



Friends of the Old Croton Aqueduct

Newsletter
No. 3, May 1999

What's It Really Like in the Tunnel?

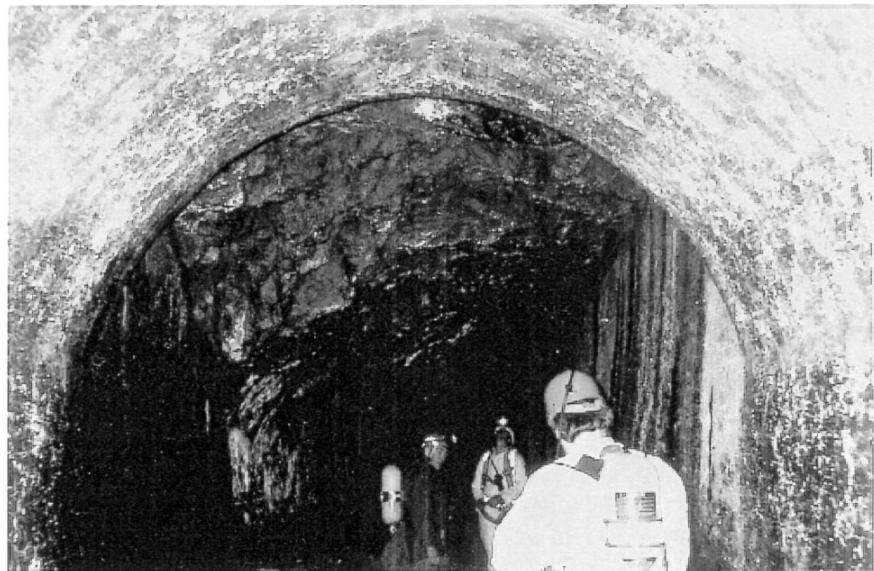
Have you ever wondered what it's like inside most of the Aqueduct, the part that hasn't been cleaned, polished, and ventilated for visits by the public? Trail Manager Brian Goodman offers a glimpse.

When the Aqueduct was fully in use, engineers conducted regular inspections of the inside of the structure, at least twice a year by boat, a journey not for the faint-hearted. When maintenance was required, the water flow was cut off completely by lowering the gates in the waste weirs. Today, our inspections are normally geared to specific projects such as proposed construction nearby, particularly when blasting is contemplated, to ensure "before and after" that no damage has occurred.

Entry procedures are complicated. Federal regulations require that anyone entering confined space be trained and qualified and that a Confined Space Rescue Team be on site. Last fall, engineering consultants, park staff and the regional rescue team walked one and a half miles up to the 8-foot concrete "plug" which seals off the conduit in Ossining. This was installed in 1989 when the northern sections returned to use as a contribution to the community's water supply. In addition to the main task of inspecting the tunnel under the GE Management Institute, we

took the opportunity to record and photograph the effects of time, weather, and above-ground construction.

In one section, the roof descended 19 inches below its customary 8-1/2 feet and our immediate concern was that a century of traffic at a crossing under Route 9 was finally affecting the structure. A measuring wheel is a necessary item of equipment and, on repeating the trip on the surface the following morning, it transpired that the section in question was comfortably distant from the main road. A thorough inspection of the trail surface, the outer "rip rap" retaining wall, and an original stone culvert running under the Aqueduct revealed no



A section of the Aqueduct tunneled through rock.

sign of subsidence. The conclusion was that the lowered roof was part of the original design.

The northern sections are also inspected periodically. Access is via ports in the roof of the tunnel after some 6 feet of trail surface and the concrete caps are removed by a back-hoe. The Aqueduct is emptied of water, the gate valves at the New Croton (Cornell) Dam are "locked and tagged" for safety, explosion-proof lighting is installed, a continuous flow of fresh air pumped in, strain gauges placed over small cracks in the brickwork, and any necessary patching conducted.

Elsewhere, some sections remain in excellent condition. Others show wraithlike tree roots penetrating the walls, hardened "waterfalls" of white, brown and scarlet caused by leaching minerals, ceramic plaques marking the numbers of the original survey stations and even raccoon footprints in the mud.

