

THE BONES OF THE " PRINCES " IN WESTMINSTER ABBEY

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IN WESTMINSTER ABBEY in the north aisle of Henry VII's Chapel, is an urn whose inscription states that it contains the bones of Edward V and his brother Richard, Duke of York. In 1933 these bones were subjected to an expert examination by Professor Wright, then President of the Anatomical Society of Great Britain. His conclusions apparently showed that these bones were undoubtedly those of the two " Princes in the Tower," and that because of the ages at which they died they must have been murdered by their uncle Richard of Gloucester.¹ These conclusions have since been strongly disputed, and this article attempts to show what some of the grounds for dispute are.²

To explain how the bones came to be in the urn and described as those of the Princes in the Tower it is necessary to know that in 1674 some workmen in the Tower of London found the bones of two children while demolishing some stairs leading up to a doorway in the White Tower. These seem to have been buried in a chest. The bones were at first thrown aside, but were afterwards carefully collected and kept by Sir Thomas Chicheley, Master of the Ordnance.³ The contemporary accounts of the discovery all unhesitatingly describe them as being those of the Princes. This is due to the influence of Sir Thomas More, who, in his *History of King Richard III*, gives a minute description of their murder in 1483 by Sir James Tyrell, on the orders of Richard III. More states that after the Princes were dead their bodies were buried " at the stayre foote, metely deep in the grounde under a great heap of stones."⁴ Everyone at the time (and many subsequently) blithely ignored the fact that More went on to say that a priest later took up the bodies and reburied them somewhere else, no-one knew where because of his death. However, this inconvenient fact did not prevent Charles II from ordering the reburial of the bones in Westminster Abbey, with an inscription stating bluntly that they were the bones of Edward V and his brother, murdered on the orders of their uncle. There was a gap of four years between the discovery in 1674 and the reburial in 1678; doubt has been cast on their authenticity because of this alone,⁵ but there is no actual evidence to support such doubts.

The bones remained in the urn until 1933 when it was decided to open it and see if an examination would settle any of the outstanding mysteries connected with them. The resulting report was very detailed, and is still the only scientific examination of these remains. The main conclusions arrived at have been stated above, and will not be further examined.

When opened the urn was found to contain the partial skeletons of two children. The two skulls were present, the smaller of them being rather

damaged, and a miscellaneous collection of other bones, mostly damaged. Mixed with them were the bones of various domestic animals and several rusty nails. Professor Wright used two methods to estimate the ages of the two skeletons. The first of these was from the bones themselves, chiefly that since the epiphyses (the knobs at the ends) had not yet joined onto the main shafts the elder child was still in the period of puberty (say, not older than 16 years), and from the length of the bones that one was some three years younger than the other. He was able to come to more confident conclusions with his second method, the examination of the teeth. The age at which the permanent teeth erupt from the jaws is fairly closely known (although not as closely as Professor Wright believed) and he thus felt that he could confidently date the older skeleton as between 12 and 13 years old, and the younger as between 9 and 11. Edward V was 13 in November 1483, and his brother was 10 in August of the same year. Professor Wright further went on to say that there was evidence of consanguinity, and that the elder had been strangled. This he assumed from a red stain on the skull, arising so he said from the suffusion caused by suffocation.⁶

The article thus seemed to prove scientifically that if the two skeletons were those of the sons of Edward IV (which Professor Wright believed that he had demonstrated), there was no possibility that they could have survived the reign of Richard III. In fact Professor Wright's conclusions were not so soundly based as they seemed. For example it is now known that there is a much greater variation in the height which children reach by certain ages (and very little knowledge about average height in the middle ages anyway) and in the ages at which their permanent teeth erupt; even normal children can vary very much from the average. A similar situation exists with regard to the age at which the epiphysis joins onto the main shaft of a bone.⁷ The range of possible ages would allow the children to have been the correct ages for the Princes, but they could equally well have been older or younger. Professor Wright describes and illustrates the second vertebra of the spine (the axis) as not having fused with its top part (or odontoid process), and draws from this the conclusion that the elder child had not yet reached the age of 13.⁸ This conclusion too has been disputed: Dr Lyne-Pirkis, and another expert consulted by Kendall, state that this fact means that the age of the child was not more than 4,⁹ a somewhat baffling conclusion. Similarly the dental evidence is now thought to show that the elder child was probably not even 12 when he died, and could well have been only 9 years old.¹⁰ The staining of the skull, of which Professor Wright makes a great deal, was almost certainly not due to suffocation since the suffusion would not register on the bone. Philip Lindsay suggests that it could have been rust, pointing out that several nails were found with the bones in the urn.¹¹ Most damning of all is the fact that Professor Wright admits that the skeletons are of pre-pubertal age, but omits to say that it is virtually impossible to prove the sex of such skeletons, certainly it was not possible on the evidence before him.¹²

