

Object Lessons: what is the value of engaging with the physical object within design research and education, evaluated through the application of the “Material & Process Innovation Collection”, at Manchester Metropolitan University Special Collections?

Stephanie Boydell, Manchester Metropolitan University Special Collections, Manchester, UK <mailto:S.boydell@mmu.ac.uk>

David Grimshaw, Manchester School of Art, Manchester Metropolitan University, Manchester, UK <mailto:d.grimshaw@mmu.ac.uk>

Abstract

Throughout the history of design teaching in Higher Education, there has been an assumption that students need to physically encounter objects to fully understand and appreciate them. However, in this digital age, the physical encounter has been superseded by the myriad detailed images and information that is readily available on-line and in print.

This concern drew together a museum curator and a 3D Design educator. One was concerned that the digital experience lacked the visceral and emotional experience of engaging with physical objects, and highlighted a difficulty of facilitating access to meaningful, contemporary, objects. The other, whose largely historic collections were increasingly considered “irrelevant” to contemporary design practice, understood the value of materiality as fundamental to a museum’s existence, and its role in teaching and research.

The result was the establishment in 2013 of the “Material & Process Innovation Collection”, a museum quality collection, comprised of objects that are cutting-edge in terms of their material and process-led approaches to making, manufacture and distribution. The collection is driven not only by curatorial concerns, but by teaching and research, challenging the conservatism of museum collecting by taking innovative objects of untested materials and unknown makers, and hands the responsibility of collections development to non-curators.

The research presents an analysis and reflection on bringing the physical back into the classroom, the value of this experience within teaching, learning and research, and reveals if

there is merit in the assumption that sensory engagement with physical objects is of greater value than the digital experience.

Keywords:
Education
Museums
Collections
Materiality

Introduction

The prima facie idea that good design education necessitates access to physical objects was central to the establishment of the British Schools of Art in the mid-19th century. It was also the rationale for the foundation of their associated museums such as the South Kensington Museum (now the Victoria and Albert Museum, London) and also the Manchester School of Art's Arts and Crafts Museum (now Manchester Metropolitan University Special Collections), which opened in 1898.

After 150 years of educational and museological theory, this idea is still current amongst educators and curators. Much has been written on the subject of experiential and “Object Based

Learning”, but the rise of digital access and virtual experience has overtaken physical interaction with objects in the classroom and in the museum. Student claims to “research” using applications such as Pinterest and Instagram may be narrowing their experience of their field of study, in particular in the field of 3D design, where materiality is fundamental to the product/design, and where virtual representation cannot allow for testing of size, weight, functionality, etc.; all essential aspects of the design process.

For the university museum, keeping collections relevant to teaching and research, and ensuring their continued use, is vital if they are to stay open in these cash-strapped times. Their point of difference to web sources, and their raison d'etre, is in the acquisition, care and use of physical collections: materiality is key to their existence.

Context & rationale for the “Material and Process Innovation Collection”

In 2010, a postgraduate student on placement with MMU Special Collections conducted a short survey of teaching staff at the Manchester School of Art asking why they did/did not use the collections in their teaching. There was a core of staff who valued the collections and used them on a regular basis, and this was a means to discover why others did not. One vocal respondent who did not use the collections was David Grimshaw, a lecturer in 3D Design.

MMU Special Collections was founded in 1898 to give students of the School of Art (and the Manchester public) access to what was considered the best of contemporary craft and design and it remains a rich resource for teachers, researchers and students to this day. Although it has been added to over the years, Grimshaw's concern was that the collection was primarily historical, and

did not include many pieces or products from contemporary designers and makers. Whilst the value of studying objects from history was not denied, he felt that the collection did not fully engage students who were inspired by images of contemporary pieces seen online, and which better reflected their own ambitions as designers and makers.

Grimshaw had staffed many study trips across Europe, and experienced at first-hand many pieces that embodied the advances in making and production being developed within contemporary craft and design. In his teaching, it was images of these that were used as examples to inspire students, not works from the university's own collections. However, Grimshaw felt that the images never truly communicated the physicality of the work, nor the excitement felt when seeing them "in the flesh".

