Granite Journal
The University of Aberdeen Postgraduate Interdisciplinary Journal

Breaking the Boundaries: Interdisciplinary research approaches and methods

Editorial: The Challenges of Interdisciplinary Publishing

Leia Kane, Amy Allan-Jones, Graham Davidson, Lucy Koster, Logan Tomlinson, Daniel Underwood (Granite Editorial Team)
https://doi.org/10.57064/2164/2233

The Granite editorial team brings together expertise from seven schools across the University, forming a truly interdisciplinary collaboration in itself. While this might suggest that creating an interdisciplinary volume would be a straightforward task, the reality however, has proven to be quite challenging. Our shared vision of recognising the value of innovation and creativity sparked from interdisciplinary collaboration, to address complex real-world issues, and pushing the boundaries between disciplines, has been the driving force behind this edition of Granite. However, it has not been an easy feat.

Defining interdisciplinarity in itself is not a straightforward matter. For some, interdisciplinary efforts involve collaboration between very closely aligned academic disciplines, for others, it may span more distant fields. Questions arise: How much should each discipline contribute in order for it to be interdisciplinary? Is having two authors from different disciplines enough? Can 'interdisciplinarity' exist within

Article © **L. Kane, A. Allan-Jones, G. Davidson, L. Koster, L. Tomlinson, D. Underwood**, 2024

disciplines? For many of the questions that arose we chose to take a pragmatic approach with our shared vision for the support and promotion of interdisciplinary research at the forefront of our considerations.

Divergent communication styles, identified as a potential barrier to interdisciplinary research, have also been noted within the publication process. As a team, we have had to understand the differences in our communication styles to prevent misunderstandings both within the team and, perhaps even more crucially, as we communicate with authors from disciplines outside our own. Consideration has gone into all communication, from emails to peer review reports.

One of the most challenging decisions for our team was defining the journal referencing style. The diverse writing and referencing styles prevalent across academia made it exceedingly difficult to define the style guide for this edition of Granite. We recognise that the chosen Harvard referencing style may differ significantly from what many disciplines will be comfortable with and appreciate the perseverance of our authors and copy editors; we believe it has been worthwhile.

The interdisciplinary peer review process has proven to be more intricate than its single discipline counterpart. While it is relatively uncomplicated for an expert in a specific discipline to assess the methodology and results in the same field, complexity arises when the boundaries are pushed and techniques from different disciplines are blended. We have been fortunate to have an extremely talented team of peer reviewers, again from many disciplines across the University. Though challenging, their open-mindedness and commitment to rigorous evaluation have proven invaluable.

It has indeed been no easy feat. Our boundaries as an editorial team have certainly been stretched, as have those of the authors of the seven papers published in this volume.

Bringing together economics and sociology, Nazmun Nessa Bakth's paper on schooling challenges faced by Bangladeshi migrants to Aberdeen was, in terms of interdisciplinary work, on comparatively solid and well-trodden ground. How best can both cultural and socio-economic based structural barriers facing the children of migrants to Scotland be addressed? These two disciplines often combine, often in

Article © **L. Kane, A. Allan-Jones, G. Davidson, L. Koster, L. Tomlinson, D. Underwood**, 2024

https://doi.org/10.57064/2164/2233

quantitative form, to seek answers to social questions. Here in qualitative form, they do so again. Qualitative studies of immigrant communities can often face challenges of language and culture barriers, entrenching an interviewer-participant hierarchy deleterious to production of knowledge. By contrast, as a British Bangladeshi mother of two, the author's language skills and lived experience as a parent of children in Scottish schools helped produce a paper rich in qualitative data.

Ian Clark's contribution treads considerably less familiar ground. Bold new ideas inevitably present new challenges. Ambitiously combining theological ethics with cutting edge cyber technology, the author asks how the works of Saint Thomas Aquinas can help us address the morality of cyber warfare. The necessarily deceptive nature of cyber weapons raises questions over the ethics of their application in terms of the 'just war' tradition. The key challenge with this paper was to explain the necessary terminology and synthesise and present these ideas in a form understandable to the reader. The author combines ethical thought from medieval Christianity to the present day to present a unique take on this highly pertinent contemporary issue.