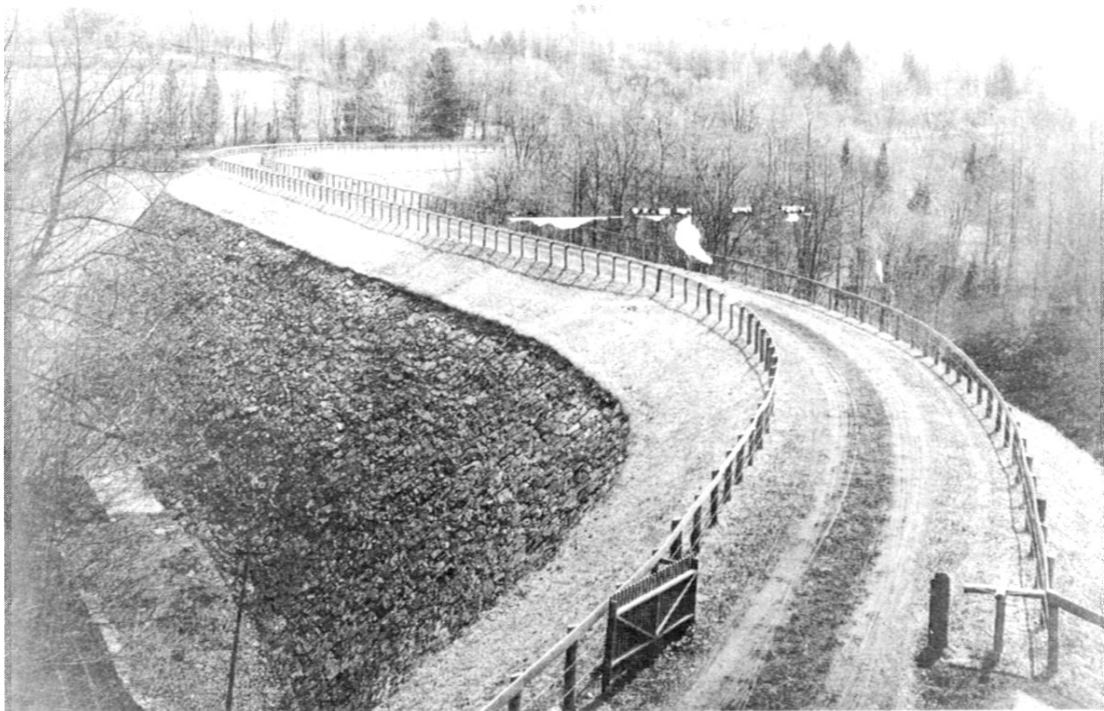
Other tunnel exercises by the Confined Space Rescue Team have taken us into the weir at the Pocantico River crossing, past Bell Atlantic telephone cables in Irvington, and to the site of the piers for the new bridge in Archville, where an eel swam unconcerned in the inverted siphon under Route 9. Such findings add an element of mystery to our daily round.

Copies Available of 1905 Scientific American Photos of New Croton Dam

Riverrun Rare Books in Hastings has acquired a number of copies of a Special Supplement issued with the May 5, 1905 edition of the *Mt. Kisco Recorder* chronicling the construction of the New Croton Dam. The 4-page supplement, 16-1/2" high x 11" wide, reproduces ten black-and-white photos of the dam in construction from an article in the April 15, 1905 issue of *Scientific American* together with the text, entitled "The Opening of the New Croton Reservoir."

Copies of the supplement are \$3.00 each. For further information contact Joe or Chris at Riverrun, tel. 914-478-4307.

For your interest: The article in the 1905 *Scientific American* notes that the daily consumption of water by New York City was then about 300 million gallons. The figure today (including suburbs supplied by the city system) is roughly 1.5 billion gallons.



Where Is it? Do you know the location of this unusual S-curve on the trail? The photo was taken in about 1884-85. See p. 5 for the answer. (Photo courtesy of the New York City Municipal Archives, Dept. of Records and Information Services.)

President of Friends Steps Down

Fred Charles came to the Friends via the pipeline: the threatened high pressure gas pipeline that the Indeck Company planned to run under our precious Aqueduct Trail. It was Fred who took on

the struggle to stop it.



photo by Dave Knox

Those of us who were out on the trail during the beautiful snowy days of 1993 saw a small green poster pinned to a low tree stump on the trail. "SAVE THE AQUEDUCT" it read. Good lord, from what??? I for one, kicked off my skis and bent down to read more. "If you love the trail, call

Fred Charles." No phone number. No address. But the call to action was loud. We must save the Aqueduct from whatever peril it faced.

