

**2019 CONFERENCE
PROCEEDINGS**

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Te Kunenga ki Pūrehuroa*

**(INTER)PLAY
2019**



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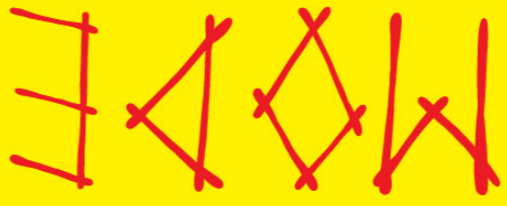
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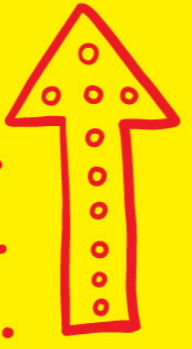
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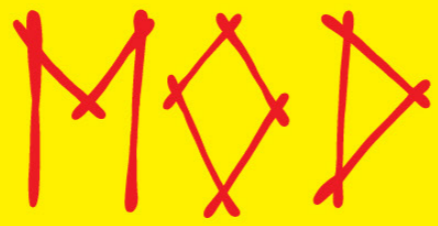
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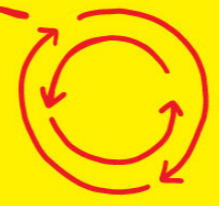
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MODE stands for Motion Design Education. The MODE Summit began in 2013 as a joint project between three design professors, Andre Mūrnieks, Brian Stone and myself, Gretchen Caldwell Rinnert. Previous MODE Summits were held in South Bend, Indiana (2013), Dublin, Ireland (2015) and Columbus, Ohio (2017). Now in its fourth iteration, with an expanding committee and network, we are proud to share the 2019 conference proceedings.

We would like to thank our many sponsors, as they have made this year's summit possible. Our academic sponsors include Massey University and The College of Creative Arts (CoCA), The Ohio State University, Kent State University, Michigan State University, Brigham Young University, Lesley University, and Herron School of Art + Design. Our professional sponsors include Fox & Co. Design in Wellington, New Zealand, and The LHT Group in Columbus, Ohio.

This year represents a change for MODE, as we are unveiling two new ways of participation. First, we are launching the MODE Society for educators. Our goal is to encourage motion design research by creating avenues for dissemination and collaboration. By advancing the theory and practice of Motion Design, we aim to create opportunities for new practices, curriculum, and work.

Second, for students, we have introduced MODE Fest, a motion design festival for students and emerging professionals, meant to celebrate the very best student work in motion design education. MODE Fest had 330 submissions from New Zealand, the United States, Canada, Russia, and the Netherlands. Only 3% of the submissions received awards, making it highly competitive and a true representation of the great work happening in Motion Design education.

The broader goal of MODE is to define the practice of motion design education and share how this work relates to the larger design community. MODE welcomes professionals, educators, researchers, and students. Motion Design is a subset of visual communication design that consists of time-based messaging usually taking the form of movies, films, and animations. Motion Design is the rendering and combination of elements (graphics, photos, typography, sound, voiceover) to communicate a message, feeling or idea. Motion design is far-reaching and has a broadly impacted by emerging technology as we see it used on all types of displays, from flat-screen televisions, mobile devices, touchpad interfaces, kiosks, and even new appliances. Motion provides feedback, along with emotional connection through the use of engaging and appealing messages. It has the potential to communicate where static technologies often fall short.

Our central theme for 2019 is (inter)play, the way in which two or more things have an effect on each other. Motion Design is about action, energy, light, and movement intertwined with message and meaning. It includes the push and pulls of forces, whether they are recorded with a video camera or objects created on the screen with complex software. Gravity, speed, and velocity,

simulate elements in an interplay of movement. Interfaces, interactive systems, narratives and messaging all incorporate exchanges of dynamic and well-planned interplay.

The summit was organized around three central topics: research, pedagogy, and practice that embraces (inter)play. Particular interest was focused on social inclusion, responsible design practices, politics, augmented reality, virtual reality, narrative, gameplay, tools and new types of motion design making. The proceedings are an archive of the summit, and represent the range, impact, and value of the conference, with contributions representing 13 countries. We hope you enjoy this year's summit and proceedings and find the work as inspiring as we did. There are studies and findings related to intercultural experiences within motion design and explore new methods of storytelling, kinetic type, transmedia, augmented reality and motion design research. It reflects on where motion design began and how far the discipline has come over the past 100 years.

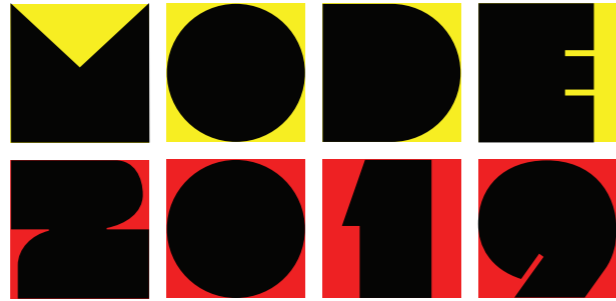
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Setting the stage for the future progress of Virtual Reality production for Designers

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Abstract: One of the most important questions for any designer or artist using Virtual Reality (VR) is not to use it as a gimmick. VR needs to be used to communicate knowledge and ideas, add new views and take you where only VR can take you. How we experience VR, augmented reality or 360-degree video is important. It is quite likely that augmented reality will be the most popular of these forms in the future. But for learning and education, understanding designers working practices the VR headset maybe more effective as it occupies users' full vision with less distraction. Its solitary nature could be one of its strengths when used appropriately.

This paper seeks to show how VR could be a useful tool to help students understand the design process through its representation of design studios, design artefacts, and the making process. The paper also discusses the opportunity to develop a broader visual language for VR and to offer an alternative approach beyond the "gaming aesthetic" that often characterizes the medium. A key aim being to create a visually authentic user experience.

Jonathan Hamilton has been a practicing designer and lecturer for 30 years, with 14 years as a full-time lecturer and researcher, at one of the UK's largest art and design universities; Nottingham Trent University (NTU). In discussions with colleagues over these years they have noticed changes in student understanding of the design process and professional practice. Studio visits are an essential part of this student understanding, yet restricted, as many design studios can only take a small number of students at a time. With UK graphic design cohorts well over 100 students this means only a small percentage can visit any one studio. Exposure to

a variety of studios, and their different working methods, helps students to understand that there are a range of approaches to the design process, which they could then be applied to their own work.

This paper reports on a research project "Communities of Design" lead by Hamilton and theatre design expert Kate Burnett, in its first case study investigating approaches to documenting the design studio of a recently deceased, international opera theatre designer; Paul Brown, using an alternative method of capturing the space for VR. This method intends to produce an authentic representation of the space capturing atmosphere, mood, light qualities and detailed surface textures, to try and give a more representative experience of being in the studio. As well as documenting the space with VR, video interviews were made with Browns' studio assistants and collaborators, filmed in the studio space before it was dismantled after his death. Browns' design models, artefacts and drawings with their complex surface treatments were also documented using a range of methods and technologies including video, photography and 3D scanning. The intention being to include these within the VR space but also to have this content accessible online for when VR is not available for students.

Student design process understanding

At the NTU graphic design course, students come from a range of academic backgrounds, approximately 30% come direct from sixth-form school having done A-levels in usually three subjects. This demographic has grown over the last 7 years, when 10% of the courses' cohort was from A Level. The remaining 70% are a combination of students from Extended Diploma courses in Graphic Design/Art and Design, and Foundation Art and Design students who have studied for one extra year after A level.

We have noticed from our applicants to the course that the UK A level art and design curriculum, has in more recent years required a more prescriptive approach to design. The curriculum requires students to copy artists work, often three or four artists a week before being able to start their own creative work. This has been introduced in the last few years, and although a more scientific approach of practicing methods, it is not necessarily appropriate for art and design, with students telling us they found this process frustrating. Students are also now more grade orientated, having come from schools where national league tables are the significant focus.

