



Sheetlines

The journal of
THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps

“Proposed and mystery tunnels”

various authors

Sheetlines, 104 (December 2015), pp40-43

Stable URL:

<http://www.charlesclosesociety.org/files/Issue104page40.pdf>

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Published by
THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps
www.CharlesCloseSociety.org

The Charles Close Society was founded in 1980 to bring together all those with an interest in the maps and history of the Ordnance Survey of Great Britain and its counterparts in the island of Ireland. The Society takes its name from Colonel Sir Charles Arden-Close, OS Director General from 1911 to 1922, and initiator of many of the maps now sought after by collectors.

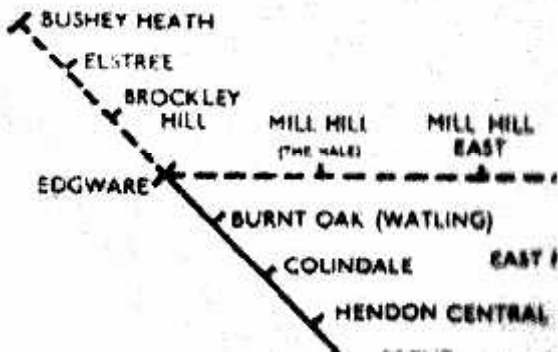
The Society publishes a wide range of books and booklets on historic OS map series and its journal, *Sheetlines*, is recognised internationally for its specialist articles on Ordnance Survey-related topics.

Proposed and mystery tunnels

Three contributors have responded to the item in the last issue on the depiction of proposed tunnels on Bartholomew maps.¹

Rob Wheeler writes: It occurs to me that the position of the tunnel mouth near Lymington may be significant. The implied open cutting landward of that point would suggest that reclamation of the salt marsh nearer to the coast was to be part of the project. One might conceivably rely on impermeable embankments either side to prevent the sea from filling the cutting at high tide, but embankments like that are liable to failure, whereas a newly-created zone of dry land would offer extra security, as well as another source of income.

Alan Fair writes: London Transport's proposed Northern Line extensions, including north of Edgware, postponed by World War II and cancelled after the post-war Town and Country Planning Act have been well documented. However, readers may not be familiar these depictions:



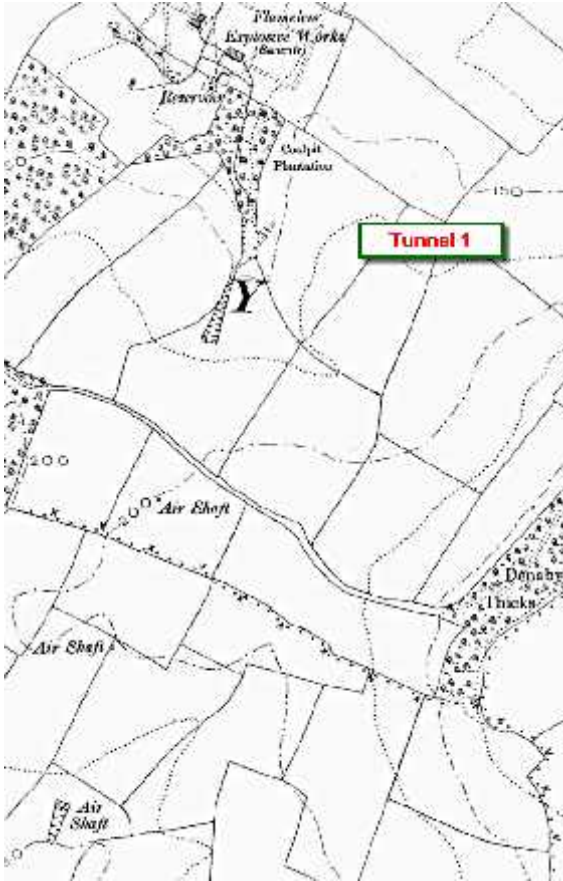
Left: Extract from London Transport Underground Railway Map [sic] Number 2 of 1938. 'Authorised extensions' shown by dotted lines



left: Extract from Bartholomew Half-inch sheet 15 Herts and Bucks of July 1947

¹ 'Tunnel vision', *Sheetlines* 103, 53.

