

JEFFERSON EDUCATIONAL SOCIETY

Quick, Timely Reads On the Waterfront

Welding: *Neighborhood Alchemy, Bayfront Development, and Soccer*

By David Frew
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Dr. David Frew, a prolific writer, author, and speaker grew up on Erie's lower west side as a proud "Bay Rat," joining neighborhood kids playing and marauding along the west bayfront. He has written for years about his beloved Presque Isle and his adventures on the Great Lakes. In this series, the JES Scholar-in-Residence takes note of life in and around the water.



It is an odd testament to the Industrial nature of the 1950s bayfront, and its once negative image, that the most spectacular views of Presque Isle Bay could be seen from Norb's welding shop. The view has not changed but both Norbert Santos and his nephew, Norbert Lopez, who took over the business, are both gone. Meanwhile, their building sits vacant and for sale on a quickly gentrifying strip of suddenly desirable land on top of the bluffs and overlooking the water. These days the panorama from Norb's includes high-end condominiums, marinas, parks, and yacht clubs, but during the 1950s it was coal docks, cement mixers, sand piles,

debris, and rust.

Norb's former Front Street neighborhood is changing. Thirty years ago, people began fixing up existing homes, building new houses and apartments, and steadily shifting the aesthetics of Erie's northwest corner. At the time they were seen to be taking a big risk in a transitional neighborhood. But it was a risk that has proven to be brilliant. There is a brand-new condo-apartment building under construction at the west end of Norb's Front Street block, which will almost complete the slow transition. And the old welding business building currently stands empty and "for sale." Its eventual transformation will be one of the last steps in a complete metamorphosis. Front Street is destined to look more like a new and desirable place than could have been imagined during the 1950s.



Gentrification began with the restoration of turn-of-the-century homes, which sometimes included the construction of new water-view buildings on the back ends of lots that stretched between West Second and Front streets.



Changes continued as new and old construction were blended to have the same look. These old and new buildings stretch between West Second Street and the bayfront bluffs.



The final vacant bayfront lot is now a construction site where a huge new multi-unit building is taking shape.

It is not surprising that welding became an important driver of the 1950s economy. The “Fresh Water Fishing Capital of the World” evolved in the center of Lake Erie shortly after fish tugs were designed to go offshore and set nets. As fish tugs changed one of the most significant design evolutions, a transition from wood to steel took place. During the early 1900s, wooden tugs gradually became welded steel tugs, a technology that was (arguably) created either in Erie or just across the lake at Port Dover. The first steel fishing boats were “composites.” Steel was used to clad old-style wooden frameworks with ribs and bulkheads.



John C. Lincoln
Co-Founder & Chairman 1895 to 1929

Cleveland entrepreneur John Lincoln founded the Lincoln Electric Company in 1895.

There are several versions of how early boat builders concluded that they should abandon old-style wooden frameworks and change to welding, but by the 1930s continuous-seam welding had become the most common fish-tug construction method. Regardless of the builder or version of the story, Lincoln Electric in

nearby Cleveland, Ohio was at the root. Lincoln Electric (electric welding) evolved into a welding technology and supply company within a few years of its 1895 founding and, by the glory days of Lake Erie fishing, its salesmen were working both Erie and Port Dover (as well as other fishing ports), encouraging boat builders to use their supplies and equipment. Lincoln, which later launched a proprietary welding school at its Cleveland location, argued that welding was stronger than any other form of metal connection (including riveting) and that a continuously welded seam was the most efficient way to couple sheets of metal. Any holes, such as screw or rivet openings, were weak points that would eventually degrade and leak.

Welding was a “natural” in Erie where machining, engine building and other industrial technologies had emerged in response to commercial fishing as well as the discovery of petroleum southeast of the city in Titusville, Pennsylvania. Machined and welded parts were the lifeblood of both industries (fish tug building and petroleum drilling-pumping), and dozens of local shops emerged to provide the parts. By the early 1920s, Erie had earned the reputation for being the boiler-making and pipefitting capital of the world, trades that depend heavily upon welding technology.

In Erie’s northwest bayfront neighborhoods, welding was a way of life. From the activities on the Cascade Docks to the everyday construction and repair that took place in small neighborhood shops, the sights and sounds of men in welding helmets, putting bits of metal together, was not uncommon. Given the number of locals who had somehow learned the skill, big companies such as General Electric were attracted. There was a vast potential labor force, already proficient in the new art that seemed so magical. Two pieces of metal, previously separated, could be joined and become stronger than before. And for those with a combination of equipment and skill, the resultant joinery could be artistic.

Norb Santos was one of those artists and, like several of his colleagues in North American cities, he developed a specialty in “ornamental welding.” Beginning in 1946 when he opened his business, Norb created beautiful gates, fences, and decorative iron pieces. Most commonly, iron railings. His creations, mostly completed in the 1950s and 1960s, still grace Erie homes. Unlike the flimsy big-box store railings and gates that people buy and install themselves, his creations were “built to last.”



One of the creations by Charleston, South Carolina iron artist Philip Simmons currently graces a lovely downtown alleyway. In Charleston and other cities ornamental iron is an art form.

When we moved to Erie in 1970, our new home had one glaring weakness: no front-step railings. One of my first home improvements was a set of black railings purchased from Norb Santos. Why would I, a notoriously thrifty person who was pinching pennies at the time, have purchased from Norb? As kids we wandered by Norb's Welding hundreds of times. Sometimes we stood in awe, watching him create. The buzzing of the electric arc in combination with clouds of sparks that floated above him as he welded seemed like alchemy. And Norb, the magic man, was always kind to us. Instead of being bothered or annoyed by us kids he would interrupt his work to show us what he was doing and talk about welding, especially during the summer when his garage door was open and he was working outside.