At the 2nd International Conference for Design Education Researchers, Design Learning for Tomorrow, Design Education from Kindergarten to PhD, DRS CUMULUS 2013, Oslo, design educators from across the globe commented on the increase in grade focused, risk adverse students, suggesting that these issues are not just confined to the UK.

The graphic design course, at NTU, have a regular series of guest lecture talks for students; a space for designers to explain their design process fully. These are open to all 450 students on the course with between 40 and 80 attending. These tend to be the best students who have a growing or good understanding of the design process. The students who would benefit most don't often attend, either because they don't see the value of them or are busy working that afternoon in paid employment to supplement their fees. Occasionally, our students are found using textbooks or design magazines, from the library, where they can gain in-depth knowledge about a designers' working process. Sometimes there are interviews and videos online which can be very informative but again it's rare to see a student watching an interview, to really understand the design process and its full form. But they do follow a variety of artists and designers on social media. Sometimes "makings of videos" are found some of which are made to be promotional items in their own right, some can be informative but they rarely show the ideation process, where the initial ideas came from. Often "makings of videos" are focused on the production process, after the ideation and experimentation phase. It seems that this content aims to show how professional and ordered the designer is to potential new clients. This can give students a false view of the professional design process not revealing the entire design process, with all of its flaws, ideas pursued, multiple prototypes, and mistakes made. Instead it often shows a linear process, only showing how the final solution was made.

It appears that some "makings of videos" and social media production posts aren't even documented at the point of the original making. During a 2018 guest lecture at NTU graphic design course, professional illustrator Rebecca Sutherland, who makes 3D paper cut artworks, mentioned that her illustrations often require social media posts. Frequently with the client deciding after the original art work has been completed. Sutherland reported that she is asked to remake the artwork and for this to be documented with photography and or video for social media output. The artwork is

remade and presented in a nice environment, not the normal messy environment that an illustrator would normally work in. So, it appears that students even when they are trying to find some of the evidence of the design process it is not always presented in an accurate or authentic way. Sometimes what they are seeing is promotional material and not true design process, with design promotion being presented as design process. Designers and artists have always presented their working process and studio environment in a promotional way. But not to the degree that students are exposed to now through their social media followings, there are considerable quantities of design promotion presented as design process.

Communities of Design

"Communities of Design" seeks to address some of these issues for design students firstly by documenting theatre designers' studios and their working practices. It interviews designers, their assistants, documents their design artefacts and the space in which they work. It aims to help students and others experience the breadth of the design process by engaging with a variety of designers, who each have a different approach to the design process. This research project uses theatre design as its base but seeks to inform all design disciplines, to help students and professionals gain greater knowledge and understanding of the design process.

The Paul Brown "Communities of Design" case study has video interviewed Paul Browns' assistants and collaborators, documented his artefacts using a variety of technologies including 360 video, close-up macro video and photography. It has also made a VR model of Paul Browns' studio so that users can visit and understand where the designs were conceived and made. This VR project also seeks an alternative visual language for VR, aiming for an authentic visual experience, as an alternative to the "gaming" aesthetic that often characterises the medium. This visual authenticity is to assist in an immersive experience for the user in a similar way to museum research; Professor Stephen Bitgood defines the 9 factors that may contribute to simulated immersion, in museum studies with the 4th factor being;

“Authenticity or object realism” Bitgood, Stephen. (et al) “Visitor behaviour” Summer 1990, volume 5, number 2, p13. state in their investigations into the museum visitor immersion experience; “perceived naturalism or authenticity contributes to the immersion experience.”

This paper briefly looks at examples of recent VR projects analyzing their levels of authenticity and immersivity. The chosen projects explore space for creative practice and user interaction. These are compared to the first VR prototype of Paul Browns Studio with its exposure to an international audience at The International Organization of Scenographers, Theatre Architects and Technicians, “OISTAT50” International Theatre Conference, Cardiff 2018.

A critical analysis of contemporary VR projects

‘Thresholds’ by artist Matt Collishaw, is a major step forward in precision haptic VR. <https://www.somerset-house.org.uk/blog/portal-beginning-photography>, and <http://www.birminghammuseums.org.uk/bmag/whats-on/mat-collishaw-thresholds> which premiered in 2017 at Somerset House, London, and toured the UK. The VR project restaged the 1839 Fox Talbot’s exhibition of his photographic prints to the public at King Edward’s School, Birmingham. The VR gave users freedom to walk in a 3D space combined with precision haptic feedback, featuring glass case vitrines, containing Fox Talbot’s photographs, that in the VR matched exactly those in the real physical world. This gave users a very immersive experience with highly sophisticated haptic interactions.

Items in the VR vitrines could be selected, users could then pull the images through the glass in front of their faces. This may not have been the most sophisticated or authentic way of interacting with objects inside a glass case, seeming slightly artificial. The interactive element may not have been the main focus, compared to syncing the VR space and the real room. The level of attention to detailed haptic feedback was impressive and highly sophisticated, however the visual language of the interiors and objects, particularly the interiors space, had a video game aesthetic, especially to the surfaces. It is likely that all elements had to be created from scratch digitally, the original rooms may not be in existence any more, were unavailable, or this may have been an artistic decision. ‘Thresholds’ broke

new ground in haptic precision and multiuser interaction within a space, but its level of sophistication in haptic feedback was not matched with a more visually authentic visual experience. The digital texture, “gaming” like aesthetic, lowers the visual levels of authenticity. The user selection and interaction of items through the vitrines appears to weaken the authentic immersive experience.

“Modigliani VR: The Ochre Atelier” <https://www.tate.org.uk/press/press-releases/virtual-reality-brings-modiglianis-final-studio-life> and <https://www.youtube.com/watch?v=CdYLscE6kEO> (3min 17sec), featured as part of the main Modigliani exhibition held at the Tate Modern in London, 2018. This had similar source documenting issues, as the interior of Modigliani’s artist studio space did not exist anymore with only a small number of black and white photographs of his studio interior space in existence.

Theatre design expert Kate Burnett commented after using the Mondigliani VR;

It’s a constructed environment, an illustration of a room, the paint and brushwork for this visualization was still computer level, it was not real. Navigation was with object whilst seated, but you could look 360 degrees. Navigation was by focusing on a point (interactive hotspot) and information appeared. There were options to change position; looking at the painting on the easel or behind, looking at other points allowed you to navigate the space but on a fixed number of points, you were not able to navigate freely. (Burnett. Kate. Interview by Jonathan Hamilton, 2019)

The Mondigliani VR was a sitting only experience, users were taken on a tour through his studio with some limited choice and control of their movement in the space, the 360-degree viewing appeared to be a much more passive experience than Thresholds. The VR design company, Preloaded, were experienced in VR for gaming and photographed period objects, such as historical oil paint tubes. Visually Mondigliani is disappointing; the 3D modeling of the paint tubes appears to be quite basic and approximate, then it appears the photographs have been applied as a surface, with limited results, lacking visual definition and authenticity. Modelling of the edges of circular plates, that Mondigliani used as a paint palette, are clearly

digitally created with multiple straight edges forming unconvincing curves. A painterly coloration effect was chosen for the visual language, an interesting approach. But combined with the basic modelling and limited user interaction choices, results in a project that does not seem to be led by a need for authenticity, immersivity and deep learning, instead appears to be more about VR as an “experience”. Mondigliani VR may have been Tate Moderns first commissioned VR projects and may not have had the financial budget, time or inclination to make a ground-breaking project like Thresholds. They may have wanted something that “worked”, and to be more of a popular “experience” than about a user’s learning and understanding. However, in future one would hope that a world class art gallery would want to produce a world class VR experience.

