

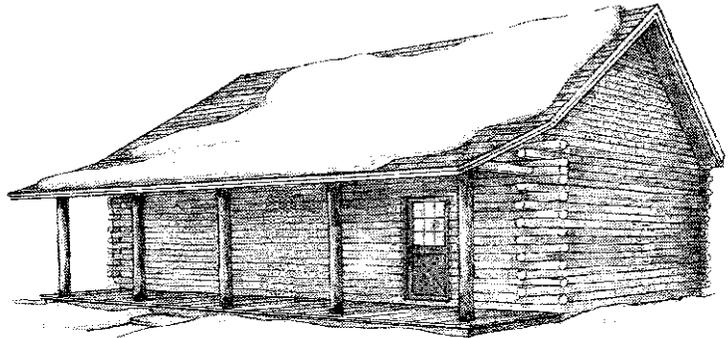
## Items of Interest:

Troop 20 successfully defended its title at the **Great Tuscazoar Cook-Off**, winning for the second straight year. Cy Laughlin won the adult category. Our congratulations to these winners and thanks to all the cooks who prepared dishes for this event.

The Foundation will soon turn its attention to rebuilding **Dan Beard Lodge**. The original cabin was badly deteriorated and had to be razed in 1990. A committee has been established to solicit donations of materials and funds, and architectural drawings are complete. If you can assist, please write to the Foundation or call the camp at 330-859-2288.

A brochure highlighting points of interest along the **Zoar Valley Trail** has been prepared. The Foundation recently assumed operations for this historic trail. Copies of the brochure are available in Duryee Lodge.

## Museum's grand opening set for Sunday, Aug. 25



**W. C. Moorhead Scouting Museum**

The Camp Tuscazoar Foundation cordially invites you to the grand opening of the W. C. Moorhead Museum on Sunday, August 25. This special ceremony will fulfill William C. "Cece" Moorhead's dream of a permanent scouting museum at Tuscazoar.

The formal program will begin at 2 p.m., and will include brief comments from area dignitaries, a ribbon-cutting ceremony and a few surprises. Guests are urged to bring lawn chairs for seating.

"The museum's completion is a dream come true for Cece Moorhead and all those who have camped at Tuscazoar," said Ted Novak, president of the Camp Tuscazoar Foundation.

Since 1920, scouts and other youth groups have hiked and camped at Tuscazoar. The camp's growth closely paralleled the growth of area scouting. The museum will contain memorabilia dating from scouting's earliest days in this region to the present.

Cece Moorhead served on the Camp Tuscazoar staff from 1927 to 1946, was the camp's first ranger from 1929 to 1938 and was camp director from 1938 to 1945. He retired from his professional scouting career in 1970, but remained active in scouting. He was elected a trustee with the Foundation in 1992, and was named the organization's first trustee emeritus in 1993.

Prior to his passing in 1993, Cece established a trust fund to help construct a scouting museum at Camp Tuscazoar. The Foundation used these funds to begin construction.

The 24' x 32' log cabin, located just north of the parking lot, will house the museum and trading post. The cabin will also serve as a check-in point on special event weekends.

The Foundation continues to solicit memorabilia for the museum. Artifacts, photos, patches, neckerchiefs and other items can be donated for permanent display or loaned for temporary display.

Much work will be required in the next two months to prepare the museum for opening. Painting, carpentry work and carpeting are just a few of these tasks. Assistance is also needed to catalogue donations, and to staff the museum during open hours. Please set aside a few hours on Saturdays to lend a hand.



*Cecil Moorhead*

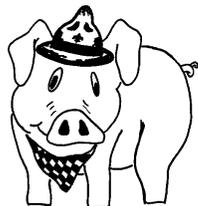
# Tuscazoar events, programs and activities

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

## Pig Event Preview

### Pig Roast to be held Sept. 15 at Kimble Hall

Roast pork and barbecued chicken; baked potatoes; beans; applesauce; rolls and delicious homemade desserts; a meal fit for a king will be served at Camp Tuscazoar's Pig



Roast fund-raiser, scheduled for Sept. 15 at the camp dining hall, Kimble Hall.

