The railroads in southwestern Pennsylvania developed much later than those on the Atlantic seaboard. The reason was that commerce in this area depended largely on the rivers, and railroads were thought to be unnecessary. Flatboats and keelboats had been built on the Monongahela River from the late 1700s until the railroad days of the 1870s. These vessels, usually overlooked by historians after the advent of steam power, continued to be built because they were constructed of wood. Upon arrival in New Orleans, not only were the contents sold, but the boats themselves brought good prices for the lumber.

In the early nineteenth century railroad building in the area was deterred by the mountains, it being thought that trains pulled by locomotives could not run up steep grades unless stationary steam engines were built at the top of each incline to pull the trains with cables. It was thought, too, that the trains would not be any faster than the commonly-used Conestoga wagons, which were the usual freight haulers away from the rivers. This began to change, however, with the expansion of such industries as glass and iron manufacturing. Iron manufacturing, for instance, used charcoal for the heat to produce molten iron; but the wood for the charcoal had to be obtained away from the rivers, and the low-grade iron ore usually was not near rivers. This, plus new technological advances, began to make railroads more competitive. Unfortunately, in these early years, few people in the west had even seen a railroad, and there were few precedents.

---

John Kent Folmar received his Ph.D. in American history from the University of Alabama. He currently teaches at California State College and has concentrated his research in recent years on the economic and industrial development of the Monongahela River valley.

Ivan Saunders grew up in Pittsburgh's East Liberty section. He retired in 1975 after thirty years of service with the P&LE Railroad and is now living in Brownsville. Among his interests are streetcar history and steam locomotive and railroad history.—Editor
to follow. The earliest railroads built from the Atlantic seaports used eight- or ten-foot-long cast iron rails that were fastened down by bolting the ends of the rails to granite or other stone blocks. This was, of course, much too solid, and when some of the blocks began to sink into the ground, the line was not level, and the rail-joints would be uneven. And, because it was so solid, the cars were shaken to pieces in a short time. Most of these railroads solved this problem of the sinking joints by having a couple of "mechanics," as they were called, spend a day or so filing the rail ends to get them smooth, but the blocks continued to sink, and the line had a wobbly roadbed. In fact, some passengers sometimes complained of seasickness.

Although the Baltimore and Ohio Railroad initially used stone blocks, their chief engineer, Benjamin H. Latrobe, quickly found that wooden ties would be much better, as the roadbed was not so rigid, had more "give," and thus did not shake the cars to pieces. An example of the stone block construction may be seen at Cresson, near Altoona, the oldest section of railroad track in Western Pennsylvania (and a part of the original Allegheny Portage Railroad of the 1830s). Wooden ties are still in use on railroads, although efforts have been made to find a substitute, such as steel or concrete. Steel ties eventually shortcircuited the signals, and the concrete ones crumbled when water seeped into them and froze.

The rapid increase of population along the Atlantic seaboard made that region desirable as a market for goods produced in the west, but the Alleghenies stood in the way, and Western Pennsylvania's rivers flowed in the wrong direction. It was first thought that canals would be the ideal solution, but the mountains were a formidable obstacle, and a canal would have needed far too many locks to surmount them. Many engineers concentrated on this problem and found what they thought would be the solution. A railroad would be used from Philadelphia to Columbia, near Harrisburg, canals along the Juniata River from near Harrisburg to Hollidaysburg, then a second railroad to a point near Johnstown, where another canal traced the Kiskiminetas River to Freeport on the Allegheny River, and then the Allegheny to Pittsburgh. There was, however, the problem of having to transfer people and goods back and forth from railroad to canal, all of which was simply too expensive. The solution was to build the canal boats in three sections: the two end sections pointed (since canal boats were very seldom turned around), and the center section rectangular. The three sections were fastened together to be towed as a boat; then at the railroad, they were taken apart, and each section
hauled up and down the incline planes between Hollidaysburg and Johnstown, where they entered the canal again to finish the journey into Pittsburgh. While the sectioned canal boat was something of an improvement, it was still slow. The Allegheny Portage Railroad had a level section of line, so steam locomotives were acquired to haul the trains on that section. McClurg-Wade Company of Pittsburgh built two locomotives (around 1837) for the line. This firm, still in existence, is now the McIntosh-Hemphill Company.