A different type of VR project, “Draw Me Close” <https://www.youtube.com/watch?v=XrpUvRSb2EO> and <https://www.nationaltheatre.org.uk/shows/draw-me-close>, presented at the 2017 Venice Film Festival was described by British film critic, journalist, broadcaster and author, Jason Solomons; “This may not be the direction for cinema or the future, but it’s something in its own right; it’s something else. VR may not be the solution to cinema in the future”. Solomons fear before experiencing the VR project, was that it was a gimmick—but stated; “...it was more impactful than 3D with 3D glasses, it was something in its own right, and deeply moving... This was the most moving experience cinematically that I have ever had”. Solomons. Jason, BBC Radio London, Robert Elms show, film review feature. 7th September 2017

“Draw Me Close” was created by playwright and filmmaker Jordan Tannahill, with The National Film Board of Canada in conjunction with UK’s National Theatre’s Immersive Storytelling Studio. This project took a deliberately stylistic hand drawn black and white animated visual aesthetic, with its VR innovation centering in its use of live actors. With both the participant user and the actor having sensors on their hands, enabling the VR world and real world to correspond accurately. The narrative centered around the story of a mother with terminal cancer, played by the actor, and the participant user being in the viewpoint of her young son. The main scene involves the two working on a combined drawing in a room setting. The actor/mother and

user/child were in the same physical space and could speak to each other. The sensors on their hands made the VR visuals movements appearing to sync with their real hand movements.

The actor’s role contributes a large part of the immersive experience, for example hugging the user and speaking close to them, with the headset showing the drawn visual of the mother. It could be argued that this physical input, of a person hugging and speaking close to the user is a more powerful contribution than the visual VR contribution. With Thresholds, physical touch is less of a significant part of the experience because the vitrines don’t move and they don’t talk to you. “Draw Me Close” is a powerful experience for people, and its VR is interesting, it seems to rely more on the interaction of a live actor to make the experience powerful, with the visual VR being less of a contributor.

Documenting Paul Brown’s Studio in VR

This was Hamilton’s first VR production, with a small collaborative team; theatre design expert Kate Burnett and VR engineer Paul Menzies. The aim was to capture Paul Browns’ studio in as authentic way as possible. Brown had produced the majority of his many large-scale international opera and theater designs in this basement studio, which was soon to be dismantled. The space was well known in the theatre community as a unique place, a small venue producing extreme precision designs, to then be realized at a huge scale. Photography and 360-degree video had been used by Hamilton and team to document the space, but seemed not to capture the space well enough, or give enough user choice and control. VR was chosen as the next step.

Photogrammetry was chosen for Brown’s studio VR, for its strength in capturing the optical qualities of a space including mood, lighting and detail, which are often lacking with other methods. The alternative; laser scanning was not possible because the space was small and detailed, with lots of glass containers. Laser scanners would have struggled to work with the reflective surfaces of the glass jars, which were an important part of Browns’ studio. Photogrammetry is a method of using a Digital Single Lens Reflex (DSLR) camera to photograph objects with multiple overlapping photographs from all angles that are then stitched together by specialist software

to make a 3D model. This method is used for VR models and environments as an alternative to laser scanning, with benefits of greater visual authenticity, it can be combined with laser scanning data, to produce accurate VR models.

Hamilton was new to Photogrammetry for VR, and with restricted access to Browns' studio, tests were made to gain experience by capturing a similar space. Two spaces were captured; the authors own studio which had similar complex features to Browns' and a subterranean space at NTU, with no natural light. Both photo shoots were aided by a guide to Photogrammetry by VR software company Bentley Systems. Test results worked reasonably well, but there were significant gaps in the 3D model from the 50mm lens. As a solution Menzies and Hamilton, agreed to use a wider angle (8mm) lens making for the subterranean studio test which produced good results.

Access to Browns' studio was time sensitive, due to the planned dismantling, with one day allocated to Photogrammetry. The photogrammetry required the studio to be prepared carefully without mixed lighting sources. In total 3,000 photographs were taken to capture the highly detailed space. Two photogrammetry sessions were made, one with Browns' well-known scale figures grouped on the main table in the studio, lit carefully with small but powerful lights that cast shadows from the figures across the table. The second shoot produced an additional 3,000 photographs, this time with the table clear, allowing users to engage with one of Browns theatre models. The VR would then allow the user to be within the set itself, as an actor would, but in small scale, or to view the set as if they were in the audience at the opera.

User testing and feedback on the first VR prototype.

The team were conscious that the first Paul Brown VR prototype was not quite as good as we hoped, but Hamilton was keen to use the method he tells his students to use; to show work in its raw state, and get feedback early on in the design process. We presented this first prototype, in workshops over 4 days at the OISTAT50 International Conference of Theatre Design, at Royal Welsh College of Music & Drama, (RWCMD) Cardiff, Wales, UK in 2018.

The VR project was located in a student studio surrounded by the Paul Brown archive of drawings and models and photographs. Conference attendees and students were free to explore the room of Browns' designs. The VR was experienced by 35 theatre professionals, theatre design students, architects, lighting designers and academics. Hamilton gathered user feedback whilst they were in the VR space and afterwards, also gathering primary research information about users' previous experience with VR. He helped by guiding them through the VR experience if they were unsure. Feedback was mostly positive, including from an American art history tutor; "The 3D space enabled me to see objects that I would not have noticed in a photograph of the space" "the space was so intimate with the ability to concentrate and focus" "I was amazed how small the studio was, I knew it was small, but the VR really helped me understand how small it was."

The VR system was in the corner of the studio which had irregular textured walls with interesting surfaces, so two of the studio walls had the potential to give haptic feedback when in VR, as Collishaws' "Thresholds" had. One of the designers from the National Theatre, London, VR department commented on how surprisingly powerful the haptic feedback was in connecting him to the space. When experiencing the VR of Browns' studio users could navigate the space in a way that they could not had if they had visited Browns real studio. A student who was relatively small in height could not see everything in the high shelving units, but could when the model was moved down, making her taller in VR, commenting; "I can see things that I wouldn't normally see and I could not do in real life, it's great, I am tall now" Theater Design Student at Royal Welsh College of Music and Drama during OISTAT50. International Theatre Conference; 2018, Cardiff.

Experienced theatre designers, aged 70+ years old, were at ease in their first VR experience and would stay for quite considerable time exploring the space sometimes on their hands and knees looking around the VR space. One highly experienced older theatre designer noticed how the VR floor and the walls did not exactly match the actual floor and walls, revealing the importance of accurate haptic feedback for full spatial immersion. Successful parts for users were being able to explore the VR studio space in any way they liked, at their own pace, discovering the materials and equipment Brown used. If they became curious about one aspect they could spend as much time as they wanted in one area or they could continue to

