The Exhibition as Assessment: Design Research in Architectural History

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ABSTRACT
This paper presents the experience of facilitating an operative architectural history course for undergraduate students at Griffith University, Australia. The exhibition is the mode through which students are assessed and where students engage with the critical act of re-interpretation through the creation of artifacts that solve an original research question. The paper explores the potential of expanding architectural history to include new modes of design research, challenging traditional inquiry methods, and creating new opportunities for practice and research. Ultimately, the paper underscores the value of using the exhibition as a tool to revitalize architectural history for emerging design professionals.

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Introduction

The productive role of architectural history has been widely debated throughout the twentieth century (Keyvanian, 2000; Leach, 2010; Sabini, 2011). More recently there has been a renewed interest in diversifying architectural research to reframe design as a process of knowledge production. This shift towards a more practical approach to architectural history and the increasingly prominent role of design research has created new opportunities for expanding the creative potential of architectural history courses. This paper will seek to add further to this disciplinary discourse by offering a critical evaluation of the exhibition as a generator of scholarship when applied as a mode of assessment for an undergraduate architectural history course in an Australian University. What interests me is the possible margins for productivity that can come from our study of architectural history and the imperative to construct an architectural history course relevant to a new generation of predominantly Generation Z ‘Zoomer’ students.

The critical act of reinterpretation embedded within the exhibition assessment tasks explained in this paper means that students can draw from past learnings and secondary research all the while creating new artifacts from a critical reverse glance. The assessment items surveyed in this paper can contribute to the widening discourse surrounding non-traditional assessment methods for a design-led operative approach to architectural history and recognizes the importance of ongoing improvement and discussion to progress the education of future creative professionals.

An Operative Approach

The architectural history course referred to in this paper was rolled out for the first time to second year architecture students in 2022 at Griffith University, Australia. The course it replaced was a traditional survey course predominately focused on a Western architectural history narrative and tested students’ ability to recall facts via exams and evaluated their literary and critical thinking skills through essays. The outgoing course had the objective of broadening the scope of architecture beyond individual buildings and stylistic tendencies and linking it to a broader cultural context, however its teaching methodology remained limited and followed the conventional approach seen in numerous Australian universities. The change in the course was part of a larger movement within the undergraduate program of architecture towards reframing the role of design in architectural research and represents a global emerging trend toward embedding design research in creative disciplines (Fraser, 2021).

Based on a personal experience of teaching architectural history for five years, it became apparent that a shift in tactics was required for students to engage thoroughly with the subject. The sometimes-complex readings were difficult for students to engage with, and the poor attendance rates were a testament to the fact that students had less energy or desire to engage with architectural history, particularly when competing with the time-hungry studio course. Regardless of these struggles with teaching architectural history, the course (and suite of courses) undoubtedly maintains its relevance to the broader discipline of architecture for a variety of reasons. One of the key benefits of architectural history is that it serves as a complement to and foundation for design studio courses, preventing them from becoming solely focused on technical production. To challenge students’ inherent perspectives and motivations, it’s important for them to engage in discussions about ideas related to the built environment and to be exposed to diverse theories and histories. The history and theory courses in a program ultimately provide students with the opportunity to test how they might position themselves within the discipline and practice of architecture (Kelly & Jamieson, 2019).

In the newly revised architectural history course, students apply the knowledge and skills acquired to operatively engage with the architecture discipline’s present and future challenges. Students work across the analysis of critical texts, architectural drawings, and built work to unfold and develop intellectual tools to understand architecture and develop strategies for design implementation within creative and unforeseen futures. Therefore, it is about not only understanding architectural ideas in relation to their own intrinsic terms (context and conditions) but also looking at the past from the perspective of the present using both written and visual modes of expression and extrapolating design strategies as a result of productive research.

