicating with members and coordinating and editing the newsletter's contents.

The recipient of the SIA General Tools Award, according to the award criteria, "must have given noteworthy, beyond-the-call-of-duty service, over an extended period, to the cause of industrial archeology." Without question, Patrick Harshbarger is richly deserving of this prestigious award.

Congratulations, Patrick!

Nashville: SIA Fall Tour, Sept. 14–17, 2017

This year's SIA Fall Tour will be in Nashville, Tenn., Sept. 14–17, 2017. The tour headquarters will be the **Hotel Preston** on Briley Parkway, which features an eclectic art collection celebrating artists in Nashville and beyond.

Tour sites will include the **Omohundro Water Works**, constructed in 1889 as the George Reyer Pumping Station. Powered by steam until 1953, the still-active site includes a water filtration plant completed in 1929. The architecture of the basilica-style plant features arched brick galleries and terrazzo tile floors.

The Nashville Steam Preservation Society has invited SIA members to see their ongoing preservation efforts on the **Nashville, Chattanooga & St. Louis Railway's (NC&STL) engine No. 576**. This historic locomotive was a dual-purpose, 4-8-4, "J-3" class, Dixie-type engine built in 1942, and is one of the largest steam locomotives remaining in the southeastern U.S.

We will also visit **Marathon Village**, a two-story, brick factory complex which housed the Marathon Motor Works from 1910–1914. The structures have been adaptively reused and now house a variety of shops from Antique Archaeology (the folks behind the History Channel's "American Pickers") to a brewery, winery, and distillery. The mill will also be the site of our Saturday banquet, which will feature local

cuisine from Nashville's legendary Martin's Bar-B-Que Joint.

We will also view some of the historic bridges across the Cumberland River. These include the **Sparkman (Shelby) Street Bridge**. After closing for several years, the 1909 Parker truss was rehabilitated into a pedestrian bridge, connecting downtown to the LEED-renovated **Nashville Bridge Co.** building and East Nashville. We will also see the 1823 **Nashville Toll Bridge abutments**, newly interpreted by the Tennessee DoT and documented by the Historic American Engineering Record (HAER), and the Louisville & Nashville Railroad's 1931 **Cumberland Swing Bridge**.

Our visit to Nashville wouldn't be complete without touring its music industry heritage. We will visit **Ocean Way Studios**, housed in a historic Gothic Revival church, considered one of the world's greatest recording studios for orchestration and film. We will also see **RCA Studio B**, built in 1956 and famous for its 1960s recordings of the Nashville Sound, and **Hatch Show Print**, a 130-year-old letterpress shop, operated by the Country Music Hall of Fame and Museum.

These historic sites and more await you in the Music City of Nashville! Registration materials will be available in early August and on the SIA website at www.sia-web.org.

Christopher Marston



Ryan Kaldari, Wikimedia Commons

The Marathon Motor Works produced over 10,000 autos a year before closing in 1914.



Nashville Steam Preservation Society

Designed in Nashville by Superintendent of Machinery C.M. Darden, NC&STL No. 576 is an exquisite example of the pinnacle of steam technology.

CONFERENCES & WORKSHOPS

The **National Preservation Institute (NPI)** has announced its 2017–18 schedule of professional training seminars in historic preservation and cultural resource management. The NPI is a nonprofit organization founded in 1980 to educate those involved in the management, preservation, and stewardship of cultural heritage. Continuing education seminars are offered in locations throughout the U.S. and bring distinguished faculty to highlight state-of-the-art practice. Seminars focus on enhancing the skills of professionals responsible for the identification, evaluation,

planning, management, preservation, and protection of cultural resources. Case studies and small group exercises focus on the information, technology, and skills that managers require. Course topics that may be of interest to SIA members include landscape preservation, historic bridges, historic roads, an introduction to Section 106 and Section 106 agreement documents, strategies for preserving the recent past, emerging technologies (GIS, drones, digital photogrammetry, etc.), and historic structure reports. Info: www.npi.org. ■

Call For Paper Abstracts & Session Proposals

SIA 47th Annual Conference, Richmond, Virginia

The SIA invites proposals for presentations and poster displays at the 47th Annual Conference in Richmond, Va., May 30–June 3, 2018. The presentation sessions will be held at the conference hotel, the Omni Richmond Hotel, on Sat., June 2, 2018.

We invite presentations on all topics related to industrial archeology, history of technology, social change related to industry, and historic industrial structures and bridges. Papers about regional Mid-Atlantic industries and transportation are particularly encouraged. Poster displays can be on works in progress or finished projects. All presentations and poster displays should offer both interpretation and synthesis of data.

Deadline for proposals is Jan. 31, 2018.

<http://www.sia-web.org/sia-47th-annual-conference/>

Presentation Formats: Proposals may be for individual presentations 20 minutes in length, a group of three or four presentations on a common theme filling a 90-minute session, or a 90-minute panel discussion with 2–5 discussants (a formal moderator is optional, but encouraged). SIA will provide computers, data projectors, screens, microphones, and speakers as needed in each presentation room. Posters will be on display all day Saturday with a dedicated time for poster presenters to be present at their poster for discussion.

Proposal Formats: Proposals should be submitted online unless special arrangements have been made. Each proposal must include:

1. The presentation title (you will indicate the type of presentation—single paper, session proposal, or poster—on the submission form)
2. A 150–300-word abstract that outlines the scope, findings, and conclusions of the presentation
3. Contact information including name, affiliation, email address, mailing address, and telephone number for each presenter
4. A brief biographical statement of 100–150 words for each presenter
5. The software (incl. version) used to create your presentation and any additional audio-visual requests beyond the standard equipment listed above.

For 90-minute themed sessions or panel discussions, the organizer should submit a title and a brief description of the theme, along with all above information together as a group as prompted on the online submission form. If any of these items is missing, the proposal cannot be considered. Note that the above word counts apply separately to each presenter in a group. Also note that all speakers are expected to pay the registration fee (for either the full conference or one-day rate).

To submit your proposal and for further information, go to the online form linked at <http://www.sia-web.org/sia-47th-annual-conference/>.

For questions please contact Paul White, SIA Presentations Committee Chair, pjwhite2@alaska.edu.

Mark Foster—2017 Vogel Prize Recipient

Presented by Timothy A. Tumberg, Vogel Prize committee chair, at the 2017 Annual Business Meeting, Houston, Texas.

As noted on the Society's website, each year the SIA recognizes outstanding scholarship in the field of industrial archeology with the Vogel Prize. Named for SIA co-founding and distinguished member Robert M. Vogel, the award honors the author of the best article to appear in the Society's journal *IA: The Journal of the Society for Industrial Archeology* within the past three years. The prize consists of a cash reward and a wooden foundry pattern with a plaque engraved with the recipient's name.

Articles selected must have a clearly stated thesis and a well-constructed narrative. Analysis of material culture and high-quality illustrations that support the thesis and conclusion are also important measures of scholarship worthy of the prize. Selection is made by the Vogel Prize Committee, consisting of five members appointed by the SIA President, who each serve 5-year terms. Thanks to the other members of the 2017 committee: Paul White,

Arron Kotlensky, Eric Nystrom, and Sean Gohman, for taking the task seriously and thoughtfully.

This year's selection required several rounds of deliberation, which speaks to the impressive number of high-quality articles published in the past three years. The committee's task will get no easier next year, as all but one of the articles that received votes this year will be back for consideration next year, along with an entire new year worth of articles.

The 2017 Vogel prizewinning article combines effective use of drawings and historic photographs with a detailed description of an industrial process and places the process within a broader historical context. This year's winner also received research assistance from a 2008 SIA Industrial Heritage Preservation grant. The winner of the 2017 Robert M. Vogel Prize is Mark Foster, for his article titled "New Bedford: Whale Oil Refining Capital," published in *IA: The Journal of the Society for Industrial Archeology*, Vol. 40, Nos. 1 and 2, pp. 51–70.

Minutes of the SIA's 46th Annual Business Meeting

May 20, 2017

Call to Order. President Maryellen Russo called the Annual Business Meeting to order at 12:53 p.m. Central time in the ballroom of the Houston Marriott Medical Center in Houston, Texas.

President's Report. President Russo noted the SIA's first Annual Conference was held at the Cooper Union in New York City in April 1972, making this our 46th Annual Conference. She welcomed those attending their first SIA conference and acknowledged Pat Malone, who has attended every SIA conference since 1972.

This year has been a year of transitions in nearly every corner of SIA's management. The Board appointed Steve Walton as the new Executive Secretary in Nov. 2016, following Pat Martin's resignation, and upon Pat's and Michigan Technological University's (MTU) recommendation. Steve Walton is an Associate Professor of History in the IA program at MTU who began his career as a mechanical engineer. His teaching focuses on the history and philosophy of technology and science, as well as European history and military history.

In appointing Steve as the new Executive Secretary, the Board had to replace him as a Director during the middle of his term. In Jan. 2017, in accordance with SIA bylaws, the Board appointed Seth Price to replace Steve through the end of his term as a Director. Seth is an instructor in the Chemical Engineering Dept. at New Mexico Tech. He's attended several SIA conferences and fall tours, including as a student volunteer when he was still in graduate school.

Other transitions have included: a new *IA Journal* Editor (Fred Quivik to Steve Walton); a new headquarters Office Manager (Daniel Schneider); a new *SIAN* Editor (Patrick Harshbarger to Marni Blake Walter); and a new contract for headquarters at MTU (special thanks to Pat Martin and Steve Walton).

Annual Conference. President Russo thanked the chairman of the Houston conference organizing committee, Arron Kotlensky, and Events Coordinator, Julie Blair, for their work in making this conference happen.

Special thanks were offered to partner organizations & sponsors: TxDOT, Gray & Pape, and Blanton & Associates.

Arron Kotlensky expressed thanks to all the people who helped make this Annual Conference a success: Julie Blair for the logistics; Mark Brown who stepped in for the bridge tour and dry run; Marty Melosi for the opening address; Joe Pratt for the F1 tour; Fred Quivik for suggesting Marty and Joe's names; Ryan Smith of the Texas Energy Museum; Jonathan Kranz; Chris Lechner with the Texas Precast Concrete Manufacturers Association; Jim Parsons with Houston Preservation; Anna Mod for getting us access to the Astrodome; LiAnn Yim for the conference logo; tour volunteers John and Cathy Mandel; and Carl Blair, Carrie Cecil, and Dan Schneider for the background work. Thanks also to the Paper Session Committee: Saul Tannenbaum, Chair; Steve Walton; and Maryellen Russo.

Secretary's Report. Secretary James Bouchard thanked former Secretary Justin Spivey for a very complete and efficient transfer of files. Justin sorted the paper files from the last several years and former secretaries, and then deposited all 3 cubic ft. of them at the Smithsonian National Museum of American History to be placed with the other SIA archives. In addition Justin scanned the useful and interesting documents and created a very nicely organized electronic folder for them. This folder has been transferred to the Society server and is available to board members. Thank you very much Justin.

