

Institution: University of Leicester		
Unit of Assessment: 28 History		
Title of case study: The identification of King Richard III: the economic and societal impact		
Period when the underpinning research was undertaken: 2012 – 2014		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Kevin Schürer	Role(s) (e.g. job title): Professor of English Local History	Period(s) employed by submitting HEI: 2010 – Present
Period when the claimed impact occurred: August 2013 – December 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact <p>Following the University of Leicester's multidisciplinary research that led to the discovery of skeletal remains at Leicester Greyfriars, the University of Leicester announced in February 2013 that these remains had been identified as those of King Richard III (RIII). The underpinning genealogical and related historical research undertaken by Professor Schürer was a critical element of the identification, generating wide-ranging impact since August 2013. By 2015, the project had boosted Leicester's economy by GBP79 million, including the construction of the Richard III Visitor Centre, and created 1,012 new jobs. By 2017, the research reached an estimated one billion people globally. In 2018 alone, 11.5 million people visited Leicester, and the value of tourism grew by 48% to GBP651 million, significantly driven by the identification of RIII. The research anchors Leicestershire's on-going tourism plans for 2019-2025, and is embedded in Leicester Cathedral's 2020-2023 GBP11.3 million National Lottery-funded restoration project, including the construction of a new Heritage Learning Centre.</p>		
2. Underpinning research <p>Schürer's research training and background is in historical demography and as such he often works within interdisciplinary teams, including geneticists [R1], researching archival sources covering wide time spans, and applying genealogical approaches in tracing and linking individuals and families over time. This meant he was ideally placed to undertake the necessary genealogical research that underpinned the genetic analyses on the Greyfriars skeleton.</p> <p>As part of the team working on the RIII project, Schürer's role in the identification of the skeletal remains, discovered beneath a carpark on the site of the Old Greyfriars Friary in 2012, was to undertake research using a variety of documentary sources to verify the unbroken link via the matrilineal DNA in a previously charted lineage (Ibsen) and to identify and verify a second line (Duldig).</p> <p>Previous research by independent researcher John Ashdown-Hill had identified Joy Ibsen as a potential mitochondrial DNA match, being descended from RIII's sister, Anne of York. Most of the Ibsen lineage was already known, having been published in 1907 by the Marquis of Ruvigny and Raineval. However, neither Ashdown-Hill nor his primary source, Ruvigny, provided any documentation or historical provenance for the Ibsen lineage. This was generated, for the first time, by Schürer's research published in <i>Nature Communications</i> [R2 Supplementary note 2F, R1]. Given the high-profile nature of this project it could not rely on the non-peer reviewed and undocumented claims of Ruvigny/Ashdown-Hill.</p> <p>Schürer's new and independent genealogical research was undertaken across several archives and record repositories worldwide including the National Archive, the New Zealand Registration of Births, Marriages and Deaths and local parish registers and local record offices. This research not only confirmed (and corrected) the previously published Ibsen lines but also led to the</p>		

discovery of a new present-day relative (Wendy Duldig) who should have had (in theory) the same mitochondrial DNA type as both Ibsen and Richard III. The discovery of the Duldig line by Schürer [R2 supplementary note 2G, R1] enabled the comparison of mitochondrial DNA samples taken from Michael Ibsen (Joy's son) and Duldig to be compared, and confirmed the new genealogical findings. These were later found to match with the Greyfriars skeleton. The ability to triangulate all three DNA results was critical since any 1-to-1 match could have given a false-positive. Thus, Schürer's addition of the second line (Duldig) provided critical evidence that the skeleton was indeed that of RIII.

In addition to documenting the Ibsen line and discovering the Duldig line, Schürer traced 144 contemporary relations of RIII, who would have shared the same mitochondrial DNA type. This addressed the (remote) possibility of the skeleton being the remains of someone other than Richard who was killed at Bosworth and shared the same rare mitochondrial DNA type. Using multiple archival and library sources Richard's mitochondrial DNA line was researched from the earliest known progenitor downwards to include all those living at the time of Bosworth, excluding them as possible candidates to be the Greyfriars skeleton [R2 Supplementary note 2B, R1].

UoL archaeologists made the discovery of the Greyfriars skeleton, and UoL genetics research demonstrated that he was the ancestor of Ibsen and Duldig. By demonstrably evidencing that Ibsen and Duldig shared a common ancestor in RIII's sister Anne (and only Anne), Schürer's archival and genealogical research was a critical piece of the puzzle in the identification of the King in the carpark.

