

The Berlin Rohrpost

by Sandra Lach Arlinghaus

Nathaniel H. Gordon notes the Berlin Rohrpost as yet another pneumatic network (The Carto Philatelist, December 1993, Vol. 38, No. 4, pp. 111) used to transmit mail through an underground network of tubing. U. S. Postmaster General, John Wanamaker, commented that, in the time period between the Seven Weeks' War (1866) and the Franco-Prussian War (1870), "The stirring events of 1866 had for a while placed the extension of the pneumatic network in the background, but soon it became all the more urgent." To facilitate communications, "The connection by pneumatic tubes between the central office and the Potsdam Gate, with an intermediate office at the Brandenburg Gate... was most urgently needed." Thus, the new line 2.3 kilometers in length extended "from the central office along Oberwald Street and Unter den Linden to the office room of the intermediate station at the Brandenburg Gate, and thence along the Koniggreiker street to the terminal station at Potsdam Gate. Additional extensions of the Berlin network did not occur until postal reorganization after 1870." (U. S. Postmaster General, 1889, pp. 152, 153, source for quotations; Arlinghaus, 1985).



Figure 1. 25-pfennig pneumatic mail postal card, 1895.

In the period following the Franco-Prussian War, in the mid-1870s, Imperial Chancellor Otto von Bismarck organized a commission to study the merits of a tubular post (Rohrpost). One suggestion of this commission was to use a network design that would alleviate congestion at the center of Berlin, the rapidly expanding capital of the newly-established German Empire. In December of 1876, the Rohrpost Commission opened 15 new pneumatic stations along a northern and southern polygon of tubing tangent at the Central Office. Even with these new stations, Wanamaker reported that by 1881 an average Rohrpost transmission took 40% longer than it had in earlier times, as a result of the burgeoning increase in Berlin's population. The Rohrpost Commission elected to build a more substantial network based on a radial plan, with a central hub, which by 1901 had the form shown in the map in Figure 2 (U.S. Postmaster General, 1891; map to appear in Arlinghaus, Arlinghaus, and Harary, forthcoming).

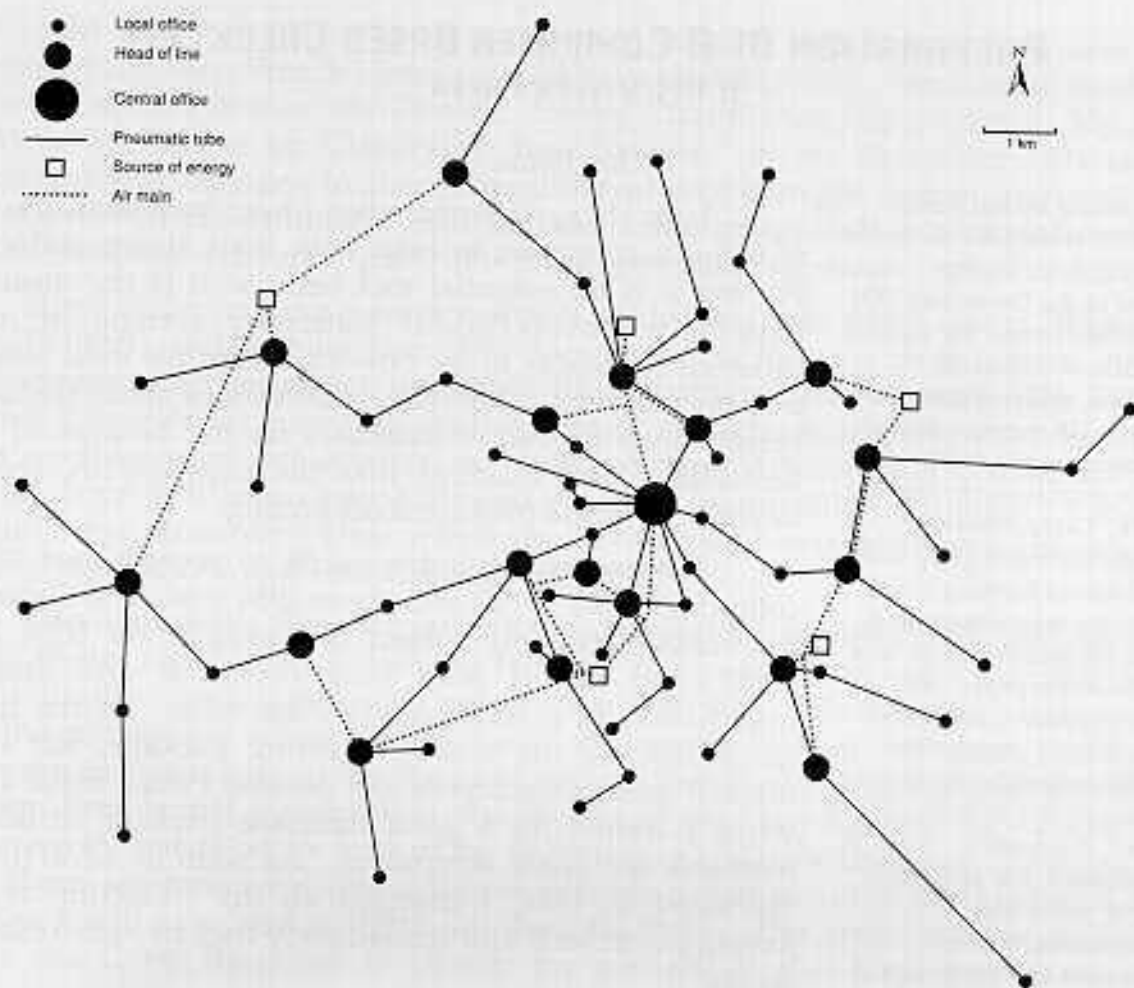


Figure 2. The Rohrpost, Berlin, 1901.

Staggered use of compression and suction dried out the interior of the system of tubing. In coldest weather, however, tubing placed at insufficient depth under streets and sidewalks froze and "large quantities of liquid spirits of wine were introduced into the tubes for the purpose of detaching the ice from the walls of the tubes" (U. S. Postmaster General, 1891, pp. 152, 154). One has to wonder if the French would have considered a similar solution, using French wine, had the tubes in the Pneuamatique frozen in the Parisian winter!

REFERENCES

- Arlinghaus, S. 1985. *Down the Mail Tubes: The Pressured Postal Era, 1853-1984*. Monograph #2, Institute of Mathematical Geography.
- Arlinghaus, S., Arlinghaus, W., and Harary, F. *Structural Models in Geography*, forthcoming. *The Carto-Philatelist*, December, 1993, Vol 38, No. 4.
- U. S. Postmaster General. 1891. *Annual Report*, U. S. Post Office Department, Washington.

Dr. Arlinghaus is Founding Director of the Institute of Mathematical Geography, 2790 Briarcliff, Ann Arbor, MI 48105; and, Adjunct Professor of Mathematical Geography and Population Environment Dynamics in the School of Natural Resources and Environment at The University of Michigan, Ann Arbor, MI 48109.