

Discussions on the PhD in Art and Design with Annotated Bibliography

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14– 23

Motivated by *Leonardo Journal* (March 2018) call for papers for its PhD in Art and Design three-year symposium, the following discussion and survey of literature were undertaken to explore current international discourse on the PhD in Art and Design (Friedman & Ox, 2017). A discipline that has traditionally been studio-based, design has been experiencing a transformation from a focus on form and aesthetics, often associated with appearance, to solving increasingly complex problems that require multi-disciplinary perspectives and solutions (Davis, 2017). Initial findings show that the debate on what constitutes a Design PhD is in its infancy; there are no set standards among institutions in the US and other countries that award such degrees, creating difficulties in assessment of skills and knowledge (Zeeuw, 2017). Debates on whether students that have traditional art and design degrees are prepared for the demands of a research degree, and questions on whether to offer professional track and academic track advanced degrees, or dissertations that incorporate made artifacts with research and writing are also explored in the literature.

#design phd

#art and design research

#doctoral education in design

#practice-based research

#design education

Introduction

This study was undertaken to explore the current international discourse on a PhD in art and design. A discipline that has traditionally been studio based, design has been experiencing a transformation from a focus on form and aesthetics, often associated with appearance, to solving increasingly complex problems that require multidisciplinary perspectives and solutions (Davis 2017).

Outside of the traditional design school and in response to emerging community and industry needs, many university programmes have adopted design research centres, methods of design thinking and design-related courses into their curricula. In addition, there has been increased interest in pursuing a PhD in design. Considered a research degree, a doctorate in philosophy demands skills that are not regularly cultivated in most practice-based design programmes. Consequently, an international debate is underway among design scholars and educators interested in addressing an array of questions and concerns in relation to graduate studies in design.

Intended to identify and conceptualize patterns of thought, this initial and brief literature review is exploratory in nature. The framework to distil meaning from this body of literature is based on the call for papers issued in 2017 for Leonardo Journal's three-year symposium, which aimed to explore the evolving nature of PhD programs in art and design (Friedman and Ox 2017). The symposium invited contributions addressing the challenges of defining research in art and design, and the structure of PhD programs globally. Now, in 2025, these questions remain central to discussions in the field, as the complexities of establishing consistent standards and integrating diverse research practices continue to affect the academic environment.

Initial findings show that the debate on what constitutes a design PhD is in its infancy; there are no

set standards among institutions in the US or other countries that award such degrees, creating difficulties in the assessment of skills and knowledge (Zeeuw 2017). Concerns about whether students who have traditional art and design degrees are prepared for the demands of a research degree and questions on whether to offer professional-track and academic-track advanced degrees or dissertations that incorporate made artefacts with research and writing are also explored in the literature.

In the last few decades, awarding bachelor's and master's degrees in art and design has become the standard around the world. This shift began taking shape in the UK when art and design schools started merging with universities in the 1990s (Coatman 2016). As part of university programmes, art and design schools are increasingly faced with expectations of academic research and performance that is evidence-based as well as articulating the relevance and value of creative work to a larger audience (Candy and Edmonds 2018). However, due to its problem-solving and user-centric ethos, design has assimilated successfully into other disciplines; nevertheless, as an academic discipline, it is experiencing an identity transformation.

This survey of publications discusses the implications of the emergence of a PhD in art and design in a broad and international context. Its format is exploratory and highlights concepts and patterns of discussion that shed light on the current discourse on the topic of graduate studies in art and design. Creative disciplines that have been traditionally practice-based are facing increased interest in a doctoral degree and its related issues, such as the expectations of a dissertation and how or whether to incorporate the production of artifacts with the traditional PhD requirements of research and writing.

The pursuit of a PhD is the pursuit of knowledge, with the intent of contributing to such knowledge. Consequently, these discussions are important to the discipline's development of theory, history

and criticism, as well as to all those involved in the process. The importance of the dialogue on a PhD in art and design is evident in the accompanying literature. Of great significance is Leonardo's call for papers for its three-year symposium, which focused on the topic. Referring specifically to PhDs in design in the US, their limited offerings and inconsistency in requirements across institutions are concerns expressed among some of the publications. These are issues that affect the granting institutions credentials and its awardees' professional opportunities, not to mention the principal reason for pursuing a PhD. As stated by Friedman (2014), earning a PhD demonstrates the expertise and ability to teach the content of a specific subject field, teach the research methods of that field, conduct independent research, supervise research students and train researchers.