Nowhere were the benefits and challenges of interdisciplinary work highlighted more than in Jeff Morris' paper 'The Divine Science.' This truly groundbreaking piece consciously takes interdisciplinary synthesis as its basis. Divinity and physics combine, 13th century theology meets 20th and 21st century science to ask new questions of perhaps the 'ultimate' question. But how to synthesise and later present these ideas was a considerable challenge. Few people are experts in one of these areas, virtually no one in both. How to bring together and then present scholarship from these disciples so they may be understood by the reader, almost certainly an expert in neither, was no small task.

Even the smallest glance at the news in 2023 will see discussion around the implementations of artificial intelligence (AI) into our lives, and as researchers it is our responsibility to use AI effectively but also ethically. Ciprian-Theodor Panaitescu *et al*. discuss the use of Green AI methods to study rock formation, allowing the power and speed AI can bring to such analysis to be used whilst taking into account the ethical considerations of its impact on climate change. Digital Rock Technology comprises a set of image-based modelling techniques that analyse rocks at the pore level, which is

Article © **L. Kane, A. Allan-Jones, G. Davidson, L. Koster, L. Tomlinson, D. Underwood**, 2024

https://doi.org/10.57064/2164/2233

crucial for many geothermal industries, thus the development of fast, accurate methods of analysis is crucial. The combination of these engineering processes with the technology of AI and the green principles behind this research are truly an example of how broad and exciting interdisciplinary research can be.

Molly Lentz-Meyer explores the establishment of the legal system in Northern Ireland during the early period of devolution. The paper emphasises that legal scholars tend to focus on primary legal sources such as case law to interpret laws. However, this study has taken an interdisciplinary approach which combines legal scholarship with social and cultural history, anthropology, sociology, and social science to investigate whether the creation of a new legal system in Northern Ireland was an act of nationalism. The key question here is: was maintaining the old legal system a way for loyalists in Northern Ireland to have continuity with their British identity? This study employs three main methodologies: comparative analysis, modelling through case studies, and close reading of parliamentary debates and statements. By comparing the legal systems of Northern Ireland and England, the researcher aims to identify overlaps, intentions, and divergences. Close reading of debates helps discern the intent behind legislative decisions. Modelling, in the form of case studies focusing on specific areas like education and housing law, simplifies the complex legal system for a comprehensive understanding. The paper argues that a nuanced exploration of the foundation of a legal system requires an interdisciplinary approach.

Seluvaia 'Ita's article combines archaeology, mythology, and history to discuss the "high-seat," or *hásæti*, in pre-Christian Scandinavia. The paper's interdisciplinary approach allows the author to reject ideas of *hásæti* as a single-gendered space for male figures as a "king's seat," and the interpretation of female Lejre figurines as specifically "seeress" seats. Instead, *hásæti* is discussed as a space that can be shared and used by individuals of different genders simultaneously. This interpretation also allows the author to look at the transformative nature of *hásæti*, and the power it imbues in those who share the space. It is only through looking at the various interpretations of *hásæti* in material culture, mythology, and historical sources, that the author has been able to reach these deeper conclusions.

Article © **L. Kane, A. Allan-Jones, G. Davidson, L. Koster, L. Tomlinson, D. Underwood**, 2024

https://doi.org/10.57064/2164/2233

In his paper, Alex Durden discusses the Comparative Method, and whether it is a valid approach to use in religious studies. The paper examines criticisms and the methodology itself using arguments and examples from religious studies, and expanding to wider disciplines such as anthropology, philosophy, and approaches from the natural sciences. It is through this interdisciplinary lens that the author argues that the Comparative Method, in employing generalisation from similarities, does not reject differences but rather priorities the key similarities between religions. Further, the author argues that it is not similarities in the form of each religion, but rather in the human needs which each fulfil, that are key in the Comparative Method and make it a robust approach. The paper therefore demonstrates how an interdisciplinary approach allows for more robust methodologies to be constructed and defended.