Unknown to many, Norb was also one of the region's most talented soccer players. He competed on several regional amateur teams in both Pennsylvania and Ohio over the years and continued playing and scoring (he was a forward) well into his late 50s. His Portuguese identity connected him to a sport that was little known to Americans during the 1950s. But he always had a soccer ball at his shop and in the summer, he could be seen doing amazing feats of dribbling and juggling during his breaks. He often teased the neighborhood kids by kicking his ball to them and laughing when they were unable to control it.

Once when I had foolishly broken my bicycle by snapping the frame, I pushed it to his place and asked if he might be able to repair it. "Of course," he answered, "I can make it better than new." I had expected to leave the bike there for as long as it would take Norb to get around to it, and worried that he might say no. But Norb had a different idea. Immediately positioning the broken frame in a fixture, he put his helmet on and quickly welded the separated ends together. It all happened so fast that I could barely believe it. "Almost done," Norb said when he had completed the weld. Then he picked up a piece of sandpaper and smoothed the new weld, after which he found a small can of paint and touched up the repair. It was almost invisible.

The best was yet to come. After he returned the bike, I asked how much I owed. He, in turn, asked how much cash I had. Rummaging through pockets, I found a few coins. Less than a dollar. Norb reached into my open hand, took out a quarter and said, “That will do.”

In 1970, when I drove to his shop to order the needed railings for our new home, Norb commented that I looked familiar. I reminded him of his former kindness and told him to install whatever railing he thought that I needed. I trusted him with the details. A few days later he was there, completing the work. Beautifully.



My 1970 “Norb’s Welding” railings are still like new after 51 years.



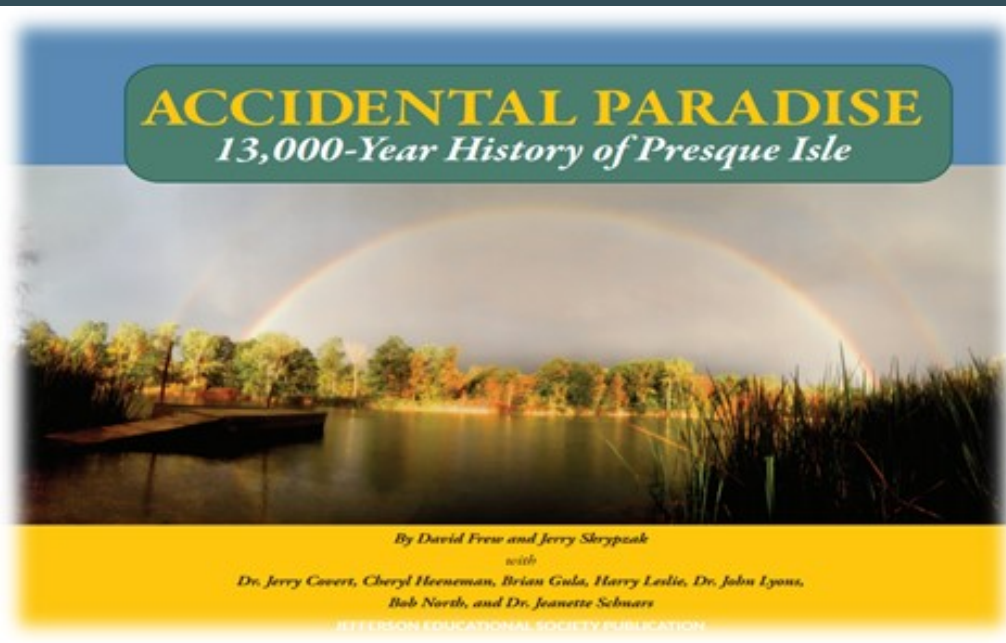
Erie’s long-lasting monument to continuous-seam welding is on display during the summer at Misery Bay in the form of Lady Kate, a Nolan creation, welded in Erie during the 1950s and still working.

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Accidental Paradise
by Dr. David Frew and Jerry Skrypzak



The beautiful book on Presque Isle published by authors David Frew and Jerry Skrypzak – “**Accidental Paradise: 13,000-Year History of Presque Isle**” – is on sale at the Tom Ridge Environmental Center’s gift shop and through a special website, AccidentalParadise.com.

The book, priced at **\$35 plus tax and shipping**, can be ordered now through the website sponsored by the TREC Foundation, AccidentalParadise.com.

Presque Isle Gallery and Gifts on the main floor of TREC, located at **301 Peninsula Drive, Suite #2, Erie, PA 16505** will also handle sales *daily from 10 a.m. to 4 p.m.*

For more information, send an email to aperino@TREC.org.

To watch "Accidental Paradise: Stories Behind The Stories" click [here](#).

ABOUT THE AUTHOR

Historian and author David Frew, Ph.D., is a Scholar-in-Residence at the JES. An emeritus professor at Gannon University, he held a variety of administrative positions during a 33-year career. He is also emeritus director of the Erie County Historical Society/Hagen History Center and is president of his own management consulting business. Frew has written or co-written 35 books and more than 100 articles, cases, and papers.



In Case You Missed It

[Book Notes #81: Comically A-Caroling We Will Go!](#) written by Jefferson Scholar-in-Residence Dr. Andrew Roth

[Erie Was Once Freshwater Fishing Capital of the World](#) written by Jefferson Scholar-in-Residence Dr. David Frew

[How to Put Equitable Development to Work for Erie, Pennsylvania](#) written by Sustainable Solutions Consultant Court Gould, MPA



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