



King Richard III revisited

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Accepted: 3 December 2019 / Published online: 3 January 2020
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Abstract

Forensic examination of skeletal remains exhumed in 2012 from the site of the former Church of the Greyfriars in Leicester, United Kingdom, revealed a gracile adult male of around 30 to 34 years of age with 11 perimortem injuries. These were consistent with descriptions of injuries sustained by King Richard III, the last Plantagenet King of England, at the Battle of Bosworth Field in 1485. Combining these features with DNA analyses proved that the remains were those of Richard. The finding of a severe thoracic scoliosis with a raised right shoulder confirmed that the king did have a “hunchback” which was not a later invention of Tudor and subsequent chroniclers. This investigation provides an excellent demonstration of how contemporary forensic techniques can answer historical questions. The remains of the last Plantagenet king have been identified, his vertebral disease confirmed, and the nature of his last moments verified.

Keywords King Richard III · Bosworth field · Plantagenet · Henry Tudor · Scoliosis · DNA

God cannot alter the past, though historians can
Samuel Butler (1835–1902)

In a previous editorial the role that contemporary investigations may play in explaining and exploring questions of historical forensic interest was discussed [1]. In an Australian context historical forensic analyses have been very useful in shedding light on police interactions with nineteenth century outlaws, or bushrangers, and on conditions and events that were reported from isolated convict settlements in Vandieman’s Land (now known as Tasmania) in the early days of the colony [2, 3].

An issue which constantly arises when historical cases are re-examined, however, is the consistent lack of reliability of records and recollections of events. Churchill summarized the “moveable feast” of history perfectly when he proclaimed his



Fig. 1 Richard Plantagenet, Duke of Gloucester, later Richard III (Royal Collection of the United Kingdom)

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Fig. 2 “The Princes in the Tower”, an 1878 portrait by Millais

complete lack of concern at having a negative historical record, as he was going to write it himself [1]. History has in fact been claimed to be as much a work of imagination as is the future. This unfortunately leaves us with the conundrum of being only able to suggest a likely sequence of events and outcomes, while acknowledging that there may be many other possibilities. It is somewhat reminiscent of situations in court when an array of possible events ranging from the slightly plausible to the very bizarre are postulated that all may have resulted in a particular outcome.

The history of Richard III, the last Plantagenet King of England, is a stirring tale of intrigue, child murder and decisive battles; one that has been shrouded with legend and conspiracy theories for centuries. Richard has been cast variably as either one of the great arch villains of English history, or instead as a noble king who was violently removed from his lawful throne by the devious usurper Henry Tudor [4, 5]. Supporters of Richard have even suggested that his detractors fabricated a physical deformity (the infamous “crookback”) to further malign him – and that this even extended to modifying paintings of him at the time to show one shoulder higher than the other.

Richard was the King of England from 1483 until his death at the Battle of Bosworth Field in August 1485



Fig. 3 A nineteenth century frontispiece to Shakespeare’s play “Richard the Third” depicting Richard as a slightly sinister boar standing astride the bodies of the murdered princes

where his army fought that of Henry Tudor (Fig. 1) [6]. An interesting example of historical inconsistency is that even contemporary authors cannot agree upon his exact date of death, with either August 20th [7] or August 22nd [8] being proposed. The latter appears most likely. Richard did have a somewhat chequered, albeit brief, career with accusations that he had Edward, Prince of Wales, and Richard, Duke of York (Fig. 2), the sons of the late Edward IV, imprisoned in the Tower of London and subsequently murdered to clear his path to the throne [6]. Certainly Shakespeare’s play, “Richard the Third”, has always cast Richard in a dark light over this episode with a damning statement to Buckingham from Act IV Scene 2 of “Shall I be plain, I wish the bastards dead” (Figs. 3 and 4). Unfortunately studies into the alleged remains of the princes have been suboptimal, with investigators showing considerable cognitive bias. For example, the Tanner and Wright study assumed that the common finding of Wormian bones in medieval skulls was evidence of consanguinity, that osteomyelitis in the jaw of one of the skulls would explain Edward’s depressive behavior, and that red-brown staining of the facial skeleton had been caused by suffocation [9]; none of which are able to be substantiated.