In 1846, the newly chartered Pennsylvania Railroad took over the Main Line of Public Works from the commonwealth and promptly began to build a railroad from Philadelphia to Pittsburgh. The first "through train" arrived in Pittsburgh on December 10, 1852. This remained the only rail line to Pittsburgh from any seaport until the Baltimore and Ohio Railroad, chartered on February 28, 1827, leased the Pittsburgh and Connellsville Railroad in 1871. By 1875, the B&O had independent access to Pittsburgh and, in addition, in the late 1880s chartered the Ohio and Baltimore Short Line Railroad. It would go through Fayette and Westmoreland counties to a point somewhere near Greensburg in order to tap the coalfields in that area, which contained, and still do, some of the best coking coal in the entire country, and also to gather in some of the Pennsylvania Railroad's enormous cross-state traffic.

Those of you who may drive along Route 88 may have noticed the two bridge piers at Greenfield (present-day Coal Center), just north of California. These were intended to carry the O&BSL over the Monongahela, but because of financial problems, the bridge was never completed. The piers are still there, and in view of the troubles we are now having with bridges, show that perhaps we should look into the bridge building methods of those long-ago days.

The B&O, known for many years as the "Bumpy & Ornery" because of its crooked and hilly line in West Virginia, also has two other lines in southwestern Pennsylvania: the Fairmont, Morgantown and Pittsburgh from Fairmont, West Virginia, through Morgantown, Point Marion, and Uniontown to Connellsville. It was known to B&O employees for many years as the "Sheepskin." The other line extends from the B&O line near Pittsburgh (just beside the Glenwood Bridge) through Washington, Pennsylvania, to Wheeling. It is nicknamed the "Pike." Due to overexpansion, the B&O was thrown into receivership in 1893, and many of its plans had to be given up, no doubt to the great relief of the Pennsylvania Railroad.

The tables were turned in 1901 when the Pennsylvania Railroad
acquired control of the B&O and planned to merge it into the PRR, but President Theodore Roosevelt waved the “big stick” and threatened to have the attorney general, Philander Knox, a native of Brownsville, invoke the antitrust laws. By 1904 the PRR had given up control of the B&O by selling off the B&O stock, mostly to stockholders of the Union Pacific.

Another problem for the PRR was an attempt by Andrew Carnegie, with several associates, to build a railroad across Pennsylvania from Harrisburg to Pittsburgh, south of the Pennsylvania’s right-of-way and considerably straighter, called the South Penn Railroad. Carnegie, however, obtained the preferential freight rates that he sought and the South Penn project was terminated. Not one foot of track was laid, though some grading was done and a couple of tunnels bored through. The proposed route of the South Penn approximates that of the Pennsylvania Turnpike, and six of the South Penn’s tunnels were widened and paved for highway traffic.

Somewhat earlier, in 1879, Carnegie, the Lake Shore and Michigan Southern Railroad, and others built a line along the south shore of the Ohio River from Pittsburgh to Beaver, then to Youngstown, Ohio. It was called the Pittsburgh and Lake Erie. A success from the beginning, and still one, it earns significant revenues each year, and because of this, is known as the “Little Giant” among railroads.

In 1901, George Gould of New York tried to invade PRR territory in southwestern Pennsylvania in an attempt to own a railroad from coast to coast. This had not been done before and still has not. Gould was the son of Jay Gould, the infamous financier of the 1870s, whose manipulations of Erie Railroad stock caused the Erie to pay no dividends for some seventy years. Gould, who had taken over his father’s railroad empire, added a few railroads of his own, among them the Wabash and the Western Maryland. He discovered a gap between the Western Maryland and the Wheeling and Lake Erie in eastern Ohio, a distance of some two hundred miles. Using funds from the Wabash Railroad’s treasury, he began building a railroad from Pittsburgh Junction, Ohio, the nearest point on the W&LE, across the West Virginia panhandle and the rugged mountains of Western Pennsylvania. The riverbanks, though far more preferable, were denied to him because they were already in use by hostile railroads. A dummy trolley line was incorporated to build a bridge across the Monongahela River into downtown Pittsburgh. The stretch of track (about sixty miles) from Pittsburgh Junction to Pittsburgh,
however, bankrupted the Wabash. Although Gould did manage to complete the line, called the Wabash Pittsburgh Terminal, he wound up with an expensive tunnel and bridge and a passenger station four floors above street level in downtown Pittsburgh. These were of no value in obtaining any of the Pennsylvania Railroad’s huge freight traffic. In addition, Gould never did complete the connection with the Western Maryland. In fact, that connection was only completed in 1930 — by the Pittsburgh and West Virginia, which is now leased to the Norfolk and Western. If you travel on Route 88 or Interstate 70, you may have noticed a high, narrow bridge across the Monongahela River just a couple of hundred feet downriver from the I-70 bridge at Belle Vernon; this is the P&WV bridge on its line from Pittsburgh to Connellsville, where it connects with the Western Maryland (which completed its line into Connellsville in 1909).

