

**LONG FORM (for historical record) Entertainment Report for June 6, 2015**

**June 6, 2015.** Street Railways of Greater Boston: The Horsecar and Early Electric Era, 1853 - 1905. Horsecars were introduced into Boston in 1853. Stuart started us off with with an 1858 photo of a horsecar. Boston had 37 omnibus lines by 1856, and as ridership grew, the demands upon the horses grew, so companies turned to steel wheels on rails to increase capacity. Horsecar line coverage of the Boston area was already extensive enough by the time of the Civil War that shop facilities of substantial size were required, and cars from this era could still be found in service into the 1880s. The Massachusetts General Legislature made it fairly easy for investors to obtain charters to start their own horsecar lines, although investors also had to get cooperation from local governments, which might balk at issues from the laying of tracks in the streets to snow removal. As it is today, snow removal was a problem back in the 1800s: The Metropolitan Street Railway had to use horsecar snowplows to operate in moderate snow, and sleigh omnibuses to operate in heavy snow. Legal disputes were frequent, not only by passengers over service complaints, but also between companies trying to use legal means to shut each other out of business. In some cases, horsecar companies did manage to come to agreements to arrange for passengers to be able to purchase transfer tickets with the payment of a premium fare (typically 8 cents, compared to a more usual fare of 5 cents to 6 cents).

Horsecar companies proliferated during the mid-to-late 1800s, with crowding (to the point of passenger bypass) causing communities to charter new horsecar companies even as consolidation of horsecar companies started in the late mid 1890s. The Metropolitan Street Railway was one of the consolidating companies, which leased out street railway for other companies to operate on, eventually absorbing many of them after they had proven profitable. The Union Street Railway was another major consolidator, and was itself absorbed by the Cambridge Railway in 1884. Stuart showed us a **Ballou's Pictorial** magazine article that included picture of a street railway. March 21, 1856 featured the start of several months of free fare horsecar operation in Cambridge, using second hand cars from New York, when 5 cent fares were instituted, this stimulated much protest. Another set of especially important vintage photos was a series of photos of Harvard Square featuring horsecar service, starting in 1859 and proceeding for a few years thereafter. Cambridge Railroad shops were located on Dunster Street, partially on Harvard property. The Harvard Branch Railroad (itself horse hauled beyond the point of connection with the Fitchburg line steam trains) lost business to the horsecar lines that charged lower fares and had much more frequent service. Horsecar fares were typically in the 5 cent to 8 cent range, which made them affordable (if not comfortably affordable) to blue-collar workers, who did not receive sufficient wages to cover daily fares on steam commuter railroads, which more typically charged around 25 cents.

East Boston had horsecar and omnibus service connecting to the East Boston Ferry, which operated charging only 1 cent per passenger until discontinued entirely in 1956. For a while the ferry actually carried horsecars and omnibuses; these were later banned from the ferry, so that passengers had to transfer from omnibuses or horsecars to the ferry at one dock, and then to other horsecars at the other end of the ferry journey.

Horsecar companies had trouble with the large number of horses needed to operate horsecars. Standard sized horsecars required 2 horses each during off-peak times and 4 horses each during peak times, and horses needed to be changed out for rest en route on all but the shorter lines. Peak speeds were 12 mph, although normal speeds were around half as much. Horsecars were too small to need more than 2 axles -- larger cars had to await the electric era. Horsecars weighed around 1 ton (somewhat less for open cars), and were on the order of 16 feet long (as short as 12 feet for "transfer cars" or "short cars" commonly used as horsecar shuttles for connecting different lines). In addition to the expense of maintenance of the horses, disease was a recurring problem: A photo taken during an outbreak of equine flu in the 1870s shows crowds of people hauling horsecars while the horses were out of commission. The problem of the large

number of horses required and the expense of their maintenance stimulated the invention of steam dummies (steam-powered streetcars), of which we got to see an example photo. The Dedham and West Roxbury experimented with these in the 1860s, but these were not very practical -- even when not banned (as in Roxbury and Cambridge) for scaring horses and small children,, they were replaced after a few years by horsecars for practical reasons -- they were themselves expensive to operate, and tended to pound the streets.

We got to see many 1850s - 1860s photos, including Scollay Square long before consideration of subway stations. Some horsecar line construction of the time was double track, but single track with passing sidings was common. Horsecar styles were varied, with the West End Street Railway defining 14 types of horsecar roofs after consolidating several other companies. Open cars featured curtains for use in case of unexpected rain. Demand for increased capacity caused invention of double-decker horsecars, although these did not catch on, and neither did the later double decker electric streetcar of which we also got to see a photo. We got to see a photo of horsecar route 11, which corresponds to the modern bus route 11, and which had a barn that still exists, although no longer used for horsecars or streetcars.

