

Keble Research

Report 2023-24

Introduction

This report summarises the research activities supported by Keble College's Research Committee in 2023-24.

The College has dedicated funding of up to £100,000 a year to support the research activities of its Fellows and, in particular, to encourage innovative and inter-disciplinary exchanges. Oxford colleges are the ideal environments in which to cultivate the flow of ideas across often long-established academic boundaries.

We support research through three main schemes or programmes:

- Senior Research Visitors (and Collaborating Research Scholars), who are academics
 of high standing, generally from outside the UK. They may visit for periods of up to
 six weeks (occasionally longer), receiving free accommodation and dining rights as
 members of the Senior Common Room.
- Research Associates, who are generally post-doctoral researchers at the University
 who would not otherwise have a college association. Associates may be nominated
 as members of the Senior Common room for up to three years.
- Small Research Grants, sums of around £3000 to support Fellows in their research activities, for example organising conferences and symposia or helping complete a book project with editorial assistance.

There is also the option of bundling together nominations for Research Visitors, Research Associates and applications for research grants into coherent Projects which may develop a theme or collaboration over periods longer than just a single year.

In 2023-24 we hosted two new Visiting Fellows, who are distinguished individuals from various backgrounds, not just academic, to spend extended time in the College and join the community.

The allocation of research support is agreed by Governing Body on the recommendations of its Research Committee, chaired by the Sub-Warden, Professor James Goudkamp.

We try as far as possible to support research activities that will include or benefit our graduate community, as part of the College's programme of events designed to enable graduates to reach outside their disciplinary boundaries. This programme is coordinated by the Academic Director of the H B Allen Centre, Dr Ian Archer.

Small Research Grants

Small Research Grants were made to the following:

Fellow/Lecturer	Purpose
Maria Misra	To support a conference on <i>Global Gender: Pasts Presents</i> Futures 24-26 th June 2024
Amy Bogaard	For illustrations included in <i>From Farming to Urbanism in</i> Western Asia and Europe
Amy Bogaard and Tom	To support the Hosting of the 44th annual Association for
Maltas	Environmental Archaeology autumn conference at Keble College
Olly Chandler	To attend a panel discussion at the Guitar Foundation of America (GFA) Convention, Cal State Fullerton, on the subject The First-Viennese Guitar Repertoire: Norms, Deformations, Canons
Idris Kempf	To support an undergraduate summer research project on constrained optimization problems in Engineering Science
Tom Maltas	To support a research assistant on a project on archaeobotanical remains from five archaeological sites in western Anatolia
Matt Bevis	For The Poet's Essay
Gui-Qiang Chen and	To develop a programme of workshops and activities for the
Helen Byrne	College's Complexity Cluster in 2024-25

Reports on Research Grants

James Schuyler at 100 – Report on Project Grant

Professor Matthew Bevis

Last year Keble generously provided a grant to help support a series of events I organised in New York entitled *Always More Roses: James Schuyler at 100*. November 2023 marked the centenary of Schuyler's birth and the project involved a major international conference (with associated activities and readings) which celebrated the occasion and helped to spur further study of the poet's achievement.

The project was a great success, with over 300 people attending across the weekend. The initiative involved collaborations with Dia, NYU, and The Poetry Project, and it was widely publicised on social media. Webpages dedicated to the individual strands of the series are available here:

- Dia
- NYU
- The Poetry Project

On the back of these events I plan to edit a collection of essays, and also to write an interdisciplinary critical study (there is currently no monograph on Schuyler) which will consider his poetry alongside his art writings and other achievements.

The project ties in very well with other current series at Keble: <u>Poetry & Painting</u>, with T. J. <u>Clark</u> has considered the work of the New York School, and this term's event in <u>The Poet's Essay series</u>, with Adam Phillips focuses on the work of Schuyler and the poet Peter Gizzi, who himself spoke at the New York symposium.

Poetry & Painting – The T. J. Clark Seminars at Keble

Professor Matthew Bevis



Poetry & Painting is a new series that began at Keble in Michaelmas term 2023. It is convened by me and led by T. J. Clark—the most renowned art historian in the world, author of several pioneering books, and a curator of many international art exhibitions.