Having found Fred in the phone book, I learned as so many others have, you can't say no to Fred. Our forces grew from a few stalwarts, to the hundreds under Fred's leadership. And we won.

Not long after this, Fred became President of the Friends of the Old Croton Aqueduct. He has built up the membership tremendously and been the pivotal force behind the new color map that is such a success. The Aqueduct Awareness Days are his other triumph. Fred has an irresistible way of getting to know people on the trail and persuading them to become members and to help us work on the Overseer's House.

Fred's other career, that of architectural photographer has, unfortunately for us, become more and more demanding and successful. This year he won the prestigious Alfred Eisenstaedt Award for Magazine Photography. So to relieve some of the pressure, Fred is resigning from being President to become President Emeritus. We hope he'll keep on inspiring us and helping us without feeling he owes us 150%. His photography understandably has to come first. You've seen his photos on display on Aqueduct Awareness Day and you'll be seeing more of them in magazines like *Life* and in architectural journals. We love you, Fred!

— Mavis Cain

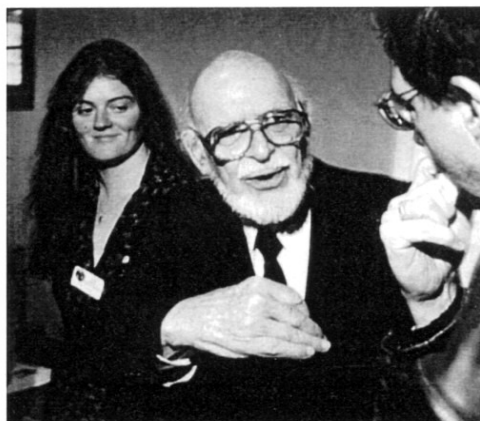
A Trip on the Croton River Via Slide Show

Croton River neighbor and explorer Ed Rondthaler conducted a lively photographic tour of the Croton River from the original Aqueduct dam to the Hudson River in a presentation on March 14th at Sunnyside. Co-hosted by Friends of the Old Croton Aqueduct and Sunnyside, the slide show was attended by an enthusiastic, overflow audience who saw the trees and rocks around New Croton Dam sparkling in winter frost; wooded Goose, Thrush, and Paradise islands; the rapids on the river and the lush plant life on the shores; and other scenes that made it apparent how beautiful the river is.

Ed had a stock of colorful stories to tell, for example, the one of the prescient Ringling Bros. elephant who refused to cross the high bridge that once spanned the Croton Gorge—the day before the bridge collapsed. It was, of course, in order to bring the Croton's plentiful, clear water to New York City that the Old Croton Aqueduct was built in the mid-19th century. Ed and his wife, Dot, have lived in Croton-on-Hudson since 1941, and have explored the river over its entire length - on foot, by canoe, and sometimes with an ear to the pavement where the water has been channeled underground - including the three branches that combine to form the main stream.

After the slide show refreshments were served and audience members who could stay despite the inclement weather brewing outside had a chance to socialize.

The Friends thank Ed for generously sharing his pictures as well as his knowledge and love of the river with us. The Friends also acknowledge with gratitude the yeoman efforts of member Gwen Thomas in organizing all phases of the program, and Historic Hudson Valley/Sunnyside for a site and the services of their excellent staff, and for co-hosting the program with us.



Croton River explorer Ed Rondthaler, center, talking to Ed Brody while Anne Humbach of Sunnyside looks on.

Picnic at Croton Lake, 1873

Our thanks to Al Hutin for sending in this charming account of a 19th-century picnic at the original (now submerged) Croton Dam, from the archives of the Newcastle Historical Society.

"Gabrielle (Greeley) and I have just returned from spending the day at Croton Dam. A large party from the prominent families of Chappaqua was organized by Miss Murray, the pretty daughter of one of our neighbors, and at nine o'clock a number of carriages, packed to overflowing with young people and lunch-baskets, and led off by a four-horse wagon, started caravan-wise from the place of rendezvous, Mr. Murray's elegant grounds.