Henry Melville Whitney decided to gain a controlling interest in various horsecar companies so as to be able to consolidate them into his West End Street Railway Company in November 1887. The Metropolitan Railway had started organizing horsecar lines into divisions in 1881, and the West End Street Railway followed this example, although original company livery could be seen on acquired streetcars for several years afterwards. We got to see a photo of a horsecar (Metropolitan #801, later #724) that was built in 1884, converted later to a work car, and finally retired in 1967 by the MBTA; it is now preserved at Seashore Trolley Museum. Henry Melville Whitney looked into cable and electric conduit propulsion, but ultimately decided upon overhead wire electrification, with conversion of many horsecars to electric power; electrified service started on January 1, 1889. At the time, Beacon Street in much of Brookline had a very rural aspect; his company offered streetcar service on Beacon Street to attract people to the area, thereby enabling his real estate development of the area to be profitable. We got to see the Reservoir carhouse from this era (400 Chestnut Hill Avenue) that was in use until torn down in 1982 for replacement by the modern Reservoir Carhouse; until this time, it was still recognizable as the same carhouse. To get more use out of horsecars without having to convert all of them, electrified cars towed unconverted cars as trailers. On lines that were only partly electrified, the trailers could continue under horse propulsion beyond the electrified section. For example, the Longwood Avenue Line remained unelectrified in its Brookline portion due to objections against overhead wire, and so this portion continued to operate under horse power, and has never had electrified service, and indeed, has only briefly had public transit bus service. We saw an experimental double decker experimental streetcar, which turned out to be impractical for Boston (although double-decker trams caught on in Edinburgh, Blackpool, Mumbai, Alexandria, and Hong Kong, the latter of which continues to operate them). Another experiment that got slightly more use was Robinson's radial car (several of these were built), which had a set of wheels in the middle to accommodate sharp curves, but had a non-articulated body.

In the dawn of the electric era, expanding ridership continued to demand large carhouses, and Stuart showed us several of these. We saw the Allston Carhouse on one end of the Allston-Dudley Line (now part of bus route 66) that is still partly intact and serves as a bus garage. We also saw Lenox Street carhouse, which had originally been built as a combination supermarket and skating rink before being converted into a carhouse. The Metropolitan Street Railway acquired a massive convention hall (originally built for the Charitable Mechanics Association for around \$400,000 and sold to the Metropolitan Street Railway for around \$300,000) in 1885 to use as a shop facility, but this burned a few months later; much of the bricks were salvaged to use in the Bartlett Street shop, which is finally being demolished for redevelopment in 2015. We got to see a Bartlett Shop interior photo showing open cars being serviced. Electrification spread rapidly, because the car speeds were much faster, and electric propulsion could drive much larger cars (with 4 axle cars finally appearing during the electric era). The last Boston horsecar

ran in the morning of Christmas Eve, 1900.

Electric streetcars were so crowded on Tremont Street that it was remarked that one could go to or from work faster by walking on the roofs than by actually riding on the streetcars. Streetcar service included not only passenger streetcars, but also US Postal Service cars, on which passengers sometimes illegally obtained rides, especially during streetcar worker strikes, which could not legally shut down US Postal Service car operation. The crowding prompted the building of the Central subway, opening in 1897, with the first ride being so popular as to attract an estimated 112 to 140 people on a streetcar (#1752) built to seat 40 people. The Central Subway section to North Station opened in 1898. We got to see Park Street Station shortly after opening, featuring bright white paint and the large sign with electrically lit numbers used to instruct passengers which berth to wait at to get on the cars going to their destination. This sign lasted into the 1950s, but heavily modified, and with the electrically lit berth numbers removed. We got to see the last used horsecar barn (including an interior photo) near Fenway; this was never electrified. We got to see the church next to Copley that was damaged by Central Subway construction, resulting in its tower tilting so much as to require replacement in the 1930s; this church was damaged again recently by Copley Station construction.

After electrification, drivers pressured the MGL to require enclosed vestibules on streetcars for protection from the weather, resulting in distinctive ends (the "West End front"). We got to see Court Street Station before conversion to the East Boston Tunnel rapid transit service, which took out the platform and extended the tunnel (before conversion to rapid transit, it was a stub-end terminal station).

The show ended with a photo of experimental streetcar 5000, which was the first semi-convertible, designed to offer more capacity, and soon followed by a large fleet of semi-convertibles.

#### **SHORT FORM (for Annual Report) Entertainment Report for June 6, 2015**

**June 6, 2015.** Street Railways of Greater Boston: The Horsecar and Early Electric Era, 1853 - 1905. Stuart Spina presented the rise of the Greater Boston street railway system, starting with the Metropolitan and Cambridge Railroads in 1853 to just before the arrival of the first semi-convertibles in 1905. Stuart showed us scenes and anecdotes from the horsecar era and the early days of electric traction, along with a view of the street railway's impact on real estate development and the cityscape overall. Information on facilities, rolling stock, and noted persons complemented a handpicked selection of photos, including some rare, not-often-seen photos.

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