Another important factor not taken into account by Professor Wright was the possible effect of bad diet and illness on the rate of growth. In the fifteenth century there was no knowledge of what constituted a good balanced diet, and in particular no knowledge of the existence of vitamins. Vitamins A and D are essential for bone growth, and medieval diet was particularly lacking in

these as not a great deal of milk, butter or cheese was eaten, especially in the winter. Such a deficiency might easily slow down growth by about a year and a half. Illness also has this effect; it appeared from the jaw of the elder child that he suffered from osteomyelitis, and had done so for some years. This is a serious disease, and could easily have slowed his growth by another year to a year and a half. The effect of these two facts would be to add up to 3 years to the age of the elder, so that even accepting Professor Wright's original estimate this would make him between 14 and 16 years old.¹³

From all the above factors it may seem that it is really impossible to tell the age of either child to within less than 5 years or so. It is also impossible to estimate the age of the bones themselves, another difficulty ignored by Tanner and Wright. There was no method at all of dating bones in 1933, and even now radio-carbon dating, if it could be applied to these particular specimens, would not give a result to within less than plus-or-minus 100 years at best.¹⁴ The skeletons could in reality date from any time between the foundation of the Tower in the eleventh century up to about 1600; in that time there is no reason to suppose that only two children disappeared from within its walls. In fact there is evidence to show that at least two more skeletons of children were found in the Tower in about 1603-1613. Nothing seems to be known of what became of these after their discovery, but they were also immediately assumed to be Edward V and his brother.¹⁵ It is possibly true to say that this would be the case with any skeletons found in the Tower. This is perhaps natural since this was the last place in which the Princes were undoubtedly seen alive. In this latter case the place of discovery did not in the least correspond to that given by Sir Thomas More, and that the discovery of 1674 partially did so was probably coincidence. We have no greater reason to believe Sir Thomas More than we have John Rastell, another Tudor writer. In his *Pastime of People* (1529) Rastell said that after the Princes were smothered to death their bodies were put into a chest and thrown into the sea.¹⁶ Both stories are probably no more than gossip.

To summarise the above, it may be seen that to say that the bones in Westminster Abbey are those of Edward V and Richard of York is going considerably further than the available evidence warrants. The bones are undoubtedly those of two children, but the evidence as to their ages is inconclusive to say the least; it is impossible to determine their sex, and we do not know how old the bones themselves are. The safest position to adopt regarding them, as so often with matters relating to Richard III, is that their identification with his nephews is non-proven.

NOTES AND REFERENCES

1. L. E. Tanner and W. Wright, Recent investigations regarding the fate of the Princes in the Tower, *Archaeologia*, Vol. LXXXIV (1935), pp. 1-26.
2. A previous version of this article appeared in the *Bulletin of the Guild of Guide Lecturers*. Much of its anatomical data is drawn from a transcript in the Society's Library of a talk by Dr R. H. G. Lyne-Pirkis to the Society in 1963.
3. Tanner and Wright, p. 8.
4. Thomas More, *The History of Richard III*, edited by R. S. Sylvester (1963), p. 85.

5. Philip Lindsay, *On some Bones in Westminster Abbey* (1934), pp. 29–30, 35.
6. Tanner and Wright, p. 18.
7. Lyne-Pirkis, transcript pp. 9–10.
8. Tanner and Wright, p. 16.
9. Lyne-Pirkis, transcript p. 4; P. M. Kendall, *Richard III* (1955), pp. 497–8.
10. Kendall, p. 497.
11. Lindsay, p. 35.
12. Lyne-Pirkis, transcript, p. 6.
13. Lyne-Pirkis, transcript, pp. 10–11.
14. In the best possible conditions, e.g. see *Science and Archaeology*, edited by D. Brothwell and E. Higgs (1969), p. 47.
15. *Notes and Queries*, 7th Series, Vol. 8 (1889), pp. 361, 497.
16. Cited by Kendall, p. 495.

COATS OF ARMS OF SOME RICARDIAN CONTEMPORARIES

LAWRENCE T. GREENSMITH

BATH AND GARTER

Sir Walter Blount, later Lord Mountjoy (d. 1474)

Sir Reginald Bray (d. 1503)

EXCEPT THAT their lives overlapped in Richard's time (perhaps by not much, but no one seems to know), that both were Knights of the Bath and then of the Garter, and that their names began with the same letter of the alphabet, these men had nothing at all in common. Blount was a Yorkist and Bray a Lancastrian. Blount died eleven years before Bosworth and Bray survived the battle by eighteen years.

Sir Walter BLOUNT was grandson of that Sir Walter who was a contemporary of the Black Prince and John of Gaunt. It was he who, with another, led troops to intercept the retreating Clifford (*Ricardian* 48) at Castleford, shortly before Towton where Clifford was killed. That was the battle which established King Edward IV on the throne. The day before the Coronation, King Edward created thirty Knights of the Bath: Blount was one of them. Not long afterwards he was created Baron Mountjoy and Knight of the Garter.

His arms, *barry nebuly of 8, gold and black*, were not unlike those of Lovell (*Ricardian* 43), except that the latter had *red* instead of *black* and only 6 pieces. *Nebuly* is not simply a form of *wavy*, it is something quite different. Just as *wavy* indicates the waviness of the sea (and when *blue and silver* often represents any form of water, salt or fresh) so *nebuly* (as a Latinist will know) stands for the often more decorative irregularity of the edges of clouds. There is, however, nothing nebulous about the drawing of it: it is very distinctive. The arms are still used by a Baronet.