As always, the public is invited to this popular event, which will run from 3 to 6:30 p.m. A live band will perform as well.

Presale tickets are \$8 for adults and \$4 for children. Tickets at the door are \$10 for adults and \$5 for children. Transportation will be provided to and from the parking lot.

Tickets may be purchased from Foundation members and trustees. Come down to our camp once again, enjoy the changing seasons and help support the Camp Tuscazoar Foundation.

Pig Roast proceeds are instrumental in helping maintain and improve the camp through the year. And the food is fantastic!

### Pig Gig offers "Olympic" competition, Sept. 13-15

The spirit of the 1996 Summer Olympic Games will fill Camp Tuscazoar at the Pig Gig Weekend, Sept. 13-15. The weekend will include a host of competitive events, as patrols battle for the gold. The events will include a marathon hike to Troop 1 Cabin at the south end of camp. Patrols will be divided into three categories, based on average age.

After Saturday's competition, campers will feast on roast pork, potatoes, applesauce, bread and butter, dessert and a beverage. A campfire in the Hoover Lodge amphitheater will conclude the day's events.

Campsites and cabins are still available. The cost for all activities, including Saturday dinner, is \$5 per person. Camping fees are additional.

## HELP SUPPORT CAMP TUSCAZOAR

### *Ohio's Most Historic Camp*

Camp Tuscazoar represents more than 75 years of history and tradition. Since 1920, thousands of area youth have camped in Tuscazoar's natural environment. The camp is unique, with its deep valleys, challenging hills, unspoiled forests and spectacular views of Dover Dam and the Tuscarawas River valley. Camp Tuscazoar offers:

Majestic Hills	Uninhibited Nature
Unique Plantlife and Wildlife	Hiking
Sanctity of Tom's Memorial Chapel	Camping
Only Remaining Zoarite Mines	Rugged Terrain
Zoar Valley Trail	Flowing Brooks
Pioneer History	Wildlife Preserve
Ties With Schoenbrunn & Fort Laurens	Cabins
Birthplace of the Pipestone Ceremony	Adirondacks
Historic Stagecoach Route	Indian Lore

The Camp Tuscazoar Foundation is dedicated to preserving these opportunities for future generations of youth. The CTF is an Ohio nonprofit corporation founded in 1986 to purchase, maintain and perpetuate Camp Tuscazoar for use by scouts and other youth organizations. The Foundation has secured a deed to 110 acres of the camp property and is now raising funds via tax-deductible contributions to purchase the remaining portion. Funds are also needed for equipment, maintenance, repairs and reconstruction. Please consider becoming a member of the Foundation. Camp Tuscazoar needs your help!



*We will keep the spirit burning at Camp Tuscazoar.*

### Membership Application

Please accept my gift of \$\_\_\_\_\_ to support Camp Tuscazoar.

Name \_\_\_\_\_ Date \_\_\_\_\_

Street Address \_\_\_\_\_ ( ) Individual (\$10 or more)\*

City/State/Zip \_\_\_\_\_ ( ) Family (\$15 or more)\*

Signature \_\_\_\_\_ ( ) Lifetime (\$500 or more)\*

Phone \_\_\_\_\_ Please make check payable to:  
Camp Tuscazoar Foundation, Inc.

P.O. Box 308  
Zoarville, OH 44656-0308

\*The individual listed will be entitled to one (1) vote at the annual meeting.

# The Zoarite Iron Industry

Prepared by Chris D. Powell  
Zoar, Ohio

Freedom seeking German Separatists arrived in the Tuscarawas River Valley November 1817. Being a "refuge", their village was named Zoar after the Biblical town where Lot sought refuge from the wickedness of Sodom. For economic survival, the Separatists formed a "community of common goods" in 1819. Their communal society was called The Society of Separatists of Zoar.