"The drive was a very pretty one, skirting for some distance the beautiful little lake that supplies the great thirsty city of New York, and the spot chosen for the picnic—shady, terrace-like heights, with a gradual slope to meet the water, and a rough beach here and there—was declared the most suitable place to lay the cloth.

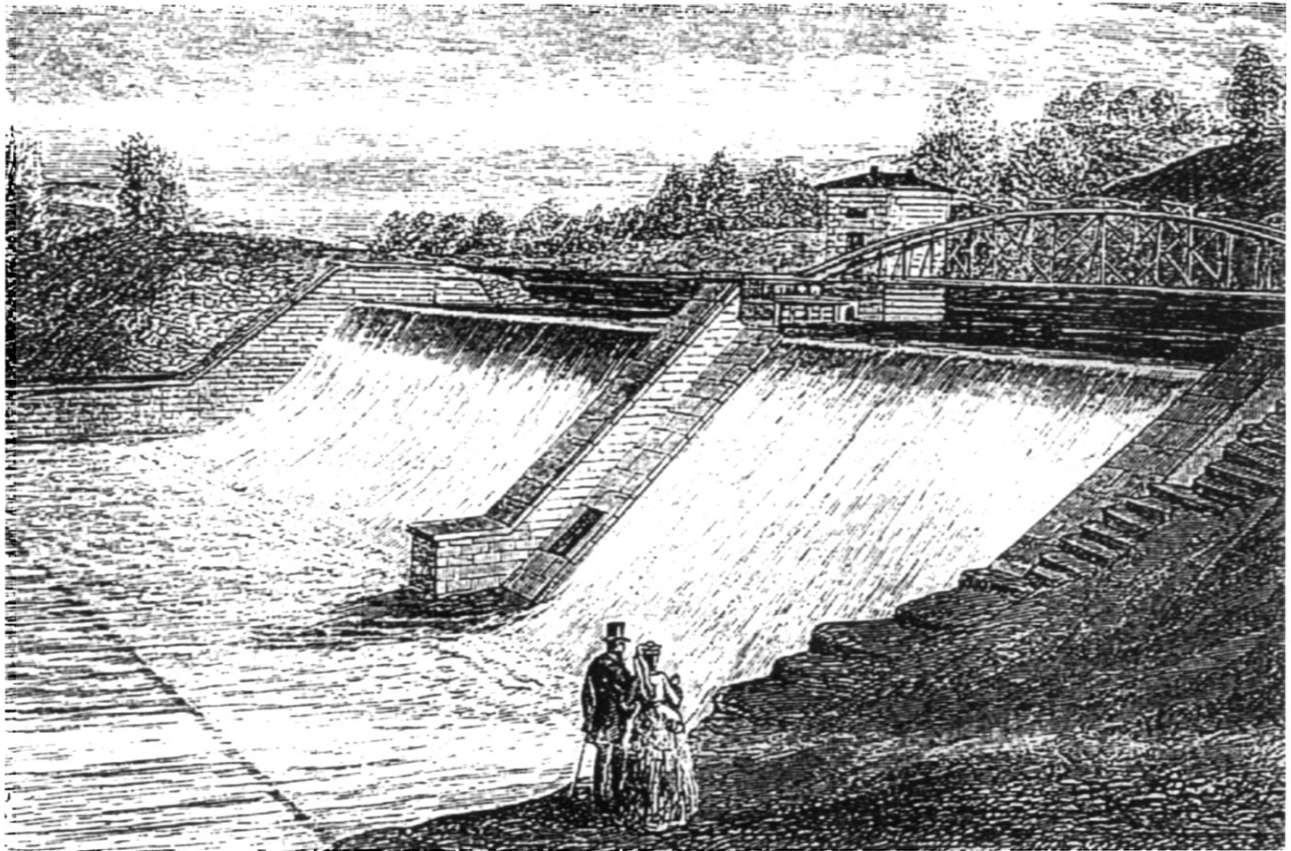
One or two members of the party remained behind to unload the carriages, count the broken dishes, and estimate the proportion of contributions—many people fetching salt in abundance

but forgetting sugar, whilst others furnished elaborately frosted cakes, but omitted such necessities as knives and forks.

