

identification. How much more may we look forward to learning in the course of the months and years to come? So for every cynic who would diminish or trivialise this momentous discovery, let us merely smile and congratulate ourselves that we have been the beneficiaries of a great achievement, the like of which has been granted to students of few other areas of history.

And what of Richard's reputation?

I think Ricardians are fairly well inured to digs and jibes, so when it comes to being challenged as to what this means for a 're-evaluation' or 'reassessment' of Richard's reputation, it's worth reminding our interlocutors that however new and revolutionary it may appear to them, the revisionist argument has actually been on the table for quite some time – 400 years, in fact! – ever since Sir George Buck and the antiquary movement of the early 1600s realised that Sir Thomas More, and his source Archbishop Morton, were not to be trusted. Doubtless the controversy will continue for many years to come: there's no reason to suppose it will end now.

As individuals we may feel constantly under assault from the forces of ignorance and obtuseness, but the important thing is that we remain proud standard-bearers for that honourable spirit of enquiry and analysis which is at the root of all scholarship. Indeed, no discovery in human history would ever have been made without it.

And let's not underestimate the new sense of intrigue among those members of the public whose imaginations have been caught by the recent exciting news. Make no mistake, there is a huge upsurge of interest in the Richard III debate. Programme-makers in the UK and USA, Australia, Canada, even Brazil, have mounted discussions, interviewed Ricardians, and are gathering footage for documentaries and DVDs. At book-signings in the past I have always found people keen to discuss Richard and ask questions, and I don't imagine the interest will subside now!

In this information age, you can never put the genie back in the bottle. People who have previously heard of Richard purely as Shakespeare's murdering villain have now been exposed to the fact that there exists a

dissenting view, and it's something they are *very* interested to hear about. Certainly among my own acquaintanceship there is a growing interest in arranging talks to schools, local history societies and U3A (University of the Third Age) groups.

This event won't necessarily set off a revolution, but it is certainly a game-changer. And as long as the debate has been opened up, I'm happy to count that as progress.

Annette Carson

The nature of scoliosis

One of the most important outcomes from the Greyfriars dig and the identification of the remains of King Richard III is the confirmation that the king had scoliosis. This is a condition in which the spinal column bends to the side and the vertebrae rotate, pulling the rib cage round to produce a protrusion on the back. Dr Jo Appleby, the osteoarchaeologist based at Leicester University, carried out an extensive examination of King Richard's skeleton and found that he had severe scoliosis, which was likely to have developed after the age of ten. It is also possible that the condition put an additional strain on his heart and lungs and was painful. Dr Appleby concluded that the length of the skeleton would have meant that the king stood at around 5ft 8in. (1.72m) high, though the spinal curvature would have reduced his height when standing.

The university's experts have emphasised that Richard III did not have kyphosis, which is a forward curvature of the spine that causes a bowing or rounding of the back. The findings from the Greyfriars dig will provide much material over the coming months and years for the continuing debate about King Richard's life, appearance and reputation, and in particular how he might have managed his scoliosis in a fifteenth-century context. In the meantime it would be helpful if we all understood the condition a little better, so the purpose of this article is to provide some basic information about scoliosis and to emphasise the point that it is not something that prevents people living active and fulfilling lives.

The Scoliosis Association (UK) was established in 1981 to provide advice, support and information to people affected by scoliosis, and their families; and to raise awareness

among health professionals and the general public. They have generously provided the following information, which is reproduced here with their permission.

What is scoliosis?

Scoliosis is a sideways curvature of the spine, in which the spinal column can also twist, pulling the ribcage out of position. Although many people have not heard of the condition it is surprisingly common, with 3–4 children per 1000 needing specialist supervision. Scoliosis is not a disease. It just means that in an otherwise healthy person the spine is curved or twisted. It is not infectious or contagious and it does not develop as a result of anything the adult, child, or its parents did, or failed to do.

Scoliosis can affect people at different points in their lives. It can occur at birth (congenital), in infants (early onset), in juveniles and adolescents (late onset) and as adults (degenerative or *de novo*). In most cases the cause is unknown and the scoliosis is called idiopathic. In the remaining cases the causes can be attributed to neuromuscular conditions, such as muscular dystrophy or cerebral palsy, or scoliosis can result from syndromes, such as Marfan's syndrome.