Poems about paintings have long been part of literary tradition, and many such poems go on being written. Why? What is hoped for from them? What is involved in the passage from picture to word? This seminar series looks at particular poems and paintings, ancient and modern, with such questions in mind.

Each seminar lasts around one and a half hours. The series is free and open to all who wish to attend. It is widely advertised on social media, as well as through college and university mailing lists. There are no sign-up lists or reserved places, although a small amount of reading (and viewing) is required in advance of each seminar. A handout is made available via a downloadable link on the Keble website (this material is carefully selected and discussed in advance by both Clark and myself). At the seminar Clark introduces the material—usually through an informal lecture for the first 45 minutes—before then leading discussion.

The series is wide-ranging and interdisciplinary; Clark himself has written widely *across* fields (a collection of his essays on politics is forthcoming) and is himself a practising poet as well as an art historian. He has also written on philosophy and has interests in critical theory from Marx onwards.

The website for the series is:

https://www.keble.ox.ac.uk/teaching-research/poetry-at-keble/poetry-painting/

This venture has been a tremendous success in its first year; around 100 people have attended each seminar, and the series is hugely popular with staff, students, and the public alike. The series also complements—and adds to—the success of other poetry initiatives at Keble: *The Salutation & Cat, The Poet's Essay,* and *Poets at Keble*. Taken together, these initiatives have helped to enhance Keble's reputation as a thriving centre for the study of poetry and its place in our culture.

More information about all these initiatives at this new website: https://www.keble.ox.ac.uk/teaching-research/poetry-at-keble/

The college provides an excellent space for relaxed, welcoming, yet rigorous discussion, and the Pusey Room (with its new AV set-up, which is able to show large images in extremely high resolution) is an ideal venue for the series.

Networks: Probability and Statistics

Professor Gesine Reinert

In 2018/19 the Keble Research Committee generously awarded a grant of £1,000 to me for assistance with a textbook that I have been writing, jointly with Andrew Barbour, on network analysis (*Networks: Probability and Statistics*). Finally, this year the book is advanced enough to have warranted checking the bibliography. With a publisher deadline of September 30, 2024, I am very pleased to report that the checking of the bibliography is now completed.

Professor Mankei Tsang (National University of Singapore)

During Hilary term Professor Mankei Tsang was a Senior Research Visitor at Keble, collaborating with Professor Alex Lvovsky in the Department of Physics. Professor Tsang worked with Alex Lvovsky's research team in Oxford Physics to develop practical implementation of his recent theoretical discovery, which enables enhancement of resolution of optical imaging devices. This collaboration has two objectives:

Objective 1:

Determine the physical limits of imaging according to quantum estimation theory. Building on our expertise in quantum metrology and non-parametric statistics, we will consider estimation of positions and intensities of multiple partially-coherent light sources, and establish bounds to the precision available (both in ideal and constrained scenarios) for reconstructing continuous images.

Objective 2: Demonstrate practical superresolution imaging on a microscopic scale

Leaping beyond proof-of-concept experiments, we will develop and demonstrate a prototype operating in concrete microscopy scenarios (encompassing coherent and fluorescent samples), and evaluate its advantages and limitations, as well as compatibility with existing methods of resolution enhancement.

James Williams (University of York)

James reported on his visit to Keble during Hilary term:

"My aim for the visiting fellowship was to make progress on either of two books: one on the ways nineteenth-century poetry rewrites classical mythology, and the other on the history of wit from the early nineteenth century to the present. One of the pleasures of working on two projects in tandem—alongside that of perpetually playing truant from one's own lessons—is that it isn't always clear which will take precedence until time and space permits rediscovery of the unpredictable pleasure of writing. The Visiting Fellowship at Keble provided just that, and it was the second book, The Ends of Wit, which came to the fore. My days spent in the Bodleian allowed me to complete a substantial essay on the Regency clergyman, wit, and journalist Sydney Smith, which has been accepted for publication by the journal Essays in Criticism as a step on its way to becoming Chapter 1. With a final week to spare in Oxford, I returned to an unrelated project, a conference paper from 2016 on the twentieth-century poet Stevie Smith, and expanded this into an article now under consideration at The Cambridge Quarterly. (So difficult to find a niche in today's overcrowded academy: why not authors named 'S. Smith'?).