This annotated bibliography summarises articles that discuss varying perspectives on conducting art and design research in higher education. The writings present an array of definitions and expectations of what it is to earn a PhD in design and discuss the emergence of the art and design PhD in the United States as a possible terminal degree for teaching and research. This contrasts with the more traditional MFA, which has long been considered the standard terminal degree. However, as the discipline evolves to address increasingly complex, interdisciplinary problems, the PhD is gaining traction as a degree that equips scholars with the research skills and critical inquiry necessary to expand the theoretical and practical boundaries of design, reflecting a transformation in the expectations of academia and industry, where evidence-based research and the integration of diverse methodologies are becoming central to addressing real-world challenges. Because the author of this annotated bibliography is interested in the exploration of visual and material culture research within the design discipline, the annotations favour design-specific details. For readers interested in information specific to art practice, the author encourages reviewing the reference sections of the original writings.

Crawford, T. C. (2013). Foundations of American Design Education.

With a focus on architecture design, this dissertation explores the evolution of design education in the United States and is mainly supported by John Dewey's philosophy of pragmatism and the teaching methods of Josef Albers. To set a timeline and discuss the origins of design education, the author begins by introducing Vitruvius De Architectura, or the Ten Books on Architecture, which is considered the first book on architecture theory, written 30–15 BCE, and discusses in detail the influence of the Beaux-Arts in Paris and the Bauhaus in Germany as schools that have influenced design pedagogy to this day. Crawford delves into the philosophy and teachings of Walter Gropius and Josef Albers as faculty members who worked together at the Bauhaus and later at Black Mountain College in North Carolina, USA. Although a number of figures who influenced education, such as Johann Pestalozzi, and schools and movements are discussed, an analysis of Dewey as a thinker and Albers as an educator is the anchor of this dissertation.

Davis, M. (2017). Confronting the Limitations of the MFA as Preparation for PhD Study.

What does it mean to conduct research in design amid the growing interest in doctoral education? How are MFA programmes preparing students to conduct evidence-based research? Davis speaks to the changes in the design discipline, in which problems are more complex and require multidisciplinary work. 'Strengthening the quality in doctoral research and supervision, therefore, depends to some extent on rethinking master's study of design' (1). Changes in technology, responses to community and business needs and the creation of academic research centres. Design is not simply about appearance and function; therefore, it requires diverse expertise to tackle complex solutions.

Current MFA degrees focus on and encourage studio work and the creation of artefacts versus reading and writing. Research is understood as information gathering but rarely as testing of models or the application of data. Now, there is a need for evidence-based research methods to investigate design problems and work collaboratively. There are questions on the value of the current MFA if the case is to refine one's studio skills, which can be acquired outside the classroom through practice, self-paced online courses, and work experience. Some universities award practice-based PhDs, which may be 'accommodating the research shortcomings of MFA graduates wanting to teach at the college level.' In these programmes, they deepen their understanding of their practice, but 'reflection on one's own behaviour is rarely generalizable to the field' (6).

There is a desire among incoming PhD students and new faculty members to conduct cross-disciplinary research. Davis offers solutions that are complex as well as present challenges, such as identifying minors that will enhance and inform research in design and developing 'bridge' degrees at the master's level, such as a master's in philosophy, which can provide training in research for students interested in going on to a PhD focusing on reading, writing and critical thinking versus studio work. Another suggestion is pairing students from different disciplines to work on their dissertations, which mirrors how research is typically conducted outside the academy.

Frayling, C. (1994). Research in Art and Design.

This review would not be complete without acknowledging Christopher Frayling's seminal 1994 article, *Research in Art and Design*, which remains a cornerstone in the discussion about how art and design disciplines contribute to knowledge creation within academia. Frayling introduced the concepts

of 'research into,' 'research through,' and 'research for' art and design, which continue to shape the discourse on what constitutes valid and rigorous research in these fields.

Frayling reflects on the challenges of aligning practice-based disciplines with academic expectations and offers a framework to categorize and legitimize diverse research activities in art and design with the traditionally dominated evidence-based methodologies from the natural and social sciences.

Although Frayling's propositions are presented briefly in the article, they have spurred significant engagement and interpretation within the design research community. His delineation between 'research through design,' which involves creating artifacts as part of the research process, and 'research for design,' which focuses on practice as inspiration or exploration, remains a subject of both application and debate.

Friedman, K., and J. Ox. (2017). Special Edition. Leonardo.

