Afterword

This article began life in quite a different form. Although I was interested in looking at the Magazine Gate tradition,[5] one of several about Richard's time in Leicester that fateful August, I also wanted to explore the possibility that he was not immediately interred in the Grey Friars but initially laid to rest at St Mary of the Annunciation. There seemed to be reasonable evidence to support such a hypothesis in the contemporary sources: the Ballad of Bosworth Field, which confirms he was laid at the Newarke for all to see, the Frowyk Chronicle, which claimed he was buried at the Newarke, and the document in the Early Chancery Proceedings (1496), which related to his tomb and where the clerk had written the king was buried in the 'Newarke' but then crossed it out and inserted 'friers'. Then, of course, there was John Rous' rather ambiguous wording in his history, Richard finalitur (ultimately or finally or at last) buried in the Grey Friars.6 The announcement on 4 February made nonsense of my theory. The discovery of King Richard in an inadequately dug grave, the position of his head and the possibility that his hands had been tied all indicated a hasty interment following the display of his body. Records and documents are wonderful but you can't argue with the archaeology.

Wendy E. A. Moorhen

Notes

1. Leicester was granted city status in 1919 and the former parish church of St Martin became the cathedral. During King Richard's reign Leicester was a borough.
2. There is a popular tradition that the inn was called the White Boar in King Richard's day but was renamed the Blue Boar (a device of the earl of Oxford, Tudor's general at Bosworth) after the battle.
3. I am not alone in finding difficulties traversing the city. It's a problem that the City Council recognise and they have launched the Connecting Leicester project, which aims to remove some of the barriers that the post-war development of the city has imposed. The vision is to improve the connections between 'shopping, leisure, heritage, housing and transport facilities, all linked by accessible high quality pedestrian routes'.
4. Horrox, R. and Hammond, P. W. (eds), *BL Harleian Manuscript 433*, 4 vols, Upminster, 1979–83, vol. 2, p. 93.
5. In addition to the traditions referred to in this article there is also the story that Richard brought his own bed to the Blue Boar and the incident on Bow Bridge, when after his foot struck a stone on the way out it was predicted his head would hit the stone on his return.
6. Hales, J. W. and Furnival, F. J. (eds) *Bishop Percy's Folio Manuscript. Ballads and Romances*, 3 vols, London, 1868. 'Bosworth Field' vol. 3, pp 233–59. 'The Making of a Minor London Chronicle in the Household of Sir Thomas Frowyk (died 1485)' by Anne Sutton and Livia Visser-Fuchs, *The Ricardian*, Vol. X, No. 126, pp 86–105. PRO (now TNA): C1/206/69 (Rhoda Edwards 'King Richard's Tomb' and Peter W. Hammond 'The Burial Place of Richard', both in *Crown and People* edited by James Petrie, 1985, pp 29–31). John Rous, *Historia Johannis Rossi Warwicensis de Regibus Anglie*, http:/books.google.co.uk.

Further reading

Matthew Morris, Richard Buckley and Mike Cood, *Visions of Ancient Leicester*, University of Leicester Archaeological Services, 2011. The illustrator has recreated what Leicester might have looked like during various periods of its history, including concepts of medieval Leicester. A visual treat.

I am grateful to Dr John Ashdown-Hill for his comments on the original draft of this article.

Medieval treatments for scoliosis

It has recently been suggested by Dr Mary Ann Lund[1] that Richard III may have been offered painful treatment for his scoliosis, including quite extreme forms of traction, as such treatments are recommended in the works of Avicenna, who was highly respected as a medical authority in the Middle Ages, and who was himself influenced by the works of Hippocrates.

The terms kyphosis and scoliosis to describe different types of spinal deformity were

introduced in the Hippocratic texts (fifth–fourth centuries BC).[2] To concentrate on the use of the term 'scoliosis', it appears that this work is applied in these texts to 'almost every kind of spinal curvature, including those spinal deformities resulting from injuries of the vertebrae. . . . When the term is restricted to its contemporary meaning, then little information can be derived from the Hippocratic texts'.[3] In terms of treatment, no distinction appears to have been made between the various types of spinal deformity. The types of traction recommended include the Hippocratic Ladder (the patient tied to a ladder and the ladder shaken to encourage the spine to straighten under the weight of the limbs) and the Hippocratic Board and Bench (the patient placed under traction while lying down, and pressure applied in various ways to the spinal curvature). Hippocrates does, however, warn against charlatans who seek only to impress, not to heal – 'succussion on a ladder has never straightened anybody, as far as I know, but it is principally practised by those physicians who seek to astonish the mob. . . . But the physicians who follow such practices, as far as I have known them, are all stupid.'[4] Perhaps because of this warning, Galen, writing in the second century AD, although recommending the use of the Hippocratic Board for traumatic deformities (i.e. those resulting from injury) and the Hippocratic Ladder for kyphotic conditions, expressed doubts as to the effectiveness of the techniques.[5] To what extent the Arabic writer Avicenna shared these doubts I am not certain, having no access to the relevant texts.