John Ambler writes: Using historical Ordnance Survey maps I have found evidence of two tunnels separated by just one mile in South Yorkshire, the purpose of which at present remains unexplained.



Tunnel 1 south of Denaby Main village is exemplified by the extract from the OS County Series six-inch map sheet 284 SW, Second Edition 1903. This shows a pair of entrance cuttings with two intermediate air shafts on a north-south alignment just south of the Flameless Explosives Works on the southern edge of the village. The almost half-mile long tunnel seems to be straight and level emerging from the hill at both ends between the 150ft and 175ft contours. The northern entrance which appears to be still extant but heavily over-grown is at SK 4923 9886. The southern entrance cutting has been filled in.

Tunnel 2 on Conisbrough Parks a mile to the south-east of Tunnel 1 is exemplified by the composite extract from OS county Series six-inch map sheets 290 NW, Second Edition 1904 and 284 SW Second Edition 1903. This shows six air shafts on a curved alignment north-east to south-west with the entrance cuttings separated by just over half a mile. The south-western entrance cutting is still extant at SK 4979 9637 at an elevation of 210ft according to digital mapping (Memory-Map). The north-eastern entrance



cutting which is not visible on modern maps or Google aerial photography was very close to the 225ft contour on the 1903 map.

Having an interest in railway history I immediately jumped to the conclusion that these were railway tunnels for lines which were never completed, though no other signs of earthworks (cuttings and embankments) can be seen on the mapping of the early twentieth century. To date I have also been unable to find any reference to failed railway projects in this area. Pure conjecture could suggest that work on the tunnels was started in advance of any other works as the completion of the tunnels would be the rate-limiting step for a railway project. By the first decade of the twentieth century, all of Britain's main line railways had been built and speculators were promoting short lines to link different systems to facilitate efficient transport of coal to ports and to access new mines along the way. If these tunnels were for railway lines, what connecting links could they have provided?

Looking at the elevation of Tunnel 1 at approximately 160ft it is probably too high to connect easily (ie with acceptable gradients) in a northern direction with the nearest railway which was the Great Central (GC) at an elevation of only 55ft in the valley bottom. The Dearne Valley Railway however which crossed the River Don via Consibrough Viaduct (deck reported as 116ft above river level) at a similar elevation to the tunnel might have been a possibility. Another expensive viaduct would be required if travel in a north-westerly direction were envisaged or a tortuous route on a hillside ledge avoiding Conisbrough Castle if a south-easterly link was proposed. To the south-west the GC and Midland (MR) railways would have been accessible via more tolerable gradients as could the GC-MR joint line from Thrybergh to Worksop.

