Imaginary Museums
A New Approach to the Learning and Assessment of Design History

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This paper outlines an approach taken to re-establish the status, significance, and implementation of the design history component of a practice-based undergraduate design course in China. The format for delivery and assessment were found to have stagnated into a curriculum module widely regarded as of peripheral interest. A project was undertaken to revise not only the scope of the teaching material so that it was more appropriate for remote learning, but also the mode of assessment. The traditional lecture format was replaced in part by an online course, augmented by widely available video and texts. In-person teaching was switched to seminar discussion and support of students’ own research. By encouraging students to undertake research outside of the presented material, the course was able to shift the focus from the regurgitation of information to that of a more authentic enquiry. Essay submission has been replaced by a piece of design work through which the research may be presented to a new audience.

Keywords: design history; reflective practice; materiality

Introduction
The teaching of Art (and later, Design) history has long been the subject of debate in terms of the role it should play in more practice-based courses, as well as how best to enable the learning of students who may not be confident or proficient in writing (Huppatz & Lees-Maffei, 2013). Design History (along with other contextual studies) frequently has to contend with a lack of integration and perceived low status in relation to other ‘core’ components of a course, such as acquiring practical design skills or completing project work. As a result, there have been many attempts to overhaul the delivery of Design History content in design courses in recent years (Howell & Christensen, 2013). These often focus on bringing the material out of the lecture theatre and into a studio environment. While this acknowledges the difficulty many students have in relating to their own work to a contextual or historical perspective, the method of delivery and assessment of such courses does not tend to deviate from the standard slideshow lecture and essay.

It would be wrong to assume that this was a new issue. A major influence on the current structure of design courses was The National Advisory Council on Art Education (NACAE) in the UK, formed in 1958. Despite advocating the importance of art and design history in their first report (1960), by the time of their fourth report (1970) it was clear that the manner of this component’s relationship to a student’s practical study was still not yet fully understood. It is interesting that a report which has generated so much controversy over the years was surprisingly loose in its recommendations, but one aspect that was clearly expressed was that the History of Art (and design) should be integrated as far as possible into the curriculum, not siloed as a separate area of study (Coldstream, W. 1970).

The subject of this paper is an attempt to enrich the learning experience for first year undergraduate students who are encountering design history for the first time. The authors were responsible for the teaching and assessment of the course. While the content and delivery retained much from previous years, the scope of enquiry was widened significantly and a key objective was to remove the requirement for students to write an essay at the end of the course. In its place was a brief to design a museum experience. At the end of the process, students were asked for their thoughts and reactions in relation to the course to determine its

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Background to the Problem
The fact that historical and contextual studies have traditionally been delivered outside of the studio environment by specialist teachers has understandably led to these elements becoming easily separated from students’ principal area of focus and for unnecessary divisions to occur (Coldstream, 1970). Despite the original aims, and broad consensus around their importance, decades later the same conversations are being had regarding the integration of these complementary studies into the broader scope of students’ learning. While the area of Design History has grown into a relatively mature discipline in its own right (Margolin, 2009), the discourse and patterns of understanding remain alienating to many students who are used to the studio patterns of exploration and critique (Raein, 2004). The teaching of these components remains largely confined to darkened lecture theatres and chronological slide presentations of objects and images. This is particularly true in China, where course components dealing with discrete areas of knowledge such as design history, are often derided as 水课 (shuǐ kè, water course), a slang term evoking ‘going through the motions,’ - an unavoidable necessity that requires no meaningful engagement on the part of teacher or student (Wang 2020). In common with other requisite complementary subjects, these are generally taught along narrow, prescribed lines to large groups of students in lecture theatres. The design history curriculum itself tends to fit an accepted narrative, focused principally on translated texts written in Europe and North America. These begin with the industrial revolutions in those countries and move through an accepted narrative of mechanisation and mass-production, periods of aesthetic and philosophical importance such as the arts and crafts, the Modern movement, the professionalisation of the discipline and maybe some more recent examples of design theory. This is a pragmatic approach from the point of view of delivering something that is both relatively contemporary and manageable and useful, but also a problem because it excludes so much that may be of relevance to a contemporary Chinese student audience including the history of innovation and aesthetic evolution. Walker (1989) proposed a distinction between the ‘History of Design’ and ‘Design History,’ but this does not seem to be well understood or widely implemented. Some accounts begin with the flint tools of prehistory, others with the mechanisation of production and the permanent separation of design activity from either craftsman or factory worker. Clearly both are valid, but the former is such a vast area, it needs somehow circumscribing so as not to become overwhelming or irrelevant. If the purpose of including contextual design history into more broad design programmes is to engender thoughtful, reflective and challenging practice amongst students (Huppatz & Lees-Maffei, 2013), then it follows that the student themselves should some influence in where these boundaries of enquiry lie. This critical approach has been suggested in the past by Victor Margolin (1996):

