

Paw Paw Tunnel

National Park Service
U.S. Department of the Interior

Chesapeake and Ohio Canal
National Historical Park



As daylight dwindled to a pinpoint at either end of the tunnel, the steady beat of mule hoofs and the slap of displaced water marked a canal boat's progress. Sometimes music filled the chamber as boat crews sang to hear the echoes of their voices or to calm children afraid of the dark.

Largest Structure along the Canal

When work started in June 1836 on the Paw Paw Tunnel engineers estimated the work would take just two years and \$33,500 to complete. Labor violence, funding shortfalls, and work stoppages slowed construction. Fourteen years later when the 3,118-foot tunnel opened, it cost more than \$600,000. Located at a place called Paw Paw Bends, the tunnel eliminated six miles of canal. The tunnel was critical to opening the

canal to Cumberland and the economic success of the canal company, and its completion remained a high priority for the canal board. When the tunnel opened, boatmen jostled to get through the bottleneck. Regulating traffic at the tunnel and maintaining the structure proved difficult throughout the canal's years of operation.

Plan Your Visit

How to Get There

Located at milepost 155.2 of the canal, the Paw Paw Tunnel is open year-round from daylight to dusk. From Cumberland, follow Maryland Route 51 south for 25 miles. From Berkeley Springs, follow West Virginia Route 9 west for 28 miles. The tunnel is near the town of Paw Paw, West Virginia.

The tunnel entrance is one-half mile down stream along the towpath from the parking lot.

Facilities



Drinking water available seasonally (mid-April to mid-November).



Drive-in, primitive camping for a fee.



Contact the Cumberland Visitor Center for more information: (301) 722-8226.

www.nps.gov/choh

During Your Visit

Walk through the **Paw Paw Tunnel** with flashlight in hand so that you can see these tunnel features:

- weep holes - openings left in the brick liner to allow for water drainage;
- rope burns - smooth grooves worn in the wooden railing by towlines;
- rub rails - wooden planks fastened to the brick liner to protect the tunnel liner;
- brass plates - marking each 100 foot distance and the location of the vertical shafts.

Follow the two-mile long **Tunnel Hill Trail** over top the mountain to see where the tunnel builders lived during construction. Be advised this is a steep and strenuous trail. Bikes are prohibited.

Safety Reminders

Carry a flashlight. Wear comfortable shoes.

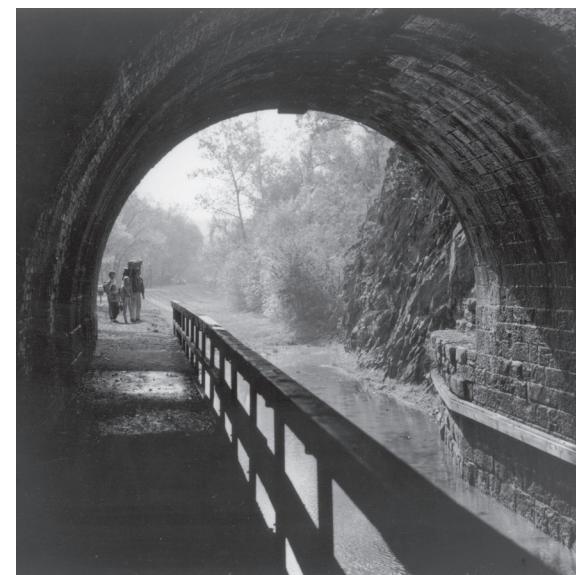
Towpath surface is uneven and contains puddles. Watch your footing and use the guardrail as a guide.

DO NOT climb the steps at either end of the tunnel.

The tunnel and Tunnel Hill Trail are not recommended for wheelchair use.

The **Section Superintendent's House** is located near the parking lot.

Purslane Cemetery is at Mile 157.4 just upstream from the tunnel. Cholera victims from epidemics in the 1830s are buried at the cemetery.