Secretary Bouchard stated that minutes of the previous year's Annual Business Meeting were published in *SIAN* Vol. 45, No. 3 (Summer 2016). He asked for amendments or corrections; none were forthcoming. President Russo called for a motion to approve the 2016 Annual Business Meeting minutes as published. Fred Quivik so moved, Saul Tannenbaum seconded the motion, and it passed unanimously.

Treasurer's Report. Treasurer Nanci K. Batchelor read her report: "The following report is for the year that ended Dec. 31, 2016. The Society maintains its books and records on a cash basis, and a calendar year for tax and reporting purposes. SIA is classified as tax-exempt under the IRS Code 501(c) (3) as an educational organization and we file a Form 990 tax return yearly.

"We began 2016 with a total fund balance of \$222,298. Cash receipts for the year totaled \$98,094. The majority of our annual income comes from membership dues. In 2016, the total dues received were \$64,495. The remaining balance is comprised of interest income, contributions to both the general and restricted funds, publication sales, and excess proceeds from tours and conferences.

"Total expenses for the year were \$101,063. The production costs of our publications, the newsletter and the journal, combined for a total of \$45,781. \$34,517 went towards labor; postage was \$4,575; insurance, prizes, awards, and scholarships were \$4,722. Office overhead and a few misc. items made up the balance.

"The Society closed 2016 with excess expenses over revenue of \$2,969. The total fund balance was \$220,005, of which \$48,636 is in restricted funds.

"Through March 2017, the Society has had a total of \$32,260 in cash receipts and has spent \$12,990."

Nanci invited members with questions regarding the Society's financial data to see her after the luncheon.

Membership. Office manager Daniel Schneider reported on his experience mastering the job since starting a little less than a year ago. He is getting up to date on the history of SIA by reading the *SIAN* and journals. Membership is fairly stable at 904 versus 917 for last year. There are 167 people who were members last year but have not yet renewed. Reminders will be sent, with the goal to exceed 1,000 members this year. Work is progressing on the website to update it technically and make it a conduit for more information and photos.

Please feel free to contact headquarters with your questions.

Executive Secretary. Steven A. Walton read his report: I took over as Executive Secretary at the end of 2016 from Pat Martin, who has retired. He is still around Michigan Tech when he is not taking a 6-week camping trip to the desert southwest in his new camper or off on a choir tour in South Africa with Susan (which is where they are right now, so he sends his regrets but also fondest greetings), or occasionally still traveling for our international sister-organization, TICCIH. For those who don't know (and I must admit, this included me before last fall), the Executive Secretary is the one to contact about the "overall management of the Society for Industrial Archeology"—so if it breaks, email me and I'll call the plumber or electrician as needed.

With Dan Schneider in place as the Office Manager and Julie Blair as Events Coordinator, so far this has not been much of a problem and I thank them both for that. Of if you have a suggestion of what to do better or differently, please be in contact and we will get the right people thinking about it. Most of all, please don't let a complaint fester—we can't fix it if we don't know it's broken.

Our bylaws also make it clear that I serve at the pleasure of the SIA Board and, as I am appointed and not hired, also within the bounds of the sponsoring institution (MTU). With the retirement of Pat and Fred from MTU, I am happy to keep the business flag still flying there (though I am quite happy both are still around to answer questions). To that end, I thank MTU and my current department chair, Hugh Gorman, for continuing to enable SIA's work at MTU.

For those who don't know me, I am a historian of technology and now an associate professor of history at Michigan Tech. I work across a wide chronological and geographical range, from iron mining and processing, to military technology (especially artillery), to history of scientific instruments, and social history of technology.

You have heard from Dan Schneider about what we at headquarters are doing so far, and other than a few stumbles out of the gate, I think we passed the office baton from Julie and Pat fairly smoothly. Last fall we secured another 5-year agreement for housing the SIA headquarters at MTU, with office space, access to university resources, and release time for me to be Executive Secretary and *IA* Editor. It is worth noting that Bruce Seeley, historian of technology and longtime SIA member, but also Dean of Arts & Sciences at Michigan Tech, is retiring as Dean in summer 2018. This leaves our agreement in place under the new Dean, so we should be set through 2021 (really, we should presume through summer 2021, as commitments like this tend to renew for the academic year rather than the calendar year).

One thing that the university has made available to us is the Michigan Tech Digital Commons to house copies of the back issues of the newsletter, a redundancy with our own servers, but one that may bring wider exposure in search engines. We will also be putting up the older Occasional Publications series as time permits. One other thing that I should mention is that in conjunction with Bruce Seely's work with the Society for the History of Technology (SHOT) and the History of Science Society (HSS), we are working to get all

of the tables of contents for the full run of *IA* into a new free online database of the history of science, technology, and medicine called IsisCB Explore at the University of Oklahoma (<https://data.isiscb.org>), as well as into the HSTM database administered by EBSCO. *IA* had for years been indexed by SHOT's Annual Bibliography of the History of Technology, but that annual ceased nearly a decade ago, so we need to catch up, and the NEH funded the IsisCB as an open-source alternative to the paywall-restricted HSTM database.

Again, if there is anything I can do to help the organization run smoothly for you, please don't hesitate to be in contact.

IA Journal. Editor Steven A. Walton read his report: Fred Quivik handed off the editorship to me in February of this year, though he still has one last issue coming under his editorial prowess: Vol. 41, No. 1–2 (2015) was intended to be an issue on Pennsylvania in-ground archeology, but because of a change in focus of some articles and a replacement, this will be a double issue with a broad Pennsylvania theme. There are eight articles on iron mining, furnaces, turnpike bridges, and topics such as tanning and glass. That issue is expected to go to press in June.

The first issue under my editorship, Vol. 42, No. 1 (2016), is shaping up and will be a regular issue with a selection of four articles. All of those have had positive outside review and are either back to the authors for revisions or soon will be. Carol Poh and I have been in contact about book reviews to add to each of these issues, as we will continue the system she and Fred had that worked well. Please do see her table for books available, and also please encourage any publishers with relevant books to send review copies to her.

Looking further ahead, we have a theme issue proposed on the more ephemeral aspects of *IA*, "*IA and the sublime.*" If all the articles were to come in and be viable, that, too, would be a double issue (possibly Vol. 43, No. 1–2 [2017]), though at this time the project needs a bit more gestation.

Beyond that—and here I need to be candid—I have only four more articles in the hopper at any stage whatsoever.

Before I took over from Fred, he and Pat Martin came into my office with a banker's box full of the equivalent of "dead letter files"—articles that had been submitted over the previous years that for all sorts of reasons were never converted (or convertible) to publishable articles. I contacted those authors to introduce myself and see if their work might be re-visitable. A very few kindly said "maybe" and we may see. So with that in mind, let me reach out with the candidness of a new editor who does not know better than to not sound off:

Fred has done a masterful job of nearly catching up the journal to an on-time publication schedule, and if three or four of those that have hung fire could convert in the next year and the double issue could come together, we might be almost caught up with the 2017 volume, in 2018. So at best, still a year behind. So I need to make clear: we cannot publish what we don't have, and we cannot catch up with only a few things coming into the hopper. We need about eight solid articles per year to stay on track. The simple fact is that our hopper is nowhere near full.

(continued on page 10)

So, we need articles on your projects; we need articles from people in CRM, government, historic preservation, academia, and allied fields. They don't have to be 40-page articles; they just have to have a good argument. I would very much like to help anyone who submits a good kernel of an idea (and by that I mean anything you could answer confidently about your project to "what are you trying to prove?") to turn that into a publishable article. I look forward to working with many of you in the (near?) future.

SIA Newsletter. Marni Blake Walter noted she started in the position of Editor in Jan. 2017. So far this year, the Winter issue has been published, and the Spring issue is nearing completion. She expressed thanks especially to former editor Patrick Harshbarger. He passed along a great deal of information and expertise to help the transition, and still continues to answer many questions as they arise. Thanks also to everyone who contributes website links, publications of interest, notes about sites and projects, as well as everyone who helps with proofreading, layout, and mailing. These contributions are not only a great help to the editor, but are what makes the *SIA* such a valuable communication medium among the whole Society.

Industrial Heritage Preservation Grants. Paul White read his report: The SIA received five applications for Industrial Heritage Preservation Grants (IHPG) for the 2017 grant cycle, with proposals ranging from the implementation of broad cultural resource surveys to the preservation of specific sites and collections. The committee consisted of Duncan Hay, Maryellen Russo, Paul White, and Suzanne Wray, with Duncan Hay abstaining from voting. We selected two recipients for the 2017 Industrial Heritage Preservation Grant, each to be awarded \$1,500.

The first awardee is the Amesbury Carriage Museum, Mass., where the funds will assist in the production of a guidebook to the Amesbury millyard. This publication will cover the industrial, business, and labor history of the complex, with an eye to developing interpretive themes for an exhibit and forming the base for a K-12 educational curriculum project titled "A Museum Without Walls."

Our second recipient is the Comstock Foundation for History and Culture, a nonprofit that seeks to preserve and promote cultural resources in Nevada's Virginia City National Historic Landmark District. In 2014, the Comstock Foundation acquired the Donovan stamp mill in Silver City, a mill that began operation under a different name in 1867 and closed in 1959. Funds from our grant will assist the foundation in completing a condition assessment report, which is necessary for restoration work to proceed. The Comstock Foundation plans to make this site accessible to the public and hopes also to return the stamp batteries to operating condition.

Thanks to all applicants for their proposals, and congratulations to this year's recipients!

TICCIH Representative. Report submitted by Bode Morin. The SIA is the member organization of TICCIH for the U.S. and Canada. As such we provide information on industrial heritage developments and support global initiatives on industrial heritage conservation and promotion. We

regularly contribute to and solicit articles for publication in the *TICCIH Bulletin*.

A key role of TICCIH is our relationship with ICOMOS, to which we provide advice and commentary on industrial cultural World Heritage issues and review industrial World Heritage nominations.

This past year the SIA through TICCIH participated on a National Park Service committee to revise the U.S. tentative list for World Heritage nominations. The committee considered many cultural and natural sites for inclusion on the new list and noted that relatively few industrial sites had been included. Despite the fact that the process was fairly political, we were able to get the Brooklyn Bridge and Chicago Skyscrapers included on their technological merits.

Pat Martin, president of TICCIH, reported that TICCIH is in a financially sound position, partly due to limiting expenditures with electronic publishing, and partly due to income from the *Industrial Heritage Re-Tooled* book sales. Dan Schneider has taken on the TICCIH Office Manager job and is doing it well. The *TICCIH Bulletin* continues to publish more pages, in color with active links, and a truly global scope of coverage.