For Boydell, who was fully aware of the collections history and current role as a resource for staff and students, it was concerning to learn that the collections didn't meet the needs of these primary users. Both recognised that there was a gap in their professional delivery which might be met by the others involvement.

This led to an initial project, an exhibition in the MMU Special Collections, curated by Grimshaw. *The Language of Process: how new materials and technologies are changing product design*¹ (23rd September 2013 – 20th December 2013) focussed on the innovative use of materials and process within contemporary design. It presented work where new materials and technologies were changing the production, form and language of contemporary designed and made objects. Some of the objects selected for display were borrowed, but others were purchased using the Special Collections acquisitions budget.

The exhibition was a great success, and the excitement of directly experiencing contemporary designed objects was highlighted by the reaction of students, staff and visitors to the exhibition, evidenced by some wonderful feedback.

Establishing and developing the collection

As a result of this there was increased use of the collections in teaching, bringing in different departments and making the collection visible to staff across the faculties. In terms of collections development for the museum, the contemporary craft and design collection was now up to date and relevant.

At the close of the exhibition, the purchased works entered the permanent collections and formed the basis of a new contemporary collection entitled "The Material and Process Innovation Collection". This collaboration between academic staff and curatorial staff was seen as so successful it was decided to extend that model and continue the contemporary collecting into the following year.

¹For the full exhibition catalogue see www.specialcollections.mmu.ac.uk/files/langproc_catalogue.pdf

To broaden the range of works acquired, a collecting panel of senior academic design staff from across a range of design practice and academic disciplines was established, and a collecting policy established to focus purchasing decisions. (See Appendix 1).

To take advantage of the expertise of the full range of educators, designers and makers in the School of Art, all staff were invited to recommend works for acquisition and the collecting panel would make a final selection based on the collecting policy and the limits of that year's budget. The collection therefore represents current interests and trends within design and making. It is an annual snapshot of contemporary issues and concerns of designers and makers, highlighting their responses to new materials and technologies, as they are innovated, developed, and finally become established as everyday tools of making and manufacture.

As such, the collection is extremely reflective of current design thinking, with many of pieces reflecting moments that come and go, becoming "outdated", but capturing fleeting concerns in a way that a more long term and reflective collecting policy would not.

This is however an unusual approach to collecting for a museum to take. In terms of collecting, museums are traditionally risk averse. Many are concerned that objects acquired should be of "museum" standard, a value that only accrues through time and external endorsement. Boydell and Grimshaw realised very early on that the aims of this collection could not take that stance and had to embrace the possibility of objects "losing value", even collecting material that we knew may not physically stand the test of time.

Importantly, the collection continues to be used in teaching across a wide range of courses within Art & Design. It enables students to have physical interaction with pieces they may have only previously seen on line or in publications, and provides them with the full sensory experience that isn't possible through purely visual communication methods.

Boydell and Grimshaw wanted to qualify this somehow, to prove the value of the collection to the university. In February 2017, student feedback was sought after attending a series of handling sessions for both undergraduate and postgraduate students. We wanted to know if students felt the experience had value above that of viewing the same work online and if it had affected their thoughts about the work, their ambitions, and their approach to research and development of their own work.

Student feedback

The value of experiencing the physical is a primary concern to educators within art and design, and is fundamental to the existence of museums. However, with the growth of online information, and the development of virtual reality (VR), is this still the case? Does the contemporary generation of young designers and makers actually see value in physical experience of work, over and above the experience they get by viewing 2D and 3D images online? Are the presumptions of lecturers and curators the concerns of an older generation, out of touch with the power of digital information to inform and inspire the next generation of designers, or do young students actually value the experience and information they gain from handling these physical objects?

The feedback to the multiple-choice questions was statistically revealing, with most of the feedback reflecting that the experience had been “Very Useful” to “Essential” (For feedback questionnaire see Appendix 2).

