

ZKS-Lendrum Assistant Professor (Research) in the Scientific Study of Manuscripts and Inscriptions: End of Fellowship Report

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I began my research in Durham with the intention of using radiographic imaging to investigate the binding histories of manuscripts in the medieval library of Durham Priory. Since most of the collection was rebound in the nineteenth-century, very little visual evidence remains of the how the books were bound and stored before this date. However, more information may be preserved beneath the current covers. Micro-CT imaging could reveal when the books were first bound; how they were stored and circulated before and after that date; and whether there was a local or house style that might help identify further examples of Durham books. Such data would augment the collection's ongoing care and conservation and contribute to the widening range of data available through the Durham Priory Library Recreated digitization project. It would also contribute to my second monograph project, which sets localizable craft practices within the transregional intellectual and economic networks that facilitated them.

I began my fellowship by surveying some of the surviving evidence supplied by existing bindings and catalogues in order to select a suitable corpus for imaging. However, an early set back—the decommissioning of the micro-CT scanner proposed for use—required my research programme to pivot. In order to replace the primary imaging component of the project, I sought other opportunities: these included working in closer collaboration with the conservation department in Palace Green Library; seeking other sources of data; upgrading the role of supporting imaging techniques proposed for the project; and building internal and external collaborations.

My work with Anthony King, Andrew Beeby, and colleagues at Palace Green Library comprised several main strands:

1. We negotiated access to the micro-CT data collected by Christina Duffy and colleagues at the British Library in 2013 in their investigation and conservation of the St Cuthbert's Gospel (BL, MS Additional 89000) (c.f. Claire Breay and Bernard Meehan (eds.), *The St Cuthbert Gospel: Studies on the Insular Manuscript of the Gospel of St John* (BL, Additional MS 89000), (London: The British Library, 2015)). This gospel book is the oldest surviving bookbinding in Western Europe. It was produced at Monkwearmouth Jarrow (Sunderland), ostensibly for burial with St Cuthbert's on Lindisfarne, and was removed from St Cuthbert's coffin on its translation to Durham cathedral at the turn of the twelfth century. The North African influence on the binding is a crucial starting point for my monograph project, and our reassessment of these data will be used to produce a facsimile for Durham's collections. In particular, we used the scan to produce a 3D printed stamp of the design on the front of the book, which will be used to recreate the original production techniques.
2. The conservation department produced a model book, featuring a number of key features of interest, to be imaged in a range of CT machines as a demonstration of capacity. I have begun using this book for a comparative study, which will be published to provide conservation and cultural heritage professionals with guidance and expectations for undertaking their own imaging projects.
3. I was awarded internal funding (£18000) for the purchase of a portable dental x-ray device to be kept in the library and used for acute imaging of collections items. As a portable device, it will also be available to those researching and caring for cultural heritage items from across the university. The ability to transport the machine to the objects will circumvent many of the safety and logistical concerns involved in working

on such objects. The machine is now on order, and I will collaborate with the Durham team to set up a protocol of use and proof of concept study on its arrival.

4. I investigated other imaging technologies in use within the university and in the local area, extending my collaboration network and producing a list of resources for future projects. Some such work includes: working with an independent conservator and members of Newcastle University School of History, Classics, and Archaeology to micro-CT scanning the binding of book from Castle Acre Priory, Norwich; planning an imaging bid with colleagues from Swansea University and the University of Toronto and making progress on proof of concept scans; initial imaging in the radiography department at University Hospital of North Durham; and a funding application for imaging and conservation work on two seventeenth-century packed bindings at University College Dublin.

Indeed, one of the major outputs of the fellowship may be the continuing research collaborations that it allowed me to establish, both within Durham and beyond. Many of these collaborations are ongoing.

Alongside research, the fellowship presented many opportunities to focus on other aspects of my career development. I have taken up a position in the AHRC's Peer Review College and I will serve on the advisory board for the conservation of Durham's First Folio. I taught several classes for the interdisciplinary MA in Medieval and Early Modern Studies; for the Things that Matter summer school hosted by Durham, Uppsala, and Groningen Universities; and for the Graduate Manuscript Workshop at the conference of the New Chaucer Society. I also participated in a seminar on the academic job market for graduate students, and external talks on funding applications and book proposals. Interest in my research resulted in invited talks at Newcastle University, the University of Turku, and a short position paper for the Cultural Heritage 360 workshop, as well as presenting at three further international conferences. Three of these papers have or will be adapted into peer reviewed publications. For the academic year 2022-2023 I will be working at the University of Limerick on my Marie Skłodowska-Curie Individual Fellowship, "Book Science in the Bolton Library". Then, in August 2023, I will take up the post of Assistant Professor in the Department of English at the University of Georgia (Athens, GA).