...a successful history of design for design students must contain elements that will be particularly meaningful to them. At the same time, students must understand that the story they are encountering is not the only one; other ways of interpreting the history of design are also possible. (p. 3)

This interpretation gives far more scope for the student in terms of potential for their own research than the regurgitation of a 满堂灌 (mǎntángguàn, “Chalk and Talk”) lecture series. This would generally be in the form of an essay assignment for which students are given little support and which is extremely time consuming to assess. The entire process, along with many aspects of art and design education in China, is considered laborious and inescapable (Yue, 2009). It is this context in which the project is situated, having arisen from four issues raised by staff regarding the course in the past:

1. Frustration around the poor integration of design history knowledge into students’ practice;
2. The inadequacy of the essay in terms of a demonstration of learning;
3. The canon of Design History presenting little opportunity for genuine investigation and research on behalf of the students taking part;
4. The difficulty and delay experienced in effectively marking nearly 100 essays.

Revising the Course Structure
Following staff consultation, it was decided to overhaul the design history course to both expand the range of their understanding of design history and to explore alternative means of demonstrating this knowledge. The course in question is a three-week general Design History Course delivered during the first year of a four-year undergraduate course. It is attended by students following pathways towards qualifications in Industrial Design, Graphic Design, Craft and Applied Art. The focus is on providing students with an overview of Design

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History from various perspectives and involve a degree of personal research into a specific area. Students were supported through a series of topics from “Design Before 1850” including design from both Chinese and European Ancient history, to “New Trends in Design” including artificial intelligence and automated systems. While seminars were conducted partially in person and partially online, much of the narrative content was delivered through a series of 10 online lectures by 何人可 (Hé Rénkě), a well-known Professor of Design and Dean at Hunan University (He, 2019). These cover the same wide timescale from pre-history to the 21st Century and are a concerted attempt to integrate at least a degree of Chinese industrial heritage into an accepted narrative of design history. Students were given reading lists of relevant books which were available to them in the library and encouraged to view documentaries that cover specific areas of design history such as the series produced and directed by Gary Hustwit: Helvetica (Hustwit, 2007); Objectified (Hustwit, 2009) and Rams (Hustwit, 2017).

In previous years the standard was to require students produce an essay to demonstrate the accumulation of knowledge. Tutors’ experience of this was that the essay task was reluctantly undertaken and proved difficult and time-consuming to assess. It normally involved the regurgitation of some part of the information delivered in lectures and was a poor indicator of learning taking place. In order to promote some genuine and novel enquiry, students were tasked to undertake a more detailed exploration of a relatively narrow (and self-determined) area of design history. This enabled the scope of the project to move beyond accepted chronologies and narratives and include interests and influences closer to home. In communicating their research and findings, rather than write an essay, students were asked to design a museum dedicated to the area of design history on which they were focused. This format served several purposes:

1. Students had to negotiate and decide on a topic of study. In many cases this may have received little or no coverage in the standard lectures, so they had to develop and execute their own plan of investigation and enquiry;
2. Students were required to think carefully about how to re-tell their story in a form other than the one they had researched;
3. Students had to confront their conception of what constitutes a museum;
4. In designing the museum and communicating this through models and a short movie, students had to consider how the story they wanted to tell could occupy a three-dimensional space and how this would be interpreted by a notional audience.