The well-known Tafurian critique surrounding the development of an architectural history course targeted at designers is that the present will dominate any relationship with the past. Architectural theorist Manfredo Tafuri thought that the undeniable potential of architectural history was the potential
for change, yet he was opposed to an operative approach that could be of direct use to designers (Keyvanian, 2000). As stated by Andrew Leach (2010), “Tafuri thought that architectural historians should write architectural history and architects should know what to do with it” (pp. 110-111). In opposition to these views, Italian architects, and theorists such as Bruno Zevi, Saverio Muratori and Aldo Rossi argued for the legitimacy of extracting ‘operative’ knowledge from history to be used in architectural and urban practices. They each held a similar perspective that history had the potential to be a fertile ground from which numerous opportunities for the fields of architecture and urban design could emerge (Keyvanian, 2000).

For the past few decades, architectural history programs around the globe have slowly undergone changes, with shifts in content and methodologies. This transformation appears to be driven by a quest for continued relevance in the educational sphere as well as an acknowledgement that more diversity is necessary to broaden the traditional architectural narrative. In a 1996 article published in the British Journal of Architecture, Elizabeth McKellar voiced concerns about the potential of architectural history to become a marginalized and nearly invisible subject within the British educational landscape. McKellar stressed the importance of redefining architectural history to safeguard its distinctive disciplinary identity. This redefinition, as she argued, should encompass a wider array of research methods and subject areas to be incorporated within the domain of architectural history (McKellar, 1996). Broadly speaking, architectural education in Australia has primarily been shaped by the influence of British and North American models and traditions, and as a result, it appears to be facing comparable challenges. A recent survey conducted among educators of architectural history in Australia and New Zealand highlighted “the bid for relevance” as a key challenge (Thompson, 2020, p. 391) and noted the growing desire among educators to embrace more creative pedagogical approaches and connect with a younger demographic. Additionally, Thompson (2020) pointed out the notable absence of substantial evidence regarding the effectiveness of teaching methods in architectural history—a crucial element for advancing the subject’s innovation.

Another marker of change in architectural education and research is the growing increase in the number of universities offering a practice-based PhD by design and the mechanisms for design-led research are beginning to filter into the undergraduate and postgraduate courses of academic institutions. There is now an established view “that designers can conduct design projects as part of their research processes and submit project documentation and artefacts as evidence of research findings” (Vaughan, 2017, p. 5). In 2022, the European Association of Architectural Research (EAAE) updated its Charter on Architecture Research to better reflect the role of design within architectural research as the primary mode of thought and means of generating knowledge. The revised Charter outlines various criteria that can direct advanced architectural research. One of the criteria highlights, “the research is meaningful and relevant for design practices, for the discipline, for society, for culture; it explores limits and expands them” (EAAE, 2022). The present changes in architectural history are therefore evident in the diversification of content, mode of delivery, and assessment as well as within the broader research framework as design research gains more prominence within scholarly contexts.

The Exhibition

Morgenthaler’s paper exploring the innovative possibilities within architectural history served as the catalyst for determining the suitable assessment methods for the new course. The article mentions the exhibition as an educational tool “in which historical facts are not just recorded, but also analyzed, evaluated, and put into creative adaptation” (Morgenthaler, 1995, p. 224). Active engagement with the process of design research throughout the course supports the learning process as it shifts the focus from rote memorization to creating knowledge through both practical application and representation (Morgenthaler, 1995). The exhibition framework, therefore, becomes a tool that fosters creative and intellectual output, encourages thorough analysis and contemplation, and provides opportunities for innovative design experimentation (Patteeuw, Vandeputte and Van Gerreway, 2012).