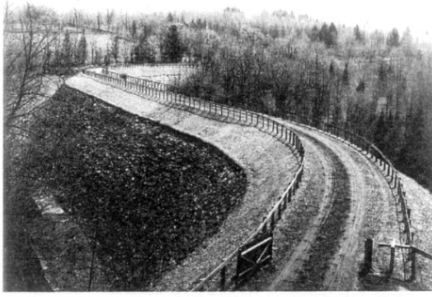
Meanwhile, we climbed the stone steps leading to the waterworks, and after a glimpse of the seething dark-green water through the heavy iron grating, we hunted up the overseer and asked him to unlock the doors for us that we might have a near view.

He assented and admitted us very obligingly, giving us meantime a graphic description of the yearly journey of the Inspector in a boat down the dark passage to New York, and pointing out the low, narrow place of entry for the water-house where they must lie down in the boat."

— Extract from *"The Story of a Summer or Journal Leaves from Chappaqua,"* written by Cecelia Cleveland, niece of Horace Greeley. Entry dated June 26, 1873.



Dam at Croton Lake



Where Is It? Friends member and frequent trail walker **Peter Wilson** believes this photo shows the Aqueduct where it crosses the Pocantico River. (See feature 16 on the Aqueduct map.) He writes: "This historic view is of the Old Croton Aqueduct looking south, probably from atop the weir next to Rockefeller State Park Preserve, with the grounds of the Preserve in the immediate left foreground and what is now Sleepy Hollow Cemetery to the right of the path. The railings shown in the picture no longer exist, but the growth of bushes and trees has made the embankment seem much less precipitous."

Beneath the Aqueduct, and unseen in the immediate center of the picture, flows the Pocantico River in its journey to the Hudson River. This charming scene is best seen from beside the nearby trails of the Rockefeller State Park Preserve—"a romantic view that is well worth a detour from the trail."

Aqueduct Map Wins Statewide Award

The Friends are proud to announce that the Preservation League of New York State chose our full-color map/guide of the Old Croton Trailway State park for a 1999 Preservation League Award. The award letter states that "The documentation and presentation of the historic features along the trailway provide an educational as well as recreational tool. The work accomplished was evidently a labor of love and a model for other trailway projects."

The award was presented at the Preservation League's 25th Anniversary Celebration on May 10th at the new home of Christie's in Rockefeller Center. The Friends are most grateful to the League for this recognition.



To obtain the map: If you don't yet have one, or would like additional copies, the map can be purchased for \$4.50 each (including tax) at various retail stores; call 693-4117 for the location nearest you. By mail the cost is \$4.50 (\$3.50 for members) plus 75 cents shipping and handling for the first copy and 50 cents for each additional copy. Send mail orders with check enclosed to Friends of the Old Croton Aqueduct, Attn: Map Orders, Overseer's House, 15 Walnut Street, Dobbs Ferry, NY 10522. New members (see coupon below) receive the map as part of their membership.

Friends of the Old Croton Aqueduct, Inc.
Overseer's House
15 Walnut Street
Dobbs Ferry, NY 10522-2109

BE A FRIEND!!

Your tax-deductible contribution helps to protect and preserve the trail.

- | | | | |
|--------------------------------------|---|---|--|
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- ☐ I would like to volunteer. Area of interest _____
- ☐ Availability: Weekdays _____ Weekends _____

Please make your check payable to: Friends of the Old Croton Aqueduct. And see if your organization has a matching funds program. Do call us if you have any questions or suggestions at 914-693-5259.

Friends of the Old Croton Aqueduct

is a private, non-profit, non-partisan volunteer organization formed to protect and preserve the Old Croton Aqueduct (Old Croton Trailway State Park). The Aqueduct, completed in 1842, provided New York City with its first public supply of clean drinking water. It is a National Historic Landmark, one of the great engineering achievements of the 19th century.

Old Croton Trailway State Park encompasses the portion of the Aqueduct located in Westchester County. From the New Croton Dam to the New York City line it spans 26.2 miles, linking the Hudson River communities of Croton-on-Hudson, Cortlandt, Ossining, Briarcliff Manor, Sleepy Hollow, Tarrytown, Irvington, Dobbs Ferry, Hastings-on-Hudson and Yonkers. The Friends work to raise public awareness of the Aqueduct and trail, and to secure the resources that will enable this historic greenway to remain unspoiled in perpetuity.

Friends of the Old Croton Aqueduct
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