The Linear Yard

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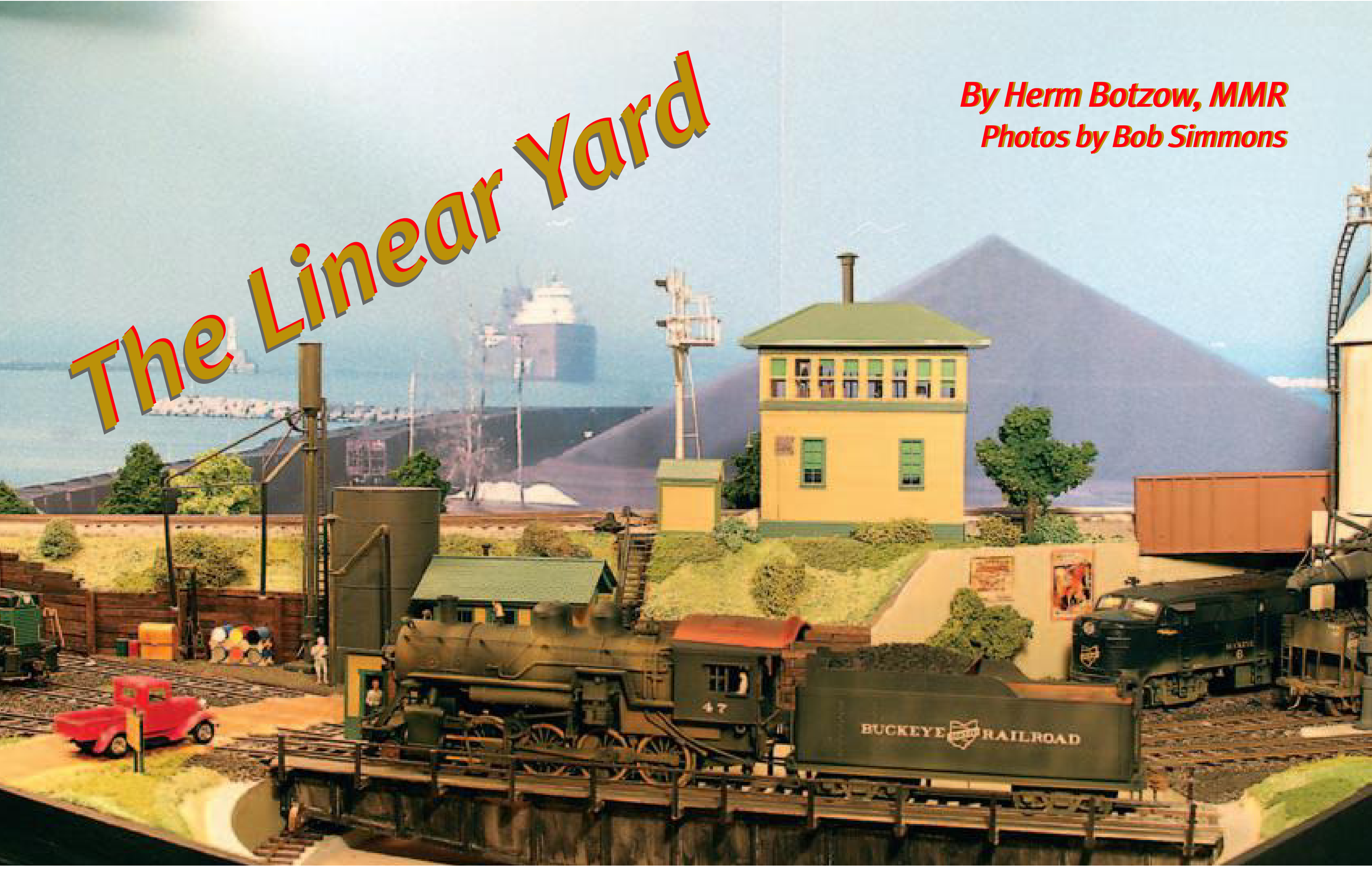
Photos by Bob Simmons



1 **Taken at the east end of Ashtabula Yard, Photo 1 shows a steam loco being turned for its eastbound trip just below AH tower. Hidden by the mains on the embankment is the coal port lead and, beyond that, is a photo mural of the actual coal port. The locomotives are a Sunset GE 44-tonner, a Weaver Consolidation and a Weaver FA. All Buckeye locomotive and cars in the photos in this article have been painted by Dave Widman based on paint schemes designed by Ed Bommer. Dave also did all the weathering.**