That's two articles out there and on their way into prestigious OUP journals, thanks in no small part to Keble's generosity, not to mention the preliminary reading I was able to do for my next chapter (on Oscar Wilde), the book proposal for a co-edited essay collection, or the workshop on the genres of philosophical writing co-convened with Prof. Ben Colburn (Philosophy, University of Glasgow) and hosted at Keble in Week 9. It has been a term of enjoyable productivity, enabled and enriched by the hospitality of the Warden and Fellows, and wider community, of Keble. Let me say, in concluding, a final word of appreciation for the comfortable flat provided in the H. B. Allen centre: many Oxford colleges now cut corners by offering visiting fellowships without accommodation, which I believe is both oblivious to the realities of academic careers, and reputationally damaging when compared with what is on offer elsewhere (including in the Other Place). I salute Keble's commitment to maintaining a visiting fellowship of real and tangible value, which will go on building a global community of scholars who, like me, will remain in the college's debt and regard it as somewhere that was, for however brief a time, home."

Professor Lucy Fortson (University of Minnesota)

Professor Lucy Fortson combined a Visiting Fellowship at Keble with a Leverhulme Visiting Fellowship at the Department of Physics from September 2023 to August 2024.

"My research interests are in experimental high-energy astrophysics. As a member of the Very Energetic Radiation Imaging Telescope Array System (VERITAS), I study gamma rays detected from active galactic nuclei. Gamma-ray astronomy probes the extreme physics of systems such as the black holes at the centers of active galaxies. These systems emit radiation throughout the electromagnetic spectrum and I work to combine the information obtained from telescopes operating at multiple wavelengths to decipher how the active galaxy powers the emission of gamma rays. I am also working on the next generation ground-based gamma ray array, Cherenkov Telescope Array (CTA) comprising ~50 telescopes in an array with the aim of greatly improving the angular resolution and sensitivity to high energy gamma ray emission.

I am also a co-founder of the Zooniverse and Chair of the Board of its parent organization, the Citizen Science Alliance. With over 2 million users worldwide contributing to a range of over 250 active online citizen science projects (from supernova detection to classification of cancer cells, hurricanes, and whale songs), the Zooniverse is a partner to knowledge discovery with large data sets while engaging the public in the process of research. I currently lead the Zooniverse team developing human-computation algorithms to maximize the utility of the citizen science method of data processing. As the director of the Zooniverse@UMN Initiative, I am working with departments across the University to enable researchers from a variety of disciplines to utilize the citizen science method for their research. For example, my team works with the Lion Center to help process the millions of images coming in from the camera traps set up across African National Parks in an effort to better support conservation of the wildlife in these areas. My team leads, has built or is strongly involved with several Zooniverse projects including: Galaxy Zoo, Muon Hunters, Supernova Hunters, Galaxy Nurseries, Galaxy Zoo: Clump Scout, Snapshot Serengeti, Camera Catalogue, Ancient Lives, Mapping Change, Decoding the Civil War, SCOTUS Notes, Measuring the ANZACs, Radio Galaxy Zoo, Galaxy Zoo: Mergers, Moon Zoo, Supernova Zoo.

I am also a research member of Galaxy Zoo, where over 250,000 members of the general public have provided a highly accurate classification of a million galaxies from the Sloan Digital Sky Survey as well as various other catalogs such as from the Hubble Space Telescope. I collaborate with Professor Scarlata and several University of Minnesota students where we have focused on producing the catalogs for Galaxy Zoo 2 and Galaxy Zoo: Hubble as well as exploiting these catalogs with science related to Active Galactic Nuclei (AGN), Bars and the evolution of galaxy morphology including the investigation of simulated galaxies, and studying so-called clumpy galaxies. We have also been working to push the development of human-computation algorithms to maximize the utility of the citizen science method of data processing in preparation for the onslaught of data from next-generation astronomical observatories."

Research Associates

New appointments in 2023-24:

Associate	Field	Working with
Matthew Allen	Chemistry	Steve Faulkner
Selam Kidane Abebe	Oxford Sustainable Law Programme	Benjamin Franta
Rupert Stuart-Smith	Oxford Sustainable Law Programme	Benjamin Franta
Tara Trauthwein	Statistics	Gesine Reinert