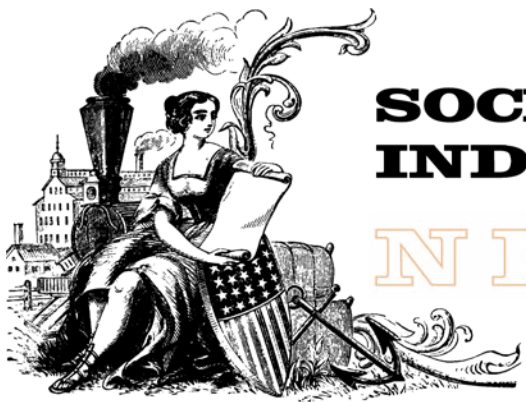
Our relationship with ICOMOS has undergone some renewal and formalization, with shared focus on World Heritage matters, as well as interactions with other segments of the international heritage community. For instance, we are engaged as partners with the Twentieth Century Heritage International Scientific Committee to help broaden their scope of work beyond the traditional modern architecture focus that typified their efforts in the past.

We are also working on an extended series of thematic studies, such as the bridge study done by Eric Delony [SIA] in 1996. These studies have been very useful to national groups who are preparing World Heritage nominations and need international comparative examples. James Douet has begun the study of water systems and is seeking collaboration from the New World. Contact him at editor@ticcih.org. A study on building stone and one on copper smelting are under way with the guidance of Stephen Hughes (secretary@ticcih.org).

TICCIH has also expanded our membership base in formerly under-represented parts of Asia and Latin America, as well as Eastern Europe, with formal partnership agreements that provide links to communities seeking to preserve and interpret industrial heritage.

Student Scholarship. Patrick Harshbarger read the committee report: It's my pleasure to announce this year's Student Scholarship on behalf of the committee consisting of Chair Alicia Valentino, Seth Price, Scott See, and myself. Scholarships consist of a cash stipend given to students or young professionals with less than three years' experience to help offset the costs of traveling to SIA events. To be eligible, students must demonstrate an interest in IA and present a letter of reference. The scholarships, which have been given for nearly three decades, encourage students to learn about and participate in IA. Many past recipients have

(continued on page 20)



SOCIETY FOR INDUSTRIAL ARCHEOLOGY NEWSLETTER

PUBLICATIONS OF INTEREST

Vol. 46, No. 3

Summer 2017

COMPILED BY

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

GENERAL INTEREST

- ◆ Donovan Webster. **This Towering 19th-Century Mechanical Clock Was the Smartwatch of Its Era.** *Smithsonian.com* (July 5, 2017). The Great Historical Clock of America is 13 ft. tall and features moving parts showcasing American history, including Civil War veterans marching, Paul Revere on horseback, Robert Fulton's steamboat, and George Washington emerging every hour to wave hello. Built in 1893 and rediscovered about 25 years ago in a New Hampshire barn, the timepiece has been restored and is now on display at the National Museum of American History as the centerpiece of the *American Democracy* exhibit.

TEXTILES

- ◆ **From the Archives: Local Factory Dyed Millions of Yards of Fabric.** *Richmond (Va.) Times-Dispatch* (July 11, 2017). (<http://www.richmond.com/>, search on Richmond Piece Dye Works). The works opened in the mid-1930s and shipped fabric to clothing manufacturers around the country. Features a set of photos showing work in the plant.
- ◆ Roger N. Holden. **Manufacturing the Cloth of the World: Weaving Mills in Lancashire.** Published by the author (avail. Amazon, Barnes & Noble), 2017. 280 pp., b&w illus. \$26.58. A comprehensive study of the weaving sector of the Lancashire cotton industry, with a focus on the economic development and organization of the industry. The construction, power systems, and layout of early multi-story mills are examined. The book is based on original research on the mills themselves and documentary sources, including plans and company records.

LUMBER & PAPER

- ◆ David W. Dunlap. **A New York Times Company Town Deep in the Ontario Wilderness.** *NYT* (June 30, 2017). (www.nytimes.com, search on company town Ontario.) The New York Times Co. and Kimberly-Clark Corp. built a newsprint and saw mill in the 1920s, and also developed the settlement of Kapuskasing, Ont. into a full-fledged company town. The joint venture was known as Spruce Falls Power and Paper Company. The companies co-owned the mill until 1991.

WATER TRANSPORT

- ◆ Chris Carola. **Work on Erie Canal Began 200 Years Ago and Changed History.** *Times Union* (July 3, 2017). (<http://www.timesunion.com/news/us/article/Work-on-Erie-Canal>).

www.timesunion.com/news/us/article/Work-on-Erie-Canal).

A historical review on the 200th anniversary of the start of construction on the Erie Canal.

- ◆ Michael Cooper. **Hell or High Water, an Orchestra Celebrates the Erie Canal.** *NYT* (July 7, 2017). The Albany Symphony celebrated the Erie Canal's bicentennial by touring the length of the waterway.
- ◆ Jerry Kuntz. **Lake Erie Diver John B. Green.** *Timeline*, Vol. 34, No. 3 (July–Sept. 2017), pp. 40–53. John Green is known as the preeminent diver on Lake Erie during the 1850s. The author recounts Green's short but ambitious diving career, combined with history of shipwrecks in the region and descriptions of the diving suits and other apparatus of the period. For further information, see also Kuntz's **The Heroic Age of Diving: America's Underwater Pioneers and the Great Wrecks of Lake Erie.** SUNY Pr., 2016. 224 pp., ills. \$19.95, which further covers 19th-c. underwater technologies, early diving equipment, and salvage methods, as well as history of Lake Erie shipwrecks.
- ◆ Kirk Moore. **Wreck of Storied Coast Guard Cutter McCullough Identified Off California.** *Workboat* (June 13, 2017). (www.workboat.com, search on McCullough.) Surveyed by a joint Coast Guard/NOAA team in Oct. 2016, a wreck off of Point Conception on the southern California coast has been positively identified as the 1896 cutter that played a key role in the Spanish-American War.
- ◆ Timothy J. Peters and Stephen F. Brown. **George Robert Jebb (1838–1927): Railway and Canal Engineer.** *CH*, Vol. 32, No. 1 (2017), pp. 41–62. Jebb served as chief engineer with the Shropshire Union Ry. & Canal and the Birmingham Canal Navigations during the era when the canals were declining and the railways expanding. Among his accomplishments was serving on a Royal Commission of 1906 that documented the U.K.'s canal and inland waterways. The Commission recommended that the state should acquire the canal system through the establishment of a Waterways Board, the forerunner to British Waterways, established in 1968.

RAILROADS

- ◆ Bob Gross. **Railroad Society Raising Money to Bring No. 52 Home.** *The Times Herald* (July 1, 2017). (<http://www.thetimesherald.com/>, search on Railroad Society). The Port Huron & Detroit Railroad Historical Society is raising money

to move the American Locomotive Co. engine No. 52 (built in 1945), which it acquired in 2015, from Knoxville back home to Port Huron, Mich.

- ◆ Eddie Mooneyham. **Chapter Receives a “New” Locomotive.** *Turntable Times*, Vol. 48, No. 2 (Apr.-May-June 2016), p. 14. Thanks to a generous donation by AEP’s Appalachian Power Co. Division, the Roanoke Chapter of the National Railway Historical Society, Inc. now owns an EMD SW1000. AEPX 1 was built in December 1969 for the Glen Lyn, Va., Power Plant. The “One-Spot” spent the next 45 years switching coal hoppers for the power plant that powered southwest Va. and southeast W.Va. The locomotive will make its way to Roanoke via the Shaffer’s Crossing Locomotive Shop for maintenance before continuing to provide service for the Chapter in one capacity or another.

AERONAUTICS & AEROSPACE

- ◆ Donovan Webster. **In 1947, A High-Altitude Balloon Crash Landed in Roswell. The Aliens Never Left.** *Smithsonian.com* (July 5, 2017). The Air Force balloon was designed to monitor Russian nuclear tests, but that was top secret. A cover story that it was a flying saucer started a rumor of extraterrestrial visitors that has never been put to rest.

AGRICULTURE & FOOD PROCESSING

- ◆ **Old Mill News**, Vol. 44, No. 1 (Winter 2017) includes a review of the SPOOM 2016 Annual Conference, Miami Valley, Ohio; *Cedar Creek Grist Mill* (short history of a preserved grist mill of ca. 1910 in Woodland, Wash.); *A Mill in France near Villers-Cotterets* (a windmill of 1645, restored in 2001), and a round-up of notes on member activities and projects.

BUILDINGS & STRUCTURES

- ◆ Kenneth Breisch. **American Libraries, 1730–1950.** Norton, 2017. 320 pp., illus. \$75. Over 500 photos and plans trace the development of U.S. libraries from roots in such iconic examples as the British Library and Paris’s Bibliothèque-Ste.-Geneviève. Starting with the private collections of wealthy merchants and landowners during the 18th century, the book looks at the Library of Congress, large and small public libraries, and the Carnegie libraries, and it ends with a glimpse of modern masterworks.
- ◆ Kathryn Flynn. **Light Industry.** *Preservation* (Summer 2017), pp. 38–44. A former Philadelphia textile and lamp factory (Oxford Mills) has been redeveloped with a mix of offices, apartments, and retail shops.
- ◆ Hensley, Ellie. **Pratt-Pullman Yard Nominated as a Landmark Site.** *Atlanta Business Chronicle* (June 30, 2017). (<https://www.bizjournals.com/atlanta/>, search on Pratt-Pullman.) The Atlanta Urban Design Commissioner nominated the Pratt-Pullman property as a landmark site on June 20. Pullman Yard first opened 1904 as Pratt Engineering & Machine Co. Chicago-based Pullman Co. bought the property in 1922, which is when it became a RR-car repair station. Includes slideshow.
- ◆ Dennis Hockman. **Monumental Opportunity.** *Preservation* (Summer 2017), pp. 16–23. Honolulu’s 90-year-old Waikiki Memorial Natatorium was constructed in 1927 as a WWI memorial and as a center for swimming and water sports. A

friends group is rallying to save the structure, which is plagued by deteriorating concrete and safety concerns.

- ◆ Robert Arthur King. **Figures in Stone.** Norton, 2017. 288 pp., illus. \$19.95. A collection of quirky faces, figures, and creatures that adorn New York City buildings. Features more than 200 photos, historical data, and a guide to locating and viewing the figures.
- ◆ Joe Sugarman. **Once Home to Horses, This 1940 Complex in Richmond is Now an Artisanal Cidery.** *Preservation* (Summer 2017), pp. 24–29. Blue Bee Cider in Richmond, Va. is located in a former stable and garage built by the WPA in 1940 using granite cobblestones recycled from city streets.
- ◆ Michael F. Roach, Colin A. Lawrence, David R. Klug, and W. Brian Fulcher, eds. **History of Tunneling in the United States.** Society of Mining, Metallurgy, and Exploration, 2017. 564 pp., illus. \$259, members \$129. Written by industry experts, covers the history of railroad, transit, highway, water, and wastewater tunnels as well as societal issues and innovations in construction, and includes a timeline of tunnel milestones. Richly illustrated with many historical photos.