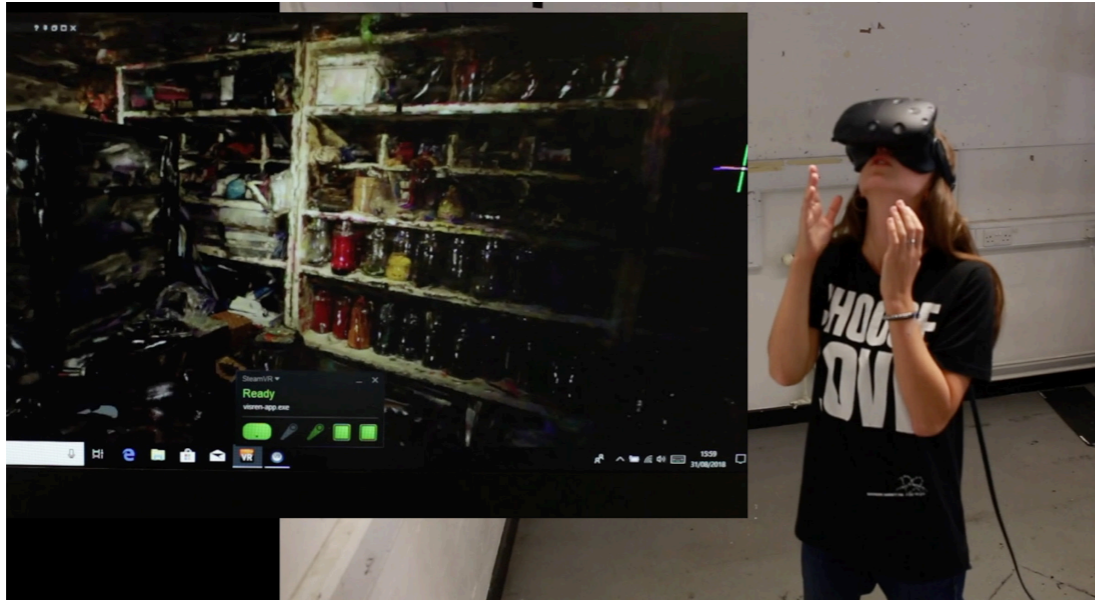


Figure 1: The first VR prototype of Paul Browns' studio being used by a participant at OISTAT 50 International Theatre Conference, Cardiff, 2018 / Source: Photo; J.Hamilton

explore the whole space. The VR had unique opportunities, users could walk inside the table top and lower themselves down to the same height as the model figures and be amongst a crowd of scale model actors and potentially feel part of a performance. The VR became a place that people could explore in their own way, and this seemed important for all user whose ages ranged from 19 to 78 years old. It's easy to forget how powerful and important this can be for users. Two users gave us permission to film them in the studio space moving, and video captured what they could see inside the headset. One of the films is viewable here; <https://vimeo.com/jonathan-hamilton/splitscreenvr> Password = "pbsplitscreen"

Team Reflections on the Project

The model was not as accurate as we had hoped. The imagery had dark patches, creating a "mottled" effect, and some of the 3D forms appeared unusual in the rendering. Users commented that it had more of a cave like impression than the basement of a house, but it did have very recognizable qualities of Paul Browns' studio. One of Paul Brown's studio assistants, who knew the studio space intimately, used the VR at OISTAT50. She found this very unusual, and visually intense, commenting on what a strange

experience it was. It was unclear if the strangeness was due to visiting a virtual version of a space she knew so well, or from the intensity of the visually detail and the distorted cave like renders in the model. Many people commented on how detailed the experience was, and some commented how surprisingly different it was to other VR experiences that they had had. A couple of users commented;

"I don't normally like VR, but I really like this. I love the detail and the fact that I can go up close to an object and look at it really close, similar to a real experience."

Students found it particularly interesting because it was such a small space, yet Brown produced extreme precision design work, used internationally, from this tiny space. Students often think that to be a successful independent designer working with clients that they need large overheads, a big studio and team. Yet Brown shows there are alternatives, quite opposite to this and yet he was so successful. The Brown VR experience could help students gain confidence to set up on their own, as an independent design studio.

We expected users to want the VR to be interactive at this early stage yet they seemed to enjoy that they could explore the space, with so many things to look at. However, a few people who were more experienced with VR asked if they can pick objects up. When we showed the VR space to a non-theatre audience, at NTU, questions were different, users were curious as to what the materials were on the shelves and what would they would be used for. The theatre audience did not seem to ask this, as they were more familiar with the materials and the making process for theatre.

We knew we needed to improve the model to make it more visually and structurally authentic, identifying that it may have been the photographs that were the problem. The 3,000 photographs were made hand held, as time available was limited. The studio was fairly dark and so the ISO camera settings were raised to allow shutter speeds suitable for hand held photography. This combined with the small circular image from the 8mm lens made the camera sensors' "grain" visible on the photographs. We took too many photographs, causing the software problems in defining 3D forms. However, the photographs of the 3D model figures on the table worked

extremely well. These were lit very clearly with shadows and this helped the software to create these 3D shapes more clearly. We had to turn the main studio lights towards the walls and this may have under lit some areas. The team is currently working on a second prototype model choosing a smaller selection of photographs using around 1000 photographs or less. This model, at the point of writing this paper, is currently in progress, and will be completed by April 2019.

Conclusions

Testing the early prototype at the OISTAT50 workshops was really valuable. Feedback from users showed that the detailed environment and ability for exploration at your own pace, being able to go up close up to an object seemed to be really important for people. Some participants said they did not normally like VR, but found the Paul Brown VR Studio with its levels of detail, captured optically, not digitally, in some way more physically real than other VR projects they had experienced. Photogrammetry appears to be effective at getting a closer level of authenticity. Lighting could be the key to achieving successful 3D models with photogrammetry.

Brown's VR space is an intimate experience, providing users with the ability to concentrate and focus on the individual artefacts in his studio. In VR senses are reduced down to one primary sense; vision, creating a sense of immersion and concentration. Furthermore, the headset gives users a field of view that is fully occupied. The detailed Photogrammetry allows users to go up close to objects and see them in more detail. The art historian at OISTAT50 commented on how the VR enabled you to explore with a greater level of perception than you would do in a real space.

In VR we can come and go as we please; "In a virtual space, the parameters of time and space can be modified at will" Grau, Oliver. "Virtual Art, From Illusion to Immersion", MIT Press, 2003 pp.7. So, in VR we are time independent, we know we're not really there in the space, we can leave at any time or stay. Is VR a way of being in a space, and being more in it, than if you're actually there in the real space? VR is particularly immersive, yet we know it's not real, if we are actually in the real Paul Brown's studio, we would be aware of the sounds outside and inside the space. Would these sounds and other elements distract us? VR of this space allows us to

concentrate and see things that we would not see otherwise. We would certainly be aware of where we were, within London, and would be mindful of the time, and what we need to do, and places to be during the rest of the day.

VR is certainly a different level of immersion. Could it be that in some cases, especially in a highly detailed studio like Browns', that VR experience of the space could be more experiential than being in the real space? For students, could they learn more than by visiting the real space? having the ability to revisit as many times as they want and whenever they want could be an excellent way of learning and understanding. It was surprising how powerful the haptic feedback was for users. Wearing the VR headset, exploring the space, immersed in the virtual 3D world, approaching one of the studio walls, users would naturally hold out their hand. Many people expressed surprise experiencing this haptic feedback from touching an irregular wall surface, that corresponded to the visual VR location. Haptic will be something we use again, incorporating it in all future projects whenever possible.

VR may not be the best place for everything we have created. We have made videos using lighting to reveal the complex drawn and textured surfaces of Browns' costume drawings for each production. These surfaces were not easily visible in scans, photographs or when the drawings are in a picture frame behind glass. We have made video interviews with his assistants and collaborators, filmed inside Brown's studio. We have made close-up moving camera macro video of some of the set designs and other scale props. It would be possible to have these viewable within the VR environment but is this the best place for them?