There are three interrelated assessment items across the twelve-week teaching period. From the outset, students select one architect from a list of eight historical architects spanning the 14th-20th centuries. The available choices include Etienne-Louis Boulée, Francesco Borromini, Lina Bo Bardi, Jørn Utzon, Filippo Brunelleschi, Louis Kahn, Carlo Scarpa, and Alvar Aalto. The selection of these figures was motivated by several factors, including:
their diverse experiences in various cultural and climatic contexts; their exploration of the boundaries of architecture, which for many encompassed multidisciplinary endeavours such as writing, exhibitions, and furniture design; as well as their ability to engage critically with various thematic issues. I anticipated, for instance, that students could be inspired by the folding geometries of Borromini; or Boulle’s interpretation of architecture that emphasises the primacy of architectural concepts; or the principles of civic engagement in the work of Lina Bo Bardi. Additionally, the availability of research materials and architectural drawings played a role in their inclusion. The exhibition serves as more than just a survey of the architect’s works but aims to interrogate new ways of looking at the past, reflect on questions we face as a discipline, and in the process uncover relevance for contemporary design practice. Focus is directed toward extrapolating a select research question in relation to a relevant trajectory, theme, or concept evident through research into the selected architect. The initial assessment item asks students to develop an exhibition poster and write a press release. Students are assessed on their ability to convey an understanding of critical and analytical architectural themes simply and succinctly, whilst highlighting their relevance and placing them in the wider perspective and context. This first assessment acts as an early indicator of progress and provides a point at which educators can give feedback on the research question, scope, and overall approach to the exhibition.

There are multiple precedents for this kind of retrospective exhibition that looks at re-interpretation or re-evaluating the design ideas of prominent architects, for example, Another Reality After Lina Bo Bardi (2016) held at Stroom Den Haag in the Netherlands which invited six artists to create works inspired by the social legacy of Lina Bo Bardi in order to “use her work, share it in spirit, idea, shape and form and give it a renewed urgency” (Stroom Den Haag, n.d). In 2018, fifteen practitioners and contemporary designers were invited to respond to or reimage Enrico Taglietti’s work in an exhibition in Canberra titled, The Void: Reimagining Enrico Taglietti to “contribute a new perspective to his aesthetics” (Craft ACT, 2018). The Alternative Histories exhibition, curated by

![Figure 1. Operational Architectural History student work based on Francesco Borromini. Submission for the exhibition poster (L) and the exhibition layout (R). Images by Marina Ukalovic, Griffith University, 2023.](image-url)
Jantje Engels and Marius Grootveld in collaboration with Drawing Matter in 2019, shared a common theme with the exhibition mentioned in this paper. The aim was to present a range of perspectives on historical references, drawing from the vast collection of archival material in the Drawing Matter archive. Participants’ responses provided valuable insights into different design approaches and methods of interpreting and communicating ideas (Icon Eye, 2019). Likewise, for the past five years, the MAXXI has hosted the Studio Visit program inviting designers to provide their own take on the work of a master featured in the MAXXI Architettura Collection (MAXXI, 2022). In 2022, Space Popular explored the work of Aldo Rossi through an exhibition titled Search History which presented “the experience of moving across virtual environments in the Immersive Internet (which is the only, ever-shifting, unmappable, metaverse) through a tribute to Rossi.” Each of these exhibitions are all recent examples demonstrative of the current intrigue and merit associated with the act of re-interpretation through design.

The exhibition, as the second assessment, carries the most weight in terms of grading, accounting
for 40% of the total course grade. Students must demonstrate a thorough understanding of the selected architect’s contribution to architectural design including extrapolating relevant design strategies as well as realize the role of the exhibition as a critical device responsible for restructuring meanings surrounding the cultural value of architecture and its practice (Baraona Pohl, 2010). Students are to make their research process explicit by responding to a research question of their own creation. A student from the 2023 cohort for example examined Jørn Utzon’s design principles employed in the Kingo Houses and Fredensborg Houses, particularly the utilization of courtyard spaces. The investigation focused on suburban architectural patterns, exploring the core issue of how courtyard strategies could be integrated into a select Gold Coast suburb to encourage greater community engagement and enhance the residents’ overall well-being. In this instance, the student work consisted of a site plan and street elevation showing a before and after scenario as well as a physical model, inspired by the simple wooden models of Utzon, at the scale of the neighbourhood to demonstrate the planning characteristics of the hypothetical response.

