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American Heritage of Invention & Technology magazine

Don't lower the river, raise the bridge...by Frederic D. Schwarz

ZOARVILLE, OHIO: The news that America's last surviving Fink through-truss bridge is in danger has failed, thus far, to electrify the preservationist community. Unlike in 1830, when a plan to scuttle the USS Constitution inspired the young Oliver Wendell Holmes's first widely noticed poem, or in 1947, when San Franciscans voted by a lopsided margin to keep their beloved cable cars, or in 1962, when the impending demolition of Pennsylvania Station mobilized New Yorkers by the thousand (for all the good it did), few Americans have been stirred to save the 108-foot Zoarville Station Bridge.

Yet while the bridge may be less picturesque than these other examples of engineering art, it and hundreds of spans like it played an indispensable role in the spread of railroads across the continent. As Eric DeLony wrote in our Fall 1994 issue, "Of all the basic American bridge types...the rarest and least appreciated is the cast and wrought-iron truss. Yet in some ways it is the most technologically significant."

Instead of being supported with an arch or cables, a truss bridge

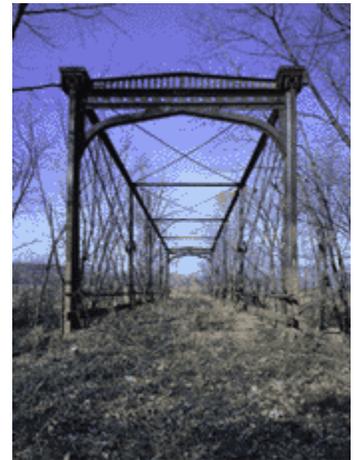
See "Don't lower the river"...page 3.

'98 Pig Gig Weekend - Lots of sun, delicious food and mosquitos

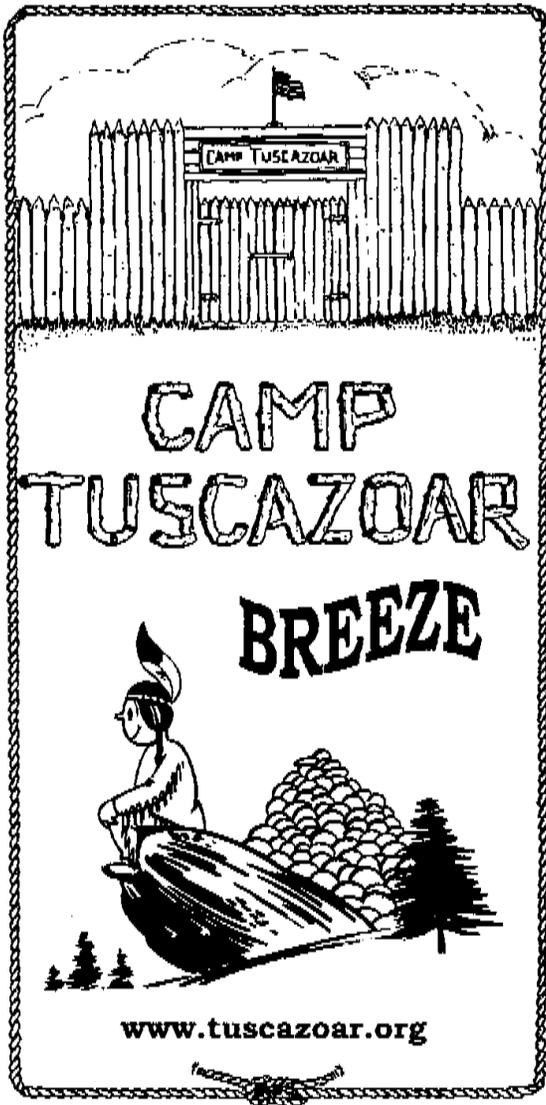
Oh, what a beautiful weekend. Sunny and warm...with the sweet aroma of roasting meat wafting through camp! Many thanks to all the volunteers who pitched in and helped prepare our facilities ahead of time. And more thanks to those who spent days and nights at camp roasting the pigs and preparing the feast. It was scrumptious!