We certainly seem to be at a turning point with VR. Equipment and the technology have become far more accessible with Collishaw stating in 2017; "VR has come out of the developmental lab and become a feasible medium to work in" Collishaw, Mat. "Mat Collishaw describes 'Thresholds', his latest VR art work." YouTube, TrustNewArt, 10 Aug 2017, 0:09 sec - 0:14 sec/ 5.00mins (accessed 13th February 2019). <https://www.youtube.com/watch?v=sShZOCqLHCK>. VR is no longer in the hands of the technicians. Now there are different ways to author and create 3D spaces for VR and objects, with cameras optics and photogrammetry, enabling more authentic and visually rich 3D models. It could be argued that art and design is now able to create an alternative approach to VR, with a greater focus on



Figure 2 (left): Prior to scanning, Paul Brown Set design model box for “Pelleas et Mellisande” by Claude Debussy after Maeterlinck, which featured at the Glyndebourne Festival Opera—Sussex May 1999 / Source: Photo; J.Hamilton

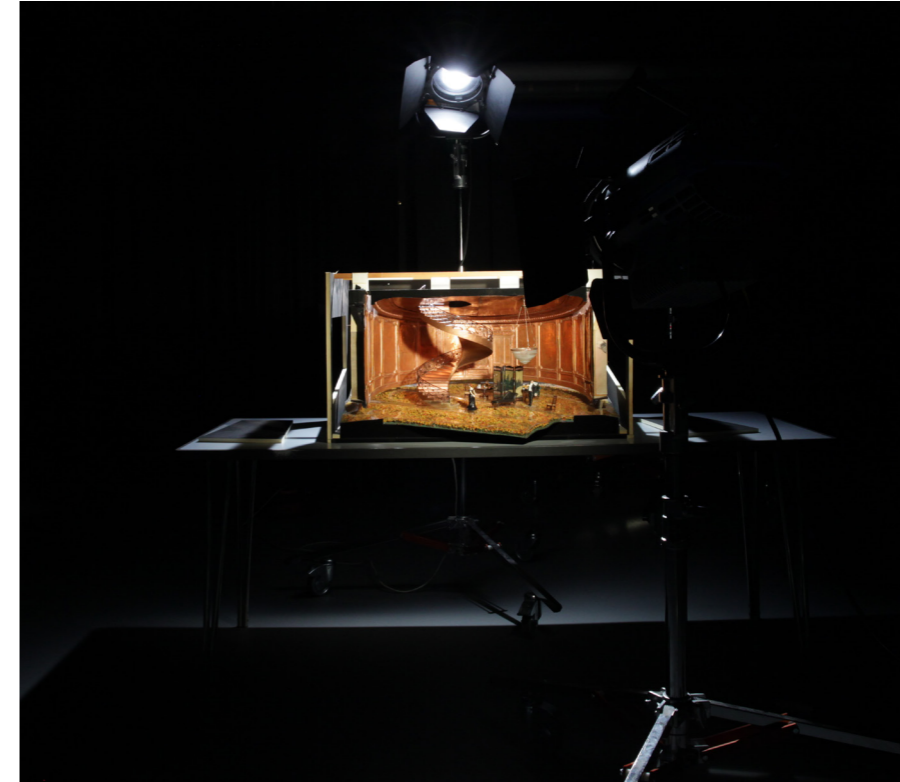


Figure 3 (left): Lighting for Photogrammetry, Paul Brown Set design model box for “Pelleas et Mellisande” by Claude Debussy after Maeterlinck, which featured at the Glyndebourne Festival Opera—Sussex May 1999 / Source: Photo; J.Hamilton

aesthetics and variety of experiences beyond the “gaming” aesthetic. Now you don’t have to rely on the VR expert, could art and design become their own VR experts?

There has been some really rich learning from creating this first Paul Brown studio VR prototype. Our second prototype is now in early stages of production, it intends to have interactive elements, including the first 3D scanning and photogrammetry of one of Browns’ opera set designs. The Photogrammetry will take place with controlled lighting in a photography studio and we hope to get more authentic and accurate results, than the VR of Browns’ studio. The opera model design being captured was for “Pelleas et Mellisande” by Claude Debussy after Maeterlinck, which featured at the Glyndebourne Festival Opera, Sussex, UK, May 1999. This design features

floating walls and ceiling, made of sheet copper, with ornate detailing, an undulating clear Perspex floor with hundreds of tiny flowers visible beneath. These reflective surfaces are notoriously difficult to capture with laser scanning and photogrammetry; all of Hamiltons’ lighting knowledge and skills will be used to capture this complex design.

Future Planning

Photogrammetry could become the VR capture method to creating an art and design aesthetic for VR, as an alternative to the more common VR “gaming” aesthetic. Problems do arise in the processing of photogrammetry, which currently, requires specialist knowledge, expensive software and powerful computers. Normally shown in a “point cloud” format, there

are problems finding reliable viewers. We used Vitalis software “Visionary Render” for our VR point cloud viewer, which worked reliably combined with a Razor Blade laptop, Steam VR and an HTC Vive headset, for 4 consecutive full days of workshops at OISTAT50.

VR hardware prices, in the last few years, have dropped from £20,000 to £4,000. But Photogrammetry processing software and reliable point-cloud viewers are still expensive. For VR to be widely adopted by art and design, software costs need to drop and processing will need to require less specialist expert knowledge. But for VR to develop into a viable medium for art and design we need to find a way that captures forms and surfaces in an authentic sensitive way, capturing mood and atmosphere of locations and objects. Only having laser scanning and flatly lit photogrammetry without accurate colour, atmosphere or mood is really not good enough for art and design practitioners. We also need to find ways to capture reflective surfaces with 3D scanning and Photogrammetry. Photographers have developed techniques for this over the years, we can adopt some of these for use in VR as well as developing new methods. A big challenge is both capturing and showing detail in VR, so users can look close up, as a user would in real life.

Outcomes from this project will be disseminated in a type of tool kit or guide for art and design students and practitioners wanting to start making VR, AR or 360 videos. Helping art and design create their approaches to VR, as an alternative to the “gaming” approach. The Paul Brown VR could travel as a ‘roadshow pop-up experience’ providing the VR hardware to students. This can be used to raise awareness of the project and then direct the students to online resources about the design process, including video interviews and information on design artefacts.

We have produced the first prototype of the Paul Brown studio and we are in the process of making a VR prototype of one of the theatre model boxes. But so far, the only user interaction has been the ability to explore the studio space, at your own pace. Next users can be inside an opera design model box, as if you were an opera singer, yet inside the scale model. Our third prototype needs greater user interactivity to gain deeper knowledge of Pauls design process. Using visual elements of the VR studio as an interactive interface, for example the wall of shelves, holding Pauls materials and tools, its grid like structure could be an interactive interface.

Users could interact with one of the shelves and it would reveal what the materials were used for and where they were used. Pauls’ studio iMac would be a perfect location to hold the range of short video interviews we have made with Browns assistants. The main studio table could be an area for exploring opera and theatre set model box designs and portfolios of costume drawings.

At the end of the day we would like the user to curate their own journey through Browns studio and that in a world of continual distraction for students, with their difficulty in understanding the design process that the VR interface could allow them to concentrate and get a deeper understanding of his design process. The communities of design project, of which Paul Brown is the first case study, would seek to explore and demonstrate a range of designers’ studio approaches to give students a wide range of models of design process that they could adopt and try in their own work.

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AUTHOR BIOGRAPHY

Jonathan Hamilton specialises in experiential, immersive film making and VR, to convey authentic look & touch of materials on screen. Research focuses on fragile archives & museums, collaborating with crafts people & designers. Recent research has combined cinematic cameras & macro lenses with precision robotic arms, for close-up moving camera documentation of fragile archives. With the aim of giving the experience of holding fragile objects and materials in the palm of the user's hand, exploring in an on-screen user led experience.

Current projects focus on new approaches to VR for documenting Opera and Theatre Designers work spaces, objects and artefacts, using Photogrammetry for a more authentic approach. Future projects will explore haptic feedback and user curated experience, with key themes of authenticity and immersivity. Jonathan is currently working with the Royal Opera House, Covent Garden and The National Theatre, UK, on ways of capturing detail and material authenticity for VR.

His documentation and VR work of Opera Designer Paul Browns' archive was presented at London Craft Week in the Victoria Albert Museum, May 2019. Jonathan was a finalist at 2011 Lumen Digital Art Prize, with film "Never Quiet Never Still" touring internationally. He has been on the peer review panel of Design Ed Asia Conference since 2011. Jonathan is a Senior Lecturer & Researcher in Graphic Design at Nottingham Trent University. Prior, he was head of Motion Graphics at Camberwell College of Art, with 8 years teaching Fashion Textiles at The Royal College of Art.