BRIDGES

- ◆ Sue Threader. **Thomas Telford - Engineer of Rochester Bridge, 1821–1827.** *CH*, Vol. 32, No. 1 (2017), pp. 21–40. Examines the six years the famed engineer spent as Bridge Engineer to the Rochester Bridge Trust, established in the 14th c. to provide passage across the River Medway (Kent, U.K.). Telford was appointed in 1821 upon the sudden death of the incumbent, Sir John Rennie. He completed Rennie’s unfinished projects, constructed a new wharf, carried out repairs to the medieval bridge, and personally advised the wardens on the most mundane issues, including the provision of privies for the new wharf area. Based on original documents and drawings. The author is the current Bridge Clerk (chief executive) of the trust. See also www.rbt.org.uk.

ABBREVIATIONS:

CH	= <i>Construction History</i> , Journal of the Construction History Society
NYT	= <i>New York Times</i>
OMN	= <i>Old Mill News</i> , published by the Society for the Preservation of Old Mills (SPOOM)
TICCIH	= <i>The International Committee for the Conservation of the Industrial Heritage</i> , www.mnactec.com/ticcih
Timeline	= published by the Ohio Historical Society, \$40/yr. Info: (614) 297-2315

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

RICHARD ANDERSON, A “GIANT” IN IA (1951–2017)



Photographer unknown

Richard Anderson at work at HAER, 1981.

Richard K. Anderson, Jr., who had a long and distinguished career as a historical architect specializing in industrial archeology, died on June 17, 2017, at his home in Sumter, S.C., following a long illness.

For more than 30 years, Richard produced high-quality measured drawings and illustrations of industrial processes using manual and computer-assisted techniques. As secretary of the SIA for 15 of those years, he produced meeting minutes so detailed “they were the next best thing to being there,” in the words of one board member. In 2011, Richard won the SIA General Tools Award for distinguished service to industrial archeology.

Richard was born May 21, 1951, in Newport News, Va., the son of USN Captain Richard Kerfoot Anderson and the former Mary Greenleaf White. After receiving a B.A. in Architecture from Princeton University (1973) and an M.A. in Architecture from the University of Pennsylvania (1976), Richard became a staff architect with the Historic American Buildings Survey and Historic American Engineering Record (HABS/HAER) of the National Park Service. There he produced exemplary measured drawings, extraordinary cutaways, and “exploded” isometric details for some 40 different documentation projects, including bridges, mines, factories, lighthouses, railroad structures and equipment, and ships. Richard wrote and edited several editions of *Guidelines for Recording Historic Ships* and *Recording Historic Structures and Sites for the Historic American Engineering Record*, manuals that have influenced the style, content, and quality of HAER reports and drawings.

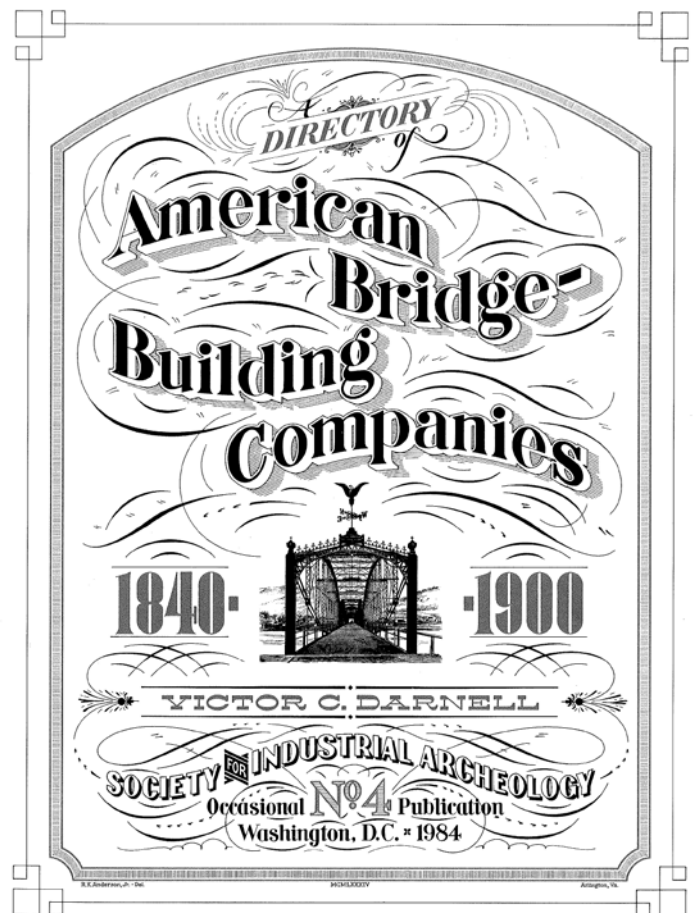
In 1989, Richard relocated with his wife Betty and daughter Aimee to South Carolina, where he established a consulting practice in cultural resource documentation. As a

consultant, Richard completed some 70 documentation projects to HABS/HAER standards, including boats and ships, structures and facilities owned by NASA, iron works, textile mills, steam engines, and historic buildings. Among his most important projects was the industrial archeological investigation of the Ford Motor Company’s Piquette Avenue Plant in Detroit, where the Model T was developed and first produced. As part of that project, commissioned by the Model T Automotive Heritage Complex, Richard exhaustively documented the location and configuration of the so-called “Experimental Room,” where Henry Ford and a small team of engineers and draftsmen developed the Model T.

Richard was a pioneer in the use of computer-aided design, or CAD, in historic structure documentation. He also developed techniques for using digital photography, historic views, and three-dimensional CAD modeling to enhance measured drawing documentation, skills that he imparted to his SIA colleagues as an instructor at the photography workshop held in connection with the 2010 SIA Annual Conference in Colorado Springs.

From 1991 to 2001, Richard was an adjunct professor at

(continued on page 14)



Richard designed the cover for Victor C. Darnell’s Directory of American Bridge Building Companies 1840–1900 (SIA Occasional Publication No. 4, 1984).

the Savannah College of Art and Design, where he taught HABS/HAER documentation standards, guidelines, and techniques. He used his talent as a fine delineator and historian to record the Borough House Plantation, his family's ancestral home in Stateburg, S.C., a National Historic Landmark.

During Richard's final days, HAER Architect Christopher Marston invited longtime friends and colleagues to bid him goodbye. Among the many testaments, David Simmons commended Richard's remarkable patience in addressing questions of historical scholarship as exemplified in the "breathtaking" detail of his drawings of the Reading-Halls Station Bridge. "When I taught industrial archeology," Patrick Malone, professor emeritus of Brown University and co-author of *The Texture of Industry*, wrote, "I would use examples from your work to show creative and effective ways to document buildings, structures, landscapes, ships, machinery, and processes. You are a giant in our field." And Robert Kapsch, chief of HABS/HAER during part of Richard's tenure there, hailed his singular accomplishment as head of the Historic American Maritime initiative. In 1987–88, Richard led the team that documented the *Balclutha* (1886), a sailing ship the size of a football field berthed in San Francisco, which resulted, Kapsch noted, "not only in wonderful drawings, but also set the standards for recording historic ships still used today."

Richard Anderson was an inspiration to young architects who worked under him. He supervised Robbyn Jackson, a member of the *Balclutha* team. Recently retired as cultural resources chief at San Francisco Maritime National Historic Park, Jackson told Richard of being "in awe at how you figured out difficult measuring problems, like how to

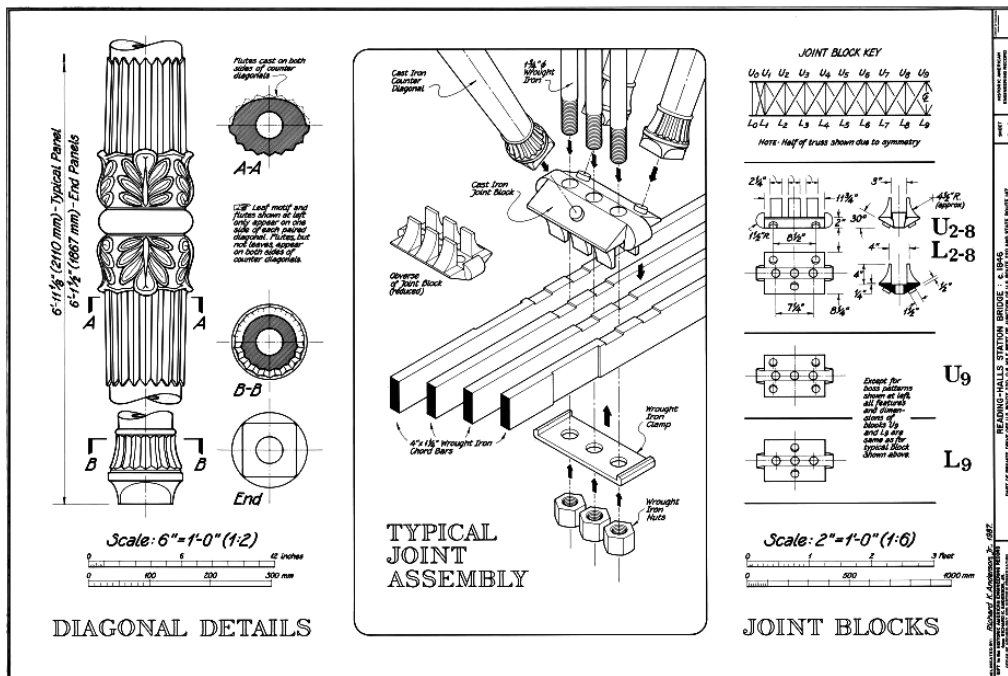


Jack Boucher photograph

Richard Anderson, right, with Jet Lowe and Neil FitzSimmons at the HAER 25th Anniversary celebration, 1994.

measure the inside of the *Balclutha's* hull," crediting him for stimulating her interest in maritime preservation and IA "and setting me on a path that led to my dream job." Long-time SIA friends and colleagues will remember a man who was ever kind and caring, and, as Charlie Hyde put it, "the best example of professionalism and decency that I have ever known."

