

# Finding Richard III

## An interview with Dr Jo Appleby



In August 2012 a team from the University of Leicester began an ambitious search for the lost grave of King Richard III. The excavation of a car park in the city centre was fruitful and a battle-scarred skeleton was uncovered. After months of scientific testing the University of Leicester was able to reveal that the skeleton was indeed that of England's last Plantagenet monarch. **Emma Anne James** interviewed **Dr Jo Appleby**, part of the team that found and excavated the remains, as the identification process was just beginning.

**Emma James:** Could you describe your role specifically in the Richard III project?

**Dr Jo Appleby:** Basically, I'm a human osteologist so I do all those things directly to do with the analysis of the bones. That meant excavating the skeleton, it will mean cleaning the skeleton and it will mean I'm in charge of the analysis, some of which I'll do myself and some of which we will bring in specialists from outside to assist with.

**“There is this enduring mystery with Richard”**

**Could you describe to those who are not familiar what an osteologist actually is?**

I study skeletonised human remains from the past. It can tell us how people lived, the kind of diseases that they suffered from, what their nutritional status was like. It can tell us about society's attitude to the body, it can tell us things like whether there were differences between the lives of men and women, differences between the lives of rich and poor. We can trace the development of particular disease processes. There are a lot of things that human remains can

help us understand about the past; sometimes it's even relevant for life today, especially when it comes to disease processes.

**Can you explain why Richard III is so important a historical figure?**

I think the thing about Richard III is that he's really been kept in historical awareness by Shakespeare, who was not particularly fair to him. It is a Shakespearean rumour that he was hunchbacked. There is this enduring mystery with Richard about whether he was responsible for the demise of his nephews, for whom he was supposed to be a protector but who disappeared in the Tower of London. He also died in battle - that's something that tends to get people's imaginations going. So, there has been a historical to-and-fro about whether the Shakespearean view of Richard III as an evil hunchback or the view of him as a normal and nice individual is correct. It might actually be that it's not quite either of those things.

**How did the team gain clues to the possible location of the body? What sparked off the whole project?**

The project was really brought into being by the Richard III Society, in particular by Phillipa Langley. They were very keen to go and investigate the Greyfriars area in Leicester, because there is historical evidence that that is where Richard III is buried. ►

The precise location of it had been lost. I think there's an 18th or 19th Century map that gives enough about the location of where the Friary had been. There are a lot of standing buildings in that area and we obviously can't excavate underneath any of those, so the area of the car park was the place that we had to look.

It was actually Richard Buckley of ULAS [University of Leicester Archaeological Society] who came up with a strategy for excavation which was, roughly, that most ecclesiastical buildings have an east-west orientation, therefore if you want to find an ecclesiastical building and you're not quite sure where it is the best thing to do is to put in a series of north-south trenches. In a way, the fact that we came down on what seems to have been exactly the right place was more luck than anything else. We had a very good chance of picking up the church building but we didn't have such a good chance of finding the right skeleton.

**“the fact that we came down on exactly the right place was more luck than anything else”**

**Could you describe to us the moment the team uncovered the body? Was there anything remarkable? Did you realise what you'd found?**

The skeleton was found very early on during the dig, but I was actually out of Leicester so we didn't fully uncover it, just a small area of the legs. When I came back we had to excavate a larger extension to the trench because it was going under the wall, then work our way down to it.

The skeleton itself was excavated over a whole day. The skull was sitting much higher than the rest of the body. For that reason, when we first came to it we thought it might not be attached to the body that we had the legs of. When I lifted the skull I could see there were some injuries to it so that set a few alarm bells ringing. I then excavated most of the rest of the skeleton and actually that looked completely normal - it was only at the very end when I came to excavate the ribcage and the vertebral column that I realised that there were some abnormalities. We found this condition called

scoliosis of the spine, which is severe curvature off to one side. Then, at the very end of that process when we were lifting out the vertebra, I actually found underneath it a small piece of corroded iron which turned out subsequently to be some kind of arrowhead. So, it wasn't really until right at the end of the excavation process that we realised that this was likely to be the right one.

**Obviously there's been a lot of media attention and it's very exciting! Were you hopeful from the outset? From an outside perspective it looked almost miraculous.**

I wasn't very hopeful that we would find anything. In fact when Richard Buckley came to talk to me about the project in the first place, he said if we found him he'd eat his hat, so Richard may be doing a bit of hat-eating quite soon!

