

Wuon-Gean Ho

Research Associate
Centre for Fine Print Research
University of the West of England, UK
Wuon-Gean.Ho@uwe.ac.uk

Film article

Three Observations on Filming Tactility and Movement in Crafts-based Practice

A Preliminary Investigation

ABSTRACT

This film makes three observations on the filming of tactility and movement in order to adequately convey tacit knowledge in embodied ways. The author, Wuon-Gean Ho, studied the craft of traditional woodblock printmaking in Japan, and demonstrates planning, carving and printing of a woodblock print. The first observation is that an alteration of the time-base of the film and subsequent manipulation of the soundscape can provide embodied affects. Secondly the film refers to the effect of mirror-touch-synaesthesia with close macro shots and intimate angles. Thirdly, the use of a birds' eye point of view, with the hands of the artist in the same anatomical position as the viewers' hands, enables the gaze of the viewer to mimic that of the maker, conveying haptic knowledge through poetic means. The voiceover to the film is made with deliberate reference to ASMR videos that engender a sense of intimacy. The non-objectivity of the recording process is commented upon. The conclusion is that constructed scenarios might convey more than real-time truthful indexical footage.

Keywords:

Tactility, Affect, Time-Based Media, Mokuhanga, ASMR

INTRODUCTION

This film makes three observations on the filming of tactility and movement in order to adequately convey tacit knowledge in embodied ways. I studied the craft of traditional woodblock printmaking in Japan and use this technique in the film to research tacit knowledge in relief printmaking processes. My main research question was “How can movement in printmaking be captured and conveyed to others through the specific medium of film?”

Secondary questions were very specific: what can film show that the distanced observer cannot see? To what extent can the camera angle be a privileged one? Can the camera be extremely intimate and focused, and collapse the distance between viewer and viewed? Can constructed scenarios convey more than real time truthful indexical footage?

“Three Observations” is a video essay which comments on the making of a film project which focuses on conveying tacit knowledge in Japanese woodblock printmaking (figure 1). Both video essay and film project are made from a personal and private perspective as a Japanese woodblock printmaking practitioner. The film project is still underway.



FIGURE 1. “Three Observations” is a video essay which comments on the making of a film project which focuses on conveying tacit knowledge in Japanese woodblock printmaking. **To watch the video, click the picture**

CONTEXT

When I talk about tacit knowledge, I’m referring to unconscious gestures, habits and unspoken movements, in other words, knowledge which is “inarticulate or unarticulated, lies at the heart of all cultural life, and is exercised in dull and repetitive activities that constitute the heart of daily existence”(Mukerji, 2014). These movements are often taken for granted, but, if not fully explained to others, will sometimes lead to a failure of mastering specific crafts processes, such as printmaking, or knife sharpening (Wood et al., 2009).

The context for capturing tacit knowledge in traditional printmaking processes is three-fold. As people with traditional knowledge get older and pass away, and industrial processes become more widely used (Carrozzino et al., 2015) the practical know-how of performing some manual tasks is becoming available to less people. Currently the increasing use of digital media is adversely affecting the manual dexterity of preschool learners (Nobusako et al., 2020) (John & Renumol, 2018), and traditional makers are increasingly working alongside machines in a collaborative way (Michelangelo Foundation for Creativity and Craftsmanship, 2018), thus, precise gestures and how to accomplish them might require increased guidance for contemporary learners than in previous ages. Finally, finding a way of capturing gestures that conveys adequate, embodied information to learners could be applied to other fields such as other crafts activities, in sports, or in the medical industries (Jeanne et al., 2017).