In O Scale, it is often difficult to find an area in the train room with enough width to create a typical urban railroad yard, with adjoining areas for a passenger terminal, flat yards for freight classification, an engine facility and industrial spurs. Tail tracks and arrival tracks are needed to permit switching maneuvers while other trains pass on the mainline. The benchwork becomes so wide that operators cannot reach trains if all these activities are squeezed into one location. This is the first in a series of three articles that present ideas for yards on intermediate sized O Scale layouts. Instead of building one huge yard that takes away space for mainline tracks, the idea is to build several smaller yards along a longer mainline. Each yard can then be designed to perform slightly different but complementary functions within the overall scheme of your pike.

The first, and possibly the most generally applicable, of these concepts is the linear yard. There are prototypical precedents throughout the country, as when a real railroad is confined to a narrow river valley. In such circumstances, the railroad will string out the yard components end to end. Doing this in 1:48 permits operators to reach the back of the yard more easily. With more table frontage, several crews can work the yard simultaneously. If the yard eventually widens, aisles should be made available on both sides to ensure adequate operator access to all tracks.

The Buckeye Railroad is based roughly on the Pittsburgh & Lake Erie and has as its purpose connecting the New York Central mainline at Ashtabula, Ohio, to Pittsburgh. The Buckeye's Ashtabula is a much larger city than its namesake and, as such, can justify a large passenger depot based on the one in Cincinnati, Ohio. To the west of Ashtabula is the New York Central's Collinwood Yard. Just east of Cleveland, Collinwood Yard is a staging area for trains operating on the Buckeye. From there to Buckeye Junction, the first community east of Ashtabula, the Buckeye has trackage rights on the New York Central. At Buckeye Junction, the Buckeye diverges and heads east (actually southeast) on its own mainline to its eastern terminal at Pittsburgh.

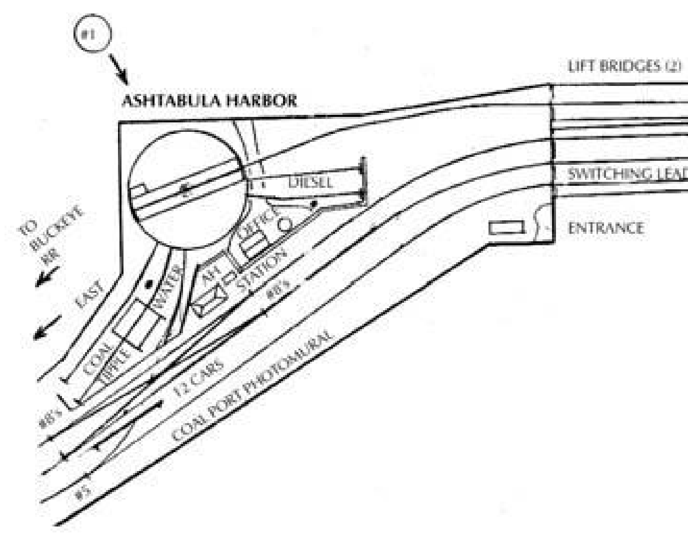


Figure 1 is a drawing of the Buckeye Railroad yard at Ashtabula. Defined as the trackage between two double crossovers stretching west from Ashtabula Harbor Tower (AH) to Ashtabula Tower (AB), it occupies 46 feet along the edge of a narrow section of the train room. Beginning at the lower left or east end, there is a five-track engine facility below the double track mainlines. The main closest to the front of the table is the passenger main. The far main is the freight main. The freight main does not have access to Ashtabula's Union Depot. The engine facility includes a turntable, an approach track, water columns, a coaling tower and a Diesel refueling setup.

Moving to the west, there are crossovers from the freight main to the freight arrival track at the bottom of Figure 1. Another crossover connects the passenger main to the passenger staging track above the mains. The staging track also connects to the engine terminal. Connected to the freight arrival track is a switching lead. The end of this lead doubles as the arrival track for the coal port at Ashtabula Harbor. A second crossover at this location leads to an industrial spur serving a bakery and a three-track freight yard for processing coal trains. The yard is elevated several inches for easier "reachability" and is known as the Upper Freight Yard.