Students were exposed to multiple examples that challenged their generally stereotypical notions of what constitutes a museum and asked to think about such an institution in the broadest possible terms using examples of diverse thinking in the sphere of museology (Storrie, 2006). This gave rise to a broader discussion about the nature of museums and the shifting definitions that remain open to debate ever since the founding of the International Council of Museums (ICOM) in 1946 (Soares, 2020). This gave students the necessary confidence and freedom to move away from their preconceptions of museum architecture, contents, narrative and communication, and experiment with each element to a fuller extent.

Project Brief
Following an introductory course in Design History, groups of 3 students were asked to identify (in consultation with their Professor and tutors), plan, and conduct detailed research into an area of design history that they found interesting. In making this choice, students were prompted to consider the history of design through 5 different lenses: Technology in Design; Movements in Design; National and Global Cultures of Design; Companies and Collectives; and Individual Designers. The exact content and focus for the research phase were not fixed but students were provided with context and examples in each area from which a ‘map’ could be built of their knowledge. The findings of this research should be retold in a concise form as a hypothetical museum setting. Students were then asked to design the museum and communicate the experience of ‘visiting’ the museum through a short movie of maximum 3 minutes in duration. The film could incorporate live action, stills, models, 3d renderings, narration or any combination of these elements.

Students were given support through seminars to discuss the choice of research area, research methods and communication strategy. The aim was to create a diverse body of work rather than proscribe a particular outcome, solution, or ‘correct’ answer.

Outcomes of the Project
From over thirty submissions, four examples are presented below which give a representative cross-section of the outcomes received. Around half the submissions were entirely screen-based, whereas the other half were
based on objects made by the students. This outcome was partly based on the confidence of students in 3d computer visualisations and partly on the encouragement to make physical models where possible.

An Exploration of Industrial Aesthetics

This submission was configured as a compact interior with multiple levels and rooms. Visitors enter on the ground floor and follow a labyrinth-type path through the history of modernism. The overall theme takes its inspiration from the De Stijl movement, with rectilinear blocks of colour framed by thick black lines. This style - used in painting, printmaking, architecture and furniture design by the likes of Piet Mondrian, Theo van Doesburg and Gerrit Rietveld provides a backdrop for the exploration of the wider themes of the modern movement. Tutors felt that this was a thoughtful way to achieve a more immersive experience as opposed to the sparse and caption-heavy exhibitions they were used to. Students had put a great deal of work into making scale models not only of the environment but also many of the objects within. It was evident that doing so had required a thorough and detailed understanding of the subject. This tangible link between the history of the discipline and making was felt to be a particularly strong outcome of the project.
Chinese Architectural Museum
This museum was designed and developed inside the Minecraft platform (in common with two other submissions to the project). The visitor enters the museum through a city gate and is accompanied by a guide during the exploration. The museum features palaces, temples, theatres and gardens from various periods in Chinese history. Despite the rudimentary nature of the modelling and rendering within Minecraft, these buildings give a surprising level of detail in terms of layout, spatial experience and structure. Elements such as the building function, brickwork, roof details and 斗拱 (Dǒugǒng, ‘supporting roof brackets’) are explained in context and give a good overview of the material. More detailed information and maps of the museum are included on noticeboards throughout. The tutors felt that this was a clever interpretation of the brief and intriguing use of the technology. Whilst only realised in part, it was felt that this kind of museum was both entirely plausible and effective in its aims. The Minecraft format has a charm that is helpful in introducing a subject that some might otherwise feel was boring. The Education edition is used extensively for similar interactive and collaborative projects, in some cases also in relation to Chinese history. In 2017 a group of teachers developed an interactive game based on the Palace Museum (‘Forbidden City’) in Beijing. This was used to introduce secondary school students in Hong Kong to ideas and events during the Ming and Qing dynasties through first building the palace and then undertaking a series of tasks around it. (Zhu & Heun, 2017)
Museum of Dadaism
This museum is also created in the Minecraft environment but takes the form of a more traditional experience within a virtual building. The location takes the form of a monumental ziggurat-shaped marble building set in a formal landscaped garden. This was an attempt to present the figures and activities of the Dada movement in an absurd context and therefore in keeping with the creative strategies embodied within it. This example is less fully resolved than example two but nevertheless allowed the students to experiment with form in a way that a conventional essay could not do. The choice of Minecraft as a platform is clever in that it can be quickly realised without too much specialist knowledge. Tutors felt that the students had understood and the Dada movement clearly and expressed their research findings in a clear and comprehensive way. To demonstrate the absurd through a piece of architecture or design is far more difficult, and far more valuable to a designer as a learning experience, than merely describing it. This, the tutors felt, was a good example of the kind of multi-level thinking that they were trying to bring to the course.
“A Book of Designers”
This submission reimagined the museum as a pop-up book. This was felt to be an extreme interpretation of a museum, but acceptable given the freedom provided in the brief. It is also the case that the book provides a three-dimensional representation of the subject and so fulfills the requirement in relation to the spatial element. In the book designers, objects and environments are all rendered in three-dimensional space and allow for an exploration of ideas and aesthetics without the rigid format of an essay. Tutors felt that this submission was lacking in focus and could be more resolved in terms of a consistent style but that the overall concept was effectively communicated and worth pursuing as a model for representing design history in the future. The range of topics was relatively wide so that no one area was really exposed in any depth. This more superficial exploration and analysis of the subject means that it is less easy to present something with a novel or engaging narrative - the story has been told too many times before. Nevertheless, the mode of delivery meant that it was easier to give this feedback and for the student to understand where the project may have been improved. This is much more difficult to achieve in an essay format where the bar can be exceptionally low in terms of novelty or engagement.