The Monongahela Valley Railroad was incorporated on April 8, 1867, but the name was changed to the Pittsburgh, Virginia and Charleston on February 4, 1870. Its track from Pittsburgh to Brownsville was completed by 1880. The PV&C was always controlled by the PRR, although Jones and Laughlin Steel evidently had some interest since one of J&L’s founders, B. F. Jones, was vice-president, and, too, the PV&C served J&L’s Pittsburgh works. The PV&C was built surreptitiously because the state legislature, though usually under the thumb of the PRR, occasionally rebelled, and refused to grant it yet another charter. The PV&C, in accordance with railroad tradition, quickly became known to its employees as the “Peavine.”

Another railroad in this area is the Monongahela Railroad. The PRR and the P&LE incorporated the MR on December 31, 1900, to build a line south from Brownsville to tap more coalfields. The MR still hauls unit coal trains on both sides of the Monongahela River north to Brownsville and thence to Michigan and New Hampshire.

One of the narrow-gauge railroads in these parts was the famous Waynesburg and Washington, between the seats of Greene and Washington counties. This road was chartered on May 18, 1875, and completed in 1877. The W&W was built, in order to reduce costs, to a three-foot gauge. This was a serious error, as the W&W could not exchange freight cars with either the PRR or the B&O at Washington, and thus remained a backwoods rural carrier. The PRR bought it as an investment in 1885 to back up the large acreage of coal owned by the PRR through its land subsidiary, the Manor Land Company. No trains have been run over the line since the early 1930s,
but for years the PRR operated a section motor car over the line every Thursday in order to maintain the franchise.

Other railroads in southwestern Pennsylvania are those operating in and around factories and plants, and owned by those companies. One such railroad is the Monessen and South Western, owned by the Wheeling-Pittsburgh Steel Corporation and operating in their Monessen steelworks. The railroad is named M&SW in order to participate in freight and switching charges. The largest such railroad owner is the United States Steel Corporation, which owns a number of lines. While most of them are switching roads in and about plants (such as the Union Railroad), one, the Bessemer and Lake Erie from North Bessemer near the Pittsburgh steel district to Conneaut, Ohio, on Lake Erie, is a line-haul common carrier and performs all the services of the regular railroads.

The gauge of the track has always been a matter of controversy, and although the track gauge of 4-foot 8½-inch is now in almost universal use throughout the country, it has not always been so. The Erie Railroad, for example, built its line to six-foot gauge in the 1840s but eventually was forced to convert to the 4-foot 8½-inch gauge. The only other narrow-gauge regular railroad, as we might call it, was the East Broad Top Railroad in Huntingdon County, which was three-foot gauge but hauled standard gauge cars, with an arrangement that changed the standard gauge wheel trucks to three-foot gauge and vice versa. A portion of the East Broad Top remains but it is now a tourist attraction. Yet another track gauge commonly in use in this area is forty-inch, or 3-foot 4-inch, but it is largely unknown to the public and is now used in the coal mines. Why this gauge was selected seems to be lost in time.

The best known of the forty-inch-gauge lines was the Pittsburgh and Castle Shannon Railroad, incorporated on September 18, 1871. It soon completed a six-mile track from the top of the Castle Shannon Incline on Pittsburgh's South Side to Castle Shannon. The bottom of the incline was at present-day East Carson Street and New Arlington Avenue, a block from the former P&LE Station (where the Grand Concourse restaurant is currently located) and, though the incline has now been torn down, the remains can be seen. The P&CS hauled the coal from the mine near Castle Shannon in the usual two-ton mine cars to the incline. The mine cars were let down the incline, two at a time, and unloaded into a coalyard on East Carson Street.

Two other short railroads in the area were the Little Saw Mill Run Railroad and the Pittsburgh, Castle Shannon and Washington.
The LSMR was chartered on July 23, 1850, and was thus the earliest railroad in the area, and it was built to standard gauge. The line ran from the riverbank near the present West End Bridge and extended up the valley to Banksville and hauled coal exclusively. The LSMR was owned by the Harmony Society. A third rail, laid to three feet, was added when the Pittsburgh Southern acquired trackage rights in 1878. It is now a part of the Norfolk and Western system.

The PCS&W, chartered on July 3, 1876, and built to Wrights, in Peters Township, Washington County, was either thirty-six- or forty-inch gauge. When it became the Pittsburgh Southern it was definitely thirty-six inch. The PS extended from Castle Shannon to Finleyville and was later taken over by the B&O as a part of their line from Pittsburgh to Wheeling.