On Saturday, campers enjoyed frisbee golf, a pumpkin carving contest, a hike to the Zoarite Iron Mines and a volleyball tournament. In central camp, Niles Keeran had visitors gathering rocks from the surrounding trails for short lessons in local geology. We didn't invite the "skeeters", but they were there anyway! Ouch, slap, itch.

See "'Pig Gig Weekend"...page 2.



Cheap, sturdy Fink trusses helped America's railroads span rivers, creeks, and gorges as they pushed westward. They were built by the score; now only one remains.



Foundation grew under Ted Novak's leadership

Ted Novak has stepped aside as president of the Camp Tuscazoar Foundation after 5 years of service. Ted's efforts kept the Foundation on course after the sudden passing of Dick Schoenbaum in 1993. Under Ted's leadership, the Foundation hosted numerous events, improved its financial stability, acquired the Zoarville Station Bridge and adjacent property, repaired many camp buildings, constructed the W. C. Moorhead Museum, successfully concluded its legal challenges and launched a website. "Looking back over the past five years, I am proud of our accomplishments and growth," Ted said. "I am deeply grateful to our dedicated, hard working Board of Trustees and other volunteers who continue to give so generously of their time and talents to a camp we all love." Thank you, Ted.

Tuscazoar events, programs and activities

For reservations or additional information, contact Camp Tuscazoar at 330-859-2288

Gold Rush XI - Feb. 12-14

Winter event will feature Native American games

Camp Tuscazoar's annual Gold Rush campout, scheduled for Feb. 12-14, will feature more than the usual frosty air and warm campfires. This year, Native American games will be part of Saturday's competition.

As always, Camp Tuscazoar will be transformed into the Yukon of the late "1800's, with competing patrols traveling from "city" to "city", performing outdoor-related tasks and earning points. Competing units will be judged on their ability to complete these tasks, along with their leadership, teamwork and spirit.

Competing units will need to bring a "coup" stick and 6 feet of twine to aid their efforts. Sleds are optional. Please prepare properly for the winter weather.

The schedule will also include a leader's crackerbarrel Friday night, an evening campfire at the dining hall Saturday evening, and a Sunday church service in Tom's Chapel.

Units need not camp to compete, but must register in advance. The \$6 per person fee includes a hot lunch on Saturday and a commemorative patch. Camping fees are additional.

Tuscazoar events scheduled for 1999, 2000

The Camp Tuscazoar Foundation has announced its schedule of events for the next two years. Make your plans now to attend these activities:

1999

| | |
|----------------------|-------------|
| Gold Rush Weekend | Feb. 12-14 |
| Dover Dam Weekend | May 7-9 |
| Reunion & Open House | Aug. 22 |
| Pig Gig Weekend | Sept. 17-19 |
| Pig Roast Fundraiser | Sept. 19 |
| Enchanted Tuscazoar | Oct. 9-10 |

2000 (tentative dates)

| | |
|----------------------|-------------|
| Gold Rush Weekend | Feb. 11-13 |
| Dover Dam Weekend | May 5-7 |
| Pig Gig Weekend | Sept. 15-17 |
| Pig Roast Fundraiser | Sept. 17 |



Hungry folks just kept coming and coming. More than 500 meals were served during the weekend activities.

"Pig Gig Weekend"from Page 1

A late summer afternoon made the wait for dinner not too tough to handle. Hungry campers lined the walkway to Kimble Hall, all of them soon to be stuffed with hearty chow.

Later that evening Dale Tschantz, Tom Duplain and Larry Groves emceed the campfire at the amphitheater. That "Baby Shark" cheer was great, Tom! A special guest, Dan Fladung, a Native American performer, put on a marvelously captivating show. With his authentic trappings and instruments he enthralled the crowd and taught us a little about Indian culture and tribal ways. Thanks Dan. Come back and see us.