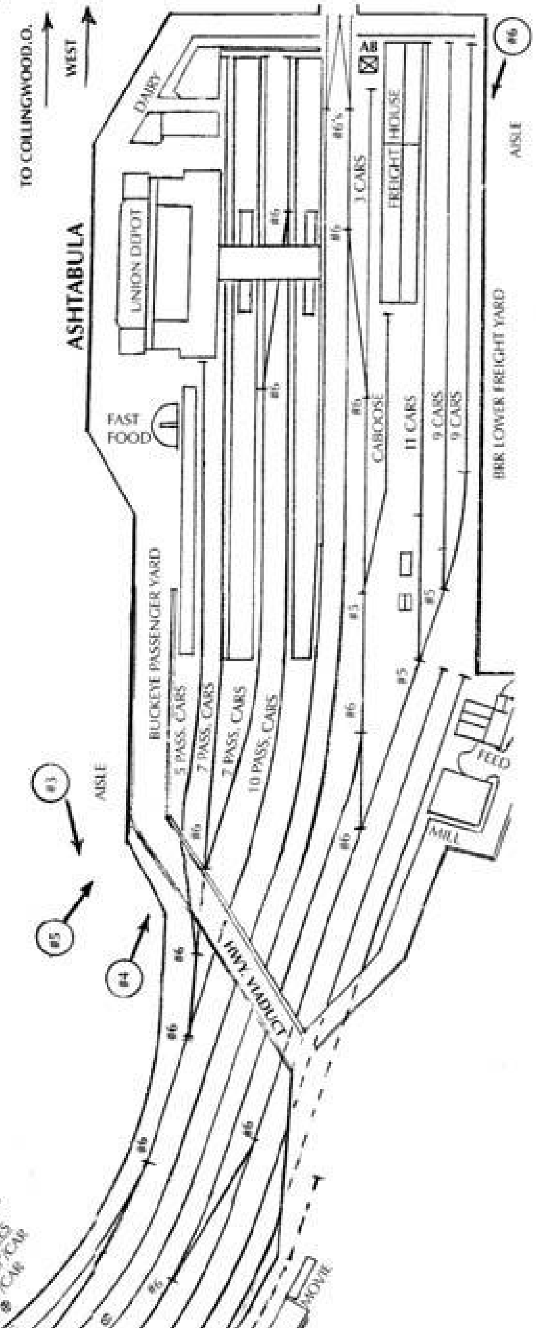
At the major curve in the mainline is the main yard gate to the passenger terminal. Across the way is a crossover that divides the freight arrival tracks into two sections to permit runarounds and simultaneous switching of two freight trains. At the west end of the yard, adjacent to the freight main, is a three-track freight yard, known as the Lower Freight Yard. Between the lower yard and the main are a caboose track, a gate switch to the freight main and a spur to the freight house. On the other side of the mains is the Ashtabula Union Depot passenger yard with four stub end tracks

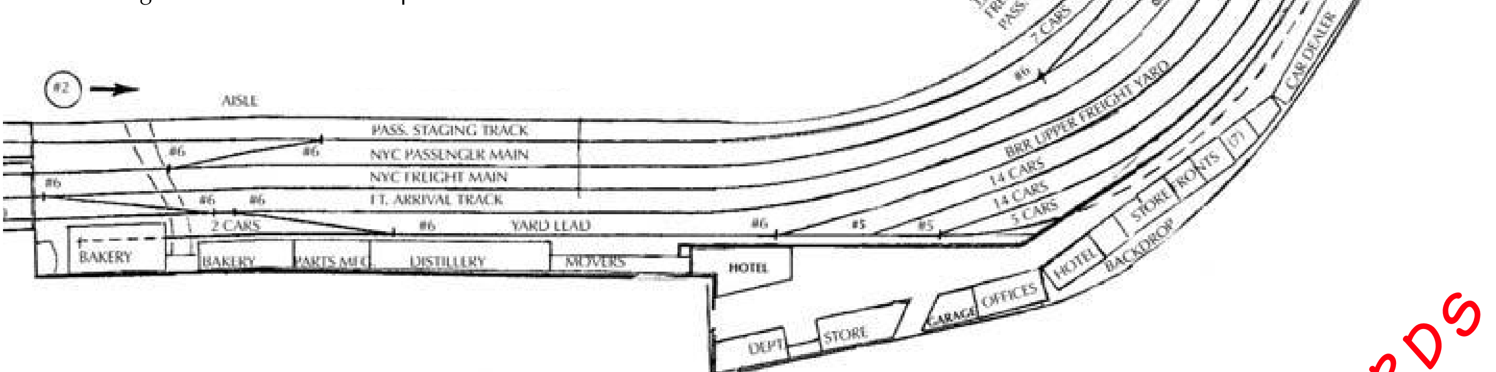
The table is narrowest at the bakery, a mere 26 inches for five tracks. It reaches its widest point, 68 inches, at the west end. Here, the table is accessible from both sides. The least number of tracks is three at the east crossovers. The maximum number, 11, occurs just east of the west crossovers. There are 34 separate turnouts, all manually operated. As mentioned, the yard sits at the west end of Buckeye Railroad operations and is fed from the west by a four-track staging yard at Collinwood, Ohio. At the east end, departing passenger trains cross over to the freight main and proceed east on single track to Buckeye Junction, and, from there, to a division point and the Pittsburgh terminal at the east end of the railroad. During an operating session there will be upwards of 32 trains running to, from or through Ashtabula.