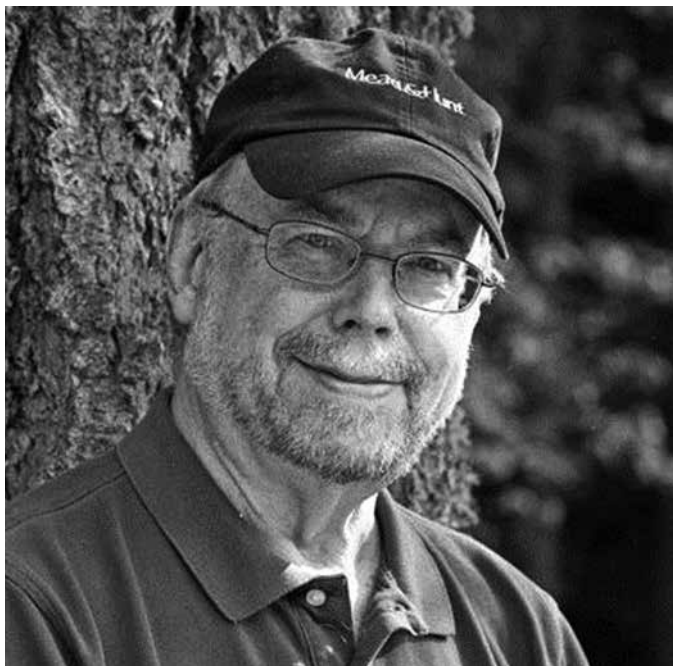
On a personal note, I first met Richard in 1976 in Washington, in the halls of 1100 L Street, NW, where HABS/HAER then had its offices. Over the years we reconnected at almost every SIA conference and served on the SIA board together for many years when, pre-internet, board meetings were all-day affairs that began with a collegial group din-



A fine example of the delineator's art is Richard's rendering of the Reading-Halls-Station Bridge, ca. 1846, located in the vicinity of Muncy, Lycoming County, PA [HAER-55], prepared in 1987.

MEMBER NEWS

Bob Frame Receives Historic Preservation Awards



Dietrich Floeter

Bob Frame.

Bob Frame [SIA] received the 2017 Steve Murray Award from the Minneapolis Chapter of the American Institute of Architects (AIA), Preserve Minneapolis, and the Minneapolis Heritage Preservation Commission (HPC) at the annual Minneapolis Heritage Preservation Awards event in May. The award is considered the top individual honor for preservation in Minneapolis, “presented to an individual who has displayed leadership, courage, and dedication to heritage preservation in Minneapolis in the last year or over the course of their career or lifetime.” Bob is the author of “Grain Elevators in Minnesota to 1945,” part of the official documentation of historic context used to evaluate

Minnesota grain elevators for the National Register of Historic Places. His work has contributed to the realization of the Mill City Museum, built in the ruins of the Washburn “A” Mill. He has served on the boards of several preservation organizations, including the SIA, and was the editor of *SIAN* from 1983 to 1996. The award presentation recognized “his remarkable dedication and foremost expertise in Terminal Grain Elevators in the United States and for his continued passion for the preservation of grain elevators, especially throughout the state of Minnesota.” The award was prompted in large part by Bob’s recent research and advocacy for the 1901 Electric Steel Elevator highlighted in *SIAN* Fall 2016, whose unfortunate demise was reported in *SIAN* Spring 2017.

Being in the Twin Cities, it seems only fitting that Bob also received an award from the St. Paul AIA Chapter and the St. Paul HPC at their annual awards program in July. This award recognized his efforts in the preservation of the oldest municipal building in St. Paul, the 1872 Hope Engine Co. No. 3, a firehouse successfully rescued last year from imminent demolition. Bob served as one of two “expert witnesses” in the lawsuit to halt demolition. ■

CORRECTION

The following clarifications were received regarding information in *SIAN* Vol. 46, No. 1 (Winter 2017), “From Handcraft to High-Tech: IA in Northeast Wisconsin.”

Lambeau Field: Prior to 1925, Packers had their home games at Hagemeister Park and Bellevue Park. From 1925 to 1956 their games were at City Stadium. This stadium was then downsized and remodeled and remains the home field of East High. Lambeau Field has been the home since 1956, although home games were also held as part of the regular season at various locations in Milwaukee from 1933 until 1994.

Hamilton Wood Type Museum: The museum had been located on the ground floor of one of the Hamilton buildings. It has since relocated. The current building was owned and operated by the Formrite Tube Company, which relocated to 408 Columbus St. in Two Rivers (the same building as Allstates Rigging). Dave Wage is the owner, and he had left this facility (1816 10th St.) a few years prior to the museum moving in, so it had been empty for some time.—*Gregory Thatcher*

ner the night before. Invariably, Richard, who avoided air travel, would drive non-stop from whatever far-flung location his work had taken him.

Richard was diligent to a fault. Too ill to attend this spring’s annual conference in Houston, he instead completed the book review for *IA* I had assigned him prior to the onset of his illness. Richard was a devout Christian, and in his email message accompanying the review he wrote of facing death without fear and with anticipation of the afterlife, adding, “I have wondered what sorts of industries will be there?”

Carol Poh

Community Activism and Historic Preservation: Sutter Creek's Knight Foundry

The story of the Knight Foundry (tour site—1996 SIA Annual Conference, Sacramento, Calif.; SIAN, Summer 1996 & Winter 2005, and namesake of the Samuel Knight SIA Chapter of Calif. and western Nev.), the last water-powered machine shop and foundry in the U.S., is essentially the story of a community. When it was first established in the early 1870s, the foundry supported the growing town of Sutter Creek by affording local men regular employment, allowing them to provide for their families, and giving them pocket money to spend at local businesses. Foundry operations supported the booming mining economy with technological innovations, as well as pragmatic equipment and repairs.

Decades later, with the gold mines long closed and the fate of the foundry in jeopardy, the residents of Sutter Creek responded by stepping in to support the preservation of the foundry. Local experts and enthusiasts were soon joined by historic preservationists, industrial archeologists, history buffs, and the like. The commitment to preserving the foundry is a story of foresight, perseverance, disappointment, generosity, and dogged determination. Anyone who has seen the constant movement of belts and gears, heard the whir of the waterpower, and watched brilliant white-hot iron being poured, has found themselves spell-bound by a technology that is both of the past, and dynamically reaching towards the future. It's not a sight easily forgotten, and it is a history that is absolutely worth preserving.

The Knight Foundry, located in rural Sutter Creek, Amador County, Calif., first opened as Campbell, Hall, & Co. in the early 1870s. It was active during the peak of Sutter Creek's hardrock mining and population boom. Stamp mills pounded in Mother Lode cities 24 hours a day and capital from the financial centers of the nation, and the world,

flowed in to run the mines. By 1873, the operation had been purchased by Samuel Knight and partners, and the sign "Knight & Company, Foundry & Machine Shop" was to become an intrinsic part of the community's history.

Perhaps most famous for the Knight Water Wheel, used in some of the earliest hydroelectric facilities in the western U.S., foundry products were used in the hardrock mines and other industries locally, nationally, and abroad. While the Knight Water Wheel would eventually become overshadowed by the more efficient Pelton Wheel, it remains a critical achievement in the story of hydro-power.

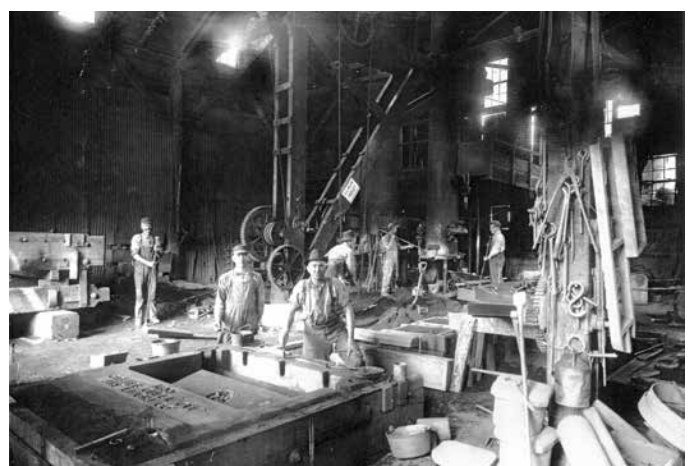
When Knight died of pneumonia in 1913, he left the majority of his foundry to his workers, beginning a legacy of community involvement that continues to this day. It was eventually purchased by two of these employees, C.H. Norton and D.V. Ramazotti, and operated with a focus on mining and mill products into the late 1940s. The closure of the mines during World War II effectively ended the golden era of hardrock mining, and the Knight Foundry changed its direction and ownership in order to survive. From the late 1940s until his death in 1970, the foundry was operated by Herman Nelson, with a focus on products for Amador's growing logging industry.

In 1970, Carl Borgh purchased the foundry. His ownership was a critical link in the preservation of the Knight Foundry, and his legacy can be seen as one of transition—from fully operating foundry to an emphasis on skills preservation. The Knight Foundry operated commercially until 1991, when economic conditions forced Carl Borgh to close shop. The following year, in July of 1992, it was reopened as the Historic Knight & Co. Foundry, Ltd., by Ed Arata and Robin Peters, who leased the facilities from Borgh. Arata was ideal for the foundry, a historian with deep roots in the county's



Knight Foundry Alliance

Knight Foundry volunteers cleaning and repairing the foundry site for visitors at the first open house.



Amador County Archives

Foundry crew inside the foundry room, early 20th c. The large timber crane in the middle of the room was able to swing around 360 degrees.

Italian community and a direct link to the foundry through his grandfather, Elbridge Post. Post's apprenticeship during the foundry's early years had earned him the title of Master Mechanic. Arata and Peters initiated the idea of tourism and education, beginning the foundry's new life as a heritage tourism site, as opposed to a strictly commercial enterprise.

Since then heritage tourism has continued to be a main focus in the foundry's preservation. The Historic Knight & Co. Foundry offered tours, school field trips, and most importantly an "Industrial Living History Workshop" that consisted of three days of hands-on experience. The foundry continued to operate until 1996, when the last pour was conducted, ending over 120 years of continuous operation. In 2000, the foundry was closed to the public, and access and operations have been extremely limited since. Left unused, the foundry slid into physical decline.

The foundry is listed on the National Register of Historic Places, is a National Historic Mechanical Engineering Landmark, and is registered as California Historical Landmark #1007; in 2011, the foundry was recognized as one of America's Most Endangered Historic Places. In 2012, the non-profit Knight Foundry Corporation was awarded a substantial *California Heritage and Cultural Endowment* grant for acquisition and preservation, but ownership of the foundry could not be secured and the grant was lost. Negotiations by the City of Sutter Creek to purchase the foundry were unsuccessful again in Dec. of 2015, and the Knight Foundry Corporation dissolved.

In Dec. 2016, negotiations between the City of Sutter Creek, the newly-formed, grassroots Knight Foundry Alli-

ance (KFA), and the foundry owner resulted in the donation of the foundry property and buildings to public ownership. After nearly two decades of negotiations, the City of Sutter Creek obtained title to the Knight Foundry. In addition, the City, with the support of KFA, was able to raise the \$325,000 necessary to purchase the equipment, tools, and historical documents—critical historical artifacts linking the foundry to its industrial past—that remained inside the foundry. These funds were raised in large part by a \$50,000 donation from the local chapter of the Native Sons of the Golden West, as well as an anonymous \$85,000 donation to the project. The mission of the Knight Foundry Alliance is "To protect, preserve, and restore the Knight Foundry's historic structures, features and operations in order to convey its local and regional importance as a unique 19th century industrial facility."

