

FIRST WEST HEAD RACE, FLUME AT FURNACE BANK ?

Since Russel Apple's measurements of the North South waterwheel PIT called for a THIRTY FOOT diameter wheel, this wheel HAD to be FULL eight feet higher than the present East-West twenty-two foot diameter wheel. And since the tail race cannot possibly be any deeper than it is now, ALL EIGHT FEET of the bigger wheel had to be above the present wheel TOP level.

The Original ¹⁷⁷⁰⁻¹⁸²³ East Head Race ~~is~~ beginnings and its stone dam ^{are} ~~is~~ very visible in Scotts Run just a few feet north of the new Artesian Wall of F C State Park. ^{NEAR THE LAKE} Again, this Race is very visible in the area of the Barn Foundation, south of the FC State Park Pumping Station as well as at other points where NOT destroyed by field plowing. b

NOT VISIBLE NEAR FURNACE, WATER IN FLUME?

Harker Long, in discussing this early race, told that it was visible away from the furnace (only). Thus, if eight FEET HIGHER, the water from this race most likely approached the North-South wheel on an ELEVATED FLUME.

NO FLUME TRACE FOUND IN 1973 ELECTRICAL TRENCH.

Where the old West Head Race stopped being a ditch in the ground and became a wooden trough is unknown. ^{This junction point might be in} The still-higher area north west of the furnace and Anthracite Furnace ruins ^{containing} has a non-historic colliers' ^{perhaps} toppee and ^{unknown} structures of the anthracite furnace. ~~xxxxxxx~~ Regional Archeologist Dr. Cotter, ^{knowing} ~~told~~ ^{that traces} of the possibility/ of this older race might be uncovered, did not report any findings of this sort.

LEVEL pre-1823 of
HOW ACCURATE IS PIPE LOCATION FOR/ORIGINAL EAST HEADRACE?

The West Headrace discussed above ^{FURNISHED} was half of the original water supply for the 30 foot wheel; the other half came from Baptizing Creek, augmented by Spout Creek (near the present Superintendent's residence.) In 1973, it is clear that the pipe presently "discharging" water at the wheel is NOT at the 30 foot level. Even ^{the} ~~was~~ it is sufficiently high to hit the present wheel near its

top is not clear.

HOW the original East Head Race carried water from its end as a earthen structure at the western edge of the Big House garden to the 30 foot wheel is also unknown.^K
 The garden section of this race was used right to 1883 according to Long ^{BRT} and the iron pipe carrying its water to the wheel is of an unknown date. While the Furnace did own pipe patterns, the analysis of the pipe remaining in position in 1955(when the missing-road section pipe was replaced) did NOT carry the copper content normally present in Hopewell ^ll^{rn}. Precisely how water from this East Head Race furnished power at a thirty-foot overshot wheel is also unknown. (No restoration is considered; the question is brought up as a part of the Revolutionary display.) ^{at the thirty-foot level} An elevated flume/for this race was also a possibility. Such construction would have hindered the halfhourly charge of the furnace. Most likely, this race HAD TO CROSS the Furnace Bank at a level that allowed ^{wheelbarrow loads of} ore, charcoal and limestone to pass over it by means of a wooden enclosure. ^(Schumacher's) Archeology/uncovering remnants of the cast iron pipe found no clues to potential earlier arrangements.