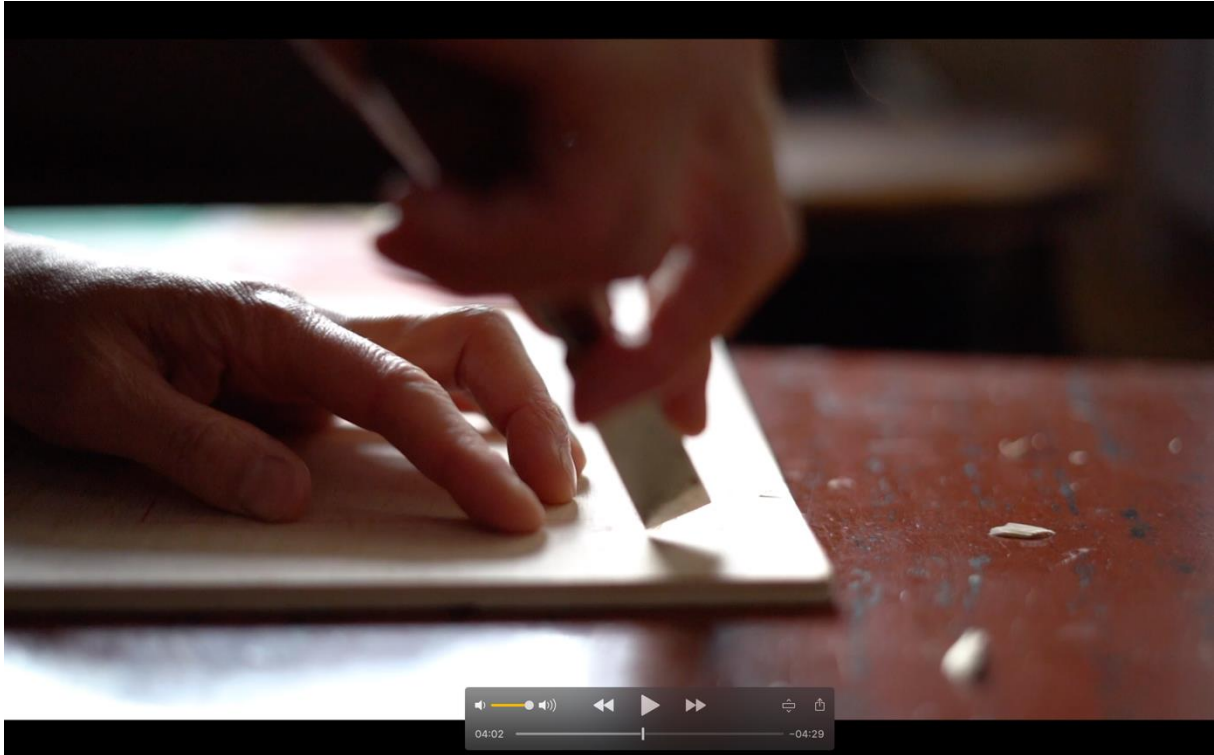


FIGURE 2. Still frame from “Three Observations” at 4:02

PRACTICAL APPROACH

Methodology

Taking a practice-led methodology, as defined by R. Lyle Skains in *Creative Practice as Research: Discourse on Methodology* (Skains, 2018), I occupy the dual role of researcher and subject, filming the production of a Japanese woodblock print through traditional means, and then deconstructing my actions, processes and gestures in close examination and representation of the footage in the editing process.

Susan Kozel writes in the *Routledge Companion to Research in the Arts*, “It is not that the doing is the practice, and the mode of reflection is the theory. Both are reflective practice and, taken together, both make up research” (Biggs, 2010, p.208). The methodology that I have chosen also includes a practice-based approach, by making an argument for the affective power of time-based media with the creation of a film that aims to explore haptic imagery and immersive worlds.