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PEER REVIEW PANEL

We gratefully acknowledge the following individuals for serving as peer reviewers for MODE 2019.

Jessica Barness / Associate Professor / Kent State University

Jessica Barness is an associate professor in the School of Visual Communication Design at Kent State University. Her research interests are diverse and include interactive environments, sound studies, and critical practices in design. Barness has published articles in peer-reviewed journals such as *Design and Culture*, *Design Observer*, *Visual Communication*, *MATLIT: Materialities of Literature, Dialectic, Message*, *SEGD Research Journal: Communication + Place*, and *Currents in Electronic Literacy*. Her work has been presented and exhibited at venues such as AIGA, Design History Society, FILE Electronic Language Festival, HASTAC (Humanities, Arts, Science, and Technology Alliance and Collaboratory), and ICDHS (International Committee for Design History and Design Studies). Recently, she co-edited *Visible Language* journal special issue "Critical Making: Design and the Digital Humanities" (with Amy Papaalias), a project that was awarded a 2017 Design Incubation Educators Communication Design Award. She has an MFA in Design with a graduate minor in Writing Studies from the University of Minnesota, and a BA and MA in Studio Art from the University of Northern Iowa. Previously, she worked in design and research with Conway+Schulte Architects in Minneapolis, MN, and practiced professionally for a number of years as a senior product designer and design development manager in Chicago, IL.

Anne H. Berry / Assistant Professor of Graphic Design / Cleveland State University

Anne H. Berry joined Cleveland State University (CSU) in August 2016 as an Assistant Professor of Graphic Design in the Department of Art and Design. She received her MFA degree from the School of Visual Communication Design at Kent State University, and worked as an Assistant Professional Specialist at the University of Notre Dame in South Bend, Ind., prior to her CSU appointment. In addition to teaching, Berry works as a freelance designer; projects include a permanent exhibit for the Civil Rights Heritage Center in South Bend, Ind., and logo identities for the University of Notre Dame's Center for Social Research and Center for Social Concerns. She is also a cofounder of LightBox, a studio in downtown Goshen, Ind., and serves as the chief creative officer for Round3, an educational web application that facilitates online peer reviews for students in K-12 and higher ed. Her research focuses on race and representation in design and advertising, ethnic and racial disparities within the field of graphic design, and the role of social impact design (in education) as a means of addressing the design industry's lack of diversity.

Meaghan Dee / Assistant Professor, Chair of Visual Communication Design / Virginia Tech

<http://meaghand.com>

Meaghan Dee is a dog-loving typography nerd, who is both a practicing graphic designer and a design educator. Currently, she serves as Chair for the Visual Communication Design program at Virginia Tech and on the AIGA National Design Educators Committee. She received her Bachelors from University of Illinois, with a focus in Graphic Design, and her Masters of Fine Arts from Virginia Commonwealth University, with a focus in Visual Communication Design.

David Cabianca / Associate Professor / York University

David Cabianca completed an undergraduate degree in architectural studies at the University of Manitoba and a Master of Architecture degree from Princeton University (1995). This was followed by an MFA 2D Design from Cranbrook Academy of Art (2001); an MA in Typeface Design from the University of Reading (2005); and most recently, an MA in Design Writing Criticism, London College of Communication (2012). Initially designed while attending Reading, his typeface Cardea was released by the Emigre Font Foundry in 2014. In 2012, he was one of the organizers of the AIGA Design Educators Conference, "Blunt: Explicit and Graphic Design Criticism Now." His writing has appeared in *Emigre*, *Idea*, *Design & Culture*, *Journal of Design History* and *Design Observer*. He has taught at the University of Manitoba, University of Michigan, OCAD University, CalArts and Cranbrook Academy of Art and has held a full-time position teaching graphic design at York University in Toronto, Canada since 2005. He is currently working on a book detailing Ed Fella's image archive, scheduled for publication in 2019.

Erich Doubek / Associate Professor of Art / Emmanuel College

I received my MFA from the Dynamic Media Institute at the Massachusetts College of Art and Design, and BFA in Graphic Design from the University of Connecticut. My career has allowed me the opportunity to work in print, motion, and interactive on diverse projects for clients such as the Isabella Stewart Gardner Museum, Cambridge Friends School, General Motors, PBS, Legacy Recordings, and Starbucks.

Zlatan Filipović / Associate Professor of Art and Design / American University of Sharjah, College of Architecture, Art and Design

Zlatan Filipović is Associate Professor of Art and Design at the American University of Sharjah. His research and teaching areas engage design pedagogy, motion design, video/film and animation in linear and interactive environments. Filipović holds an MFA in Electronic Integrated Arts from NYSCC at Alfred University and a BA in Painting from the Academy of Fine Arts in Sarajevo, Bosnia and Herzegovina. He has exhibited widely in solo and group exhibitions from Biennial Manifesta 4 in Frankfurt; Gallery Almine Rech in Paris; European Media Art Festival, Osnabruck; Siemens art Lab in Vienna; Art Museum of UNM, Albuquerque; National Gallery of Bosnia and Herzegovina, Sarajevo; Maraya Art Center, Sharjah UAE; Biennale of Contemporary Arts in Thessaloniki, Greece; Sharjah Art Museum, and has presented at various international academic conferences and art/film festivals.

Nikhil Ghodke / Assistant Professor / Auburn University at Montgomery

Nikhil Ghodke teaches in the Department of Fine Arts at Auburn University at Montgomery, Alabama. He has a Bachelors degree in Architecture from Sir JJ College of Architecture, Mumbai and a Masters in Computer Art from Savannah College of Art and Design, Savannah. He has worked for 10-12 years in the industry; in roles ranging from Motion Graphics Designer to Senior Art Director in the United States, New Zealand and India. He has also taught Motion Graphics in Auckland-New Zealand, Tampa-FL and Purchase-NY. Some of the projects that he has worked on professionally are- rebranding of ABP news, a national news network in India, animated a promo for the movie 'Hobbit' for Sky Tv in New Zealand, pitches for rebranding of Hallmark Network in USA and of TV Pasionos in South America and Explainer Videos for Charles Hunter in the UK. He has interests in photography and videography along with motion graphics and has travelled to 20 countries; photographing the art and culture of each region. He has exhibited his work in India and also in the US, one of his photos was selected to be displayed in a juried exhibition by Dark Room Gallery in Vermont and his experimental film 'Connections' has been played at Tasveer and Erie Film Festival in 2017. He has also presented his paper on 'Introducing Historical References in Motion Graphics course' at MODE 17 in Ohio and at Visual Congress 18 in Italy and also presented another paper 'Fun Image editing activities to add to Pedagogy' at 19th Annual International Conference on Education in Greece. <http://www.blockdissolve.com> Department of Fine Arts, AUM

Dr. Susan Hagan / Carnegie Mellon University

Susan M. Hagan, Ph.D. MDes, received her master's degree in Design and PhD in Rhetoric from Carnegie Mellon University. She is now an Associate Teaching Professor at Carnegie Mellon University in the Information Systems department, working on both the Pittsburgh and Qatar campuses. She focuses her research interests on the interaction of words, images, and typeface, both static and in motion, for the purpose of more effectively solving communication, interaction, and information design problems. She envisioned and co-edited a special issue of *Artifact: The Interaction of Practice and Theory* in 2007. Her article, *Visual/Verbal Collaboration in Print Complementary Differences, Necessary Ties*, and an *Untapped Rhetorical Opportunity* (2007) received the 2008 NCTE Best Article on Philosophy or Theory for Technical or Scientific Communication. Collaborating with a colleague in computer science led to, *Typesetting for Improved Readability* using Lexical and Syntactic Information, published in the ACL (Association for Computational Linguistics) for ACL 2013, the premier conference in the field of computational linguistics. She recently contributed to Alan Male's edited volume, *A Companion Guide to Illustration*. Her chapter, *Illustrators: Collaborative Problem Solvers in Three Environments*, focuses on how illustration brings important collaborative meaning, in combination with text, to argument, narrative, and description that cannot be similarly offered through words. The book will be published in 2019. Her own book project with the working title, *Interplay: How Image Text and Typography Create Complementary Meaning* is currently under review.