Outputs:

Peer-Reviewed Publications:

Sargan J. D., "The Science of Palaeography": Two Cultures in the Face of New Scientific Approaches to the History of the Book', *Endeavour* (special issue, forthcoming 2023)

Sargan J. D., 'Books and Manuscripts', in *Routledge Companion to Global Chaucer*, ed. Craig Bertolet and Susie Nakely (invited chapter, forthcoming 2023)

Sargan J. D., 'Filling in the Gaps: Early Middle English, Nationalist Philology, and Reparative Codicology', *Textual Practice* (invited special issue, for 2023)

Sargan, J. D., 'Middle English: Manuscript and Technical Studies', *The Year's Work in English Studies* 101 (at press for 2022)

Sargan, J. D., 'What Could a Trans Book History Look Like? Toward Trans Codicology', *Criticism* (special issue, at press for 2022)

Sargan, J. D., Jessica J. Lockhart, Andrew J. Nelson, D. Meert-Williston, and Alexandra Gillespie, 'The Ghosts of Bindings Past: Micro Computed X-Ray Tomography for the Study of Bookbinding', *Digital Philology* (2022)

Data and models:

- Images, data, and 3D modelling for Norwich Museum Services to display alongside conserved bindings and retain for ongoing care purposes

Funding:

- Durham University Equipment Grant for the purchase and maintenance of a portable dental X-ray device for shared use by the Institute of Medieval and Early Modern Studies, Palace Green Library, and the Department of Archaeology (lead applicant; £18,000)

In Preparation:

Sargan, J. D., 'Middle English: Manuscript and Technical Studies', *The Year's Work in English Studies* 101 (for 2023)

Sargan, J. D., and Alexandra Gillespie, 'A Toronto Witness to the Earliest Printing in Istanbul' (invited chapter in peer-reviewed Festschrift) research complete and write up underway

Nelson, Andrew J., J. D. Sargan, and Julie Cox, 'Studying Bookbindings with Computed X-Ray Tomography' (to be submitted to *Proceedings of the National Academy of Sciences of the United States of America*), joint-authored peer-reviewed scientific research article, research complete and write up underway

Sargan, J. D., 'Shifting Perceptions of the Library in Late Medieval Durham' (to be submitted to *The Library*)

Sargan, J. D., *Reading Early Middle English Books* (full manuscript to be submitted to University of Pennsylvania Press by end of 2022), five chapters drafted and revised, introduction and conclusion to be written

Activities:

Conference Activity:

Organisation:

Outreach/Output: Digital and Scientific Imaging as a Tool in Cultural Heritage, Institute of Medieval and Early Modern Studies, Durham University, July 20, 2022 (postponed due to illness)

Session organiser (with Alexandra Reider, Yale University), 'The Pre-Chaucerian Page', *New Chaucer Society Biennial Congress*, July 2022

Papers and Presentations:

'What Could a Trans Book History Look Like?', *New Chaucer Society Biennial Congress*, Durham University, July 12, 2022

'Cataloguing the Lost Bindings of Durham Priory Library with Radiography', *International Congress on Medieval Studies*, Western Michigan University, May 12, 2022

'Using Micro CT for Book Historical Investigation', Department of Archaeology, Newcastle University, May 4, 2022 (invited talk)

'Shifting Perceptions of the Library in Late Medieval Durham', *English Perceptions of the Material Text: 1300-1600*, online symposium, December 9-11, 2021

'Radiographic Techniques in the Study of Bookbinding', *Material Text Research Forum*, University of Turku, November 17, 2021 (invited talk)

'Out of Old Books comes New Science: Training via. Questions, Experiments, and Collaborations', *Cultural Heritage 360: Workshop 6: Training for the Future*, Durham University, July 21, 2021 (invited talk)

Teaching:

Guest Lecturer:

- Material and Culture in/for the Digital Age, Summer School for Graduate Students from Groningen, Uppsala, and Durham Universities, Durham University, July 11-15, 2020
- HIST45430, Reading the Medieval and Early Modern Past, Durham University (Graduate level, Autumn 2021)

Course Instructor:

- Graduate Manuscript Workshop, New Chaucer Society Conference, Durham University (July 10 2022, with Daniel Wakelin and Richard Gameson)