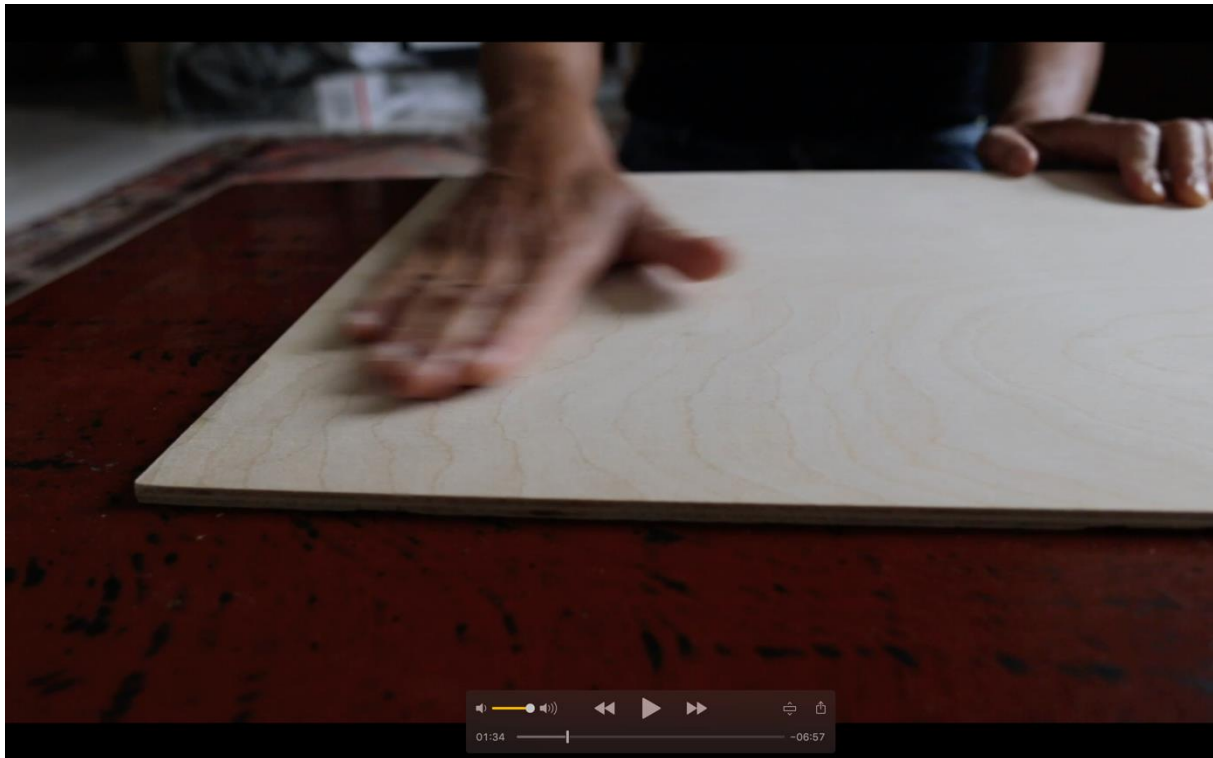


FIGURE 3. Still frame from “Three Observations” at 1:34

Method of Filming

Filming was performed over a two-day period, which included the conception of the print, the drawing of initial sketch, transfer to wood, carving and printing. This wasn't quite enough time to do justice to each step of the process but was a good trial run for experimenting with a broad range of film approaches, which included various methods for conveying embodied touch, rhythm, pressure and speed. I wanted to question the approach of a fixed, remote and stable point of view common in most instructional videos; to experiment with the distance of the camera to action; and consider what it means to create a pleasurable image (Mulvey, 1975).

The film is set in my living room. It shows me as I draw a sketch, decide how many blocks I will need to make to create a woodblock version of the image, transfer the drawing to the wood, carve it, and print it. (See Figure 2)

Approaches to filming included the following

- a) Filming in a variety of lighting conditions and camera angles. Dark conditions allowed for long frame exposures. Bright daylight allowed for the textures of the wood, paper and cloth to be more fully appreciated.
- b) Using two cameras at perpendicular angles allowed to capture two focuses: one to be macro and the second to capture slow motion footage.
- c) A small on-camera microphone was attached to one camera to enhance the sound capture.
- d) A macro lens and close cropping of the hands and tools was chosen in order to tap into mirror-neuron system responses. This is a physiological triggering of parts of the brain responding to the vision of gestures performed on another being (Cardini et al., 2013; Serino et al., 2008). (see Figure 3)
- e) A birds' eye view was adopted to explore effects of embodiment. This point of view is becoming more popular in virtual worlds (see Figure 4)