**What are the biggest questions now that you need to answer?**

The DNA analysis is a major component of the research. At first we'll be looking at the mitochondrial DNA, which is passed down through the female line exclusively. We have a modern descendant through the female line which means that, hopefully, we'll be able to match the DNA up, assuming that our family trees are right, and that there's no contamination.

Then, from the point of view of the skeleton there's a lot we can do. There are some head injuries on the skull and we can analyse those and see what they were caused by, and how severe they were. We can look at spinal curvature, the scoliosis, and we can learn a little bit about the condition that gave rise to that. I still have to properly age the skeleton - I can see from what I've seen so far that it's an adult male and that it's not an elderly adult male, but we can hopefully bring down the age of the individual - hopefully to about 32! We'll also carbon date it and we plan to carry out facial reconstruction. We'd like to carry out chemical analysis of the bones and that will enable us to see whereabouts this person was living during their childhood.

**What technological advances have made this study possible?**

DNA research, in particular, is moving on all the time, and it's becoming much more feasible to extract DNA from archaeological



**R**ING OF ENGLAND, RICHARD III, IS DEFEATED AND KILLED AT THE BATTLE OF BOSWORTH FIELD BY THE USURPER HENRY TUDOR.

**H**IS BODY IS BROUGHT TO LEICESTER, WHERE HE IS BURIED BY THE GREY FRIARS IN THEIR CHURCH.

**F**OLLOWING THE DISSOLUTION OF THE MONASTERIES, THE CHURCH OF THE GREY FRIARS IS LOST TO THE WORLD.



skeletons. It's been going on for a while - I think the first work on Neanderthal DNA was published in 1997 - so it's on-going research, but techniques are coming on all the time. Obviously, DNA is very significant for Leicester seeing as we're the birthplace of DNA fingerprinting. Other methods, such as isotopic research, have been going on for some time, but methods are always improving. Carbon dating now uses much smaller samples than it used to, which is great because it means very little destruction of the bone. You can just use a few grams, so you hardly notice it's gone. So, it's not necessarily that the techniques are new in the last few years, but that we're moving on all the time.

## “DNA is very significant for Leicester”

**Are there any ethical issues? For instance, some Native Americans have objections to their ancestors being excavated for research. Have there been any concerns in this excavation?**

The ethics of excavating human remains are quite complicated. We do actually follow guidelines which are produced by the National Association of Osteologists, and they don't require reburial. In fact, they are quite specific about the fact that in many cases reburial is not the option we want to go for. That's because in most cases you won't analyse the skeleton and then you'll be done, there'll often be different research questions that come up in the future or new techniques that are developed, and if that skeletal material has been reburied then it's not available for research.

We also, in this country, don't have so much of a tradition of being worried about bodies. I think we are actually more worried now than we have been at any point in the past. When Richard III died, bodies were regularly dug up and displayed. If we think of relics of saints, for example, they were often on display in churches. A lot of churches actually had charnel chapels, where burials that had been disturbed were placed, and they were designed to be accessible. So, we don't have the same ideas about seeing bits of dead bodies being a problem as, say, the Native American Indians do.

**Talking more specifically about you, what attracted you originally to studying archaeology and osteology?**

I'm one of those strange people who wanted to be an archaeologist since I was quite little. I loved going to museums as a child, and I loved seeing archaeology on the TV. It just fascinated me from the off - I didn't get out enough I suspect! So, I've been following it quite single-mindedly for a while, and I first got into bones as an undergraduate and really loved it, which was why I then went on to do a master's and have been carrying on ever since.