It can affect a person's appearance because when the spine bends to the side the vertebrae (the individual bones that make up the spine) become twisted and pull the ribs round with them, which sometimes forms a characteristic lump on the back and can cause the shoulder blade to stick out. The spine can bend towards either side of the body at any place in the chest area (thoracic scoliosis), in the lower part of the back (lumbar), or above and below these areas (thoracolumbar). It can even bend twice, causing an S-shaped curve (double curvature): this is generally not noticeable and the person can appear quite straight, because the two curves counteract each other. If the curve is lower down in the spine, the ribs will not be affected but one hip might be higher than the other.

The causes of scoliosis are many, and although we well understand the consequences, the origins of this condition remain complex and obscure. Most cases of scoliosis should be monitored by a scoliosis specialist (it is crucial that people with the disorder see a specialist at

one of the 30 centres of excellence across the UK).

There is contradictory evidence as to whether early discovery and treatment of a curve improves the long-term outcome, but we know that if curves are discovered late, when they are already severe, the results of treatment can be compromised. Therefore it is important that early referral to a scoliosis specialist is achieved. Treatment in a scoliosis centre will usually prevent unsatisfactory long-term results.

Late-onset (adolescent) scoliosis

Scoliosis diagnosed in patients aged between 7 and 18 years old is termed late-onset scoliosis. By far the most common type of scoliosis in the adolescent period is one in which the cause is not known and is called idiopathic or adolescent idiopathic scoliosis (AIS). Although important research continues in this area, including into the genetic basis for AIS, there are no identifiable causes for this condition. Nevertheless, there are accurate methods to determine the risk of curve progression and good methods of treatment.

Avoiding insensitive language

Following the announcement on the 4 February confirming that King Richard's remains had been found, and the screening of the Channel 4 documentary *The King in the Car Park*, the Scoliosis Association issued a press release that expressed the hope that the find would 'raise awareness of scoliosis and bring the condition to the public eye for discussion'. This is something we hope this article will help to achieve. However, the press release also contained a pointed reference to the documentary's use of negative language:

'Last night, Channel 4 broadcast a documentary that followed the story leading to the discovery of the King's skeleton. Since the news broke and the Channel 4 programme was aired, we have received many calls and e-mails about the use of inappropriate language and how it can make people affected by scoliosis feel. We understand people's sensitivity about the use of the language describing the king's condition and have also received press enquiries today with respect to the matter.

In response to the Channel 4 documentary,

Linda Anderson, SAUK London Regional Representative, and Laura Campbell, SAUK Midlands Regional Representative, are writing a letter to the broadcasting channel and production company to highlight that the use of inappropriate language in the programme has been extremely upsetting to some people affected by scoliosis. The chairman of the BSRF (British Scoliosis Research Foundation), Michael Edgar, has also written a letter to *The Times* to emphasise the importance of scoliosis research in light of this new discovery’.

The point about inappropriate use of language is well made and is something we all need to bear in mind when writing about or discussing King Richard’s scoliosis. Yet following the events of 4 February there have continued to be lazy references in the media and elsewhere using insensitive terms such as ‘hunchback’ or ‘crookback’; it is time such terms were consigned to the dustbin of history. The SAUK did attempt to get such references removed from the Channel 4 documentary, but to no avail.

Finally, the press release made the further point that ‘King Richard III rode horses in full body armour and wielded a sword in battle, demonstrating that scoliosis doesn’t necessarily limit physical capability’, a fact that will certainly be a major consideration as we explore and debate the king’s own experience of scoliosis.

Living with scoliosis

In her article in this issue Annette Carson rightly suggests that it would be helpful to canvas people with experience of scoliosis; we began this process in March’s *Bulletin* with Sandra Hempel’s account of her experience of living with the condition. We have since been contacted by several others who are also happy to share their experiences:

Cameron Farrell Su Farrell contacted us by e-mail about her son Cam’s experience; she also kindly provided us with photos of him riding on horseback. She writes:

I watched in total awe last night as the documentary on Richard III was shown but one piece struck me – the spinal deformity and likelihood of spinal fusion had the king lived in this century. The description of the king’s body



Cam on horseback

was an almost exact replica of my 5ft 8in., slightly built, 18-year-old son, Cameron. Far from being a ‘debilitated hunchback’, Cam is exceptionally strong, rides his own horse, is hoping to take up jousting and horseback combat this summer and fits quite normally into armour. He has done re-enactment with Roman and Celtic weaponry and is extremely capable. Cam also has naturally fused scoliosis and will not be having the corrective surgery now offered.