FIGURE 4. Still frame from “Three Observations” at 00:31 seconds

Method of Editing

At the editing stage, alteration of the time-base of the film was performed in three ways. Firstly, it was slowed to 25%. The resulting images were paired with constructed sound which I created in Premier Pro by slicing and layering sound captured from real time movements in other pieces of footage (see Figure 5) The slow movement, paired with convincing sound, tricks the viewer into believing that they are experiencing a real time gesture, but as the gesture has been slowed down, the subtleties of movement are now more visible.

Secondly, time-base was sped up to 500% in order to see general direction of travel and to eliminate detail and focus on broader body movements. Thirdly, stop-frame animation was created from long-shutter capture of the printing process. This was also hoped to convey the sense of purpose or the general shift of body weight rather than focussing on fine detail. All the resulting effects and affects are yet to be tested on an audience.

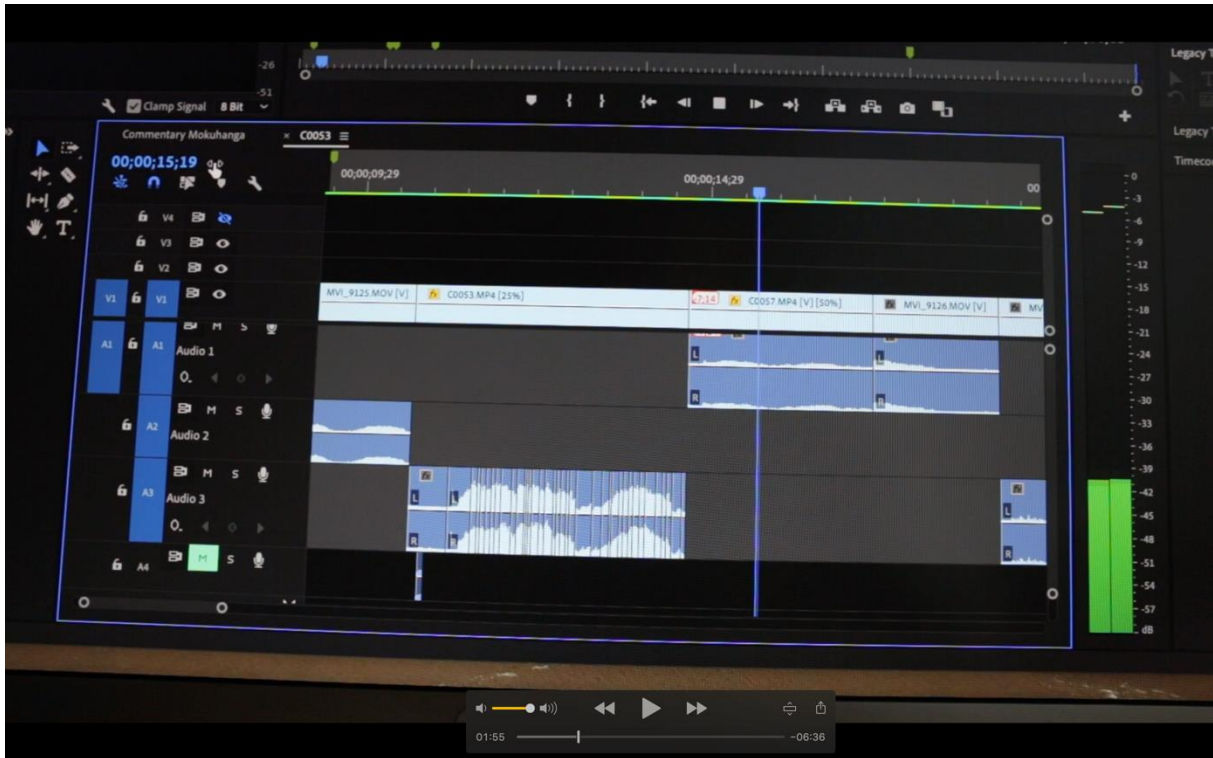


FIGURE 5. Still frame from “Three Observations” at 1:56

Method of Voiceover

While the film might be seen as a useful document of a true experiment, there are many aspects which were carefully curated, and behind the scenes is shown at the end of the film. A comment is made on the intrusive aspect of the camera and the filming set. The film questions its own subjectivity, mocking the seriousness of the narration and approach and reminding the viewer that the film itself is a construction. The explanatory voiceover provides an interpretive layer to the gestures performed. It is also delivered in a deliberately soothing way, and aims to lull the viewer into an affective calm response, in a similar way to ASMR videos.

ASMR refers to the pseudo-scientific term Autonomous Sensory Meridian Response, that describes a film watched online for the sensation of tingling down the head and spine. Triggers depend on personal preferences and include delicate scraping of powder, scratching of fingertips on wood, gentle whispering, popping bubbles, pouring soda into a glass, squeezed out toothpaste and dripping paint (for example StacyAster, 2020).

The full script of the film is at the end of this document.

REFLECTION AND DISCUSSION

On being subject and object