Jonathan Hamilton / Senior Lecturer, Researcher Graphic Design / Nottingham Trent University

Jonathan Hamilton specialises in experiential, immersive film making and VR, to convey authentic look & touch of materials on screen. Research focuses on fragile archives & museums, collaborating with crafts people & designers. Recent research has combined cinematic cameras & macro lenses with precision robotic arms, for close-up moving camera documentation of fragile archives. With the aim of giving the experience of holding fragile objects and materials in the palm of the user's hand, exploring in an on-screen user led experience. Current projects focus on new approaches to VR for documenting Opera and Theatre Designers work spaces, objects and artefacts, using Photogrammetry for a more authentic approach. Future projects will explore haptic feedback and user curated experience, with key themes of authenticity and immersivity. Jonathan is currently working with the Royal Opera House, Covent Garden and The National Theatre, UK, on ways of capturing detail and material authenticity for VR. His documentation and VR work of Opera Designer Paul Browns' archive was presented at London Craft Week in the Victoria Albert Museum, May 2019. Jonathan was a finalist at 2011 Lumen Digital Art Prize, with film "Never Quiet Never Still" touring internationally. He has been on the peer review panel of Design Ed Asia Conference since 2011. Jonathan is a Senior Lecturer & Researcher in Graphic Design at Nottingham Trent University. Prior, he was head of Motion Graphics at Camberwell College of Art, with 8 years teaching Fashion Textiles at The Royal College of Art. www.vimeo.com/jonathanhamilton Twitter/Instagram @jonhamilton19

Jonathan Hanahan / Assistant Professor / Washington University in St. Louis

Jonathan Hanahan is a speculative designer whose practice explores the cultural and social ramifications of experiences which transcend physical and digital occupations and the role technology plays in shaping, mediating, and disrupting our everyday realities. He develops Thick Interfaces—tools, devices, softwares, artifacts, websites, videos, etc. which agitate the digital facade and reveal the physical reality and complexity which exist underneath the thin veneer of our digital devices. Hanahan received his BARCH from Virginia Tech and his MFA from The Rhode Island School of Design. In addition to his studio practice, Hanahan is an Assistant Professor in the Sam Fox School of Design & Visual Arts at Washington University in St. Louis.

Sanda S Katila / Associate Professor / School of Visual Communication Design, Kent State University

Sanda S. Katila completed her B.F.A. at the University of Akron, M.F.A at Kent State University and worked as a professional designer for 13 years in the Cleveland area. Sanda began teaching in 1993 in the School of Visual Communication Design. In 1998, Sanda served as the New Media Advisor creating new courses in Web Design for Zayed University in Dubai and Abhu Dabi. Along with Dr. Paul Wang, she has developed the first Web Design and Programming Minor at Kent State, as well as co-authored a book, "Introduction to Web Design and Programming." She collaborated on projects with David Robins, Associate Professor of Information Architecture and Knowledge Management (IAKM) in User Experience Design. Sanda has been actively involved in administrative roles at the university. She completed the Institute for Excellence leadership program at Kent State in 2013. She served as the Internship Coordinator and Graduate Coordinator and was appointed to Associate Director in Fall 2013 and to Acting Director in July 2014. Her recent research focuses on aging and health-care communication, socially responsible design and graduate service projects with local organizations such as the Cleveland Sight Center and Neighborhood Family Practice.

Dr. Jinsook Kim / Georgian Court University

Jinsook Kim, PhD, Assistant Professor, has worked as a communication design specialist for over 20 years. For her research, she is interested in visual perception problems for both print and screen based media regarding design practices and theories. She is interested in translating and extending two-dimensional visual literacy into 'time' for motion. Dr. Kim developed Motion Gestalt for her doctorate dissertation. Motion Gestalt is an applied theory of Gestalt (existing theory) for motion. Gestalt grouping principles are extended into Grouping Principles in Motion or in Time (Kim). Her interests include gestalts, visual motion, perception, new media, visual attention, user interaction, interface, visual anticipation, communication, human-centeredness, academic research for design, and design research methods. Dr. Kim is an active researcher and practitioner. She has regularly presented and published her scholarly research papers in peer-reviewed symposia and journals since 2005, and has taught Communication Design or Graphic Design courses at Universities since 2008. Currently, she is an Assistant Professor of Graphic Design and Multimedia at Georgian Court University in Lakewood, New Jersey. Dr. Kim worked for Trinity Christian College in Chicago, Washington University in St. Louis, and Indiana University in Indianapolis before she joined GCU. She received her PhD in Design from IIT Institute of Design (ID) at Illinois Institute of Technology in Chicago. She is currently residing on the East Coast of New Jersey. In her free time, she also enjoys creating abstract art works, and presents her conceptual works regularly in professional-membership-based venues.

Hye-Jin Nae / Assistant Professor, New Media Design, School of Design, College of Art and Design / Rochester Institute of Technology

Hye-Jin Nae is an award winning and US patent holding designer specializing in user experience design. Originally from South Korea with a background in fashion design, she is currently an Assistant Professor in the New Media Design program at Rochester Institute of Technology. She also held the position of Visiting Assistant Professor in New Media Design program, 2014–2016 and Assistant Professor in Graphic Design program, 2008–2010 at RIT. Prior to her academic career, she worked for over 14 years in the design industry as a Creative Director and Lead Experience Architect at EffectiveUI, Lead Designer at Yahoo!, and sr. Visual Interaction Designer at Kodak. She specializes in researching applied UX design and bringing that design sensibility and multi-disciplinary thinking into the classroom. Her diverse background and knowledge from designing interfaces for client side applications, retail point of sale and consumer electronics; to a wide variety web applications and properties are directly integrated into the classroom. Her detail oriented approach to design is shared with freshman to seniors from basic design elements to cutting edge UX design projects. With her extensive design experience and creative leadership, she is currently working on the government funded research project to counter violent extremism and RIT funded research project to help digital literacy. Her interest in interdisciplinary design education and pedagogy has led to recent presentation and/or published papers at the 12th EAD Conference on Design for Next at Sapienza University of Rome, Italy; AIGA Converge Conference at University of Southern California; MODE at Ohio State University; Digital Media and Learning Conference at University of California-Irvine; and Typography Day at University of Moratuwa, Sri Lanka. She works with UX design across all forms of digital media and she continues to research UX for traditional and new paradigms while building the foundation for tomorrow's design education.

Paul Nini / Professor / The Ohio State University

Paul J. Nini is Professor and past Chairperson in the Department of Design at The Ohio State University, where he has also served as past Graduate Studies Chair, and past Coordinator of the Visual Communication Design undergraduate program. He has been a faculty member at Ohio State since 1991. Prior to that time he taught as a Visiting Lecturer in Visual Communication Design at both the Institute of Design (IIT) and the School of the Art Institute of Chicago. He has also taught as a Visiting Lecturer in the Graphic Design Program at the University of Cincinnati. He recently served as a member of AIGA's Design Educators Community Steering Committee. He has served on the editorial board of the *ico-D/Taylor & Francis* journal *Communication Design: Interdisciplinary and Graphic Design Research*, and on the advisory board for AIGA's *Dialectic* journal.

