News, Updates, & More

Varner Family Genealogy

IN THIS ISSUE:

FROM THE ADMINISTRATOR

I plan of updating the look of my website in the near future. Not to worry. The genealogy information will still be available however the interface may look somewhat different.

Copies of all issues of this newsletter are downloadable from the website.

Varner Genealogy Website:
http://home.kc.surewest.net/btvarner/VarnerGenealogy.htm

Some files require a password to open. That password is: VarnerFamily (Case sensitive, no spaces). Please do not provide this password to anyone else. Send them to me so I can keep track of who might access the information.

QUESTIONS / NEWS

Looking for information on those in the family who had relatives work on the Tunnel Dam project (See this month's article)

Never too early to start planning to attend next year's reunion!

Varner /Riggs Connection Update

Still striking out on attempts to locate and connect with descendants of the Missouri Riggs. Will continue the search.

George Varner of Missouri Direct Line DNA

Have not been able to re-contact Norman (Butch) Fredrick Varner's family in Eldon. Hoping the create interest in a male member of that line submitting for DNA. Again, if anyone has a relationship with these folks please see if they will contact me.

Looking to engage one of more of the people below in **bold**.

George Varner (1789-1861)
Samuel Philip Varner (1846-1896)
Francis Logan Varner (1874-1939)
Norman Walter Varner (1912-1997)
Raymond Walter Varner (1942-200xs)
Mother Lela Cornnett
Jason Raymond Varner
Mother Christine Elizabeth Swillium
Micha Dority Varner
Mother Nancy Dority
Norman Fredrick (Butch) Varner
Mother Alice Ethlene Brown
Michael Logan Varner
Michael Lee Varner

Building of Tunnel Dam

Like many other families of the time in Camden County, some of the Varner's and relations helped to build Tunnel Dam.

Sheridan Varner (Father of Don Varner) and George Capps (Grandfather of Judy Capps Varner) are known to have worked on the dam. If anyone knows of others in the family, please let me know.

The dam and area can be seen with Google Maps at:
https://www.google.com/maps/place/Tunnel+Dam+Power+Plant/@37.9302054,-92.8592259,3238m/data=!3m1!1e3!4m2!3m1!1s0x87c4de5db9e1d2cb:0x9413afd8404a5e49

The approximately two years of jobs available while the building lasted, helped this depression era project provide much needed work for some in Camden County. It also for the first time ushered in electricity to nearby areas.

A very interesting video about the Tunnel Dam, can be seen on YouTube. The video was created by Ed Fillmer for National Geographic some years back. Ed's father worked on construction for the dam. The link to this 3 minute video is:
https://www.youtube.com/watch?v=SvLDUvRHzjY

Full scale work began Tunnel Dam in 1929. Several dozen men, many local, were hired to work the project. A temporary town was constructed on top of the ridge above the dam to house and feed workers. In this video are several images contemporary to the building of the dam.

The Niangua Hydroelectric Generating Station (Niangua River Dam)[1] (*Reprinting of the article by Sho-Me Power Electric Cooperative*)

Beginning at the towns of Marshfield and Niangua in Webster County, Missouri and flowing north and northeast through Dallas, Laclede and Camden Counties, the Niangua River empties into the Lake of the Ozarks a few miles southwest of Camdenton….

The river (*Niangua*) itself, however, is extremely crooked, the stream meandering to the extent that it totals 140 miles in length. Before the Lake of the Ozarks was formed by the construction of Bagnell Dam in 1931, the Niangua flowed into the Osage River just upstream from Old Linn Creek. Although in dry seasons the upper reaches of the Niangua reduces to only pools of water with little flow, further down, due to the output of a number of good sized springs, the flow becomes steady the year around….

[1] Sho-Me Power Electric Cooperative website: http://www.shomepower.com/

The name "Niangua" has Native American origins, probably from the Osages, and many fanciful English translations have appeared. One authority presents convincing evidence that the proper translation is "Winding Stream of Many Springs."

After the Louisiana Purchase, the extinguishment of Indian titles and the coming of Missouri statehood in 1821, a trickle of white settlers began to appear in the Niangua River basin. The country was rugged and wooded and yielded slowly to these early people. Small bottom farms and timber cutting comprised the main activity including tie hacking and rafting. By 1850, small water power grist mills appeared, thirty-three such mills being erected on twenty-five sites up and down the river through 1920.

The possibility of the production of hydroelectric power on the Niangua River came under consideration in the early 1900's. Attention was especially attracted to one potential site where a natural cave or tunnel pierced the base of a narrow ridge, cutting off a seven mile meander of the river, thus affording the opportunity of obtaining an artificial fall of water sufficient to drive a water wheel of some size.

The site was located in the NW quarter of Section 19, Township 37, Range 17 in Camden County, about twelve miles by road southwest of Camdenton. Although water from the natural flow of

the river by-passed the tunnel at a lower elevation, most of the flow could be diverted through it by construction of a dam. The combination of the meander cut-off and building of a dam could produce a respectable forty foot head for a hydraulic turbine.