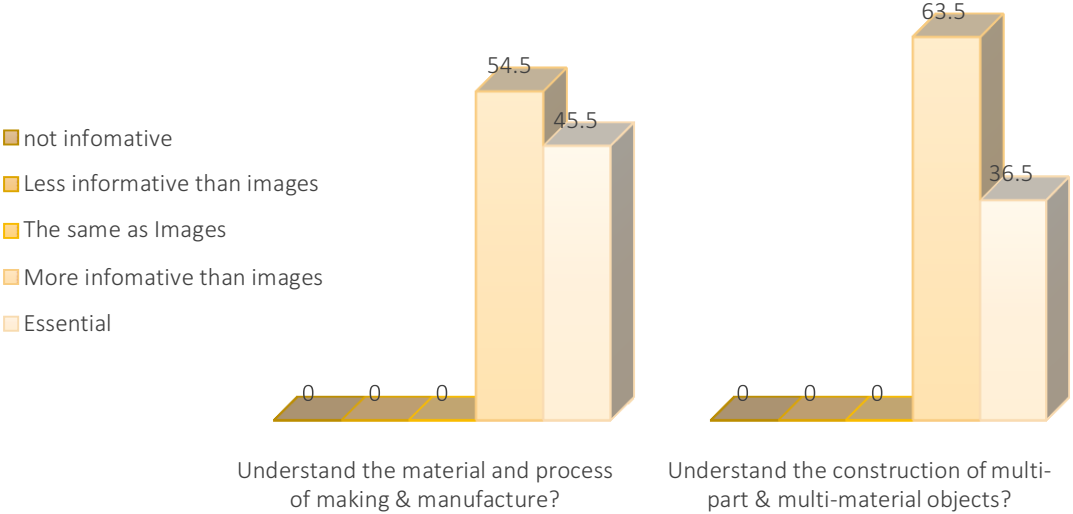


Figure 1. Compared with viewing objects as images, how informative was experiencing the physical object in enabling you to...:

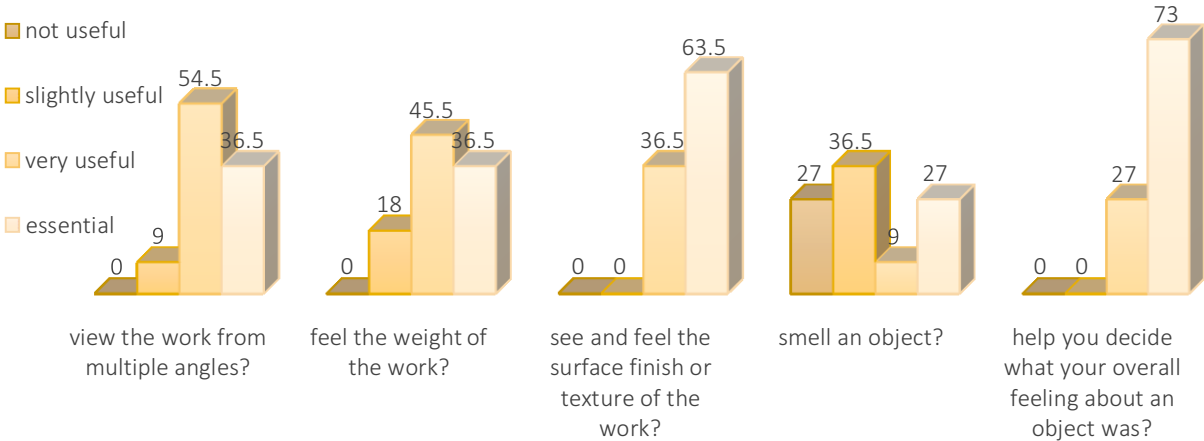


Figure 2. Compared with viewing objects as images, how useful was it to...:

However, it was the free text comments that most supported our supposition that the value in engaging with physical objects would have significant effect on how they thought about the work of other practitioners, and their personal decisions and ambitions for their own creative practices. Most interestingly, these were reactions

that would appear the students had not expected themselves, and many weeks after attending the sessions, they could still recall names of practitioners and key pieces that had been of inspiration to them.