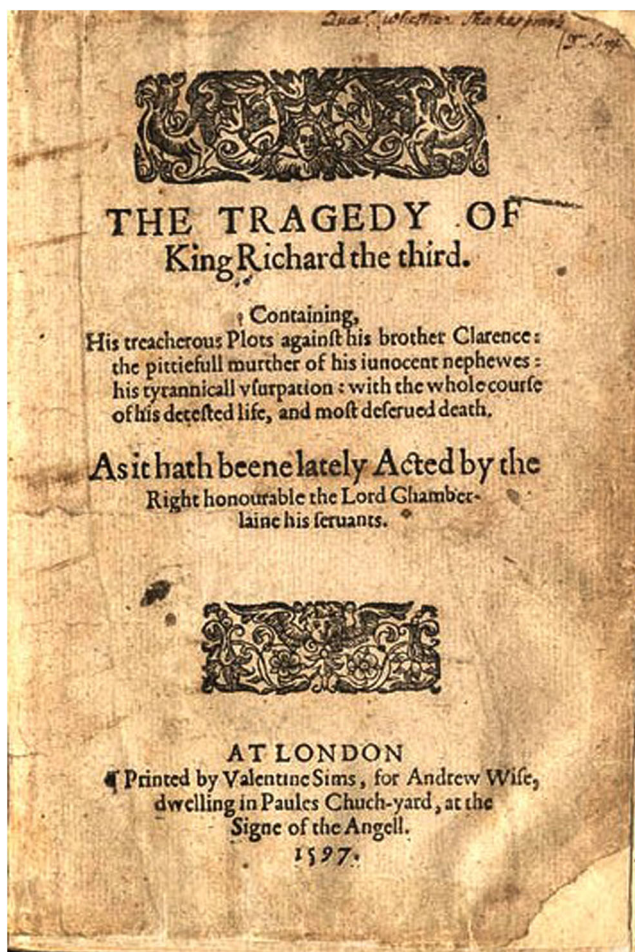


Fig. 4 An earlier frontispiece to Shakespeare’s play “Richard the Third” describing Richard’s treachery and tyranny resulting in his “most deserved death”

Fig. 5 A map of Bosworth Field where Richard lost his crown and life

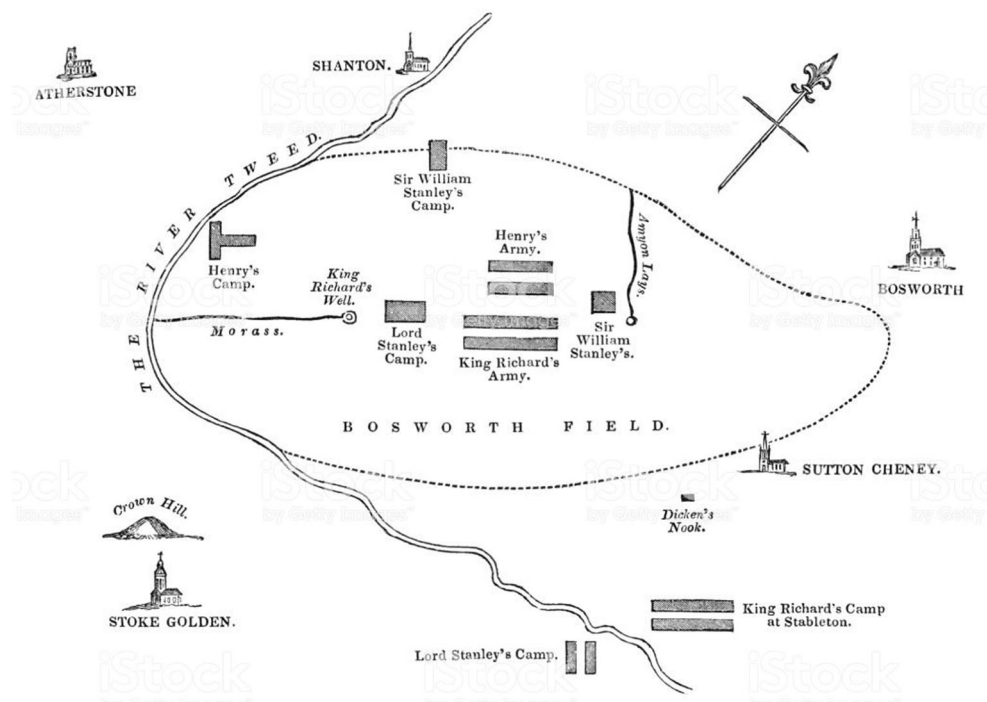


Fig. 6 The skeletal remains of Richard Plantagenet, King Richard III of England, excavated in Leicester [7, 8]

After the Battle of Bosworth (Fig. 5) Richard’s body was taken to Leicester and following alleged post mortem mutilation was buried at the Church of the Greyfriars. It remained there until September 4th 2012 when a skeleton was exhumed from the site (Fig. 6) [10]. Examination of the quite well-preserved skeletal remains showed it to be that of a gracile adult male of around 30 to 34 years of age [8]. Eleven perimortem injuries were present, with the head injuries consistent with the decedent not wearing a helmet at the time of the trauma, as has been described for Richard at the end of the Battle of Bosworth. Three of the injuries were potentially lethal, although the possibility of post-mortem infliction could not be discounted for the pelvic injury; they were all typical of injuries that would be sustained from later medieval weaponry.

Although so-called “celebrity genetics” has been criticized, the use of novel Bayesian statistical methodology in this case combining probabilities for the genetic and non-genetic aspects, (such as sex, age, skeletal characteristics and archaeological context), provided strong evidence that the remains were those of King Richard III [11, 12]. Of great significance was the presence of a severe thoracic scoliosis with a raised right shoulder which confirmed that the king indeed had a “hunchback” and that this was not an invention of Tudor and later chroniclers [7].

The discovery of King Richard and the application of modern scientific analytic studies to the bones, with DNA investigations involving possible descendants, provides an excellent demonstration of how contemporary forensic investigations can supply extremely useful and fascinating insights into historical mysteries [7, 8]. While the victors of past conflicts will always be able to craft history to suit their purpose they may now come under the scrutiny of modern technology. It may transpire however that the findings will actually exonerate them from some of the accusations that have been levelled over the years, as in the case of Richard and his alleged fabricated scoliosis. In summary, Richard did have a scoliosis which was not an invention of the Tudors – in fact it fitted very well with the statement of John Rous in 1490 that Richard “was small of stature, with a short face and unequal shoulders, the right higher and the left lower” [7]. While this is hardly confirmation of underlying moral turpitude, the investigations have convincingly identified the remains of the last Plantagenet king, shown that his vertebral disease was real, and demonstrated that accounts of his demise were probably accurate.

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