Building the Tunnel

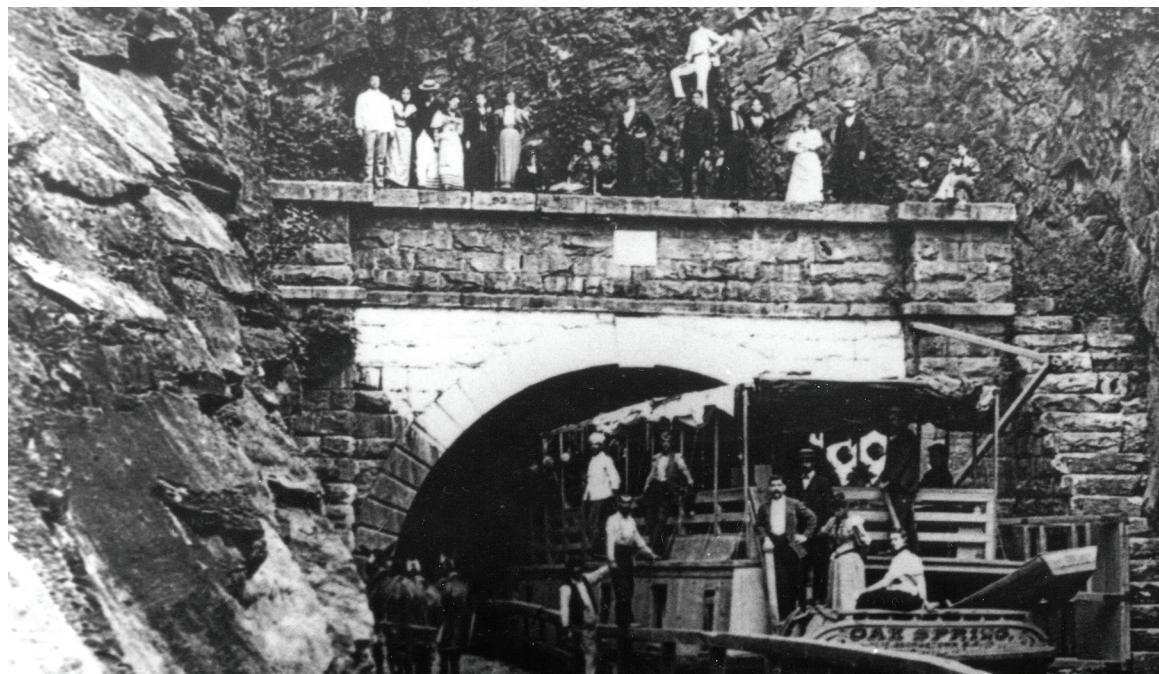
Lee Montgomery, a Methodist pastor turned contractor, hired a crew and began work on the tunnel in June 1836. Workers used black powder to blast through rock, used picks and shovels, and hauled out rubble by horse carts. They simultaneously cut from both ends. Vertical shafts from the hilltop down to tunnel level provided extra working faces in each direction. While Montgomery predicted he could bore seven to eight feet per day, his crew working three shifts daily managed to bore through the hard, loose shale just 10 to 12 feet per week.

Unskilled workmen, rising labor costs, poor living conditions, and the slow pace of

construction led to labor strife at the tunnel. Montgomery hired miners from England and Wales, and German masons from Pennsylvania. Montgomery's Irish labor force clashed with one another and with newcomers who competed for their jobs. Tensions escalated in 1837, 1838, and 1839 when workers used beatings, destruction of property, and other forms of physical violence to halt construction.

Due to lack of funds, work was suspended from 1842 to 1847. In November 1848, construction resumed. The firm of McCulloch and Day completed the tunnel quickly. On October 10, 1850 the tunnel opened for navigation.

Navigating the Tunnel



The channel through the tunnel was narrow, providing no room for passing or turning. The first boat to arrive at either end had the right of way. Sometimes stubborn captains refused to yield. One standoff lasted several days until a company official threw green cornstalks onto a roaring fire at the upwind end and forced the offenders out with smoke.

The great increase in canal trade during the early 1870s resulted in frequent and lengthy delays at the tunnel while the boats waited their turn to enter. In 1872, the canal board hired a watchman to regulate traffic night and day and established rules for boats navigating through. Though the board imposed a \$10 penalty for violating the regulation, the tunnel remained a bottleneck for boats.

Millions of tons of coal, agricultural products, lumber, stone, and industrial goods passed through the tunnel from Cumberland and her hinterlands. In 1875, the canal carried 904,898 tons of coal alone.

Maintenance difficulties plagued the canal and the tunnel. Just two years after the tunnel opened, a major flood damaged the canal. Repairs took most of the summer to fix. Rock slides in the deep cut below Paw Paw Tunnel in November 1857 and the spring of 1858 stopped navigation for more than two months. In 1889 more rock falls at the tunnel and a major flood caused extensive damage to the waterway, and navigation was suspended for eighteen months.

Transition to Recreation

Throughout the canal's history, numerous floods damaged the towpath, culverts, locks, and tunnel. As competition from the railroad increased, repairing the canal structures proved unprofitable. In 1924, the canal closed to commercial shipping. In 1938, the federal government acquired the canal for two million dollars.

In 1950, the Bureau of Roads and the National Park Service proposed a parkway along the canal from Georgetown to Cumberland, including a section through the Paw Paw Tunnel. Opposition convinced the federal government to support a non-motorized recreational trail along the old towpath.

The tunnel was badly deteriorated. The National Park Service made major repairs to the tunnel, including replacing fallen bricks, filling cavities along the towpath, stabilizing rock slides, and repairing the facade of the downstream portal. Maintenance work continues to allow safe passage for today's hikers and bikers.



The National Park Service conducted repairs to the tunnel in 1956, 1979, and 2007. Above, craftsmen repairing the tunnel take a lunch break.