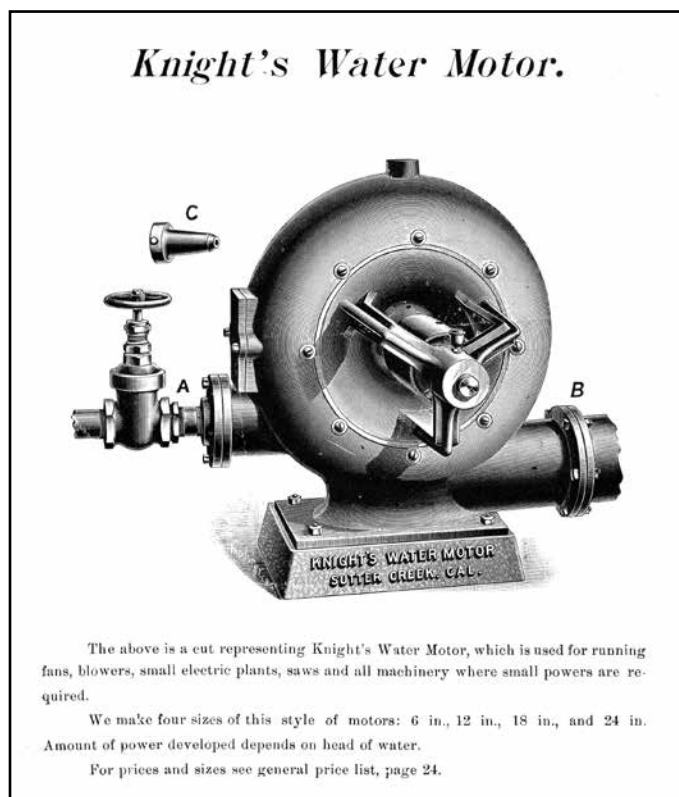
The Knight Foundry has long been recognized by industrial archeologists, historians, and historic preservationists as a critical historical resource. Indeed, SIA Samuel Knight chapter members were active in attempts to preserve the foundry. For historical archeologists, deposits and features (such as privies, surface scatters, structures, and artifacts) associated with the foundry have the potential to inform on the daily lives and working conditions of the men employed at the foundry, as well as the relationship between labor and management. Given that Samuel Knight left the foundry to the workers when he passed away in 1913, the archeology may reflect an alternative narrative on labor relations. In addition, with more than a century of continuous use, the Knight Foundry represents the changing technology of

(continued on page 18)



Knight Foundry Alliance

Members of the Native Sons of the Golden West (NSGW), Amador Parlor #17, present a check for \$50,000 to the Knight Foundry Alliance and the City of Sutter Creek toward the purchase of the Knight Foundry site (Left to right: NSGW Grand President, Erik Christeson; NSGW members, Louis Boitano, Alan Ross, and Ed Arata; Robin Peters and Josie Cadieux-Faillers, City of Sutter Creek; and Ron Edgar, Knight Foundry Alliance).



Knight's Water Motor.

The above is a cut representing Knight's Water Motor, which is used for running fans, blowers, small electric plants, saws and all machinery where small powers are required.

We make four sizes of this style of motors: 6 in., 12 in., 18 in., and 24 in. Amount of power developed depends on head of water.

For prices and sizes see general price list, page 24.

Amador County Archives

1896 catalog depiction of a Knight Water Wheel.

KNIGHT FOUNDRY (continued from page 17)

foundry production, even into the 21st century. The archeology, when combined with the well-preserved documentary history of the foundry—Sanborn maps, construction blue prints, foundry and forge orders, pattern drawings, receipts, oral histories, etc.—has the potential to tell the story of industrialization from local and national viewpoints.

While the archeological potential of the Knight Foundry is well-understood by the KFA Board, no ground-disturbing activities are currently planned for the foundry property. The immediate goal is stabilization of the buildings. Historical archeology will be part of a later version of the Knight Foundry's conservation plan. The KFA's vision for the future of the Knight Foundry is not as a static display, but as a self-sustaining, community-based industrial heritage site offering tours, classes, workshops, vocational training, and internships.

The author's appreciation goes to KFA Board members Ed Arata, Frank Cunha, and Robin Peters, for their assistance with this article. Interest and expertise in iron working, fundraising, heritage tourism, and historic preservation are sought for fundraising and daily operations at the Knight Foundry. Please contact Ed Arata at ed_arata@hotmail.com or the Knight Foundry Alliance at theknightfoundry@gmail.com. Donations towards the preservation and operations of the Knight Foundry are greatly appreciated. For more in-

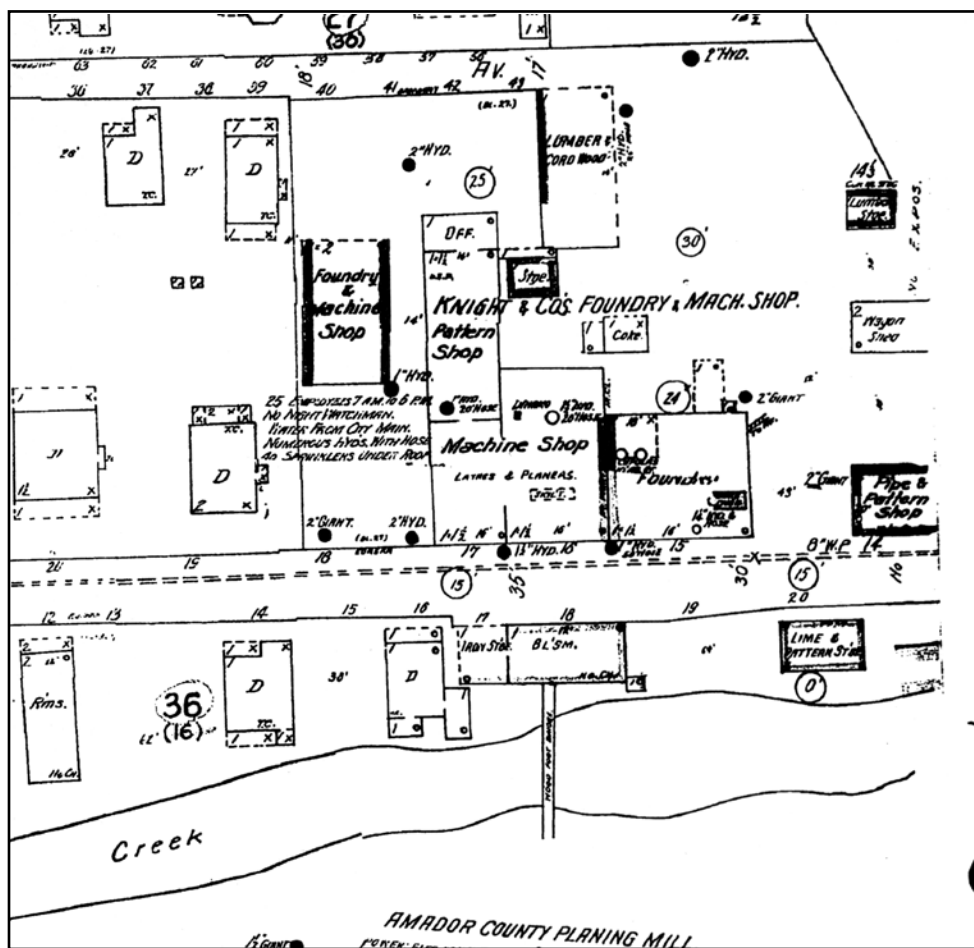


Amador County Archives

View of the Knight Foundry looking east along Eureka Street, late 19th c. Note the two large cranes.

formation see <http://knightfoundry.com/>. Project updates and photos can be seen at the Foundry Facebook page: <https://www.facebook.com/knightfoundry/>.

—Kimberly Wooten



1930 Sanborn map of the Knight Foundry.

LONE STAR STATE (continued from page 4)

that is sweeping the nation. The company produces a variety of whiskey and vodka products but their first and favorite is bourbon. Made from 100% corn mash, the bourbon is distilled in a monstrous copper still and stored in small, first-use, white-oak barrels for several weeks to develop its unique flavor profile. More recently, Yellow Rose has expanded its product line to include flavored whiskeys—such as honey whiskey flavored with locally sourced honey—and flavored vodka. The two top picks of the tour group were the coffee-flavored vodka and the company's signature Outlaw Bourbon. A good way to round out a wonderful day exploring Houston!

Friday Tour 4: Texas Bridges & Concrete. Mark Brown [SIA], historian at Texas DOT, led this very informative and well-organized tour, with assistance from Christopher Marston [SIA]. The day began at **Flexicore of Texas**, a manufacturer of precast, structural-concrete products, among them prestressed beams, slabs, and piles used in bridge construction. Flexicore was established in 1953, so ranks among the oldest active manufacturers of prestressed-concrete structural members in the U.S. Its founders were three former employees of DuPont who identified Houston as a growing market for concrete products. They developed a hollow-core slab that was successfully marketed to Houston's building boom of the mid-1950s to 1960s.

Sales manager Don Edsall greeted us in the company offices, provided a brief introduction, and then led us on a walking tour of the outdoor casting yard and concrete-mixing plant. The yard is organized into a series of lines where workers set up and break down forms for casting slabs, voided boxes, and other structural shapes. Each line is several hundred feet long so that multiple units can be cast at once. Hydraulic jacks are anchored to the end of the lines to stress wire strands embedded in the concrete. Edsall reported that Flexicore has produced a 28-in.-deep, 102-ft.-long I-beam, but most beams and slabs are less than 12-in. deep and 50-ft. long. These are not huge beams like those seen on modern interstate highways but everyday short-span bridge and building components. This fits with Flexicore's philosophy of being "large enough to serve, yet small enough to care." They pride themselves on quality control and a close working relationship with bridge engineers at Texas DOT.

Traveling east from Houston, our next stop was the **Spindletop-Gladys City Boomtown Museum** in Beaumont. The museum commemorates the 1901 discovery of oil at the Spindletop Hill salt dome, which sparked the Texas oil boom. We took a break for lunch and were entertained by the Lucas Gusher Re-enactment. The gusher blew on January 10, 1901, and is now recreated several times a day using water. There was some time to roam through a series of 15 replica historic buildings—a saloon, a post office, livery stable, etc.—filled with objects of the period.

The ultimate goal of our nearly 90-mile eastward trek was the historic **Port Arthur-Orange Bridge**, also known as Rainbow Bridge. This is a truly impressive structure at 7,752-ft. overall and 63 spans symmetrical to the center of the Neches

River. The main span is a three-span, cantilever, through truss with a 680-ft.-long center span providing a 177-ft.-vertical clearance over the Ship Channel. Approach spans are a combination of continuous, through and deck trusses, steel deck girders, and prestressed-concrete beams. The massive bridge on tall slender steel piers is quite a contrast to the nearly flat, low-lying topography of the Gulf Coast. It was designed by George Wickline of the Texas Highway Department's Bridge Division, erected by the Union Bridge & Construction Co. and the Taylor-Fichter Steel Construction Co., and opened in 1938. The local Texas DOT division engineer and environmentalist met us at the bridge to discuss the bridge's rehabilitation and measures taken to protect owls that nest within the steel superstructure.