When asked if there were **“any particular work(s) in the collection that you recall, or that stood out, and why?”** some of the respondents remembered key practitioners such as Formafantasma, Dirk Van de Kooj and Gareth Neal, eloquently commenting on the memorable experience of handling the work:

“Seeing objects in galleries is always a little frustrating to me though as I want to pick them up and inspect them properly from all angles. When I found out that one of (Formafantasma’s) Bone Jugs was in Special Collections I was so excited as this meant I could actually handle the object I had been so inspired by” ... “Being able to pick up the jug, handle it, see it from all angles and inspect exactly how it had been put together was really useful for my practice and I felt really lucky to have that privilege.”

“Overall, the broad diversity of products within the collection enabled me to become better educated in the wide variety of design, manufacturing techniques and practitioners from past and present. I have been able to draw inspiration from many of the pieces, which has then enabled me to discover more and has given me a better platform for future endeavours, post course.”

“Dirk van der Kooj’s chair – allowed me to visualise and understand the process of construction”

“It has made me further aware of how instructive seeing an object first hand can be and how it is crucial to develop an understanding of the object. I will make more effort to make visits to places where I can have similar experiences.”

“I recall very well the Dirk Van de Kooj work and really understanding how impressive its construction was. And also the digital candle which I felt I understood way better in person.”

“The Bloom Table Lamp by Patrick Jouin, because it was 3D printed in one process, I could see the detail and structure better by viewing it in person. This provides deeper understanding of how it works which impressed me a lot.”

When considering if the **“experience of seeing and handling physical objects (would) change your approach to researching objects and products, and if so how?”**, the students appeared to have become more aware of the value of going to see physical objects in person, and not relying on the internet or image collection sites such as Pinterest, to view work:

“Yes, definitely, as it enabled me to engage with the object more. When researching artist’s work, I tend to flick through many photographs of their work, but perhaps don’t fully engage with the work. Seeing the physical object, especially seeing one object at a time, enables me to engage with the work, interrogate it, inspect it, question it and feel like I’m undertaking research of high quality.”

“Yes. It was obvious to me that when I actually looked at an object with a view of seeing how it was manufactured etc., it was so much more beneficial than looking at it on a screen. You’re able to compare and contrast with other objects because you can see it in detail. Images do not provide this benefit.”

“Handling pieces has shown me the value in designing and manufacturing products that are pleasurable to handle. Additionally, it has shown me techniques to avoid/deeply consider due to their fragility, weight or longevity.”

“It reinstated the value of seeing something in person like going to a gallery museum or shop.”

“The hands on aspect allowed me to visualise potential areas of difficulty in the manufacturing process. It also allowed me to get a feel for the weight and worth of the objects.”

“Yes, especially mycellium. First-hand experience is essential. A picture cannot always tell a thousand words.”

“...it did highlight how important it is to touch and feel an object as this can alter your opinion of it.”

“I always like to see a piece ‘for real’ and, if possible, handle it. Publications and online research are not the only one way to find answers.”

When asked about the impact on their own work, and whether “**experience of handling and viewing physical objects, (would) change or develop the approach or understanding of your own work while a student, and if so how?**” it was again interesting how their reactions to handling the collection made them consider both their own work and how other people would react to it. It raised interesting considerations, from the practical and pragmatic, to the philosophical and theoretical, and raised issues not considered before taking part in the sessions:

“I feel objects should either be designed with function as the number one priority, like a really well designed kitchen utensil, or designed to be piece of artwork. To me, function should never be a secondary priority when designing. If I had just seen photographs of the Bone Jug I may have assumed it was fully functional, but being able to handle it in person enabled me to discover its flaws in functionality. This didn’t make me like the object less, as I love it for reasons besides its functionality, but it did help me further understand how I feel about functionality, and in turn, assisted me in developing my own practice.”

“...it made me realise the potential for working with CAD/CAM, before I felt that you don’t have to engage with CAM process as much as you actually do, I felt you just press ‘go’ and that’s it”

“It provided me (with) broader inspiration and choices of production process while I am developing my work. Giving me intuitive feelings of products and helping me consider design concept more figurative and realistic.”

“ (I’m) inspired by hands on design, scale prototype, order material samples to get a ‘feel’ before applying to product.”