The scale, material, and quantity of outputs vary and are usually dependent on the complexity of the artifact. Outputs included 2D drawings, models (including 1:1 and interactive physical models), lighting and sound displays, and some students engaged with technology to different extents. The physical models of the student work shown in Figure 3 address the research question, how can contemporary designers draw inspiration from Louis Kahn’s exploration of light and materials, particularly in the context of contrast and juxtaposition, to create innovative and emotionally resonant architectural designs that address the evolving needs of our built environment? In this case, specific design strategies were extrapolated from Kahn’s body of work and subsequently re-interpreted in diverse ways with small-scale physical models. These models were then photographed to elucidate how the architectural elements influenced light in different ways. In their exhibition booklet, another student commenced by posing the question, “what is a wall?” Going beyond its role as a mere physical divider or a structural support for the roof, the student explored Carlo Scarpa’s work to examine concepts related to the manifold possibilities of a wall (Figure 4). They explored the wall as a metaphorical storytelling tool, capable of generating diverse spatial sequences, a study demonstrated through the creation of three physical models.

Active engagement with the task sees students exemplify how architectural history assessment tasks can be a dynamic and transformative process, leading not only to knowledge retention but also to the development of innovative and transferable design solutions. A student survey response echoes this viewpoint, affirming that the course “really showed me the importance of learning by making.” They highlighted how the exhibition assessment allowed them to become “more invested” and authentically engage with the research and learning through active participation.
The exhibition task ultimately asks that students create objects or artifacts that can embody knowledge. However, as Michael Biggs (2002) argues, this task alone is often not sufficient to produce a scholarly product, despite the significant amount of time and effort required. When comparing exhibitions with traditional scholarly outputs such as essays, there can be a clear lack of clarity in communication with exhibitions which has made it difficult for exhibitions to compete with traditional research and scholarship. Moreover, the absence of an easy reference for archival purposes has limited the “market value” of exhibitions among communities of scholars (Brüning, 2010, p. 28). Producing an exhibition booklet can help address these challenges by requiring a thorough analysis that not only outlines the methodology and situates the research in its context, but also elaborates on how the work contributes to the progression of knowledge, comprehension, and discernment. As a result, the evaluation of the exhibition necessitates that students not only showcase their works at the exhibition along with accompanying artist statements but also produce a digital exhibition booklet.

This allows students to contextualize their knowledge and generate a lasting record that is essential for design research to be on par with conventional research practices. To receive a high mark, it was expected that the accompanying exhibition booklet would demonstrate the student’s engagement with scholarly research materials and include a clear explanation of the research question, the methodology employed, the testing procedures, and the contemporary significance of the study.

The final evaluation task promotes critical analysis and introspection by instructing students to choose a fellow student’s work and produce a critical (anonymous) review of their exhibition tailored to a professional design publication. In this critical review, students must scrutinize the information and viewpoints presented and provide an assessment or evaluation of the exhibition. The critical review task is an effort to strike a balance between making history relevant and engaging for students, while also ensuring that the literacy skills associated with traditional forms of assessment are not diluted. A key consideration was to create an
A Critical Review

Observational results indicate that students were actively engaged with the assessment tasks and reported positively on the experience of the course via an anonymous survey at the end of the teaching period. The students gave positive feedback surrounding the assessment items, for example, one student said, “the exhibition assessment was great, very engaging and made us learn different ways to express an idea. It allowed our creativity to flourish.” Another student noted that “there was a good balance between academic (written/research) and practical application: exhibition, debate, and discussion. This course provided a useable set of skills, when compared to the generic essay or exam format and a more effective way of learning for me.” The teaching goals of the course are consistent with the self-determination theory of learning, which suggests that students are more likely to learn and remember information when they experience a sense of autonomy and relatedness. To foster student agency and promote their interest in the course, the assessment tasks are designed to allow them to explore their preferred directions under the guidance of the teaching staff. Furthermore, students can understand the practical application of the skills they acquire in the ‘real-world.’ The instructional lectures and tutorials serve as a supplement to this approach and aim to enhance student engagement. It is well-established that when students are engaged and interested in a subject, they feel more competent, which can lead to improved learning outcomes (Ryan and Deci, 2000).