The late Thomas R. Beveridge, author of Geologic Wonders and Curiosities of Missouri,[2] described the Tunnel Dam area as follows:

"Tunnel Dam Natural Tunnel is intriguing to geologists but, unfortunately, is not particularly attractive to the layman. Fortunately, it is well enough known to lure people to the site which contains a more scenic but less publicized attraction. The tunnel goes through a very narrow ridge. The road which tops this narrow ridge dividing meander loops of the Niangua River certainly should have been called "The Narrows" but somehow escaped this most appropriate name. The view for the ridge road is spectacular, especially to the south and southwest, and is but a short drive from Camdenton".

"The natural tunnel is about 75-feet downstream from the present dam. The entrance, in the Gunter sandstone, has been artificially enlarged to about 14-feet high by 12-feet wide. Its natural portion constricts to approximately 6-feet wide by 10-feet high a short distance inside and it is reported that it constricts still further when traced to the north . . . the idea of utilizing the natural tunnel for a tailrace was abandoned when it was found to have passages branching out from it from which there might be water loss. It was considered more feasible to build the artificial tunnel which serves today's installation".

A small city was built on the site and a force of about 350 workmen lived there during the construction of the dam. A new tunnel was driven through the hill. A concrete mixer was placed on top of the hill above the dam site and concrete was sent down a chute on each side–on one to the dam and on one to the power plant. It is interesting to note that all machinery and equipment installed in the powerhouse was transported from the top of the ridge by means of an inclined track and cable car. After construction was finished, the cable car was continued in use for the convenience of the plant operators and to move materials. This arrangement lasted until 1954 when a roadway replaced the car and track.

The Niangua Hydraulic Generating Station, situated on the Niangua River, approximately 24 miles northwest of Lebanon, was completed late in 1930 by the Management and Engineering Corporation and placed in operation by the Missouri Electric Power Company on November 9, 1930.

[2] Geologic wonders and curiosities of Missouri, by Thomas R Beveridge, published by: Missouri Geological Survey; 1st edition (1978)

The gravity type dam, designed to provide a forty-foot head, includes a rock anchored concrete spillway section, 24 feet in height and 300 feet in length and a rock and earth filled embankment with a steel sheet-pile supported concrete core wall extending 500 feet to the west bank. The east end of the spillway section is secured to the rock ledge by a keyed rock-filled crib. The west end of the spillway section joins the embankment section by means of a concrete abutment carried to bed rock and protected by wing walls which are supported by steel sheet piling.

The reservoir (*Niangua Lake*) created by the dam, irregular in shape, extends 2 1/4 miles upstream and is approximately 1/4 mile wide and varies from 10 to 20 feet in depth at the low water stage. The area of the surface is about 360 acres, indicating a capacity of 2650 acre feet, of which 1550 acre feet is considered available for generating power.

The location of the generating plant, 900 feet east of the reservoir, and approximately 6 ½ stream miles below the dam, provides a maximum head of 40 feet through a concrete lined tunnel and surge chamber. The reinforced concrete substructure forming the equipment foundations supports the reinforced concrete surge chamber and power house. The tailrace, formed by an excavation in the riverbank, is protected on either side by concrete retaining walls extending from the powerhouse substructure to the stream.

The generating equipment consists of two Allis-Chalmers vertical generators, rated at 1875 KVA capacity each, driven by S. Morgan Smith water wheels with 60 inch adjustable blades, rated at 2030 HP each, operating at 327 RPM under an effective head of 40 feet. Suitable equipment is provided for the automatic control of the intake gates and other equipment.

To secure flowage rights in connection with the Niangua Hydraulic Generating Station, it was necessary to purchase a number of tracts of farm land aggregating 417 acres. Rights had to be obtained on land from seven owners and the water rights from several interests involving thirty sections of land in Laclede and Camden Counties.

The company owns and maintains storehouses, operator's cottages, electric distribution and water systems, and other facilities considered necessary to the operation of the generating station.

Plant production is limited to a peak capacity of 2,400 kW and annual production of 7,500,000 kWh to over 12,000,000 kWh, depending on useable water flow. Operation of the plant is now integrated into the requirements of Associated Electric Cooperative of Springfield, Missouri.

Although in 1997 Tunnel Dam is small compared to the huge capabilities in

both hydro and thermal generating units now available to Associated Electric Cooperative with which it is integrated, it still can help in a small way on peak periods and provide some economies in production of energy. Aside from this, Tunnel Dam can be regarded as a viable and unique sixty-seven year old engineering work. It has been so listed in a survey of historical engineering sites in the State of Missouri conducted by the Department of Social Services at the University of Missouri-Rolla.

So, now we know a little more about the largest project to that time in Camden County where Varner relatives have in the past, and continue to live.

Please contact me with subject ideas for future newsletters.

Fall is here. Winter is approaching…….

Bruce Varner