3. References to the research

R1. King, T. E and Schürer, K. "The cousins in the swabs", in The Greyfriars Research Team, Maev Kennedy, Lin Foxhall, *The Bones of a King: Richard III Rediscovered* (Wiley-Blackwell, 2015), pp.109-126.

R2. King, T. E., Appleby, J., . . . Schürer, K. "Identification of the Remains of King Richard III". *Nature Communications* 5, 5631, (2014). DOI: <https://doi.org/10.1038/ncomms6631>
Specific details of Schürer's research contribution are given especially in Supplementary notes 1c, 2a, 2b, 2c, 2d, 2e, 2f, 2g and 2h (pp. 15-37 of the *Supplement* accompanying the main *Nature Communications* article).

Exhibition

X1. Exhibition, *The Richard III Visitor Centre, Leicester*, (July 2014 to present).

4. Details of the impact

The discovery of a skeleton found in Leicester later identified to be RIII [R1, R2] generated a story that quickly exploded across the world. Due to the appeal and global spread of the 'RIII story', the impact emanating from the project has been multifaceted, diverse and wide-reaching. This case study focuses on the public engagement, education, culture, heritage, tourism and economic impact.

Outline Public Engagement, Education and Cultural impacts

Public interest in the 'RIII story' is virtually unprecedented for an historical project. Press and media coverage in March 2015 relating to the reinterment alone totalled 2,071 stories and reached 358 million people, equating to GBP6.2 million Advertising Value Equivalent (AVE). By 2017, press and media coverage of the discovery and reinterment reached more than one billion people around the globe, valued at GBP16.5 million AVE [E4]. The Channel 4 documentary, *Richard III: The New Evidence* (August 2014), featured the UoL research, and reached 1.76 million viewers in seven days [E6C]. BBC's *History Extra Magazine* readers voted RIII as their number one historical figure of interest in the 'Top 100' poll 2015 – 2017. In July 2020, the public voted RIII's association with the Princes in the Tower as "history's greatest mystery" with 35% of the votes, "almost three times as many as the building of Stonehenge" [E5]. *Identification of the remains of King Richard III* [R2] (for which Schürer is senior author), is "in the 99th percentile ... of the 312,593 tracked articles of a similar age in all journals and the 99th percentile (ranked

1st) of the 1,450 tracked articles of a similar age in Nature Communications” [E9A]. It was the 58th highest scoring of all research publications and accessed 16,000 times [E9A]. The accompanying YouTube videos featuring the genealogical research have had 149,000 total views [E9B].

The sheer volume of worldwide public interest generated a unique platform for a range of educational activities and public engagement activities. Since opening in July 2014, the new Richard III Visitor Centre (RIIVC) has incorporated Leicester research into educational programmes, which have reached approximately 12,000 learners. For example, during the 2018/2019 academic year ending July 2019, RIIVC programmes reached 3,324 learners (62% Key Stage 1 and 2; 23% Key Stage 3 and 4; 15% Further Education/Higher Education) [E2A]. Schürer’s genealogical research was also a key feature of the seven-day RIII exhibit at the Royal Society’s ‘Festival of Science’ (June 2015), with 13,000 visitors, of which, of those responding to the visitor survey, 85% strongly agreed or agreed that the exhibition had increased their interest in ‘science’. The skeleton replica and research displays subsequently travelled to Birmingham’s ‘Big Bang Fair’ (2014, c.70,000); Galway Science and Technology Festival (2017, c. 20,000); and Bulgaria’s Sofia Science Festival (2017, c.17,000) [E2B]. The University of Leicester RIII website and educational materials have had 1,782,871 unique page views (UPV) from the UK (39.5%), the USA (33.1%), Australia (7.1%), and worldwide – with 55,753 UPVs on the genealogical family free data alone (August 2013 – December 2020) [E2C]. In 2015 the Scout and Guiding association launched a Richard III challenge badge drawing on the research of the ‘RIII story’, with c.2,000 challenges completed in Leicestershire alone (May 2020) [E3].

The ‘RIII story’ and the research that underpins it also generated a renewed RIII publishing industry, largely aimed at the public. This includes Mike Pitts’ *Digging for Richard III: How Archaeology Found the King* and David Horspool’s *Richard III: A Ruler and his Reputation*, as well as literature aimed specifically at a children’s audience, such as former Children’s Laureate Michael Morpurgo’s *The Fox and the Ghost King* (fiction) and Rosalind Adams’s *Children’s Book of Richard III* [E7]. From a more cultural perspective it also inspired three artistic responses for RIII’s reburial service on 22 March 2015 at Leicester Cathedral: *Ghostly Grace*, a choral piece by Judith Bingham; an anthem by Judith Weir; and *Richard*, a eulogy by Poet Laureate Carol Ann Duffy, read by Benedict Cumberbatch, with more than 265,000 views (December 2020) [E8].

