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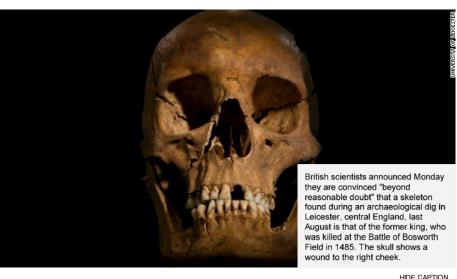
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# Skeletal sleuthing team uncovered royal remains and the story behind them

By Alden Mahler Levine, CNN updated 1:05 PM EST, Mon February 4, 2013



# The remains of King Richard III

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## STORY HIGHLIGHTS

University of Leicester team pursued a rumor about the body of King Richard III

After digging, they found a body that matched the 15-century king's description

Wounds on the body matched those from period-appropriate

Team also found two of king's living relatives, whose DNA matched that of the body

(CNN) -- Shakespeare's villainous, deformed Richard III frets just before his death, "If I die, no soul shall pity me." Science can't tell us anything about whether anyone pitied Richard, but it certainly is the case that nobody kept track of his body.

Historians knew that his opponents had displayed Richard after his death in 1485 as a trophy and that the body had been buried in a nearby church. But the church vanished into British history, and common wisdom held that Richard's body had been thrown into a

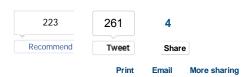
A team of scientists and academics at the University of Leicester decided to pursue an alternative rumor that implied that Richard's body was right where it had been buried. After finding what they thought might have been the long-lost church under a parking lot, they dug a few experimental trenches and almost immediately stumbled upon a body. And not just any body: a body of a person who had been disfigured in life and died a violent death.

Could this possibly be Richard? The team set about systematically comparing what the world thought it knew about the Plantagenet king with what we can definitely tell about the remains.

## Scientists: Body found under parking lot is King Richard III



The Leicester body, according to Dr. Jo Appleby, was in his late 20s or 30s, and had a slender, "almost feminine" build. While he would have been of above-average height for the time, his spine showed clear evidence of scoliosis. (His arms, however, were both normal and healthy; so much for Shakespeare's "wither'd up" description!)





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## How scientists solved Richard III riddle

updated 5:25 PM EST, Mon February 4, 2013



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# Photos: The remains of King Richard

updated 12:40 PM EST. Mon February 4, 2013



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The skeleton also showed marks that could have come from periodappropriate weapons. In particular, a large wound at the base of his skull seemed likely to have been made by a blade like a halberd. Other wounds seemed similar to those inflicted by daggers and knives of the time.

Several of the skeleton's wounds were on parts of the body that should have been covered by armor, and were inconsistent with the magnitude of similar wounds on other battle-damaged corpses of the era. The weaker blows, Appleby said, may indicate that these wounds were "humiliation injuries" inflicted on a dead body by enemies. In fact, if the historical record held true and Richard's body was stripped of its armor and flung face-down over a horse after the battle, he would have been in exactly the right position to allow someone to stab him upward in the right buttock, explaining one strike to the skeleton's pelvis.

<u>Lastly</u>, the position of the bones interested the Leicester team. The body hadn't been laid out full-length with its arms by its sides, as bodies usually were at the time. Instead, it was in a grave that was a bit too small, with its head propped up on a wall. Moreover, the wrists were crossed at the skeleton's waist, almost as if the dead person's hands had been tied when he was tossed into a hastily dug grave.

Lead archaeologist Richard Buckley warns that science can never fully prove the latter theory, however, as any bindings would have disintegrated long ago.

# Read more: Richard III: The mystery of the king and the car parking lot

The Leicester parking lot body was in the right place, dated to the right time, died the right way and probably looked the way many contemporaries said Richard looked. But modern science might be able to take the investigation one step further. So the team set about seeing if they could extract viable DNA from the skeleton, and they succeeded.

Professor Kevin Schurer acted as the project's genealogist and set about seeing if he could find living descendants of Richard III's immediate family. The team needed to find matrilineal relatives. Mitochondrial DNA is passed down from mothers to their offspring, so only all-female lines of descent can be traced using those indicators. Fortunately, the team knew of one such living relative: Michael Ibsen, who volunteered his DNA.

# Read more: Where does skeleton revelation leave legend of Richard III?

Then Schurer created a built-in double-check for the DNA tests. Using historical documents as varied as ship manifests, wills and baptism registers, he found a second Plantagenet heir, who prefers to remain anonymous but also volunteered his DNA. Interestingly, Ibsen and the second donor are the last of their genetic line; if the experiments had occurred even a generation later, no such DNA would have been available.

Armed with three samples of mitochondrial DNA, Dr. Turi King, the project geneticist, was able to prove that the new descendant Schurer had found was, in fact, related to the known Plantagenet Michael Ibsen. Their mitochondrial DNA was identical. Their known descent was from Richard III's sister; since Richard and his sister shared a mother, their mitochondria, too, should have been identical. And indeed, centuries later, King found that the DNA of the two living donors exactly matched the DNA of the body in the Leicester parking

So what now for the last Plantagenet king? His remains have been handed over to the Leicester Cathedral, where he will be laid to rest.



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updated 6:56 AM EST, Mon February 4, 2013



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# Webber vows to battle Vettel for F1

updated 12:23 PM EST, Sun February 3, 2013

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