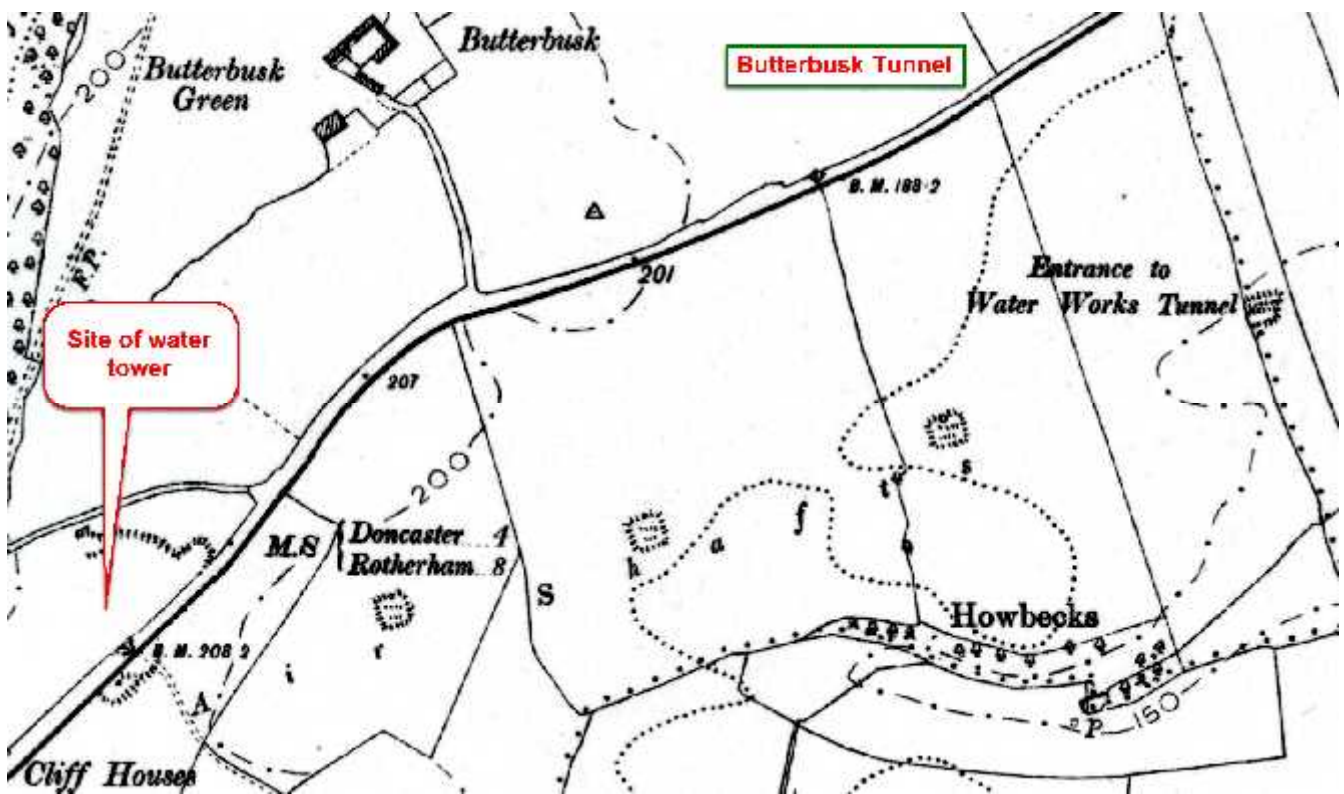
The alignment of Tunnel 2 would suggest a potential link from the Hull and Barnsley (HB) and Great Central Joint Railway east of Consibrough to the GC-MR Joint line near Ravenfield though a valley would have to be bridged and several cuttings would be required making it expensive to build.

A chance enquiry on a local history Facebook page (Dearne Valley in Old Photographs) brought to my attention an alternative interpretation for these tunnels. A respondent suggested that they could be waterworks tunnels. This suggestion appears to be quite plausible. Tunnel 1 is almost in a direct alignment with the former Doncaster Corporation Waterworks reservoir at Thrybergh which has a surface level of 190ft suggesting that gravitational conveyance of water towards Doncaster (50ft above sea level) via the tunnel at 160ft might be possible, though the open-topped filter beds at the base of the dam appear to be only 150ft above sea level. Tunnel 2 is similarly in good alignment with the small Doncaster Corporation Waterworks reservoir at Firsby (mis-spelled on the 2014 edition of the 1:25k digital map supplied by Memory-Map as *Firsdy* Reservoir), though here the elevation of the water surface at 185ft does not suggest gravitational water movement via the tunnel which is both higher and has an adverse gradient, falling downhill from the Doncaster direction towards Firsby. No pumping station is evident on the map. Neither of these reservoirs remains in waterworks service and they are now used as a country park and a nature reserve, so any aqueduct

pipes and associated infrastructure may have been removed for scrap or simply buried.

There is a confirmed precedent for the use of tunnels by Doncaster Corporation Waterworks. Beside the A630 (Sheffield Road) at Butterbusk between Conisbrough and Warmsworth, a line of mounds and brick shaft collars can be seen in the fields to the south of the road leading away from the large water tower towards Doncaster. OS 284 SE, Second Edition of 1904 identifies the tunnel's eastern portal as "Entrance to Water Works Tunnel" very close to the 150ft contour. Although not shown on the 1904 map, a large water tower now sits directly opposite the westernmost airshaft of this tunnel, though there is no cartographic evidence of an aqueduct leading to the tower from the tunnel at Denaby or onwards towards Doncaster from the tunnel portal. A valley-side route for an aqueduct in a shallow trench from Tunnel 1 to Butterbusk is just about imaginable.

It would be good to hear from any members who might have knowledge of the history of these tunnels.



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