From a cultural perspective, the research underpinning the ‘RIII story’ has also had a significant impact on subsequent portrayals of RIII. For example, Ralph Fiennes stated that the Leicester research inspired his 2016 portrayal of Shakespeare’s Richard III at the Almeida Theatre, a performance which sold 21,850 tickets and whose live broadcast reached 50,000 additional viewers worldwide [E6B]. Likewise, star of *The Hollow Crown* (BBC2, May 2016), Benedict Cumberbatch, whom Schürer identified as a relative of RIII, stated that “*I was literally dressed as Shakespeare’s version of Richard III when I received the email from University of Leicester saying that I was a not-altogether-ridiculously-distant descendent of Richard III.*” The programme reached 0.84 million viewers in seven days, and 0.94 million viewers in 28 days [E6A].

Heritage, tourism and economic impact

The project team’s discovery of RIII’s skeleton and the *identification* of his remains significantly contributed to Leicester and Leicestershire’s transformation into a key national and global tourism destination. Leicester and Leicestershire Tourism Growth Plan (2019) stated: “*The economic potential of Leicester and Leicestershire was significantly enhanced by the discovery of the remains of King Richard III . . . and his reinterment in Leicester Cathedral in 2015. The value of this remarkable story to the area . . . provided a spotlight that enabled both the City and the County to showcase the area’s rich heritage and tourism potential*” [E1Eii].

A 2015 Leicester City Council (LCiC) report showed that the identification of RIII drove significant economic impacts. In Leicester, 622,562 additional visitors to RIII-related events spent GBP54,625,048; 1,012 additional FTE jobs were created; volunteering was valued at

GBP118,566; and an estimated GBP79,082,740 GVA to Leicester's economy [E1A]. Leicester Cathedral drew 1,350% additional annual visitors 2012 – 2014 (29,500 – 428,000), and 1,223,560 total visitors 2013 – 2018, averaging 203,926 visitors per annum [E1B].

2020 LCiC [E1Eii] and 2019 Leicestershire County Council (LCoC) [E1Eiii] reports showed that the RIII discovery and identification, along with other regional attractions, contributed to the region's overall tourism growth. Since 2013, there has been *"an increase of 26.9% in value from the tourism sector, an 18.6% increase in visitors and a 12.6% increase in employment"* [E1Eii]. In 2018 alone, 34.9million people visited Leicestershire [E1Eii] and 11.5 million people visited the City of Leicester, with the value of Leicester's tourism growing by 48% to GBP651 million—significantly driven by the discovery of RIII [E1Eiii].

The identification of RIII further influenced considerable tourism and heritage investment, development, and planning. LCoC created a Conservation Plan for Bosworth Battlefield Heritage Centre (BBHC) to foster *"a local economy that supports . . . protection of the archaeological resources"* stating that the Battle of Bosworth *"has accrued even greater significance following the discovery of the remains of Richard III"* (August 2013) [E1Ev]. BBHC ticket sales increased by 62% 2013—2014 (2013: GBP95,375; 2014: GBP154,425) and retail sales increased by 74% (2013: GBP74,215; 2014: GBP129,440) [E1F]. Although 2015 – 2018 visitor data are unavailable, BBHC was visited 9% more in 2015 than in 2014 [E1F]. In November 2013, LCiC invested GBP4 million to construct the RIIIVC around the Greyfriars burial site [E1A], drawing 40,000 visitors July 2014 to March 2015 [E1C] and 1.3 million visitors to the RIIIVC and the Cathedral between the March 2015 reinterment and 2018 [E1E]. Approximately 43,000 people attended Leicester Cathedral during the week of reinterment services and more than 600 million people around the world viewed the live broadcast of the service [E2E].

The RIIIVC permanent exhibition, for which Schürer was the University of Leicester lead and overall coordinator, incorporates the research team's identification procedures [X1, E1B]. Historic England designated the Greyfriars site as a Scheduled Ancient Monument (2017) [E1D]. Since opening on the 26th July 2014 to 31 December 2019, the RIIIVC has had 347,155 visitors from the UK and overseas, including the USA, Australia, and China [E1C]. The RIIIVC won the Group Leisure and Travel Awards 'Best Museum or Gallery' (2018) by reader vote, selecting the Centre over the British Museum and Tate Britain [E1C]. *Lonely Planet* added RIIIVC to their Ultimate UK Travelist (2019), stating it *"reveals . . . one of the world's greatest archaeological detective stories"* [E1E].