In preparation for the PhD in art and design symposium, the authors discuss the PhD in art and design as debates take hold in the US. The authors begin by defining terms that are used in the traditions of Plato's Academy and the academy that 'descended' from the craft guilds to shed light on the meaning of a PhD within a research institution, in contrast to the understanding and definition of what earning a PhD within art and design schools and what conducting research meant in these particular environments.

The authors find it problematic for universities to build a research focus in art and design when courses are based on practice and studio. The questions posed include the following: Should programmes align PhDs in art and design to resemble research degrees from other disciplines? Should

programmes award advanced degrees in practice and studio? Should there be different types of doctoral degrees that offer a combination of the making of artifacts and research? The biggest question is: Can undergraduate and graduate students from art and design programmes succeed in research-focused programmes that require intensive research and writing?

Discussions about the differences between knowledge creation and research are also highlighted. Within studio-based work, the artist makes the personal decision when the work is done; within a research environment, there are set standards based on facts in the natural and social sciences as well as in philosophy. Within studio-based work, the artist makes the personal decision when the work is done. In the natural sciences, researchers may aim to test and validate hypotheses; in the social sciences, they may explore and analyze human behavior or societal phenomena; in philosophy, they may engage in solving abstract or conceptual problems.

Johnson, R., and A. Onwuegbuzie. (2004). Mixed Methods Research: A Research Paradigm whose Time Has Come.

The authors define mixed methods research as ‘the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study’ (17). Placed on a continuum between qualitative and quantitative research, the authors advocate the use of mixed methods in educational research as a third and legitimate approach to research that, when applied critically, produces results that are superior to the results from a single research approach.

In support of the logic or rationale of mixed methods and in response to the purists who stand on both sides of the spectrum, the authors apply pragmatism as a supporting philosophy, stating

that ‘taking a pragmatic and balanced or pluralist position will help improve communication among researchers from different paradigms as they attempt to advance knowledge’.

The authors compare and contrast the strengths and weaknesses of qualitative and quantitative research as independent methods and offer the same scrutiny for the mixed methods approach, while affirming the need for researchers to have options for working with complex research questions and working in collaborative research endeavours.

Liinamaa, S. (2017). Negotiating a ‘Radically Ambiguous World’: Planning for the Future of Research at the Art and Design University.

In an effort to contribute to the discussion of a PhD in art and design, the author evaluated content from the strategic and research-planning documents of three independent Canadian public art and design universities: Ontario College of Art and Design, Nova Scotia College of Art and Design University and Emily Carr University of Art and Design. Liinamaa stipulates that it is not the definition of artistic research that is of contention, but the difficulty of art departments in defining the value of such research, as distinctions are made between the practice of art and art practice as research.

To identify common themes among the documents, the author first searched for terms used in each document describing the value and goals of artistic research and then identified the common terms among the documents. The extracted common terms were coded and categorised into high, medium and lower profiles based on the number of times the terms were mentioned.

The author identified that, at varying levels, the reports connected artistic research not only to cultural production but also how its values and

goals contribute to economic and industrial growth as well as benefit the private sector. Concurrently, the author speaks of the risk of restricting artistic freedom when too much emphasis is placed on industry and commercial demands, since she is of the belief that 'economic growth is often opposed to social and political critique and platforms for change' (8). In addition, the author states that while some forms of artistic practice can align with the creative industry as well as with research, others within traditional arts and crafts may not be incorporated as easily, making it more challenging for faculty to compete for funds.

Moeira, M., et al. (2016). The Emergence of an Amplified Mindset of Design: Implications for Postgraduate Design Education.

This article, an excerpt from Moeria's dissertation, examines contemporary design literature and highlights the issues and emerging practices of design as the discipline responds to industry changes, needs, opportunities and the current discourse. The practice of design is becoming more diverse, complex and interdisciplinary; the authors speak to the changes taking place in pedagogical practices and the development of design curricula to address these changes. In response to these developments and to contribute to the advancement of design education, the authors propose the amplified mindset of design (AMD), a conceptual framework they recommend to better understand the activity of designing and its 'expansion of practices towards collaboration and social engagement' (365).

The categories listed are integrative and transformative, subjective levels of practice and emerging specialisations. Based on these identified themes, the AMD framework encompasses (1) human- and world-centred strategic concerns, (2) integrative behaviours, (3) mastering social skills and (4) visualisation.

The author proposes applying the AMD model to design education to 'develop more flexible approaches and models in design education' (364), with an emphasis on developing skills for learning and the ability to apply knowledge in different contexts, taking an empathy-based approach and developing social skills.

Muratovski, G. (2015). Research for Designers: A Guide to Methods and Practice.