The weekend gave us an opportunity to try out the latest addition to our facilities... the newly completed roaster shelter. Thanks to Dick Matheny's careful design and supervision this open shelter gives us a whole new outdoor kitchen area. With permanent roasters and a brick charcoal pit we really are prepared to do the food up right! And it works great! Thanks Dick. We love it!!



Dan Fladung's show really was terrific.



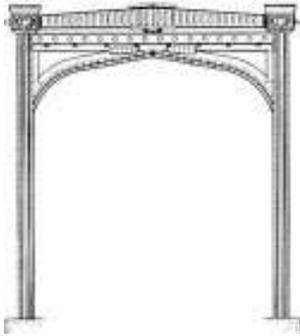
Dana Powers checks on "li'l Porky."

Special thanks to those who came to Camp Tuscazoar and camped... or just came and ate. We loved having you and appreciate your involvement with our camp. The whole weekend was a very special event and everyone had a great time.

On Sunday we did the meal all over again for our public fundraiser. Man, what a job! But we love it and we sure fed some folks!! Thanks to all for such strong support. Camp Tuscazoar lives and thrives with the strength of our volunteers and the people who come to camp and use it as it always was meant to be used.

We will "Keep the Spirit Burning" and we'll do it with pride and care. (And if we can do it with full bellies, we'll do that too.)

ZOARVILLE STATION BRIDGE



Steel removed from Zoarville Station Bridge

Rusted, non-period steel support beams have been removed from the Zoarville Station (Fink Truss) Bridge to alleviate weight.

The Foundation has also secured sandstone blocks for use in raising the bridge abutments. Efforts are underway to move this sandstone to the bridge's location.

An informative article on the bridge was published in the Fall, 1998 issue of *American Heritage of Invention & Technology* magazine. The article is reprinted in this issue of the *Breeze*.

A tentative timeline for the bridge project:

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|--------------------|--------------|
| Bridge removal | Spring, 1999 |
| Abutments raised | Summer, 1999 |
| Bridge re-erection | Spring, 2000 |
| Dedication | Summer, 2000 |

'98 projects completed

A variety of work projects were completed at camp this year. They include:

Hoover Lodge - Pipestone plaque installed and furnace relocated

Stockade - reconstruction underway

Shower House - New wiring, plumbing and sink installed. Water fountain operational

Keppler Lodge - New electric service line, interior wiring and service box.

Woodburner replaced. Latrine wired.

Dining Hall - New roasting shelter, with barbecue pit and lights. New propane line installed.

Duryee Lodge - New lower level windows

Eagle Projects - New Pioneer Point trail. Icky's Trail relocated and marked.

"Don't lower the river"from Page 1

is held up with a latticework of rods that reinforce its stiffness. A through truss is one that sticks up above the roadway, so that travelers go through it when crossing the bridge. The type of truss found in the Zoarville bridge was originated by Albert Fink, a German immigrant who was one of the most respected railroad engineers of his generation. His truss, patented in 1850, was one of the first intended to be built from iron instead of wood.

The bridge itself was designed by Charles Shaler Smith and built in 1868 by his firm, Smith, Latrobe & Company, of Baltimore. Of particular interest are the vertical compression members, which are hollow wrought-iron tubes called Phoenix columns. The distinctive columns - made by bolting together several curved pieces, each one making up part of the circular cross-section—were a specialty of Smith, Latrobe & Company. The design yielded a strong and sturdy member with much lower weight than cast iron, which had been the traditional material for columns. The higher price of wrought iron was not a problem since the design used so little material.