Lastly, the RIII 'effect' continues to generate heritage and economic related impact . The *"remarkable King Richard III discovery and [his] connection with Leicester and Leicestershire"* continues to drive regional economic and tourism planning [E1F]. The Leicester and Leicestershire Tourism Growth Plan 2019-2023 has designed *"a critical mass"* of RIII experiences through to 2024 [E1Eii]. The Leicester Tourism Action Plan 2020-2025 is *"anchored by the King Richard III story"*. This includes relocating the city's tourist information centre to the RIIIVC *"for the 130,000-plus visitors now coming each year, many drawn to see the tomb of RIII"* [E1Eiii]. Finally, Leicester Cathedral's 2020-2023 Strategic Plan confirmed that RIII is a core driver for its GBP11.3 million project, funded by the National Lottery Heritage Fund (2016), to restore the Cathedral and build a Heritage Learning Centre, stating: *"The Cathedral changed enormously leading up to, during and in the aftermath of March 2015 when King Richard III was reinterred ... This new situation has become increasingly embedded and we are now into the next major redevelopment phase entitled 'Leicester Cathedral Revealed'"* [E1Ei, iv].

5. Sources to corroborate the impact

Heritage, tourism and economic impact

E1.

A. Leicester City Council Economic Impact of RIII Report 2015.

B. Leicester Cathedral Report 2015.

- C. Collated RIII Visitor Centre materials: RIIIVC Report 2015; BBC News Story about the investment 22 July 2014; Group Leisure and Travel Award 2018.
- D. Historic England Scheduled Ancient Monument 1442955, 13 December 2017.
- E. Tourism plans and actions: i. Leicester Cathedral Strategic Plan 2018 – 2020; ii. Leicester and Leicestershire Tourism Growth Plan 2019–2023; iii. Leicester Tourism Action Plan 2020–2025; iv. Leicester Cathedral Heritage Lottery Fund announcement, 2016; v. Bosworth Battlefield/LCiC/Heritage Country Park strategy August 2013.
- F. LCoC Heritage Support Officer emails relating to Bosworth Battlefield Heritage Park data, April and August 2020; Hinckley and Bosworth Community and Wellbeing Strategy 2016–2020.

Outreach and Education Impact

E2.

- A. Compiled RIIIVC Management Reports to the Board of Trustees, March 2016 – September 2019.
- B. Royal Society's Trustees' report and financial statements, 31 March 2016.
- C. UoL RIII website data.

E3. Scout and Guiding challenge badge news and email from County Office Manager.

Cultural impact

E4. Representative news features. Collated media data reports: University of Leicester/Precise Media RIII Reinterment report, March 2015; Efficiency Exchange Report by Ather Mirza, 8 June 2017.

E5. Collated public interest votes from BBC History Extra 2015 – 2020; expert nominations June 2020.

E6. Television productions and theatre performances.

- A. *The Hollow Crown*, BBC2, 21 May 2016. Collated interviews, features, and BARB viewing figures.
- B. *Richard III*, Almeida theatre, 2016. Collated features, reviews, live broadcast, images, and email from Almeida Theatre Marketing Manager, 11 May 2020, confirming ticket sales.
- C. *Richard III: The New Evidence*, Channel 4, 17 August 2014.

<https://www.channel4.com/press/news/richard-iii-new-evidence>

E7. Materials evidencing popular books.

E8. Materials evidencing poetry and music.

Judith Bingham's *Ghostly Grace* collated feature stories March and August 2015; Kings Place seating plan; Poet Laureate Carol Ann Duffy's eulogy, *Richard*. <https://tinyurl.com/ydenhupu>; Recording of Benedict Cumberbatch reading at reinterment; <https://www.youtube.com/watch?v=38nodTfpro4>

E9. Identification reach data.

- A. Altmetric data to latest citation date of 10 September 2020:
Overview and article access data: <https://www.nature.com/articles/ncomms6631/metrics>
Full data and Altmetric quote: <https://nature.altmetric.com/details/2943005#score>
- B. Videos featuring the identification:
<https://www.youtube.com/watch?v=OYPTuWdMrW0>
https://www.youtube.com/watch?v=yYY-usw9K_U