“I guess it gave me a standard or a benchmark of what mass produced furniture looks like. Not so much with the craft objects because how you want it to look is a lot more subjective in my view.”

The final question asked whether the experience had any longer term impact on their career ambitions. **“Did the experience of handling and viewing physical objects, change or develop the ambitions or focus for your future career, and if so how?”** Remarkably, the relatively short experience of a half-day handling and discussing contemporary designed objects made a deep impression and potentially changed their creative futures:

“Yes, there is something I find really inspiring about handling a piece of work that has been created by designers who I aspire to be like. It sounds kind of silly, but handling artwork in the reading room as opposed to seeing flawless, professional photographs of artwork makes me feel like success is more achievable”

“I believe it probably gave me something to work or aspire to. Mass produced furniture is the route I want to go down so seeing some high quality objects allowed to produce a better idea in my head of what the standards are. Seeing and touching objects (especially the sort you’re interested in) is essential to furthering your design instead of looking at them on the computer. You get a much firmer grasp of what to expect in the real world when you do this.”

“I believe the Special Collections is essential for the university. I have had the luxury of being able to attend design shows in London, Eindhoven and will be attending Milan in the April. For students who cannot attend these design shows or get a personal experience with products, the Special Collections gives them that opportunity. If anything growing it more would be a must. Lectures referencing objects and telling students they can go and physically interact with them on University premises is fantastic. Increase collection!”

“It opened my eyes further as to the innovative materials and processes that were being created out there in the design world.”

“Previously I was focused purely on furniture. Now, thanks to the collection, I am interested in full collections, including lighting. My aim is now to design for the home, for a lifestyle, not just standalone items.”

“It makes me think further about my future career, moreover, it develops my focus in specific area such as production process and material use. In addition, by viewing those collections, some of them really broaden my mind about product design, that’s really helpful while I am developing my personal ambitions.”

Conclusion

Unfortunately, only 11 students responded to the survey, and while we know that this sample is too small to draw any significant conclusions from, it does give us some indication that access to physical collections does influence student practice. The answers raise more questions and we hope that the work that has been done here will form the basis of a larger and more focussed study in the future.

Similarly the development of collections using a large pool of expert suggestions, looking at material that speak to the “now”, not collecting with the established canon in mind, is not a risk, but a venture into collaborative collections development that has enriched the museum for both current and future users.

Author Biographies:

Stephanie Boydell, Manchester Metropolitan University Special Collections

Stephanie Boydell is Curator at Manchester Metropolitan University Special Collections.

Stephanie has worked in the museum sector for nearly 20 years. Her main focus is now exhibitions and collections management, and ensuring that the collections are used to support teaching and research in the university, as well as being open to the wider public.

She has a background in art and design history and some specialism in nineteenth century British art and design, as well as contemporary crafts and design. Stephanie has curated many exhibitions and has edited the following books: ‘A Japanese Passion: the pottery of Edward Hughes’; ‘Firing Thoughts: the relationship between ceramics and drawing’ and ‘Ravilious in Print’.

David Grimshaw, Manchester School of Art

David Grimshaw is Programme Leader for MA/MSc Product Design at Manchester School of Art, and previously programme leader for BA(Hons) 3-Dimensional Design, the course he graduated from in 1989. Based in Manchester, David established himself as a freelance design consultant for contract furniture, designing ranges for top end UK manufactures such as Viaduct, Allermuir and Davison Highley, before returning to Manchester School of Art in 1997 to teach.

Informed by his background as a material led designer for manufacture, his research investigates the relationship of digital design to material making, challenging the perceived perfection of the virtual and the digital, and its translation into material reality. Focussing his investigations on CNC routing, he seeks to explore the potential for craft material and making knowledge to inform a more sensitive and exploratory use of tools within the physicality of digital making.

David brings over 25 years of practice and teaching knowledge within design, craft, manufacturing and making, to inform the current debate on the sustainability of materially led craft and design practice, when society and educational establishments appear increasingly convinced that the future is digital.

Appendix 1

Manchester School of Art Collection: the Contemporary Craft and Design (Material and Process Innovation) collection. Taken from MMU Special Collections Collections Development Policy, 2014.