Feedback and Findings from the Project Experience
Following the completion of the project, students were asked to complete a questionnaire regarding their experience. 94 students undertook the three-week project and subsequently completed the questionnaire three weeks after their assessment through an anonymous, online platform. Questions were designed to expose students’ individual learning experience and determine whether they considered it a valuable and worthwhile exercise. The results are collated below.
Figure 5. Student Feedback in Graphic Form. Actual percentages may be found in Appendix 1.

From these answers it is apparent that students found the revised course to be a worthwhile experience. Without equivalent results from a control group following a conventional design history course, we do not have any direct comparison. There are also difficulties in comparing assessment outcomes across year groups because the protocol in China is to employ a bell-curve grading system whereby a student’s grade is in relation to their peers’ performance rather than a particular standard. However, it should be noted that the course is traditionally unpopular amongst students and considered very laborious to assess by staff. The revised course was successful in turning this perception around and garnering enthusiastic responses from students. Tutors noted their experiences and observations in running the project and were interviewed in relation to this paper.

Conclusions
Design as an activity and discipline seems destined to permanently wrestle with its inherent ambiguities. These are particularly acute when considering the area of design history and how it is taught in higher education. The processes and outcomes of design merge with professional, aesthetic, philosophical and cultural values in an uneasy mix that is both essential but lacking in any established model (Dilnot, 1984). Rather than present a solution to the multiple inconsistencies inherent in the discipline, this project aims to relocate the material in a context that is more accessible to the audience and more malleable and open-ended in terms of outcomes. The key elements of this revised curriculum component are twofold: firstly, the freedom for students to conduct their own research into an area of design history that may not conform to existing confined narratives and secondly, the ability to present these in a three-dimensional form rather than a written essay. The strategy of this approach is that additional freedoms will appeal to the instinct of the designer to re-invent and search for fresh means of representation. The feedback from tutors and students appears to support this in relation to the revised design history course.
The questionnaire goes some way to representing the experience. Tutors felt that not only did students engage more readily with the presented material, but they were more ambitious in their own research and more inventive in seeking novel outcomes for the project. The delivery format successfully taps into students’ desire to find new ways to express themselves in their work and was also notable in its ability to accommodate a range of different media, from model making, to virtual environments to card modelling and collage. Not only was this output more efficient in terms of the time needed for assessing each submission, but the outputs were more accessible amongst groups of students. This had the effect of raising expectations amongst students where an essay submission is not generally read by other students. It also helped with the assessment feedback process. It is far easier to make comparisons between physical and visual submissions than written ones and this helped students to understand and appreciate where their work might have benefited from more research or more development. The questionnaire suggests that a considerable proportion of students (86%) either agreed, or strongly agreed, with the statement that they had significantly increased their knowledge of design history through their own research. The authors believe that this approach is an appropriate implementation of the principles of active learning (Bonwell & Eison, 1991) which are of particular importance to design students. In addition, the strategy fits with the Design Centre’s approach of ‘Practical Design Education.’ This aims to place physical design activity at the centre of all aspects of the curriculum in order to multiply the opportunities for engaging with the potential of design process in all its forms. It is a novel philosophy in China, where higher education continues to be led by assessment-driven learning models that are dominant in the school system.