When considering any assessment item, there are advantages and disadvantages to be considered. A main challenge to overcome is that students are vulnerable to making superficial judgments and replicating stylistic tendencies based on a lack of in-depth research and understanding. The original architects are obviously voiceless in the process and their work is open to misinterpretation. Deformations are thus inevitable, particularly in the hands of time poor undergraduate students with little prior engagement with architectural history or theory. In addition to this, another stumbling block, is the student’s (common to many designers) desire to express themselves for personal development above significance for others in the discipline (Biggs, 2002). The solution to overcoming these challenges is to initially raise the student’s awareness of these inclinations and emphasize the significance of contextualizing their research, as they would when crafting a traditional written publication (Biggs, 2002).

When we acknowledge the limiting aspects of time and to a certain extent context, we can unburden students from the conditions of the present and have them anticipate future potentials. The act of removing these limiting factors is inherently another significant challenge associated with the task, particularly the absence of a specific site or context for the students to address and respond to. The indistinct nature of the exhibition assessment can be difficult for students to comprehend; however, the intention is for abstraction which lends itself to this kind of openness devoid of an actual architectural object or building. If the project was set within a traditional architectural framework and not abstract/open the students may be more inclined to make derivative moves, so instead the exhibition format is purposely conceptual and lends itself to deep explorations of design concepts and processes that can then be applied to their studio projects or future architectural endeavors.

An additional obstacle, particularly pertinent to the course’s unique context, lies in the fact that students lacked prior exposure to history or theory courses, resulting in limited research skills and difficulties in formulating suitable research questions. Consequently, substantial guidance was required, and there was an insufficient allocation of one-on-one teaching time to aid students in navigating the assessment. While the assessment involves design components akin to a design studio course, the available staff resources and time allocation were not commensurate with the demands of the task. This observation holds particular importance when considering the future direction of the course. A prospective consideration to help alleviate this challenge may involve providing students with a set of predetermined research questions to choose from. This approach would still require substantial engagement with scholarly research yet alleviate student time spent on the intricacies of conceptualizing the research framework, thereby enabling...
them to channel their efforts more intensively towards crafting a refined and well-reasoned response.

The final place-based obstacle lies in the fact that the Gold Coast, on the south-eastern edge of Queensland, Australia, has very few historical architectural precedents. First declared as a city in 1959, the linear agglomeration of suburbs stretched along the coastline has had its fair share of architectural and urban design criticisms, often associated with rapid “unguided development” and kitsch (Leach, 2012). The built environment which surrounds our students is young, and they must therefore rely on drawings, texts, and photographs to understand architectural history – which isn’t the same as experiencing architecture. A Gold Coast, or even Australian architecture student’s spatial history is typically underdeveloped, particularly when compared to students from other continents and experiential learning and field trips do not regularly feature as a part of our teaching methodology. The aim is to add to their frame of reference with a list of architectural precedents that can enrich their design thinking in different ways, whilst also acknowledging their developing spatial history.

On Assimilation

The act of making is integral to the exhibition assessment task and goes hand in hand with the act of re-interpretation. The definition of making, as stated by Nilsson (2013, p. 127), involves actively engaging in the creation, modification, and modelling of things in a manner that stimulates both ideation and reflection on potential futures, as well as the practical transformation of current materials. The act of making is therefore not only transformative but also stimulates critical thinking and has the potential to generate knowledge and theories that are integral to the discipline of architecture. Artifacts hold significant importance in this thinking process as they serve as carriers of knowledge and outcomes of the making process (Nilsson 2012, p. 127). The key focus for the exhibition assessment is on the practice of creating physical objects and artifacts that offer references to the past while also looking toward the future. While historical elements and processes are the starting point, the emphasis is also on forward-thinking rather than simply depicting or explaining past events (Nilsson 2013, p.128) and associated outputs are therefore experimental, representative, and explorative with the act of making only enhancing this potential.