Returning to Houston on old U.S. Route 90, we observed refineries and many abandoned concrete elevators that once stored rice grown in nearby fields. Back in the city, we toured a series of bridges crossing Buffalo Bayou, including the **Houston Belt & Terminal RR Bascule Bridge** (1912), a Strauss-patent, overhead-counterweight design; the **McKee Street Bridge** (1932), an unusual, three-span continuous, half-through, reinforced-concrete, cantilevered girder; and the **Waugh Drive Bridge** over Memorial Drive (1955), a post-tensioned, concrete, 231-ft.-long, continuous, slab bridge with an extremely slender profile, accentuated by being built on a curve.

Sunday Tour 1: Walking Tour of Allen's Landing. Dave Morris of Preservation Houston led this tour of **Allen's Landing**, the spot where the city's founders, Augustus and John Kirby Allen, set foot on land that would become Houston, and which

(continued on page 21)



Patrick Harshbarger

SIA's Bridge Tour group at the Port Arthur-Orange Bridge.

risen to positions of leadership in our organization. Scholarships are made possible through donations to a dedicated fund. To those of you who have made donations, a great big industrial-size thanks. And if you know of potentially interested students, please encourage them to apply.

This year's scholarship recipient is Carrie Cecil. Carrie is a master's student at the University of Alaska Anchorage where she is studying with Dr. Paul White [SIA] in the areas of industrial heritage and cultural resources management. Right after lunch, she will be presenting a paper on her thesis, "Salt and Sweat: The implementation of desalination technology on the Wake atoll since 1935." Carrie if you could step forward I will present you with a check for \$800 and as a special bonus an anonymously donated prize—a book on the *Tacos of Texas with Recipes* authored by Mando Rayo and Jarco Neece.

Tours & Conferences. Events Coordinator Julie Blair thanked Arron, Dan, and Steve, and the SIA Board, especially Maryellen and Christopher, for their work in creating this Annual Conference. She announced that the 2017 Fall Tour will be in Nashville, Tenn. from Sept. 14 to 17. The 2018 Annual Conference will be in Richmond, Va. from May 30 to June 3. Further details will be on the web shortly. If you have ideas for possible tour or conference sites, please talk to her.

Chapter Recognition. Saul Tannebaum reported the passing of Sharon McCauley this spring. He also announced the formation of the newest chapter: The Great Northern located in Minneapolis/St. Paul. The traditional roll call of chapters followed.

Recognition of SIA Board, Representatives, Editors, and Staff. President Russo recognized the following board members: Christopher Marston, Vice President; Amanda Gronhovd, Past President; Nanci K. Batchelor, Treasurer; James Bouchard, Secretary; Saul Tannenbaum, Paul White, and Suzanne Wray, Directors; and also recognized the following board members who are not present: Marc Belanger, Ron Petrie, Seth Price, and Alicia Valentino. In addition, she offered recognition and thanks to the outgoing board members: Ron Petrie, Saul Tannenbaum, and Alicia Valentino.

President Russo also recognized the following editors and staff: Steve Walton, Executive Secretary and Editor of *IA*; Marni Blake Walter, Editor, *SIAN*; Julie Blair, Events Coordinator; Daniel Schneider, Headquarters Office Manager; and Bode Morin, TICCIIH Representative.

Nominations Committee. Mary Habstritt presented the following report. We had a few rough patches with nominations this year, and following the theme of this meeting, it is because of many transitions and new people doing the work. I, myself, stepped in as Chair when Lee Presley was unable to complete her term. Our first problem was getting the slate out to you all as required by the bylaws. For some years, we've been putting it in the *Newsletter* to save the cost of a separate mailing, but the graphic designer became ill causing a delay that would have meant not meeting deadline as required by the bylaws. That's why you received the slate for the first time by email although it still showed up in the *SIAN*.

I first want to thank everyone who ran or considered running for office. As is apparent from all that you've heard so far, this organization runs on volunteers. The board are all volunteers and our events are largely run by volunteers. Your Society needs you.

I also want to thank my fellow Nominations Committee members, Amanda Gronhovd, Bill Vermes, who are here, and Mike Raber, who is not here but participated fully by email as we sought candidates.

Our process for counting ballots is to open them at the conference with one of us reading off the votes while the other two tally them with the hopes that the two tallies match at the end. Last night, Bill and Amanda were tallying votes as I read them off. We had a tight race for one of the Director positions with Bill showing a tie and Amanda showing Joe Seely winning by one vote. We thought we'd have to re-count when I remembered one ballot that we'd set aside because it was torn in the opening process (holding up the pieces of the ballot). This is our hanging chad! With this ballot, Joe won by either one vote or two so we did not have to count them all again.

In addition to Joe Seely, Mark Brown and Arron Kotlensky were elected as Directors. John Mayer was elected to the Nominations Committee.

Vogel Prize—Best Article in IA. Committee chair Tim Tumberg read the Vogel Prize citation (see article elsewhere in this issue).

General Tools Award. Committee chair Bob Frame read the General Tools Award citation (see article elsewhere in this issue).

Adjournment. With no new business forthcoming, President Russo called for a motion to adjourn at 2:05 p.m. Central time, which was moved and seconded.

*Respectfully submitted,
James Bouchard, Secretary*

CONTRIBUTORS TO THIS ISSUE

Ed Arata, Sutter Creek, Calif.; Nancy Banks, New York, N.Y.; Julie Blair, Houghton, Mich.; Diana Bouchard, Montreal, Canada; James Bouchard, Montreal, Canada; Carrie Brown, Hanover, N.H.; Carrie Cecil, Anchorage, Alaska; Arlene Collins, Houghton, Mich.; Jackie Dorr, Englewood, Colo.; Dara Fillmore, Superior, Wis.; Bob Frame, Minneapolis, Minn.; Mary Habstritt, New York, N.Y.; Patrick Harshbarger, Wilmington, Del.; Neill Herring, Jesup, Ga.; Justin Kockritz, Austin, Texas; Arron Kotlensky, Houston, Texas; Christopher Marston, Washington, D.C.; Bill McNiece, Indianapolis, Ind.; Steve Muller, Troy, N.Y.; Ron Petrie, Lakewood, Ohio; Carol Poh, Cleveland, Ohio; John Reap, Sun City West, Ariz.; Maryellen Russo, Dripping Springs, Texas; Dan Schneider, Houghton, Mich.; Gregory Thatcher, Shawano, Wis.; Tyler Turpin, Richmond, Va.; Robert M. Vogel, Washington, D.C.; Paul White, Anchorage, Alaska; Kimberly Wooten, Sacramento, Calif.; Suzanne Wray, New York, N.Y.

With Thanks.

LONE STAR STATE *(continued from page 19)*

in 1840 became the first site of the Port of Houston. Although the area fell into decline in the late 20th c., more recently the Buffalo Bayou Partnership is leading renovations and development of parks along the banks. We viewed the Sunset Coffee Building, built in 1910 as an annex to the 1880s W. D. Cleveland & Son's wholesale grocer supply building. The building is currently being restored and will house offices, bicycle and kayak rentals, and other amenities. Another stop on the tour was One Main Street, an 11-story warehouse structure in American Perpendicular style that has served a variety of functions. We viewed the building made famous as the Carrie Nation Saloon—a saloon attacked in 1905 by its hatchet-wielding namesake in a temperance-promoting frenzy. Finally we made our way, hopping from one patch of shade to the next, to the Willow Street Pump Station (described in the Friday tour 2 summary), while also viewing various warehouse buildings at water's edge along the Buffalo Bayou.

Sunday Tour 2: Walking Tour of Market Square. Sunday's **Market Square** walking tour was led by Jim Parsons of Preservation Houston. He ushered us onto the light rail and we got off at the Preston station to explore the heart of Houston's original downtown. Market Square's origins go back to 1836 when, just weeks after the Battle of San Jacinto, land speculators John Kirby Allen and Augustus Chapman Allen bought 7,000 acres to establish a capital city. The capital was moved to Austin in 1839 and the block chosen for the capital lay vacant and became an open-air market. The city built a combination market building and city hall on the site but when city hall was moved elsewhere in 1939, the site was occupied by a bus station, then a parking lot and finally a park. Our group wandered the park, taking note of fragments of the lost city hall that have been incorporated into the landscape's design. Many grocery companies, such as Henke & Pillot, grew up around the market and are still represented in the remaining 19th-c. buildings that surround the square, designated a National Register historic district in 1983. The largest industry before petroleum came to dominate the Texas economy was cotton, and the 1884 Cotton Exchange designed by Eugene Heiner just off the square embodies this in a beautiful red brick and white sandstone edifice. In adjacent blocks, Houston's role as a trade and finance hub is manifest in the many bank and railroad buildings we passed. Houston's oldest commercial structure ended the tour. The Pil-

lot Building dates to 1857–58 and has a cast-iron storefront. It was completely reconstructed after demolition by neglect caused it to fall down in the 1980s.

Sunday Tour 3: Boat Tour of Buffalo Bayou. On a rainy Sunday, May 21 seventeen meeting registrants joined Louis Aulbach for a pontoon boat trip on Buffalo Bayou. Buffalo Bayou is a waterway with origins west of Houston that flows through the city and eventually into Galveston Bay. The waterway provided the initial water access to Houston. The downstream portion of the bayou was eventually dredged and expanded to form the Houston Ship Channel.

Louis Albach is a member of the Houston Archeological Society and author of *Buffalo Bayou: An Echo of Houston's Wilderness Beginnings*. As the tour traveled downstream with return, he provided a running commentary on Buffalo Bayou's history, current status, and the businesses that were and are located on the bayou's shores.

The trip traveled past the original Port of Houston located near the confluence of Buffalo Bayou and White Oak Bayou. The trip traveled under numerous bridges. Until 1914, all bridges over Buffalo Bayou were either swing or draw to allow ship access into Houston. In 1914, the commercial shipping center moved further downstream to the area of the current turning basin.

Many businesses were located along Buffalo Bayou in earlier years including brickyards, farms, iron works, railroad stations, pumping stations, incinerators, gas plants, power plants, concrete manufacturing, cotton pressing, cottonseed oil plants, brewing companies, grave vault manufacturing, and ice plants. Some remnants of these businesses are extant along Buffalo Bayou and some buildings have seen reuse.

In the past, substantial amounts of sewage drained into Buffalo Bayou. The Willow Street Pumping Station was an early civic improvement intended to pump sewage from Buffalo Bayou further downstream to a treatment area with subsequent return to the bayou. The building itself has been renovated for use by the University of Houston Downtown. There is now substantial wildlife and green space along Buffalo Bayou.

With contributions by Diana Bouchard, James Bouchard, Carrie Cecil, Bob Frame, Mary Habstritt, Patrick Harshbarger, Justin Kockritz, Bill McNiece, Steve Muller, and John Reap.