It has been suggested that the scoliosis apparent in Richard III's bones was adolescent onset scoliosis. If this were indeed the case, then we can assume that external symptoms first began to show during his brother's reign, when (except for the brief period of the readeption of Henry VI), he would have been settled enough and wealthy enough to have access to professional medical care of the highest standard, as Dr Lund points out. For a condition such as scoliosis, this care would most probably have been provided by a surgeon rather than a physician. As the fourteenth-century French surgeon Guy de Chauliac defined surgery (I am quoting from the Middle English translation of his Latin treatise), 'Cirurgie forsothe is saide of cyros, that is an hande, and of gyros, that is a werke, as it were a science or a connynge of hande werke'.[6] Thus, operations that involved manipulation or cutting came under the heading of surgery, and so also did treatment by external medication of conditions such as ulcers or fistulas which might result from an injury.[7] Treatment for scoliosis would therefore land clearly within the remit of the surgeon, whether such treatment consisted of manipulation, traction, or the application of external medication such as plasters or ointments.

It seemed valuable, therefore, to consult surgical sources more nearly contemporary with Richard III than those consulted by Dr Lund, to see what, if anything, they had to say on the matter. For this purpose, the relevant passages were studied from the following surgeons, some in modern English translations, some in Middle English translations, and some in the original Latin: Theodoric of Cervia (d. 1298): Lanfrank of Milan (whose surgical treatise was written in 1296): Guy de Chauliac (treatise written in 1363): and John Bradmore (a London surgeon who compiled and wrote his surgical treatise between 1403 and 1412).[8]

The first thing to note about all these surgical texts is that none of them, whether in Latin or in Middle English, made use of the terms kyphosis or scoliosis. Given the opinion quoted above that even Hippocrates' use of the term scoliosis covers a much wider range of spinal conditions than its modern, more precise, usage, this might not be considered too much of a problem, but it does leave us with the difficulty of deciding exactly when the condition the surgeon writing has in mind is the condition of scoliosis as we now understand it. Because of this difficulty in deciding exactly how a medieval surgeon would define scoliosis, chapters on various sorts of back problem were consulted in the surgical texts listed above. John Bradmore's book Philomena has a chapter (part 4, distinction 6, chapter 1, f. 270) entitled 'Of swelling in the backs of children', which seemed a promising place to start. However, it defined swelling as 'an elevation of the vertebrae to the outside', which sounds more like kyphosis, and on

reading through the chapter the only part which mentioned children or adolescents quoted Hippocrates as saying that swelling of the back happens in adolescence 'through cough and asthma', which sounds more as if Pott's disease (TB spine) is meant. None of the other problems mentioned in this chapter convinced as a description of scoliosis, either. Treatments recommended include alterations to the diet, purging, and comforting the swollen place with embrocations, ointments, or plasters of herbs. As one of the causes of swelling in the back given in this chapter was an apostume (abscess), chapters on apostumes were consulted next. In his chapter 'On apostemes of the nekke and of the bakke' (doctrine 2, chapter 3, Ogden pp. 143–50), of which almost the entire chapter is taken up with abscesses of the neck, Guy de Chauliac concludes by saying that 'gibbosite' (that is, swelling), 'is not propurly an aposteme …. but the unioyntynge' (that is, a dislocation). Dislocations are dealt with in detail by all four authors.

It is clear that the surgeons expect to have to deal with traumatic dislocations (i.e. those caused by a fall, a blow, etc.) and they are advised to deal with these as soon as possible, as they may be fatal or cause severe complications. Traction is certainly recommended for these traumatic dislocations – when the vertebrae of the neck are dislocated, Lanfrank instructs the practitioner to 'take the patient bi the heeris, and sette thi feet upon his schuldris, and so thou schalt drawe upward with thin hondis and presse adoun with thi feet, and bringe the boon into his ioynct agen' (Fleischhacker, p. 322). However, it does not seem likely that Richard III's scoliosis could have been considered as dislocation of the neck. For other dislocations, Guy de Chauliac, and Bradmore following him, suggest that the surgeon should stretch the body out and draw it out with bandages into which levers are inserted, or wedges or poles, and push down on the displaced bone with hands, feet or a board laid over it. This treatment would be followed with the use of ointments and splints to hold the bones in place for some days following (Guy de Chauliac, doctrine 2, chapter 3, Ogden p. 355: John Bradmore, part 4, distinction 2, chapter 9, ff. 217r–218r). However, both Theodoric and Bradmore give warnings about some types of dislocations not being curable. The surgeon is to observe which way the spine tilts. If inwards to the chest, this is not curable. *If the displacement is to the sides, it is not curable* (my italics). If the displacement is to the back, it is called gibbous, and if this has existed from childhood, this is not curable. If however it results from a fall or blow, the surgeon is advised to use pressure, traction and splints to reduce the dislocation. This is the first indication in these chapters that not all dislocations are traumatic, and that some may have lasted since childhood. It seems likely that scoliosis was considered to be a non-traumatic variety of dislocation, and would have been treated as such. The question then is whether the practitioners treating Richard III would have followed Guy de Chauliac in ignoring Theodoric's warnings about which type of dislocation was incurable, or followed Bradmore in including them. The emphasis, in the descriptions of traction, on the practitioner pushing down on the swelling out of the dislocated bone does sound as if it would be difficult to apply to scoliosis in any case: 'Nevertheless those which are caused by a fall or a blow or a shock or similar thing are curable thus: the patient should lie down on his belly and have under him something soft so as not to injure the breast. And let the healer stand on him with his feet and press the rising of the bones to the inside until it returns to its place' (Bradmore part 4, distinction 2, chapter 9, f. 217v).