This book contributes to the ongoing discourse surrounding the PhD in design by offering tools and frameworks for evidence-based design and research. As a manifestation of these discussions, the author bridges the gap between theoretical inquiry and practical application, equipping designers with the understanding needed to conduct research and address complex design challenges through structured methodologies.

In Navarro's review of the second edition (2022), the book was highlighted as an accessible introduction to research methods, particularly for students and professionals. It offers detailed coverage of qualitative and quantitative approaches to research, including how to articulate research questions, gather and analyze data, and present findings effectively. The second edition introduces a full chapter on ethnographic research, discussions on design thinking, and practical guidance for creating research reports tailored to various audiences. Case studies and interviews at the end of each chapter exemplify research methods applied in real-world contexts.

While this annotation reviews the second edition, it is worth noting that a third edition was published in 2022, further expanding the content of the second edition.

Peterson, M. (2014). The Integration of Text and Image, its Cognitive Impacts for Learning with Media, and Aciense Instruction: A PhD in Design Study

While the broader discourse on the nature and standards of a PhD in Art and Design is still evolving, specific case studies provide valuable insights into how design research is being applied in practice. For instance, Peterson's (2014) study, extracted from his PhD thesis, offers a concrete example of design-focused research that integrates cognitive theory with educational outcomes. The research was conducted in middle school classrooms in North Carolina, with an approximate sample size of 150 students. Cognitive Load Theory was the main theoretical framework supporting this research and experiment, which included a pilot test and pre- and post-tests.

To measure comprehension, the author used six multiple choice tests, as well as various 6- and 5-point Likert scales to measure self-confidence or self-efficacy, task difficulty and task difficulty explanation. ANOVA tests were used to analyse the differences among group means, and statistically significant measurements were used to measure effectiveness.

Zeeuw, D. (2017). Case Study. The Development and Evolution of the Creative Arts Practice-Led PhD at the University of Melbourne.

What constitutes artistic research and the differences between artistic and qualitative research? This case study analyses the development of several Australian PhD design programmes and uses lessons learned for the development of a graduate programme in the US. Data were collected from the creative arts PhD programmes at the Victorian College of the Arts at the University of Melbourne for possible application in the development of a PhD

programme at the Kendal College of Art and Design at Ferris State University in Michigan, USA.

Zeeuw highlights concerns that arise from the disparities in terminal degrees among institutions awarding degrees based on inconsistent fulfilments within the same disciplines and the misunderstandings of the differences between the use of theory to inform artistic practices and traditional research methodology. The author proposes efforts towards unified expectations among higher education institutions across borders as instrumental in developing cohesiveness among degree awardees and the legitimization of credentials.

Conclusion

The following information describes patterns identified in the literature review that offer initial answers to the questions posed in this report. Instead of providing an evaluative conclusion, the focus of this enquiry is on the main question – What are the discussions taking place with regard to terminal degrees in art and design? – as the starting point for an investigation of the contributions being made to the discourse on a PhD in art and design. It is from this collection of publications and their synthesis that issues such as the conditions promoting these discussions, emerging concepts and concerns are described with the intent that critical evaluations can emerge and be supported in future writings.

History: Due to the nature of the design discipline and its connections to various practices, such as architecture, engineering, product design and visual communications, its history is shared yet diverse. In particular, the inception of graphic and visual communication design began in the craft guilds and trade disciplines in the 1990s UK when art and design schools were introduced into universities or were given university status.

This shift from the granting of certificates to university degrees has required art and design

programmes to align their curricula with academic expectations based on traditional practice- and research-driven programmes. Fast forward to the 21st century, with increased interest in doctoral studies within the creative disciplines and the expectations associated with earning the highest academic degree possible, the gathered literature is a reflection of the intensification of discussions related to the PhD in art and design.

Trends influencing the consideration of a PhD in design: Specific to design, its practice has become more diverse, complex and interdisciplinary. In response to these changes, pedagogical practices and the development of design curricula are evolving (Moeira 2016). However, these responses to change are not taking place uniformly across universities and programmes; therefore, this is a pattern identified in the reviewed literature.

Challenges: Whether directly or implicitly discussed, there are common threads of challenges faced by the creative disciplines and the PhD in art and design discussions. These include communicating the value of the discipline, a lack of cohesiveness among programmes awarding the same degrees, a lack of infrastructure and expertise required to offer doctoral degrees and differences in how to define research.