SIA members cruising the Houston Ship Channel.



The casting line at Flexicore of Texas.

CHAPTER NEWS

Northern New England Chapter held its spring tour on May 13 in Laconia and Guilford, N.H. The day started with a visit to Hebert Foundry & Machine Inc. After lunch, the group visited the Boulia-Gorrell Lumber Co. to see custom moldings being made on historic equipment. The tour continued with a visit to Belknap Mill and the Power House Museum inside the mill. The visit included presentations by Warren Huse on the power generation dam in the Winnepesaukee River; Stewart Ramsay on the intricate knitting machines that were required to produce hosiery (some of them invented in Laconia); and Armand Maheux, who was a “turner boy” at the Belknap Mill 65 or 70 years ago. Warren Huse gave a second presentation, on the Laconia Car Co. It took up seven acres of land and employed up to 1,500 people producing top-quality passenger rail cars and street cars. Quite a contrast from hosiery to train cars in one small town. The day ended with a visit to Fay’s Boat Yard in Guilford to inspect Jeffrey Fay’s collection of historic boat motors and engines, some designed and built in Laconia (Lakeport). Several have been exhumed from lake bottoms and restored.

The **Northern Ohio Chapter** (NOCSIA) spent June 15 in Bucyrus, a manufacturing center of 12,000 people in north-central Ohio. The chapter toured Bucyrus Copper Kettle Works, America’s only remaining producer of hand-hammered copper kettles and timpani drums. The company has operated in the same location and with much of the same technology for more than 140 years, and ships to customers around the world. NOCSIA saw sauces and preserves being cooked and bottled by food company Cooper’s Mill, which uses Bucyrus-made copper kettles to slow-cook apple butter. Participants also saw sausage being made at Carle’s Bratwurst, Bucyrus’ last operating sausage factory, retailer, and restaurant. NOCSIA learned the intricacies of road maintenance and snow removal at the new Crawford County Garage of the Ohio DOT and finally wandered around Hank’s Garage, home of the world’s largest collection of functioning and completely original Edsel cars—a brand with only two complete model years, 1958 and ’59.—Ron Petrie



NOCSIA members blend into a trompe l’oeil mural by Eric Grohe, depicting Bucyrus, Ohio in the early 20th c.

The **Oliver Evans Chapter** (Greater Philadelphia) had a guided tour of the Philly Shipyard at the former Philadelphia Naval Shipyard (tour site – SIA Annual Conference 1990 and 2007) on July 14. The U.S. Navy ceased activities here in the 1990s, and the City of Philadelphia, which became the new owner, has worked to adapt the shipyard’s buildings and infrastructure to a variety of governmental, commercial, and residential functions. The south end of the shipyard campus, which included two Navy dry docks, was taken over by Kvaerner, a Norway-based engineering company, in 1997. In 2005, Aker, another Norwegian engineering company, took control of Kvaerner and the facility became the Aker Philadelphia Shipyard. In 2015 Aker officially renamed it the Philly Shipyard.



Oliver Evans Chapter Group Photo, Philly Shipyard.

Michael Lagrassa, Outfitting Production Design Manager, gave a slide-illustrated introduction to the shipyard’s operations. Philly Shipyard builds commercial tankers and container cargo ships exclusively for the U.S. market. The shipyard is protected from foreign competition by the Jones Act of 1920, which requires that U.S.-constructed and flagged ships carry all goods transported between U.S. ports. Many of the Philly Shipyard’s 27 ships built since 1997 serve West Coast, Hawaii, or Puerto Rico ports. Our walking tour included the indoor fabrication lines where the various steel panels are cut, welded and curved into hull and deck sections, and then assembled into “grand blocks,” the massive sub-assemblies that are joined and outfitted within the dry docks. The shipyard averages about three new ships per year. Lagrassa indicated that the Philly Shipyard, while making use of the Navy’s dry docks, retained little else left by the Navy. The shipyard’s plan and its ships’ design is largely

modeled after those of Hyundai Heavy Industries of South Korea, a partner in Philly Shipyard.—Patrick Harshbarger

Roebling Chapter (Greater N.Y.-N.J.) has kept a busy schedule of tours this spring and summer. The chapter visited Split Rock, Morris County's only surviving iron furnace, with a tour led by Joe Macasek and Bierce Riley [both SIA] (Apr. 22); and toured the Fireboat *John J. Harvey* and USCGC SS *Lilac* in New York Harbor (Apr. 29), with help from Huntley Gill and Mary Habstritt [both SIA] to organize this event. The group traveled on the *John J. Harvey* to meet with and transfer to *Lilac*, where they enjoyed a tour and presentation. The chapter toured the Gowanus Canal (May 8) on a custom walk for the RCSIA, focusing on the industrial history of the canal; Fort Hancock (May 13), led by Joe Macasek and Bierce Riley; the former 60th Street Yard of the New York Central RR, now transformed into Riverside Park South (May 14), led by Tom Flagg [SIA]; Mt. Hope Mines & Mineral Railroad (May 27) and Moses Hopping's Forge (June 10), both led by Joe Macasek and Bierce Riley; and a walking tour of Industrial Long Island City (June 17) led by Jim Mackin [SIA].

Southern New England Chapter. On May 20, chapter members met in Quincy, Mass. for a tour of Quincy Quarries, Lyons Turning Mill, and the Granite Railway Incline. The Quincy Quarry & Granite Workers Museum hosted the event and provided an interpretive display and discussion with photos, tools, and other artifacts related to the history of the quarries and railway.

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

IA ON THE WEB

Sanborn Fire Insurance Maps (<https://www.loc.gov/collections/sanborn-maps/>). The Library of Congress has placed online thousands of Sanborn Fire Insurance Maps, which depict the structure and use of buildings in U.S. cities and towns. To date, the online collection features maps published prior to 1900. Maps will be added monthly until 2020, at which time it is expected that all U.S. states will be online, showing maps from the late 1880s through the early 1960s. Sanborn maps depict more than 12,000 American towns and cities, showing the size, shape, and construction materials of dwellings, commercial buildings, factories, and other structures. They indicate the names and width of streets, and show property boundaries and how individual buildings were used. House and block numbers are identified. They also show the location of water mains, fire alarm boxes, and fire hydrants.

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

NOTES & QUERIES

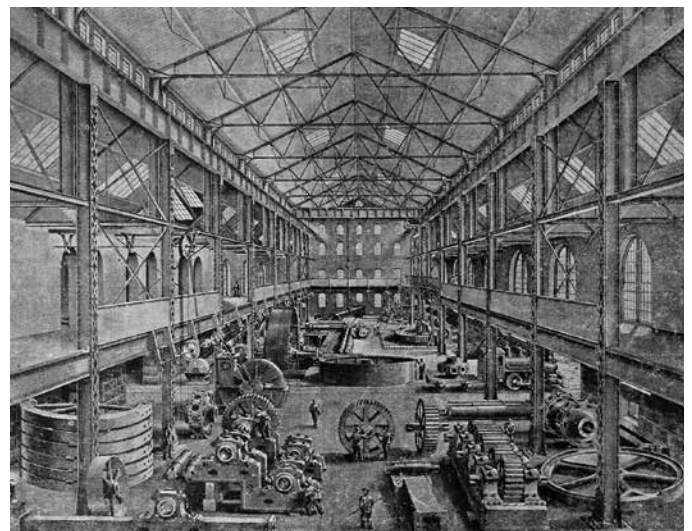
Erecting Shop at Poole & Hunt, Baltimore, Md.—A Query In Feb. 1893, *The American Engineer and Railroad Journal* (AERJ) published a lengthy article about the ironworks of the Robert Poole & Son Co. in Baltimore (<https://archive.org/stream/americanengineer67newy#page/94/mode/2up/search/Robert+Poole>). An illustration in this article shows the interior of a new erecting shop, constructed in 1890. We are looking for help in identifying the machinery and equipment inside this shop.

For more than forty years, the firm (formerly Poole & Hunt) had provided machine tools, power equipment, and heavy ironwork to factories, railroads, and the U.S. government. They are best known for casting the columns for the U.S. Capitol expansion in the 1850s. The Lincoln Memorial sits on soil that was sucked from the bottom of the Potomac River by their hydraulic pumps. Their bread and butter, however, was enormous gearing, line shafts, hangers, and other appurtenances required for both water and steam power.

The article in AERJ shows a large illustration of the 1890 erecting shop, along with a description of the machinery. Unfortunately, it is not entirely clear which phrase in the text matches what parts of the illustration. The “combined pit and chuck lathe, which has a capacity for turning an object 54 ft. in diameter and 12 ft. face,” for example, does not seem to be “on the right side of the engraving,” as claimed in the text. The only item that is entirely evident is the overhead traveling crane.

In a forthcoming biography of Robert Poole, author Steven Swett would like to be able to identify and label the machinery in this illustration. If any SIA members would be interested in trying to unravel this puzzle, we would be grateful to hear from you. Please contact me at csb@carrie-brown.com.

—Carrie Brown, Ph.D. ■



Erecting shop illustration in AERJ discussed in the query. AERJ (Feb. 1893), p. 94

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

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CALENDAR

2017

Sept. 14–17: SIA FALL TOUR, NASHVILLE, TENN.
See article in this issue. Registration materials were sent out in early August. Info: <http://www.sia-web.org>.

Sept. 24–28: World Canals Conference, Syracuse, N.Y.
Info: <http://wcc2017syracuse.com/>.

Oct. 4–7: Society for Commercial Archeology Conference, Cincinnati, Ohio. Info: www.sca-roadside.org.

Oct. 11–14: Assn. for Preservation Technology International Annual Conference, Ottawa, Ont. Info: www.apti.org.

Oct. 11–14: Society for the Preservation of Old Mills (SPOOM) Annual Conference, York County, Pa. Info: www.spoom.org.

Oct. 21: GREAT FALLS SYMPOSIUM ON THE IA OF THE NEW YORK-NEW JERSEY AREA, PATERSON, N.J. 37th annual event held by the SIA Roebling Chapter. Info: <http://roebblingsia.org/symposia.html>.

Oct. 26–29: Society for the History of Technology (SHOT) Annual Meeting, Philadelphia, Pa. Info: www.historyoftechnology.org.

Dec. 11–15: ICOMOS General Assembly and Scientific Symposium, “Heritage & Democracy,” Delhi, India. Info: <http://icomosga2017.org/home-page/>.

2018

May 30–June 3: SIA 47th ANNUAL CONFERENCE, RICHMOND, VA. (Note date change.) Info: www.sia-web.org.

June 7–10: Mining History Assn. Annual Conference, Deadwood, S.D. Info: www.mininghistoryassociation.org.

July 9–13: 6th International Congress on Construction History, Brussels, Belgium. Info: <http://6icch.org>.

Sept. 13–15: XVII TICCIH Congress, Santiago, Chile. TICCIH's first in Latin America. Info: www.ticcih.org. ■