Cam has had a lot of medical observation for other problems, so we know that his scoliosis developed around 12. He has no pain, although a dull backache was an occasional problem at about age 15, for which he took paracetamol. He has another friend who has just had corrective surgery for a similar curve and neither boy has ever been even remotely affected or obstructed by the condition. Cam’s consultant thinks that the exercise he has had from riding, archery and swinging his sword about has been instrumental in his good health because he has kept the muscles strong, supporting the spine and avoiding the horrible ‘sofa slump’ that many teenagers have. In Cam’s case the worst part has been a slight compromise on lung space on one side but since he doesn’t know what ‘normal’ lungs are he doesn’t feel any ill-effect. In his mid-teens he was possibly slightly shorter of breath during PE than other boys of similar fitness, but you had to watch closely to notice.

Suzanne Wallace: Suzanne also contact us by e-mail about her own scoliosis and kindly provided the following account of her experience:

Like numerous others I was fascinated and intrigued with the recent Channel 4 documentary and not just because Richard appears to have got away for over 500 years without a parking ticket! I already knew from family history research that I was distantly related to Richard III through my great-great-grandfather who was born, illegitimate, in Melton Mowbray workhouse in 1856, the metaphorical 'skeleton' in our family cupboard. Here, however, was another skeleton, that of a man with whom I had something else in common, scoliosis, or lateral curvature of the spine, (and with clearly the same determination to ride horses nevertheless!). Scoliosis is only present in approximately 2% of the population and 80% of idiopathic scoliosis cases occur in the adolescent age range 10–18 years, i.e. when rapid growth is most likely to occur, a bit like a young sapling suddenly shooting up and skewing in the middle as a result. The Scoliosis Association UK (SAUK) uses this imagery of a wobbly young tree as its logo.

Scoliosis is more prevalent in tall people and although Richard was not tall by today's standards, he was for a medieval man. I myself am tall and although I am now, post surgery, 5 ft 9 in., I had been 5 ft 10 in. before my spine started its descent into an 'S'-shaped curve and reduced my height to 5 ft 8 in. My scoliosis started at around the age of 14 but, as its progression is very slow, so too was the realisation that something was wrong. Early signs included wearing one shoe through faster than the other and not being able to carry my school satchel on my left shoulder, as it would slip off, owing to my right shoulder being higher than the left. I also took trousers back to retailers on more than one occasion complaining that one leg was shorter than the other when in fact it was down to me again, this time due to my elevated hip. The elevated hip also caused me to limp when walking. I have ridden from a very early age, as I'm sure Richard did, and can honestly say my scoliosis has never stopped me riding and competing, both pre- and post-operatively. I dare say, though, that my horse is thoroughly relieved that I no longer lean to the right, which used to cause the saddle to slip, and her to have saddle sores (has anyone spared a thought for Richard's poor old horse?). Many a time I have pulled up halfway round a cross country course to re-adjust my saddle, much to the amusement of fellow competitors.

In my mid-20s, post-university, I spent three years in the Territorial Army as a driver with the Royal Corps of Transport in Grantham. After successfully obtaining my HGV licence, after

just two lessons, I then went on exercise driving an army truck across Europe through both West and East Germany. This was in the late 1980s, just before the Berlin wall came down. I can honestly say the only time my back really bothered me during that time was when I developed stress fractures in my left foot due to relentless drill practice in combat boots, but a fortnight in trainers soon remedied that.

I was finally diagnosed at the age of 27 by Mr John Webb (orthopaedic surgeon to Prince Charles, no less). After a two-year wait I was finally operated on in Nottingham, where Mr Webb inserted a Harrington Rod during 5½ hours of surgery at The Park Hospital. I then spent six months in a full body plaster cast which was heavy, restrictive and very smelly! However, it was preferable to the treatment on offer before that, and indeed in Richard's day – traction.