History:

The Manchester School of Art Collection has a long history of collecting contemporary craft and design since the 1890's. It is an area which we are continuing to develop to meet the changing needs of the teaching staff and research groups of MMU, and in line with the university's and the School of Art's concerns with digital futures.

The exhibition *The Language of Process: how new materials and technologies are changing product design*² curated with David Grimshaw (Programme Leader for BA 3DD and MA/MSc Product Design) inspired the collection of a group of objects which use digital and emerging technologies. It is an area in which we understand that we are unique in collecting in the region.

Whilst we often work with teaching staff and researchers from the university for advice and guidance with acquisitions, in 2013 we made a more formal arrangement with regard to collecting contemporary craft and design by establishing a collecting panel, comprised of staff from the School of Art and the Craft and the Design Research Network in MIRIAD (Manchester Institute for Research In Art and Design). Members of the panel are Professor Stephen Dixon (ceramicist), David Grimshaw (product design), Dr Jane Webb (design historian) and Dr Annie Shaw (textiles). The curator of the Manchester School of Art Collection is included on the panel, but only as advisor (ie only to suggest feasibility for storage/costs, make sure it meets wider MMU Special Collections objectives, etc).

In this way we can work closely with leading figures in this field to keep the collection relevant and contemporary. This makes the process of contemporary collecting more transparent, whilst acknowledging and taking advantage of the expertise held in the school, and reflecting the needs of our core users.

Whilst the panel can itself recommend items for acquisition, any member of the University teaching and research staff can make suggestions to the panel.

A small budget has been set aside annually for the purpose of acquisition. This is determined by the annual budget allocated to MMU Special Collections as a whole.

The intent of the acquisition is not only to meet a need for relevant and contemporary material that informs teaching and reflects contemporary practice beyond the Higher Education sector, but also to build a public collection of contemporary craft and design that is unique and unmatched in the region.

Description:

² Manchester Metropolitan University Special Collections Gallery, 23rd September 2013 - 20th December 2013

Items collected so far include: Assa Ashuach Femur stool (2013), Design for Download stool by Droog (2010), Blow away vase by Front (2009), Bloom.mgx table lamp by Patrick Jouin (2010), Plytube stool, Seongyong Lee (2010), My New Flame, Ingo Maurer (2012), Endless Flow chair, Dirk van der Kooij (2010), Gravity stool Jolan vander Wiel (2012), Blueware vase by Studio Glitheroe (2013).

Themes for Collecting:

1. Items can be craft or design, a one-off or mass produced piece
2. Items can be any media (including items made from untested, new materials that may deteriorate, and digital media)
3. Items can be international in origin
4. Items must have been made or designed within the previous 5 years
5. Items that embody contemporary/cutting edge concepts and practices
6. Items must reflect current teaching and research concerns of the Manchester School of Art and/or MIRIAD
7. Items that reflect contemporary practice beyond the Higher Education sector
8. Items that build a public collection of contemporary craft and design that is unique and unmatched in the region

Appendix 2

Feedback questionnaire

(Multiple-choice questions to be answered with the following responses: i. Not informative; ii. Less informative than images; iii. The same as viewing images; iv. More informative than images; v. Essential)

1. Compared with viewing objects as images, how informative was experiencing the physical object in enabling you to:
 - a. Understand the material and process of making/manufacture?
 - b. Understand the construction of multi-part/multi-material objects?
2. Compared with viewing objects as images, how useful was it to:
 - a. View the work from multiple angles?
 - b. Feel the weight of the work?
 - c. See and feel the surface finish or texture of the work? S
 - d. Smell an object?
 - e. Help you decide what your overall feeling about an object was? (Free Text Questions)
3. Was there any particular work(s) in the collection that you recall, or that stood out, and why?
4. Did the experience of seeing and handling physical objects change your approach to researching objects and products, and if so how?
5. Did the experience of handling and viewing physical objects, change or develop the approach or understanding of your own work while a student, and if so how?
6. Did the experience of handling and viewing physical objects, change or develop the ambitions or focus for your future career, and if so how?