Nicola Wood writes about the use of video in its “rich capture of material” (Wood, 2006) but criticises the limit in the ability to convey tacit knowledge for two reasons: firstly that the presence of the camera and filmmaker themselves is an intrusive force, and secondly that the complexity of tacit skills is often not adequately explained in the video format because experienced practitioners tend to respond to subtle cues such as haptic, auditory, visual prompts which are seamlessly integrated into the performance of the film. Beginner learners are left confused at the seemingly display of skill and virtuosity. In other words, she writes, “Video has a tendency to conceal rather than reveal the practice.” However, she does note that video has the potential to be useful if it were to have an interpretive layer.

This film attempts to provide the counter argument to Wood’s “conceal rather than reveal” criticism. Firstly, filming myself reduces the perceived intrusive nature of the filming process: I can

control where and when I film, and know that the footage will be reviewed and manipulated by myself (see Figure 6). I give myself the power for my material to be censored by myself. I can take more footage with confidence that I do not have to appeal to the patience of an unknown subject. I can review angles and repeat gestures which are not clear, adapting angles and lighting combinations for optimal effect. From having taught technique to others, I am attentive to subtle cues such as the breath, the pressure, speed of movement and the posture of my whole body, and can try to incorporate the showing of these things in the film output.

On the use of time-based media

Use of film as a training tool has been explored extensively in recent years. (Jeanne et al., 2017). Simply viewing motor imagery, even without the chance to perform it practically, does result in enhanced learning (Anwar et al., 2011). More intense experiments directing learners' attention, for example in controlling robotic prosthetics (Parr et al., 2019) has potential for improved uptake of new skills.

Furthermore, at a recent conference entitled *Crafty Robots*, researcher Christian Heath shared his research into the seamless transfer of surgical instruments between surgeon and scrub nurse (Heath, 2020). Heath commented that the use of the video camera is a revolutionary tool, as important to our contemporary age as the microscope was to earlier generations, because of its ability to capture and deconstruct movement. I agree with Heath's sentiments, as the capture of movement has surprised me with the chance to observe myself doing things which I did not know I did. For example, I was not aware of how often I blow on the woodblock to clear it of shavings. I was not aware of how often I tap the tool on the wood to clear it of wood chips. I was not aware of how often I drink tea! These procedures and routines are often demonstrated with in-person learning but are often edited out of instructional videos.



