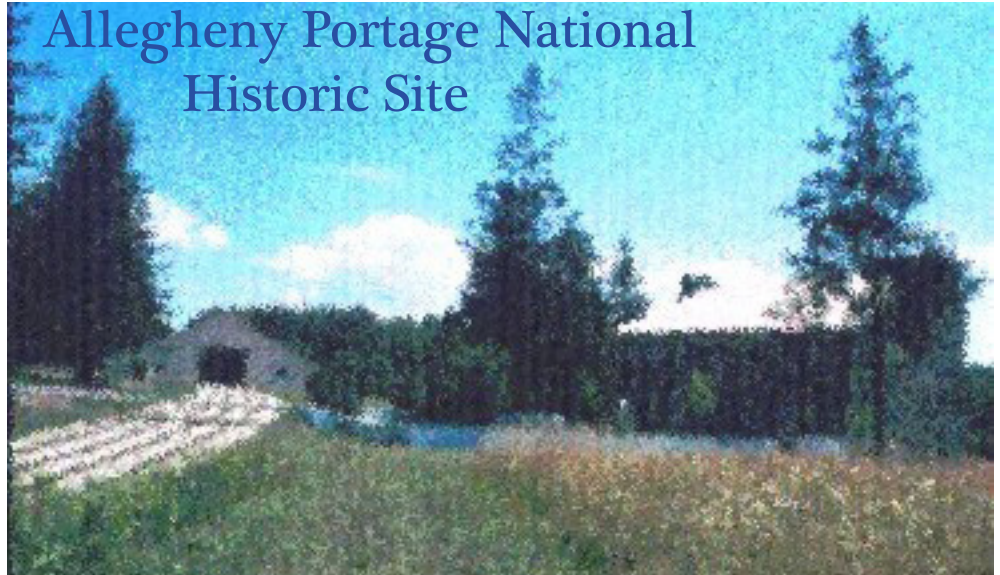


# Allegheny Portage National Historic Site



The Allegheny Portage Railroad linked the eastern and western sections of Pennsylvania's Main Line of Public Works, a system of canals, slack water, inclined planes, and railroad levels linking Philadelphia and Pittsburgh.

Built during the late-1830's in response to New York State's Erie Canal, the "Main Line" was a hodge-podge of technologies that didn't mesh efficiently. The Allegheny Portage National Historic Site centers on the facilities at the top of Plane No. 6, where the portage railroad reached the summit of the eastern slope of the Allegheny Mountains. This is what the scene looked like in the 1840's. The hoist house is in the left background. The blurry shape between the trees at right is Lemmon House, an inn and tavern serving travellers. With a little software manipulation, I've tried to show how the scene would appear today if an Impressionist painted it.



The Park Service has reconstructed a facsimile of the hoist house over the excavated foundations and the interior of Lemmon House has been restored to its 1840's appearance, including a recreated tavern.



As you approach the hoist house along a short interpretive trail from the visitors center, this sign shows how the inclines worked. The cars approaching the hoist house carry sectional canal boats, which could be broken apart for carrying over the Portage. This eliminated the time-consuming practice of transferring between boats and rail cars. Relatively few of these sectional canal boats were built, however, and they came too late to make a difference. This, and the high maintenance costs of

the inclined plane machinery and cables made the Portage a money-loser. Compared to New York State's Erie Canal, the Main Line was a financial failure.

Below, left is a close-up view of strap iron-on-wood railroad track. The iron straps were short lengths of wrought iron spiked to the wooden stringers. Under heavy use, the ends of the iron straps tended to work loose and curl up, creating dangerous conditions for passengers in the wood-floored rail cars.



On level stretches between the planes steam locomotives pulled rail cars on iron rails resting on stone slabs, recreated above, right. This system was adopted from English practice. But, although T-rail was more durable than strap iron, it was unsuitable for American conditions because it was expensive to build and the freeze-thaw cycles in the mid-Atlantic climate caused the stone slabs to shift and destabilize the track. Eventually, American railroad engineers developed a hybrid system consisting of revised T-rail designs resting directly on wood cross ties.



Living history programs are staffed by Park Service employees and volunteers on some weekends. Here a stone mason shows how holes for mounting cast iron chairs were marked and hand-drilled in a stone sleeper. The thousands of stone sleepers used in construction of the levels on the Allegheny Portage Railroad, including this one, were quarried directly from limestone outcroppings that lined the route.



<https://www.nps.gov/alpo/index.htm>