Cat Normoyle / Assistant Professor / East Carolina University

James Pannafino / Associate Professor / Millersville University, PA, USA

James Pannafino is an associate professor at Millersville University in Pennsylvania. He teaches web, interaction, experience and motion design courses for the (BDes) Bachelor of Design degree. His research interests include interactive design fundamentals, interdisciplinary design, visual storytelling and digital narrative forms. James wrote and published *UX Methods: A Quick Guide to User Experience Research Methods and Interdisciplinary Interaction Design: A Visual Guide to Basic Theories, Models and Ideas for Thinking and Designing for Interactive Web Design*.

Chris Pullman / Senior Critic, Yale School of Art, Graphic Design / Yale University

After graduating in History at Princeton, Chris shifted gears and earned his MFA in graphic design at Yale in 1966. He has taught in the graduate program there ever since, with a focus, starting in the early 90's, on designing with time, motion and sound. From 1973 to 2008, Chris Pullman served as Vice President for Design and Visual Communication for WGBH, public broadcasting in Boston, which supplies about 30% of the PBS prime time schedule and the bulk of PBS.ORG websites. He and his staff were responsible for the visual personality of WGBH as expressed through its on-air titles, credits and animation, promotional and sales support, classroom materials and an ever-expanding assortment of interactive media. From 2002 to 2007 he also acted as design client for WGBH's new headquarters and studios, responsible for guiding building character, wayfinding, visitor graphics and AV features including the building's large exterior Digital Mural. In 2002 he was honored with the American Institute of Graphic Design (AIGA) Medal for "excellence over a lifetime of work." Then in October of 2008, after 35 years at WGBH, Chris decided to try out Life 2.0 where he continues to lecture and teach in a variety of settings and devote more time to exploring his long private commitment to painting. 2.2017

Emmy Rice / UX Consultant / Rice Design

Emmy Rice is an interactive designer and UX consultant. She likes to make complex problems simple. When not designing, she thinks and writes about human behavior offline to create meaningful experiences online. Rice has spent the past 6 years teaching full time in academia. She believes in fostering a playful environment to test ideas, pushing creativity, and design meaningful experiences. Her teaching experience focuses in typography, narrative/motion, and interactive design.

David Roll / Assistant Professor / Kent State University

Lisa Spitz / Assistant Professor of Design / Lesley University Art + Design

Lisa Spitz is an assistant professor, and program director for the Design for User Experience program at Lesley University Art + Design. She teaches user experience and interactive design courses, has an active professional practice spanning design research, user experience and interaction design, and is co-founder of the app PackThat for parents with young children. She has lectured locally and nationally on topics ranging from website accessibility, universal design, universal design for learning, empathy mapping, visual sense making and design thinking. Lisa holds a BA in Psychology and Graphic Arts from Regis College and a MDes in Interaction Design from Carnegie Mellon University. You learn more about Lisa at www.lisaspitz-design.com or her app at <http://www.packthatapp.com>.

Renée Stevens / Assistant Professor and Associate Chair / Syracuse University

Renée Stevens, <http://reneestevens.design>, is an award-winning motion and augmented reality designer, educator, and public speaker currently located in Syracuse, NY. Her design and creative research looks at how Augmented Reality can help overcome Learning Disabilities, specifically Dyslexia. She splits her time between owning and running a freelance interactive design studio and as an Assistant Professor at the S.I. Newhouse School of Public Communications at Syracuse University. She is also the Associate Chair of the Visual Communications Department where she oversees the Design Program. She was named a 2017 Educator to Watch by GDUSA and received a prestigious 2018 Meredith Teaching Recognition Award. As a speaker she has been invited to events around the world, including SXSW, AIGA, and the European Conference on Social Media, to talk about her work in Augmented Reality. She is an active member of AIGA Upstate New York and serves on the board as the Director of Education. Her favorite things include properly kerned type, perfectly paced music, and beautiful whitespace. Renée is the Creative and Managing Director for the annual design workshop, Pixels & Print (<http://pixelsvsprint.syr.edu>), which provides a real-world collaborative experience to design students by working on projects focusing on designing for social good.

Dimitry Tetin / Assistant Professor, Graphic Design / SUNY New Paltz

Dimitry Tetin is a teacher and designer living in the Hudson Valley, New York State. He is currently an Assistant Professor in Graphic Design at the State University of New York, New Paltz. He was a Critic in the Department of Illustration at Rhode Island School of Design and an Adjunct Faculty member at Parsons the New School for Design where he taught in the Communication Design Program. He works collaboratively and independently in areas of web, publication and environmental design, motion graphics and branding. In his multimedia publishing practice he seeks to engage public and personal histories to create narratives that examine how interaction between space and language shapes conceptualization of places and histories. He also writes about typography, motion and interaction design.

Todd Timney / Associate Professor, Communication Design / University of Cincinnati, College of Design, Architecture, Art, and Planning (DAAP)

Professor Todd Timney is a communication design educator, practitioner, and researcher in the areas of typography, visual symbol systems, brand identity and human-centered design research methodologies. He has been a full-time faculty member at the University of Cincinnati since 2010. Todd earned his Master of Fine Arts degree in Visual Communication Design from Virginia Commonwealth University. His research has focused on an "Integrated Approach to Package Design" and a "Patient-centered Approach to Improving Health Literacy." He has presented nationally and internationally, and been published in several peer-reviewed publications. His paper, "Using Animated Visual Narratives to Improve Patient Experience and Health Literacy in Pediatric Oncology"—based on his work with Cincinnati Children's Hospital as a Research Fellow at the Live Well Collaborative—was presented at the MODE 2017 Summit. Todd's professional work has been recognized regionally and nationally for its excellence by professional organizations including the International Council of Communication Design (ICOGRADA) and the American Institute of Graphic Arts (AIGA), Columbus Society of Communication Arts (CSCA) and Connecticut Art Director's Club (CADC).

Brad Tober / Publicis Media / Boston University

Brad Tober is a designer, educator, and researcher whose work explores the potential of emerging code-based and interactive visual communication technologies, with the objective of identifying and investigating their relationships to design practice and pedagogy. His practice-oriented research is characterized by a speculative approach to meta-design, reflecting a shift in the role of professional practitioners from executing processes for finalized creative output to directly engaging with the development of tools facilitating the creative processes of others. Tober holds an M.Des. from York University, Toronto, a B.F.A. in graphic design from the Savannah College of Art and Design, and a B.A. in mathematics from the University at Buffalo. He has held full-time teaching positions at Boston University and the University of Illinois at Urbana-Champaign, and is currently an Associate Director of Experience Design at Publicis Media (part of the Publicis Groupe).

MODE FEST JUDGES

We gratefully acknowledge the following individuals for serving as judges for MODE Fest 2019.

Greg Araya

Kate Noel

Jessica Barness

Brian Oakes

Anne Berry

Kimmie Parker

Dina Beylis

Doug Thomas

Clarke Blackham

Edward Ramsay-Morin

Gregg Brokaw

Shawn Randall

Richard Borge

Alberto Rigau

Jordan Bruner

R. Brian Stone

Caitlin Cadieux

Nico Speziali

Zach Christy

Laura Yilmaz

Colin Elliot

Aaron Ganci

Tim Howe

Tracy Miller-Robbins

Aoife Mooney



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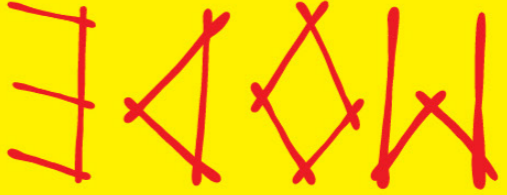
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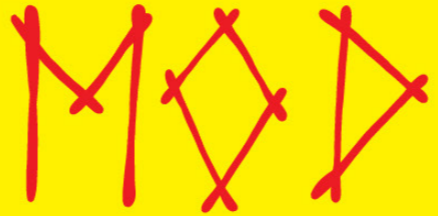


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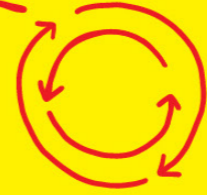


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