As Dr Lund rightly points out, unless we were to find (happy thought!) some form of record of Richard III's medical treatment, we will never know what treatment was offered to him. The medieval surgeons do seem on the whole to have followed the teachings of Hippocrates, Galen and Avicenna in treating many back problems with manipulation and traction, but to what extent this would have been offered in a case that may have been seen as a non-traumatic dislocation depends very much on which authority a surgeon preferred, Theodoric or Guy de Chauliac. Dr Lund is of the opinion that the severity of Richard III's scoliosis was such that the extreme treatments such as traction were more likely to have been offered than the more moderate ones such as ointments and plasters. However, I do feel that

Theodoric, and Bradmore following him, emphasise strongly that the more extreme treatments are only of value in trauma cases and not in problems of long standing.

Readers with long memories may recall that in my paper 'Medical recipes from the Yorkist court' (*The Ricardian* vol. XX 2010, pp. 94–102) analysing the recipes recorded in association with various individuals from the reigns of Edward IV and Richard III in BL MS Harley 1628, Richard, duke of Gloucester, is recorded in connection with a recipe for a considerable quantity of ointment. I am sorry to say that it bears no relation in its ingredients to any of the ointments or plasters recommended for back problems by any of the authorities, and it still seems to me for the reasons I stated at the time that this ointment is most likely to be a wound treatment, and may possibly have been one of the medicines we know were supplied for the Scottish campaign of 1482. I may be completely wrong, of course, but I do not feel that this recipe can be claimed as Richard III's scoliosis treatment, much as I would like to make that discovery! The two recipes I mentioned in that paper which Peter Murray Jones drew attention to as possibly for Richard III, on f. 24r of the manuscript, are clearly labelled as a 'preservative' (probably against infectious disease), and a stomachic, so these are clearly not related to Richard's back problem either. The recipes labelled as 'pro Rege' (for the king), without specifically naming Edward IV, on ff. 35v and 156r of the manuscript, are all for fumigations or smelling apples (for use against infection). So I am sorry to have to report that as regards treatments for Richard III's scoliosis, BL MS Harley 1628, our best witness for treatments given to actual patients in Richard's lifetime, is a dead loss. We must be content to say, as is so often the case in our study of Richard III, that unless further evidence turns up, we will never know the answer.

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Notes

1. School of English, University of Leicester.
2. For a full discussion of the work of Hippocrates and other Greek authorities on spinal deformity, see Elias S. Vasiliadis, Theodoros B. Grivas and Angelos Kaspiris, 'Historical overview of spinal deformities in ancient Greece', *Scoliosis*, 2009, 4:6. This was available online in May 2013 at http://www.scoliosisjournal.com/content/4/1/6.
3. Vasiliadis et al., p. 8 in my printout from the above site.
4. Vasiliadis et al., p. 12 in my printout, and their note 9.
5. Vasiliadis et al., p. 11 in my printout, and their note 18.
6. *The Cyrurgie of Guy de Chauliac*, ed. Margaret S. Ogden, Oxford, 1971, p. 4.
7. See Nancy G. Siraisi, *Medieval and Early Renaissance Medicine*, Chicago, 1990, p. 154, and for a good list of the sort of operations a surgeon might undertake, see Carole Rawcliffe, *Medicine and Society in Later Medieval England*, Stroud, 1995, pp. 125–6.
8. *The Surgery of Theodoric*, translated by Eldridge Campbell and James Colton, 2 vols, New York, 1955 and 1960; *Lanfrank's Science of Cirurgie*, ed. R. von Fleischhacker, Oxford, 1894; *Cyrurgie of Guy de Chauliac*, ed. M. Ogden , Oxford, 1971; *John Bradmore's book of surgery called 'Philomena'*, BL MS Sloane 2272, consulted in the form of microfilm printouts from the manuscript.

The Greyfriars dig part II

During July the University of Leicester Archaeological Service (ULAS) revisited the site where King Richard III was discovered to extend their excavation, in the hope of discovering more about the Church of the Grey Friars. The archaeologists maintained a regular on-line blog during the four weeks of the excavation and this can be accessed at www.le.ac.uk/richardiii/blog/page1.html.

Mathew Morris, fieldwork director and archaeologist at ULAS, wrote a blog on 28 July which provides a very good summary of the excavation and its finds, which we reproduce here by Mathew's kind agreement.

> 'But what have we achieved? It has been observed by several visitors that this site keeps on giving – first King Richard III; then an intact medieval stone coffin which, when opened, contained a largely intact lead