The Zoarville bridge was originally erected as one-third of a three-span bridge at the nearby town of Dover. Like most truss bridges, it became obsolete as locomotives got heavier, but unlike most truss bridges, it was not simply scrapped. In 1905 it was moved to its present location spanning One Leg Creek (now Conotton Creek) on a highway that was abandoned in the 1940s. Two years ago, with the bridge in critical condition due to recurrent flooding from a dam downstream, rescue efforts became urgent. In July 1997 it was sold for one dollar to the Camp Tuscazoar Foundation (CTF), which runs a nearby camp used by youth and religious groups. The foundation assumed chief responsibility for salvaging the structure.

In October 1997 a volunteer group of local engineers devised a plan to remove the bridge from its abutments and repair the damage resulting from decades of neglect. While the bridge is being fixed, the sandstone abutments will be raised 12 feet to ease the threat from flooding, a project that will require 14,000 cubic yards of fill. With the abutments raised, the repaired bridge will be put back in place. As a first step to reduce the load on the truss, the deck has been removed, as have some non-structural parts, such as stringers, guardrails, and piping. DeLony, who is chief of the National Park Service's Historic American Engineering Record, calls the hybrid Fink truss at Zoarville "extraordinary" and "a major piece of bridge construction." While he is encouraged by the progress made so far, he says the biggest worry is the possible failure of one of the vertical members. Since the structure, like all pin-connected trusses (as opposed to riveted ones), is non-redundant, removing one post could cause the whole bridge to collapse into the creek.

As of early summer, the CTF had raised enough money to remove the excess steel, develop a restoration plan, and buy new decking material and sandstone. It is looking for funds to pay for the rest of the project. The CTF's Web site (www.tuscazoar.org/ZSBUpdate.htm) has updates on preservation and fundraising as well as photographs and technical drawings. Unlike many of the relics mentioned at the beginning of this section, the Zoarville Station Bridge will probably never become a tourist attraction. Yet its very ordinariness and remote location make it a tangible reminder of how technological innovation was involved at every step of the way in America's expansion across the continent.

Trustees and officers elected for '98-'99

The Camp Tuscazoar Foundation elected four trustees at its annual meeting in October. Eric Schoenbaum was elected to a second four-year term. Dan Cheezan, Shawn Selby and Barb Watson will be joining the board for the first time, each serving a four-year term.

In November, the board elected officers.

Those elected were:

Don Selby - President

Bob Spencer - Vice President

Dana Powers - Treasurer

Eric Schoenbaum - Secretary

Congratulations to those elected. Another great year is underway.

Coming Events:

| | |
|------------|-------------------|
| Dec. 6 | CTF Board Meeting |
| Dec. 12 | Camp Workday |
| Jan. 10 | CTF Board Meeting |
| Jan. 16 | Camp Workday |
| Feb. 6 | Camp Workday |
| Feb. 7 | CTF Board Meeting |
| Feb. 12-14 | Gold Rush XI |
| March 7 | CTF Board Meeting |
| March 13 | Camp Workday |

Camp Tuscazoar "Breeze"
is published by the
Camp Tuscazoar Foundation, Inc.
P.O. Box 308
Zoarville, OH 44656-0308
<http://www.tuscazoar.org>



The new roasting shelter (above) was completed for the Pig Roast. Those who constructed the shelter included (l. to r.) Bob Spencer, Dana Powers, Jay Ohliger, Mike Snyder, Dick Matheny and Don Selby (behind the camera).



Reunion reunites many with the hills of Camp Tuscazoar

In August, more than 120 visitors attended Camp Tuscazoar's first reunion. Many had not visited Tuscazoar since camping as young Scouts. Others toured the camp as a possible camping site for their youth organizations. Several guests brought memorabilia for donation to the W. C. Moorhead Museum, and a number chose to become members of the Foundation.

Despite a sudden thunderstorm, all enjoyed their day in camp. A second reunion is scheduled for next year.

Several members of the Foundation also reinstalled a brass plaque in Hoover Lodge to mark the location of the first Pipestone ceremony.



Don Selby works to install the brass plaque while members and guests pause for a photograph.