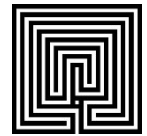


# Thomas Kirke's "Most Surprising Labyrinth"



Richard Crossley

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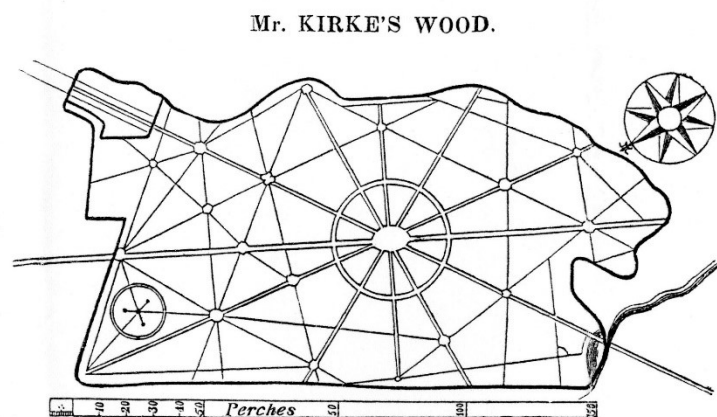
The Restoration of the Monarchy in 1660 brought about an explosion of intellectual vigour in Great Britain, most notably the establishment of the Royal Society of London. Before the Civil War York, the seat of the Council of the North which governed northern England, had been undeniably the second city of England; aided by its impeccably Royalist associations it quickly re-established itself, if not as a political centre, certainly as an intellectual one. Prominent amongst those who gathered in York were those who called their little group the "York Virtuosi,"<sup>1</sup> "virtuoso", the word being used here as a self-conscious archaism, meaning interested in the virtue, whether intellectual, technological, scientific or aesthetic, of things. This group met, during the period ca. 1670-1710, at the house of the distinguished enamel glass painter Henry Gyles in Micklegate, York; the house still stands.

That we know so much about this group is largely because it included the antiquary and collector Ralph Thoresby and the medical doctor and zoologist Martin Lister, both prolific correspondents whose letters may be found in archive and library collections; many of these letters have appeared in print. A third member, Thomas Kirke, a mathematician and like Thoresby and Lister a Fellow of the Royal Society, also amassed a large collection; unfortunately after his death and that of his son this was sold off, though not before Thoresby, who was Kirke's third cousin and near neighbour outside Leeds, had catalogued it.<sup>2</sup> It was Thoresby who referred to Kirke's "most surprising labyrinth." In his Ducatus Leodiensis ("Guide to Leeds") he writes:

"Cookridge is deservedly famous for the noble and pleasant Walks that Mr. Kirke has contrived in his Wood there, an Avenue of four rows of Trees leads from his House to that most surprising Labyrinth, which at once delighteth and amusethe the Spectator with the Windings and variously intermixed Walks, which are so intricate, that those engaged in them, cannot without some difficulty extricate themselves, there being no less than 65 Centers, and above 300 Views, better expressed by this Plan, than any description I am able to give of it, the whole contains about sixscore Acres, the double Line Walks are about 20 Foot wide, and the single about 8; and all kept in excellent Order by that ingenious Gentleman, who has the Pleasure, or Fatigue shall I say, of almost all Foreigners, and Gentlemen of Curiosity of our own Nation, that travel into the North, and who afterwards can as little conceal their Admiration, as before they could their Desires to see it."<sup>3</sup>

*Thoresby's plan of the Cookridge Labyrinth, captioned:*

*This table shews in the first Collumne the Number of Views in each Centre, in the Second Collumne the Number of Centres, and in the third the total Number of all the views*



TOTAL OF THE VIEWS.	8	18	140	10	60	7	32	9	10	12	306
NUMBER OF CENTERS.	4	6	35	2	10	1	4	1	1	1	65
VIEWS.	2	3	4	5	6	7	8	9	10	12	SUM

Kirke had visited Versailles and no doubt inspected the “block-maze” there dedicated to Aesop’s fables and described in some detail by Matthews.<sup>4</sup> His own maze is of the block form in consisting of paths cut into the (presumably) existing Moseley Wood (thus in a sense the opposite of a hedge maze), though the block itself lacks the usual formality.<sup>5</sup> Kirke also managed without statues, to say nothing of Versailles’s incredibly expensive hydraulics.

The “Plan” (reproduced above) shows the Avenue to the house (Cookridge Hall) to the north-east (top left). There are 320 perches to a mile so to a good approximation one perch is five metres. The wood is very roughly 1 km x ½ km, so 50 hectares in area, which is about 125 acres, close to Thoresby’s estimate. The Table of Views etc., presumably by Kirke the mathematician, enables us to add (though not without some problems as to what to count and what not!) an extra line to Poundstone’s table of “maze difficulty,”<sup>6</sup> the difficulty being defined as the average number of branches per node. This reveals very clearly the complexity of Kirke’s maze; by Poundstone’s measure it is “most difficult” by a considerable margin.

The Versailles maze was constructed in the 1660s and destroyed in 1775. Kirke started work on his maze in about 1680 and by 1696 it was in “delicate order”, according to Henry Gyles in a letter to Martin Lister.<sup>1</sup> The plan given by Thoresby is fully confirmed by an estate map of about 1723 and even by the first edition of the Ordnance Survey of 1847-8. The land was not in fact sold for housing until 1960; solace may be found in the fact that the resulting estate is itself, like so many, a maze: twelve streets have names beginning with Kirkwood, no less than sixteen with Moseley Wood! Cookridge House is at OS grid reference SE 257407, and the wood extended down almost to the site of the present Horsforth railway station.

Richard Crossley; York, England, 1999

It is a pleasure to acknowledge assistance generously given by Mr. W.J. Connor of the West Yorkshire Archive Service, Leeds, and by the staff of the Reference Department of the City of York Library.

#### Notes & References:

1. Brighton, J.T. *York Historian* 4, (1984).
2. See entries for Thoresby, Lister and Kirke in *Dictionary of National Biography*.
3. Thoresby, R. *Ducatus Leodiensis*, 2nd edn. Ed. Whitaker, Leeds: 1816, p. 157-9.
4. Matthews, W.H. *Mazes and Labyrinths*. London: Longmans, 1922. p. 117-121.
5. Fisher, A. & G. Gerster. *The Art of the Maze*. London: Weidenfeld & Nicholson, 1990.
6. Poundstone, W. *Labyrinths of Reason*. London: Penguin, 1988, p. 167.

#### Poundstone’s table of “Maze Difficulty”

defined as the average number of branches per node (after ref. 6)

Labyrinth	Nodes	Branches	Maximum	Average
Chevening	18	22	4	2.44
Versailles	30	43	5	2.87
Leeds Castle	27	41	4	3.04
Cookridge	65	153	12	4.71

Apart from Cookridge, these mazes are all described in ref. 5.

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