Around 1900 the Pittsburgh Coal Company (today's Consol Company) purchased about 90 percent of the outstanding stock of the P&CS. They were interested, primarily, in the Oak Mine (formerly the Castle Shannon Mine) at Fairhaven, now part of the city's Overbrook section. The railroad was a money-losing proposition and the railroad company was barely kept solvent by its coal business. Pittsburgh Coal leased the railroad (not the railroad company) to Pittsburgh Railways. The coal company kept the coal mine, the railroad track from Habermon Street and Warrington Avenue around the "horseshoe curve," through the tunnel and along the front slope of Mount Washington, the coal incline, and the coal yard. Pittsburgh Railways could continue to haul coal on the railroad until mid-1912 and was permitted to electrify the track gauge as long as the haulage of coal was not interfered with. By 1907 or 1908 the gauge had been changed by running two additional rails (5-foot 2½-inch trolley gauge). The passing tracks for steam trains and electric cars did not coincide. It is now operated by the Port Authority Transit of Allegheny County and is the present trolley line from the top (or south end) of the trolley tunnel under Mount Washington out to Overbrook and Castle Shannon. The P&CS had passenger trains, too, and one of its moneymakers was hauling crowds out to Linden Grove, at Castle Shannon, where a circular dance hall was located, and which is still in existence where the trolley line crosses Sleepy Hollow Road. The little trains were so crowded that some male passengers climbed onto the car roofs, and the conductor, knowing he could not possibly collect all those fares (there were no tickets) in such a short distance, instructed the engineer to stop on the bridge over Saw Mill Run, where the passengers could not get away from
him. That bridge is the present trolley bridge over Saw Mill Run Road and Routes 51 and 88 near Overbrook.

Another form of railroad in southwestern Pennsylvania was those built by logging companies. They were usually narrow-gauge and were located primarily in eastern and southern Fayette County around the turn of the century. Our research indicates that none existed in Greene County and only one in Washington County. It was located at Virginville down near the West Virginia boundary and extended into Pennsylvania for only a mile or two. The name is about all we know about it, and the fact that a geared steam locomotive was ordered for delivery at Virginville, West Virginia, or Pennsylvania. There were a number of these lumber companies whose history is very sketchy. For instance, the Youghiogheny Lumber Company also bought a locomotive, but where it was used, we do not know; and the Tri-State Lumber Company in Uniontown also bought an engine, but, again, we cannot ascertain where the engine was used.

Geared steam locomotives were used in the lumber industry from the late 1870s until the 1930s. Pennsylvania and West Virginia were the principal lumbering states in the East. These locomotives were built by three different companies, and two of them were produced in Pennsylvania — in the same county. The Shay geared locomotives, the most numerous, were produced at the Lima Locomotive Works at Lima, Ohio, from about 1879 to 1945, during which time some twenty-seven hundred were built. The last Shay, No. 6, was built for the Western Maryland Railroad. The Climax Manufacturing Company of Corry, Erie County, built about a thousand locomotives between 1888 and 1928, and the Heisler Locomotive Works of Erie built about six hundred between 1894 and 1941. The old Western Maryland Shay, a Climax (No. 2), and a Heisler (No. 6) are now operated by the state of West Virginia at the Cass Scenic Railroad.

A number of firms built locomotives in this area at one time or another. The largest was the Pittsburgh Locomotive and Car Works which was started in 1867 by Andrew Carnegie and others and built locomotives until 1919. The plant was in what was then known as Allegheny City, which became a part of Pittsburgh in 1907 and is now Pittsburgh's North Side. Other such plants were located at McKeesport around 1877 and the Dawson and Bailey Company, which operated under the name of the National Locomotive Works, at Connellsville. They built locomotives, sporadically, from 1877 to about 1891. H. K. Porter Company, in Pittsburgh's Lawrenceville
section, built locomotives, mostly light and industrial types, from 1866 to 1952.

The rise and near-fall of railroading in Western Pennsylvania is a fascinating chapter of the history of transportation in the nation. Here one sees, in microcosm, the power of capitalism, the managerial errors and successes, the evolution of locomotives, and the flow of the development from frontier to the peak of industrialization to the nationalization of railroads. However, much of that history is not being recorded for posterity. Local historical societies, individual "buffs," and unofficial, private groups need to cooperate more and to become more aware of what data are available and how that information may be disseminated. We cannot preserve our heritage by putting it into a box in the attic or by refusing to share it with others.