FIGURE 6. Still frame from “Three Observations” at 7:42

The Haptic Image

Laura Mulvey writes about the visual pleasure cinema goes have on the viewing of another body on the screen. She talks of the seductive experience which “allow[s] temporary loss of ego while simultaneously reinforcing the ego. The sense of forgetting the world as the ego has subsequently come to

perceive it (I forgot who I am and where I was) is nostalgically reminiscent of that pre-subjective moment of image recognition”(Mulvey, 1975). In terms of dissolution of sense of self, military training for marksmanship talks of a meditative emotional state that enhances learning (Moore et al., 2014).

In her book, *Touch, Sensuous Theory and Multi-Sensory Media*, Laura Marks talks of the haptic image, which is an image which is deliberately incomplete, with a focus on fine detail, that pushes the viewer to read the image with the body, and to rely on sound cues in order to make sense of what is being shown. Marks explains, “I’ve argued that haptic images have the effect of overwhelming vision and spilling into other sense perceptions. This is in part because they do not provide enough visual information on their own to allow the viewer to apprehend the object, thus making the viewer more dependent on sound and other sense perceptions... haptic images invite a multisensory, intimate, and embodied perception, even when the perceptions to which they appeal are vision and hearing alone” (Marks, 2002 p.133).



FIGURE 7. Still frame from “Three Observations” at 6.25

Enhanced Sound

With a haptic image, such as in figure 7., the viewer’s direction is pushed towards analysis of sound, and the constructed sounds at the beginning of the video explore whether this is convincing enough to create enhanced illusion of tactility (Grassi, 2005) (Radziun & Ehrsson, 2018). As a result, throughout the film I used a very narrow depth of field imagery paired with enhanced sound in order to attempt to generate these types of phenomenological responses in the viewer.

Enhancing the sound places emphasis on “reciprocal affective and emotional relations between bodies, objects, places and ideas” (Doughty et al., 2016: 39). Tiny sounds are suggestive of intimacy, because to be audible in the real world they imply physical proximity. Our affective response to the micro-sound collages arguably results in an embodied sensation, of the dissolving of boundaries between self and the object depicted on the screen. According to Naomi Smith and Anne-Marie Snider, “ASMR highlights the way mundane sounds serve as a mechanism for affective experiences” encompassing “slow and deliberate movements that are meant to invoke the sensation of physical

touch for the viewer” (Smith & Snider, 2019). The absence of a corporeal body, which is co-present with the person experiencing ASMR, provides a sense of control over the affective experience.

CONCLUSION

This was an exploration of film as a medium for conveying touch and tacit knowledge. Making the project as a researcher and subject has benefits for collapsing the traditional distance between observer and observed. I experimented with various strategies for capture and editing of footage to address theories on film’s potential to be instructional, conveyance of movement and haptics, ASMR and neurophysiology. Constructed film, and in particular constructed sound, has the potential to appear unexpectedly realistic, engender phenomenological responses and convey a richer understanding of tacit knowledge. There are still gaps in this study, largely because it was performed over a very short time frame and some capture is missing. However, it is a useful starting point to analyse the effectiveness of various strategies in filming and editing for future research.

TRANSCRIPT OF VOICEOVER

Hello, my name is Wuon-Gean and I'm going to talk to you today about my research question, which is how can film's language be harnessed to create a more immersive sensory expression of tactility and movement?

I will focus my research on traditional water-based woodblock printmaking which I studied in Japan 20 years ago. I explored this question in [the following] three ways.

The first way is in altering the time-base of the film.

Part A is with slowing movement.

Using a slow-motion capture, I then extended the duration of the clip four times to deconstruct the movement, to reveal the intimate, unconscious details of gesture.

The problem with stretching movement is that sound is also stretched too. Here you can see the same movement filmed twice. Once in real time with a macro lens and once with slow motion from the side. I wanted the sound to be extended, but not deepened, so I experimented with cutting the sound into slices and creating an artificial wave that parallels the movement. Even though it is created with software in an artificial construct, it feels intuitively correct.

Part B is with speeding of movement.