Collectively, the seven papers published in this volume explore the issues of interdisciplinary research, but also highlight how thinking beyond the boundaries of individual disciplines enables broader and deeper insights into both long-discussed and novel questions. This collection of articles demonstrates the benefits of interdisciplinarity across academic research, from engineering to theology, and economics to history. The *Granite* editorial team hopes that the articles in this volume provide both inspiration for further interdisciplinary projects, as well as demonstrating the variety of ways in which interdisciplinarity can be incorporated into academic research.

Acknowledgements

Volume editorial team

Editor-in-chief:

- **Caitlin Yool** (Ancient Religion)
- **Lucy Koster** (Archaeology)

Lead editors:

- **Amy Allan-Jones** (Archaeology)
- **Graham Davidson** (Sociology)

Article © **L. Kane, A. Allan-Jones, G. Davidson, L. Koster, L. Tomlinson, D. Underwood**, 2024

https://doi.org/10.57064/2164/2233

- **Leia Kane** (SMMSN)
- **Alexander Kani** (Biosciences)
- **Letizia Leonardi** (Translation Studies)
- **Ephraim Otumudia** (Engineering)
- **Logan Tomlinson** (SMMSN)
- **Daniel Underwood** (SMMSN)

General editors:

- **Mollie Carlyle** (Musicology)
- **Helena Cundill** (Divinity)
- **Lorenzo Di Lauro** (Geology)
- **Charley Jones** (Applied Health Sciences)
- **Leia Tilley** (Archaeology)

Authors

- **Nazmun Nessa Bakth** (Economics)
- **Ian Clark** (Theological Ethics)
- **Jeff Morris** (Divinity)
- **Ciprian-Theodor Panaitescu, Kejian Wu, Yukie Tanino, and Andrew Starkey** (Engineering)
- **Molly Lentz-Meyer** (History)
- **Seluvaia 'Ita** (Scandinavian Studies)
- **Alexander Durden** (Religious Studies)

Peer reviewers

- Adamu Abdullahi Adamu, Ruby Alemu, Cody Crawshaw, Iona Curtius, Graham Davidson, Elizabeth Garner, Milica Jelic, Lucy Koster, Lauren Larkin, Ephraim Otumudia, Claudia Perez-Davis, Nicolas Ravasi, Sophie Smith, Caitlin Yool, Hongjie Zhao

Article © **L. Kane, A. Allan-Jones, G. Davidson, L. Koster, L. Tomlinson, D. Underwood**, 2024

https://doi.org/10.57064/2164/2233

Copy editors

- Joanna Laing, Jameson Lawson, Sian MacGregor, Ashley Maurer

Further acknowledgements

- **Masha Shaw, Michael Tuckwell** (PGRS)
- **The Open Research Team**
- **Frederic Bayer** (Registry) for design and layout services
- The **Post Graduate Research School** and the **University of Aberdeen**

Works in this issue

1. Bakth, N. N. (2023). 'How are Bangladeshi migrants adapting to Scottish schooling? A case study in the city of Aberdeen.' *Granite* 8(1). https://doi.org/10.57064/2164/22340
2. Clark, I. (2023). 'Aquinas' Malware: How old theologies can shape the ethical use of new weapons.' *Granite* 8(1). https://doi.org/10.57064/2164/22342
3. Morris, J. (2023). 'The Divine Science.' *Granite* 8(1). https://doi.org/10.57064/2164/22343
4. Panaitescu, C-T., Wu, K., Tanino, Y., and Starkey, A. (2023). 'Applying Green AI methods to Digital Rock Technology workflows.' *Granite* 8(1). https://doi.org/10.57064/2164/22344
5. Lentz-Meyer, M. (2023). 'An interdisciplinary approach to the legal history of Northern Ireland (1921 – 1948): Methods and sources.' *Granite* 8(1). https://doi.org/10.57064/2164/22346
6. 'Ita, S. (2023). 'Take a Seat: The high-seat as a dual-gendered space in pre-Christian Scandinavia.' *Granite* 8(1). https://doi.org/10.57064/2164/22347
7. Durden, A. (2023). 'The Comparative Method in religious studies.' *Granite* 8(1). https://doi.org/10.57064/2164/22348

Article © **L. Kane, A. Allan-Jones, G. Davidson, L. Koster, L. Tomlinson, D. Underwood**, 2024