Elise van Dooren created a framework that outlines five essential components that help to make the design process explicit for students and serve as a guide for both design educators and students (Hein and van Dooren, 2020). The most prominent aspect of designing, according to the framework, is referred to as the “domains” (1), which include factors such as space, composition, function, materials, and socio-cultural and historical contexts. Although these aspects are commonly discussed in design education, the design process extends beyond these domains, and design education should place more emphasis on the other four components outlined in the framework (Hein and van Dooren, 2019). The design process involves experimentation (2) in a physical laboratory akin to a studio (3), where designers use sketches and models to explore and reflect on ideas. They engage in critical thinking and decision-making to address specific design challenges. Additionally, designers experiment with a frame of reference (4), creating a professional reference library that they can use, modify, and combine with other examples, principles, and patterns over time. Lastly, the experimentation process is guided by a central theme (5), which provides a focal point or value to shape the design task at hand. This personal and cultural approach to framing the design task helps designers arrive at a final creative solution (van Dooren et al., 2014).

While steps 1-3 are common to the process of most design practitioners, the final two steps in van Dooren’s framework concerning the experimentation with reference material and a process guided by a central theme are inherent within the exhibition assessment and I argue critical for the act of re-interpretation. These final steps aid the student in developing a more in-depth body of research beyond a purely superficial precedent study. Students test the frame of reference provided by their architect and through the act of assimilation and reinterpretation they personalize the research material and integrate it into their own experiences and thoughts, to prepare it for future use, even if the ultimate project or product is not yet known. The exact way this is done can vary depending on the individual’s personal preferences and could involve reworking a theme with different emphasis or re-expressing a known result in a different form relevant to a contemporary context (Brüning, 2010).

The goal is for students to integrate the concepts of re-interpretation and assimilation learned in the course into their studio work, thereby influencing their practice. As Andrew Clancy (2023) writes in
a recent essay in the Architectural Review, during the period spanning the 15th to the 18th centuries, architecture gradually evolved into a distinct field, shaped by references which were formative to the evolution of the architecture discipline. Clancy (2023) advocates for the value of reference in architecture, stating:

This set of references has become a toolkit, a way of thinking about figure and form, a familiar friend, an armature of thinking that I can return to, and which allows me to make work that is nothing at all like the source. For a practitioner, reference is something promiscuous, an attraction to other ideas. It is a means to make sense, to build a language - and a way to begin.

The exhibition assessment then becomes a means to begin the student toolkit and to help students cultivate a sensibility, engage in constructive debates, and share their architectural exploration with others.

The operative assessment items have students explore history by means of spatial comprehension, design actions, and experimental investigations, however, rather than a complete turn away from the traditional mode of teaching history, this new approach is still supplemented with lectures, tutorials, and reading material typical of a more conventional history course. Like writing an essay, students use analogue materials, texts, and drawings to generate ideas. However, in this case, they apply these methods to address the question of how scholarly arguments can be translated into the spatial arrangement of an exhibition.

**Conclusion**

Exhibitions are increasingly acknowledged within the academic realm as a significant approach for engaging with a broader audience that cannot be reached solely through scholarly books or articles (Brüning, 2010). The ongoing significance of the exhibition as a potential generator of scholarly knowledge means that this format of practicing has relevance to future design professionals and teaching our students these ways of thinking, doing, and researching can only enhance the efficacy of design scholarship moving forward.

The link between architectural history and design seems to be a site of continual reappraisal and of growing contemporary significance. This article provides insight into how architectural history educators can engage with the productive nature of architectural history and utilize the exhibition as a pedagogical tool with significant potential and as a medium to develop fruitful dialogues between the present and the past. The objective of the assessment tasks surrounding the exhibition is not only to comprehend past events but also to develop innovative (and even radical) options for the future by imagining possibilities and creating outputs that address relevant research questions. Through an evaluation of the assessment items in a new operative architectural history course, this paper hopes that others can see the potential of utilizing the exhibition as a pedagogical tool towards not only extrapolating historical learnings but establishing a design research culture within the academic environment, more broadly.
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