Zoar lands possessed iron ore that, coupled with ready transportation offered by the canal, created business. Reportedly, one of their four canal boats was named "Economy" and was dedicated to hauling iron ore to blast furnaces up and down the canal. One such furnace was the Tuscarawas Steam Furnace built about 1828 by industrialists from Canton and located at the base of the hill in Zoarville along Boy Scout Road. Interestingly, this road was once the main route from Massillon to New Philadelphia.

Seeing an economic advantage and having community needs, the Zoarites started construction of their own "Zoar Furnace" in 1834. They then purchased the Tuscarawas Steam Furnace along with 1,716 acres of land in 1835 for \$20,000 and changed the name to Airfield Furnace. It is thought that they had been leasing the facility since 1831. The furnace stack was 29' square at the base, 19' square at the top and 27' high. It operated until about 1854 and was sold for scrap in 1864.

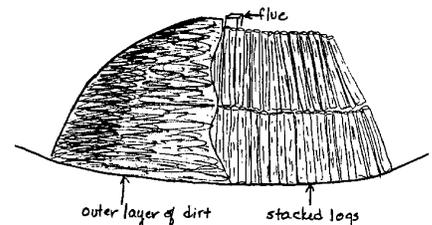
The making of pig iron from ore was their most ambitious industrial endeavor. At the peak, as many as 300 men worked as colliers (charcoal makers) in the mines at the two blast furnaces and foundries. These people worked by contract for the Zoarites and were paid with a combination of Society goods and cash. The goods generally were 1/2 to 3/4 of the total compensation.

The 1716 acres of purchased land essentially encompassed what is today Camp Tuscazoar and possessed all necessary ingredients for a successful iron making operation: Black Band and Kidney variety iron ore with 28% to 34t iron content; trees for charcoal; and limestone for flux. Again, the canal offered ready transport and ore continued to go to Massillon until 1881. There were four mines within the camp area, of which the one with a massive sandstone retaining wall is believed to be the oldest. This particular mine contained up to 8' thick stratum of Black Band ore. Black Band ore is black iron carbonate shale, whereas Kidney ore is a shell of red iron oxide surrounding a clay nodule core. Ore was hauled by wagon to the old stage coach road, then down to the furnace.

Nineteenth century blast furnaces (see sketch) were generally built at the bottom of a bank so that the "charges" of ore, limestone and charcoal could be loaded in layers from the top. The Airfield Furnace required 36 charges to produce 3 tons of iron per day. Furnaces ran 24 hours per day, 7 days a week and were only shut down for annual maintenance and liner

replacement. The blast of air produced by bellows entered the furnace through a "Tuyere". The Airfield Furnace was rather atypical for the time in that a steam engine was apparently used in lieu of water power, thus the name "Steam" furnace. This also allowed for conversion to a "hot blast" system where air was preheated by flue gas in a boiler-like box prior to entering the furnace. Hot blasting increased both furnace efficiency and productivity, and permitted coal to be used as fuel. It is not known if the Airfield Furnace made such a conversion, but coal was used after 1838 in addition to charcoal.