The success of the project is not only significant for students taking part, but in the confidence is gives the staff team to implement further changes in the future. It demonstrates the potential for innovative curriculum revision that can enhance the learning experience for both students and staff.

References


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Wang Weiduo. (2020). 王威多. 基于提升教学质量的高等院校现代设计史教学改革探索与实践. 美术大观 Exploration and Practice of Teaching Reform of Modern Design History in Colleges and Universities Based
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Appendix 1 - Questionnaire Results

Below are the results of the questionnaire. These were answered on an online form by all students taking part in the project. The questionnaire was circulated 6 weeks after the end of the project in order to give students time to reflect on the experience.

Q1: I found the lectures related to my practice as a designer:

<table>
<thead>
<tr>
<th>选项 Choice</th>
<th>小计</th>
<th>比例 Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>强烈不同意 Strongly Disagree</td>
<td>1</td>
<td>1.06%</td>
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<tr>
<td>有些不同意 somewhat disagree</td>
<td>3</td>
<td>3.19%</td>
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<tr>
<td>既不同意也不反对 neither agree nor disagree</td>
<td>9</td>
<td>9.57%</td>
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<tr>
<td>有些同意 somewhat agree</td>
<td>39</td>
<td>41.49%</td>
</tr>
<tr>
<td>强烈同意 strongly agree</td>
<td>42</td>
<td>44.68%</td>
</tr>
</tbody>
</table>

本题有效填写人次 total number of responses 94

Q2: I significantly increased my knowledge of design history through my own research:

<table>
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<th>小计</th>
<th>比例</th>
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</thead>
<tbody>
<tr>
<td>强烈不同意 Strongly Disagree</td>
<td>1</td>
<td>1.06%</td>
</tr>
<tr>
<td>有些不同意 somewhat disagree</td>
<td>4</td>
<td>4.26%</td>
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<tr>
<td>既不同意也不反对 neither agree nor disagree</td>
<td>8</td>
<td>8.51%</td>
</tr>
<tr>
<td>有些同意 somewhat agree</td>
<td>47</td>
<td>50%</td>
</tr>
<tr>
<td>强烈同意 strongly agree</td>
<td>34</td>
<td>36.17%</td>
</tr>
</tbody>
</table>

本题有效填写人次 94
Q3: I found the museum design project useful in developing my understanding of history and its relationship to contemporary design:

<table>
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<th>选项</th>
<th>小计</th>
<th>比例</th>
</tr>
</thead>
<tbody>
<tr>
<td>强烈不同意 Strongly Disagree</td>
<td>4</td>
<td>4.26%</td>
</tr>
<tr>
<td>有些不同意 somewhat disagree</td>
<td>3</td>
<td>3.19%</td>
</tr>
<tr>
<td>既不同意也不反对 neither agree nor disagree</td>
<td>10</td>
<td>10.64%</td>
</tr>
<tr>
<td>有些同意 somewhat agree</td>
<td>33</td>
<td>35.11%</td>
</tr>
<tr>
<td>强烈同意 strongly agree</td>
<td>44</td>
<td>46.81%</td>
</tr>
</tbody>
</table>

本题有效填写人次 94

Q4: Following the course I had a better understanding and interest in design history:

<table>
<thead>
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<th>选项</th>
<th>小计</th>
<th>比例</th>
</tr>
</thead>
<tbody>
<tr>
<td>强烈不同意 Strongly Disagree</td>
<td>1</td>
<td>1.06%</td>
</tr>
<tr>
<td>有些不同意 somewhat disagree</td>
<td>5</td>
<td>5.32%</td>
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<td>既不同意也不反对 neither agree nor disagree</td>
<td>14</td>
<td>14.89%</td>
</tr>
<tr>
<td>有些同意 somewhat agree</td>
<td>33</td>
<td>35.11%</td>
</tr>
<tr>
<td>强烈同意 strongly agree</td>
<td>41</td>
<td>43.62%</td>
</tr>
</tbody>
</table>

本题有效填写人次 94