When I sped the movement up five times, repetitive gestures appear to trace interesting arcs. You can see the intention of the body and flow of direction. In order to roughly appreciate what is happening, I experimented with real time sounds placed near the action, to give the illusion of smooth movement and believable handling of materials.

Part C is with stop frame animation

I realised that if I take long exposure time lapse photographs, and merge them into a sequence, they would convey the gist of movement, where the body might lean to, where movements have longer duration.

Secondly, I explore harnessing the illusion of mirror-touch synaesthesia. Watching movement triggers unconscious activation in corresponding areas in the brain to the gesture being performed, thus, I chose a camera angle in a direct focus close up of the body, as if the body were reflecting you, as the viewer. Here, the fingers rest on the table, hold tools, draw and carve wood, and you might be able to imagine doing these actions yourself. I aim to have you feel the shift of your weight as you carefully guide a sharp blade through wood, or imagine the sensation of dropping and releasing a colour pencil, what it feels like to pick up an alternative colour. The clatter of the pencil hitting the table is another clue to the movement of your body. And when you touch paper, look how your touch is light, like a dancer on tiptoe, poised at the edge of the stage.

Finally, the bird's eye view, with the hands coming out the bottom of the frame, places the viewer in the artists' body.

These hands are my hands, these gestures are my gestures, they may translate well to immersive worlds, because objectivity is reduced. We are left staring at the fixed plane of the action, and can suspend our disbelief, and appreciate other things instead. The textures and detail of the woodgrain, the interface of skin and tool, the sensations of liquid and glue, and maybe even start to appreciate the pressure and range of movements. The bird's eye view gives the viewer a sense of embodiment.

Here I am, presenting myself as a serious researcher, making a straight-faced investigation into my habits, along the lines of a social anthropologist. I'm taking my movements as indicative of the type of beast the printmaker can be.

This video was deliberately made with ASMR in mind. ASMR or Autonomous Sensory Meridian response is an online trend where softly spoken voices and tiny gestures are recorded, in order for the viewer to experience a sensation of tingling down the back of the head and spine. ASMR taps into the

intensity of tiny, almost unremembered memories, a memory without content. The mundane sounds serve as a mechanism for affective experiences.

The whole filming process took place over two long days and was exhausting: checking the focus on two cameras, dancing between the tripods, ensuring I was in frame, and working around the machines. With the machines' gaze on my unconscious action, I became self-aware, and found myself performing, rather than actually doing. It was a relief in the end to place the cameras in a more modest, spectator role, as if a friend had entered a room, and allow them to be less invasive protagonists.

At the end of the day, the use of a camera allows me to invite you into my space, to watch the creation of a piece of work from start to finish.

Thank you to the University of West of England, Bristol, and the Centre for Fine Print Research.

ACKNOWLEDGEMENTS

Thanks to the Centre for Fine Print Research at the University of the West of England, Bristol, UK.