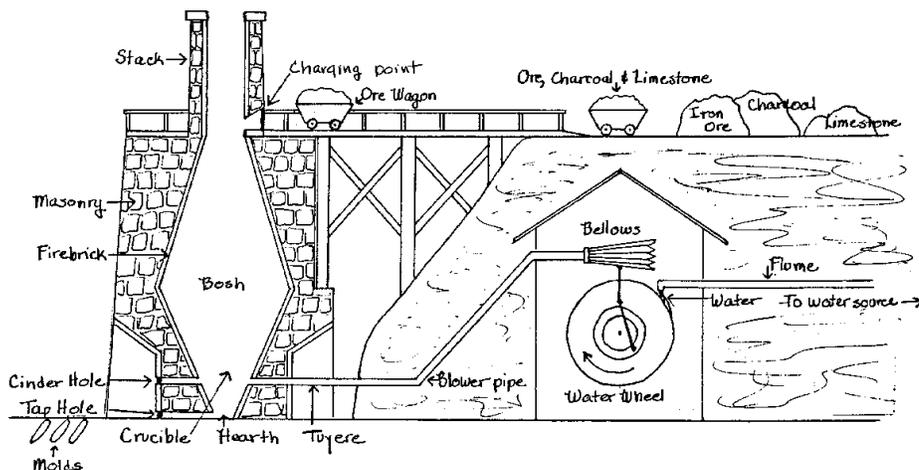
Charcoal Mound



Charcoal was made by stacking oak logs on end in a shallow pit, covering them with dirt, then setting them to "roast" for up to two weeks. Many of today's camp trails were originally roads for removing iron ore and charcoal to the furnace.

Iron ore is iron oxide ( $Fe_3O_4$  or  $Fe_2O_3$ ) or iron carbonate ( $FeCO_3$ ). The ore is converted to metallic "pig iron", not by melting but through a "reduction" process where oxygen is chemically removed. This is accomplished by burning charcoal at 3,000°F with a continuous blast of air to form carbon monoxide (CO) as a reducing agent for stripping away the unwanted oxygen. The normal product of open air combustion, carbon dioxide ( $CO_2$ ) will not accomplish this desired reduction.

Limestone was used as a "flux" to lower the melting point of silica (sand and clay) impurities in the ore to form a glass-like slag with colors varying from blacks and grays to dark greens and turquoise. The slag floats on top of the molten iron in the furnace's crucible



See Zoarite Iron Industry, Page 4.

## Site names chosen

The Foundation's camping committee has presented names for five new campsites at Tuscazoar. The site north of Hoover Lodge that was once the camp archery range will be known as Sippo Ridge. A clearing below Turtle campsite will be named Cricket. The sites previously known as Shawnee 1, 2 and 3 will be renamed Mohican, Tecumseh and Lakota. Many great suggestions were submitted. Thanks to everyone who participated in the naming contest.

## Coming Events:

July 13	Camp Workday
July 14	CTF Board Meeting
July 15-19	Netawotwes Day Camp
August 4	CTF Board Meeting
August 10	Camp Workday
August 25	W.C. Moorhead Museum Opening
Sept. 1	CTF Board Meeting
Sept. 13-15	Pig Gig Campout
Sept. 15	Pig Roast Fundraiser

### Camp Tuscazoar "Breeze"

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## Campers stayed dry during annual Dover Dam Weekend activities

Despite threatening skies, the rains stayed away for most of Saturday, allowing scouts and scouters to enjoy the eighth Dover Dam Weekend May 3-5 at Camp Tuscazoar.

The archery range, rappelling tower, knife and tomahawk throwing and the Dover Dam tours were the most popular activities. Campers also played Indian games, pitched horseshoes and carved the totem pole. The rain even quit in time for the campfire.

A big "thank you" to Brian Criswell, who worked tirelessly to organize the activities, and to all the volunteers who made the weekend a success.



*Preparing to shoot at the archery range*

## Zoarite Iron Industry...From Page 3.

and is removed just prior to "tapping" the furnace. A clay plug is removed from the furnace's hearth and the molten iron runs out into a series of gutters formed into the sand floor of the Foundry House. The general appearance is of pigs while feeding, and thus the name pig iron. Each pig would weigh about 100 pounds. After removal, the sand floor would again be readied for the next tapping of the continuous process.

Pig iron was the basis for all ferrous objects, but was very brittle and not very strong. It could be remelted and cast into "hollow ware" at the foundry. These objects, such as pots, kettles and stoves, were not intended for forceful applications. The pig iron could also be sent to a "Finery" where it would be reheated, worked with slag and forged into "wrought iron". Wrought iron is used for applications where stress will be applied, such as for axes, horseshoes, hinges, and other hardware. Wrought iron could then be further processed into "steel" for such things as knife blades.