In addition to the historical and current conditions driving the PhD in art and design discussions, how creative programmes communicate the value of their disciplines to those outside their environments also influences the setting of standards and expectations for doctoral dissertations. Whether it be a practice- or research-based dissertation, the authors agree that it is not whether the creative disciplines add value to their communities but their struggle to communicate their value through language that is understood by audiences who tend to make decisions with measurable outcomes (Liinamaa 2017).

Due to the interest in doctoral studies, some programmes are considering offering these degrees; however, attention to the infrastructure required for such endeavours is advised. This includes a culture of research based on structured methodology, writing ability and, especially for design studies, an interest in collaborating with other disciplines (Davis 2017).

Finally and more often than not, the differences between design and art are understood. Nevertheless, defining art and design is referenced in some of the publications in relation to the research expectations of a PhD degree. Whereas an artist makes the personal decision when their work is done, in design, solutions are driven by standards and requirements outside the designer's needs and wants (Friedman and Ox 2017; Liinamaa 2017). How a doctoral degree is defined within the creative disciplines, especially if it is the awarding of a doctor in philosophy that has long-standing traditional dissertation requirements, is a topic that is not unfolding without controversy.

Evidence for a PhD in Design: There are current art and design programmes that offer professional or academic graduate degrees from master's to doctorates in the US and longer-standing programmes in other countries. Therefore, there is evidence that a doctoral degree is now part of the academic environment, that design-driven research is being funded and that continued discussions seem to support its future as the new terminal degree for university teaching. Design dissertations range from theoretical, historical and case study formats (Littlejohn 2011) to the incorporation of statistical methods of research, such as Matthew Peterson's cognitive processing research on the integration of text and images (Peterson, 2014).

Recommendations: In addition to analysing and critiquing the PhD in design and research, some publications offer solutions for moving forward. Establishing new schools and programmes takes

significant effort and time; there are opportunities to begin to cultivate a research culture in studio and practice-based programmes as well as to provide opportunities for students and faculty interested in research-driven advanced studies. Outside of new programmes, some universities have created design research centres in which faculty members are given multiple appointments. Providing students opportunities for collaborative dissertations and creating bridge degrees in which programmes that do not have the resources to offer research, writing, science, engineering, business and philosophy courses would help inform students of design research (Davis 2017).

Bibliography

Crawford, Thomas Carter 2013. "Foundations of American Design Education." PhD diss., North Carolina State University. <https://repository.lib.ncsu.edu/items/f7a89a39-ae55-461d-bfe3-c12296f4ba17>.

Davis, Meredith "Confronting the Limitations of the MFA as Preparation for PhD Study." *Leonardo* 53, no. 2 (2020): 206–212. https://doi.org/10.1162/leon_a_01600.

Frayling, Christopher. 1994. "Research in Art and Design (Royal College of Art Research Papers, Vol 1, No 1, 1993/4)." *Royal College of Art Research Papers* 1 (1): 9.

Friedman, Ken., and Jack Ox. 2017. "Special Special Section: PhD in Art and Design: Introduction." *Leonardo* 50 (5): 515–19. https://doi.org/10.1162/LEON_e_01472

Johnson, R. Burke, and Anthony J. Onwuegbuzie. 2004. "Mixed Methods Research: A Research Paradigm Whose Time Has Come." *Educational Researcher* 33 (7): 14–26. www.jstor.org/stable/3700093].

Liinamaa, Saara 2017. "Negotiating a 'Radically Ambiguous World': Planning for the Future of Research at the Art and Design University." *The International Journal of Art & Design Education*. <https://doi.org/10.1111/jade.12143>. 1-12.

Moreira, Mafalda, Emma Murphy, and Irene McAra-McWilliam. 2016. "The Emergence of an Amplified Mindset of Design: Implications for Postgraduate Design Education." *International Journal of Art & Design Education* 35 (3): 356–68. <https://doi.org/10.1111/jade.12118>.

Muratovski, Gjoko. 2022. *Research for Designers: A Guide to Methods and Practice*. 2nd ed. London: Sage.

Navarro, María del Mar. 2023. "Research for Designers: A Guide to Methods and Practice: 2nd Edition, by Gjoko Muratovski." *Design and Culture* 15 (1): 130–33.

Peterson, Matthew 2014. "The Integration of Text and Image, its Cognitive Impacts for Learning with Media, and Science Instruction: A PhD in Design Study." *Connecting Dots: Research, Education + Practice*: 124–37.

Zeeuw, Diane. 2017. "Case Study. The Development and Evolution of the Creative Arts Practice-Led PhD at the University of Melbourne, Victorian College of Arts." *Leonardo* 50 (5): 526–27.

Bio

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