REFERENCES

- Anwar, M. N., Tomi, N., & Ito, K. (2011). Motor imagery facilitates force field learning. *Brain Research*, 1395, 21–29. <https://doi.org/10.1016/j.brainres.2011.04.030>
- Biggs, M. (2010). *The Routledge Companion to Research in the Arts* (1st ed.). Routledge. <https://doi.org/10.4324/9780203841327>
- Cardini, F., Tajadura-Jiménez, A., Serino, A., & Tsakiris, M. (2013). It feels like it's me: Interpersonal multisensory stimulation enhances visual remapping of touch from other to self. *Journal of Experimental Psychology. Human Perception and Performance*, 39(3), 630–637. <https://doi.org/10.1037/a0031049>
- Grassi, M. (2005). Do we hear size or sound? Balls dropped on plates. *Perception & Psychophysics*, 67(2), 274–284. <https://doi.org/10.3758/BF03206491>
- Heath, C. (2020, October 8). *Blame the Tools: Crafty Robots, Well-behaved Implements and Disobedient Devices | Online Symposium*. <https://soundcloud.com/ccw-research-events/blame-the-tools-online-symposium-8-october-2020-panel-one-risk>
- Jeanne, F., Thouvenin, I., & Lenglet, A. (2017). A study on improving performance in gesture training through visual guidance based on learners' errors. *Proceedings of the 23rd ACM Symposium on Virtual Reality Software and Technology*, 1–10. <https://doi.org/10.1145/3139131.3139144>
- John, S., & Renumol, V. G. (2018). Impact of Fine Motor Skill Development App on Handwriting Performance in Children with Dysgraphia: A Pilot Study. *Proceedings of the 2nd International Conference on Digital Technology in Education*, 11–16. <https://doi.org/10.1145/3284497.3284502>
- Marks, L. (2002). *Touch, Sensuous Theory and Multisensory Media*. University of Minnesota Press.
- Michelangelo Foundation for Creativity and Craftsmanship (2018, October 1.) *Talks@HomoFaber2018. Crafts Thinking* [Video file]. YouTube. <https://www.youtube.com/watch?v=jMpgznKv94Y>
- Moore, L. J., Vine, S. J., Smith, A. N., Smith, S. J., & Wilson, M. R. (2014). Quiet Eye Training Improves Small Arms Maritime Marksmanship. *Military Psychology*, 26(5–6), 355–365. <https://doi.org/10.1037/mil0000039>
- Mukerji, C. (2014). The cultural power of tacit knowledge: Inarticulacy and Bourdieu's habitus. *American Journal of Cultural Sociology*, 2. <https://doi.org/10.1057/ajcs.2014.8>
- Mulvey, L. (1975). *Visual Pleasure and Narrative Cinema*. 16(3), 6-18. <https://doi.org/10.1093/screen/16.3.6>
- Nobusako, S., Tsujimoto, T., Sakai, A., Shuto, T., Furukawa, E., Osumi, M., Nakai, A., Maeda, T., & Morioka, S. (2020). Manual Dexterity is not Related to Media Viewing but is Related to Perceptual Bias in School-Age Children. *Brain Sciences*, 10(2), 100. <https://doi.org/10.3390/brainsci10020100>
- Parr, J. V. V., Vine, S. J., Wilson, M. R., Harrison, N. R., & Wood, G. (2019). Visual attention, EEG alpha power and T7-Fz connectivity are implicated in prosthetic hand control and can be optimized through gaze training. *Journal of NeuroEngineering and Rehabilitation*, 16(1), 1–20. <https://doi.org/10.1186/s12984-019-0524-x>
- Radziun, D., & Ehrsson, H. H. (2018). Auditory cues influence the rubber-hand illusion. *Journal of Experimental Psychology. Human Perception and Performance*, 44(7), 1012–1021. <https://doi.org/10.1037/xhp0000508>
- Serino, A., Pizzoferrato, F., & Làdavas, E. (2008). Viewing a face (especially one's own face) being touched enhances tactile perception on the face. *Psychological Science*, 19(5), 434–438. <https://doi.org/10.1111/j.1467-9280.2008.02105.x>
- Skains, R. L. (2018). Creative Practice as Research: Discourse on Methodology. *Media Practice and Education*, 19(1), 82–97. <https://doi.org/10.1080/14682753.2017.1362175>
- Smith, N., & Snider, A.-M. (2019). ASMR, affect and digitally-mediated intimacy. *Emotion, Space and Society*, 30, 41–48. <https://doi.org/10.1016/j.emospa.2018.11.002>
- StacyAster. (2020, January 26) *Satisfying ASMR To Tingle You Immediately - Fast ASMR No Talking*. [Video file]. YouTube. <https://www.youtube.com/watch?v=sHLvsboM8I4>
- Wood, N., Rust, C., & Horne, G. (2009). A Tacit Understanding: The Designer's Role in Capturing and Passing on

the Skilled Knowledge of Master Craftsmen. *International Journal of Design*, 3(3), 65-78.
<http://ijdesign.org/index.php/IJDesign/article/view/559/275>