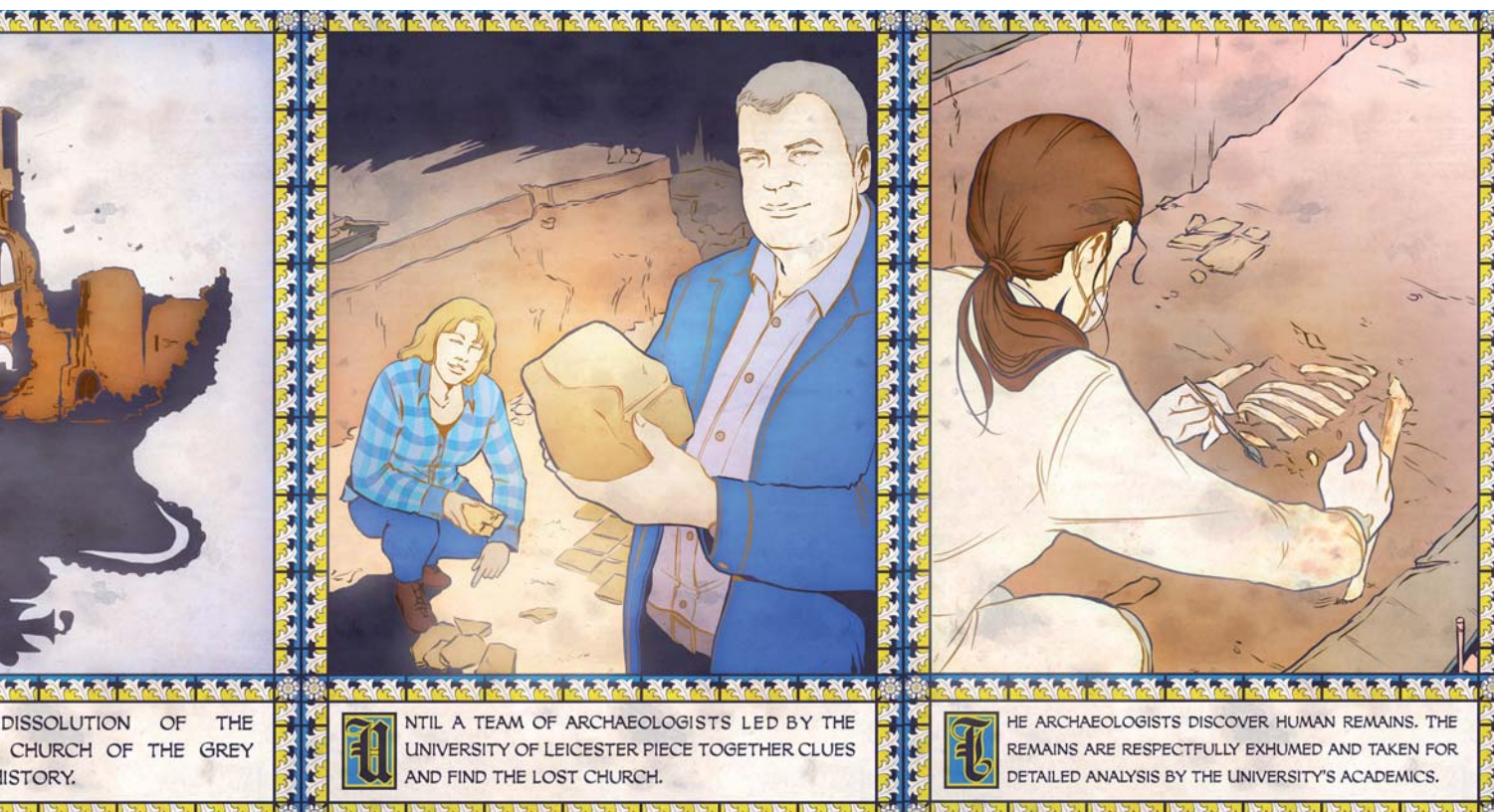
**Do you think the media attention on the Richard III project will affect research at the University of Leicester? Do you think it will inspire people to study archaeology who hadn't thought of it before?**

I hope so. We've certainly seen an increase in people inquiring about our courses since this news came out. I know there's been a big influx of people to Leicester to see the exhibition in the Guildhall and so it's very encouraging in that sense. We like to encourage people to be interested in archaeology and come and find out what it is all about. So, yes, I probably think it's going to do the University quite a lot of good.

**This is a huge discovery. Was this your dream project?**

The honest answer is actually no. It's been very exciting, but archaeology is not really about looking for named historical individuals. What I love most about archaeology is using it to put together something complex that can tell us about societies in the past. The work I'll be doing in Russia, which is looking at Bronze Age burial mounds, is going to be putting together looking at burial practices, looking at evidence for health and disease on the bones, looking at the kind of things people were buried with and looking at how that relates to the settlement evidence that we have, which gives us a much more complete picture of a society. What really excites me about archaeology is that - being able to bring the past to life. ■

**You can watch the full interview with Dr Jo Appleby on our website. If you'd like to know more about the search for Richard III, a huge amount of information is available at [www.le.ac.uk/richardiii](http://www.le.ac.uk/richardiii).**



DISSOLUTION OF THE CHURCH OF THE GREY HISTORY.

UNTIL A TEAM OF ARCHAEOLOGISTS LED BY THE UNIVERSITY OF LEICESTER PIECE TOGETHER CLUES AND FIND THE LOST CHURCH.

THE ARCHAEOLOGISTS DISCOVER HUMAN REMAINS. THE REMAINS ARE RESPECTFULLY EXHUMED AND TAKEN FOR DETAILED ANALYSIS BY THE UNIVERSITY'S ACADEMICS.