I still had, and have, partial scoliosis but you would not know it to look at me. Only the bottom part of my 'S' curve was straightened, it being deemed too risky to go any higher. Despite this I now have an 11-year-old son who arrived in the world with very little problem and is, at the moment, showing no signs of my condition.

Looking at the pictures of Richard's skeleton I have every sympathy with him but also know that a curved spine is to a certain extent an irritating inconvenience rather than a disability. Yes, it can cause a person to walk with a limp and with one shoulder higher than the other but it doesn't stop them getting on with their everyday lives. Neither does it cause a hunched back, or a withered arm for that matter. I haven't got a hunchback and I doubt Richard did. That condition is caused by kyphosis not scoliosis.

Our grateful thanks to Sue, Cameron and Suzanne for sharing their experiences of scoliosis. These will help us to better understand and appreciate King Richard's own experience in perhaps more trying and certainly less enlightened circumstances. And, finally, one particularly notable person with scoliosis is the 2008 and 2012 Olympic 100 and 200 metres champion, Jamaica's Usain Bolt, which might perhaps suggest that scoliosis doesn't necessarily affect a person's movements!

Sharing your experience of scoliosis

We would be very pleased to hear from others who have experience of scoliosis and who would be willing to share their knowledge and

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help further our understanding of the condition as it related to Richard III. Please contact the editorial team if you would like to contribute or if you have any comments on this article – contact details on the inside back cover.

Richard III, the Princes in the Tower and King Harold Godwinson – a skeleton argument

The question appears to have been settled. On Monday 4 February 2013 we were told that Richard III, made notorious by Polydore Vergil, Sir Thomas More, William Shakespeare and Lord Olivier, had indeed been found, amongst the ruins of an abbey, or rather of a Franciscan Priory. Channel 4's documentary *The King in the Car Park* attracted over 3 million viewers; and the Channel 4 team (and the University of Leicester) have shown convincingly that this was almost certainly Richard's skeleton.

The discovery of Richard's bones has fed the appetite of historians and archaeologists and indeed the general public. There is talk of digging again in St Bartholomew's Winchester, the former site of Hyde Abbey, and supposed resting place of King Alfred the Great. In Alfred's case, there is the considerable difficulty that we have no equivalent to Michael Ibsen, and the search for descendants,

and suitable DNA samples, goes on (and it is a fascinating coincidence that the remains of one of Alfred's granddaughters have recently been found and identified in Germany); but there is also talk of exhuming the remains of the 'Princes in the Tower', the two young nephews of Richard III, now thought to lie in Westminster Abbey. These were discovered in 1674, under a staircase in the White Tower, but reburied in Westminster Abbey on the orders of Charles II. The grave was re-opened in 1933 and the skeletons were determined by experts to be those of two young children, one aged around 7–11 and the other around 11–13; but of course DNA was unheard of then. It is widely believed that if the same skeletons were re-examined using modern techniques, more could be said; and there is presumably no difficulty in performing the relevant DNA tests, since (Michael Ibsen permitting) we have a sample from a comparator, and indeed we now have samples from the children's uncle.

But there could well be a legal problem. It was not necessary to obtain a faculty to excavate in Leicester because (thanks to the Protestant Reformation) Richard III no longer lay in holy ground; but the position is very different with the Yorkist Princes. At the least, permission would have to be obtained from Westminster Abbey; and in all probability it would be necessary to obtain a faculty, before excavations could begin. This involves ecclesiastical law and indeed a special court.

In the case of *Re Holy Trinity Bosham* (decided in the Consistory Court of the Diocese of Chichester on 10 December 2003), the judge refused a faculty which would have permitted the excavation of a grave in the church at Bosham in West Sussex, thought to belong to King Harold Godwinson (killed at Hastings in 1066). In Harold's case, the judge explained that, as a matter of Christian doctrine, burial in consecrated land is final and permanent; that this creates a presumption against exhumation; that departure from this presumption can only be justified if special circumstances can be shown; and that an applicant has to demonstrate that there is an issue of great national, historic or other importance, before a faculty can be granted. In the Bosham case, there were two places where King Harold might have been buried, and the evidence for a