The yard is designed to handle a variety of operations simultaneously. The top priority is the unencumbered movement of through trains on the mains. This includes through passenger trains that stop on the main at the depot. The next priority is given to the passenger, mail and milk trains to, and from, the East that begin and end their runs at Union Depot. Some of these trains arrive behind steam locomotives that must be turned at the engine facility for their return trip.

On the freight side of the yard, there is the daily arrival at the Lower Freight Yard of a through freight from the classification yard at the Buckeye division point to the east. The cars on this train are then set out by a yard drill that switches the adjacent freight house, the bakery at the east end of the yard and the grain elevators at the upper yard. The empties are assembled into a train at the lower yard and are hauled back to the division point for classification and off-line routings.

The greatest volume of activity at Ashtabula centers on the Upper Freight Yard and the coal port lead. Loaded coal trains from the





BUCKEYE RAILROAD - ASHTABULA YARDS

Photo 2 is a view to the west from just above the crossovers to the freight arrival and passenger staging tracks. An eastbound Buckeye passenger train exits the depot onto the passenger main as a Buckeye Coal drag approaches the upper freight yard. Note the use of different ballast, tie spacing and rail size to distinguish the mains from the adjoining arrival and staging tracks. The passenger loco is a Weaver FA.

south are assembled at the division point and moved to Ashtabula throughout the session. As each train arrives, it exchanges its loaded hoppers for empties and returns to the division point where the hoppers will be moved to their originating roads. The coal drags are run as extras.

The yard design permits several of these separate operations to proceed simultaneously so that a large volume of traffic can be handled without blocking the mains. For example, a coal drag might be being switched at the Upper Freight Yard while the yard drill is sorting freight cars at the Lower Freight Yard. At the same time, a local passenger train arriving from the east might be crossing over to the passenger main at the AH tower. As the local enters the depot, a through passenger train from the west might be departing the passenger station on the passenger main. At the east end, a steam engine might be coaled and turned at the engine facility for its next assignment. Needless to say, this is a busy time for Buckeye operators, even as the yard easily absorbs the action. The attached photos show train movements at various points in the yard. Perhaps a linear yard could smooth out your operations as well. . ◆

(Photo 6 can be seen on page 8)

Photo 3 is a view of the upper freight yard looking east. During the operating session, these hoppers arrived from the east (south) and were exchanged for empties. The loaded hoppers will be moved to the coal port overnight, dumped and returned to the sidings empty and ready for removal at the next operating session. The locomotive is an Atlas SW-9 in Buckeye freight livery.

Photo 4 is a view of the passenger yard looking west from under the highway viaduct. A departing milk train is flanked by two waiting passenger trains. From left to right, the locomotives are a Williams Atlantic, Atlas RS- 1 and Weaver FA.

Photo 5 is an overview of the passenger depot and, across the two mains, the lower freight yard. The two Pennsy coaches are Walthers kits built by the author and reworked by Ed Bommer. The milk cars are scratchbuilt by the author and the streamlined passenger equipment is by MTH. Aisles skirt both sides of the yard at this location.

Photo 6 is a view back to the east showing the yard drill at work in the Lower Freight Yard as it sorts and delivers recently arrived freight cars to the various industries as Ashtabula. These include the grain elevators on the left and the freight house on the right. Note that the grain elevators can only be switched by temporarily pulling the hopper cars out of the other end of the siding.