

Sonically Transforming Washi Paper

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While undertaking my Master's in Material and Visual Culture in UCL's anthropology department last year, I received a Heinz Wolff Materials Bursary to carry out a project at the University's Institute of Making. My proposal was to explore the properties of Washi paper, a type of handmade paper made in Japan. Washi is made predominantly from the paper mulberry (koko) tree by traditional methods, and has been used for diverse purposes; from raincoats to kimonos, aerial bombs to toilet paper (Barrett 1983). I first became interested in this material through bookbinding, and was struck by its strength and durability as much as its tactility, delicacy, and softness.

My approach was largely influenced by our course literature, in particular the work of Tim Ingold. Ingold has written extensively about his general belief that "making is a correspondence between maker and material" (2013: xi). Plato argued that the soul is the "user" while the subservient body is the "used" (Coleman 1988: 11-12). Ingold takes issue with this dualism which privileges theoretical knowledge over practical application, instead arguing that intentionality and functionality are not pre-existing properties of the user and the used, but rather are imminent in the activity itself, in the general synergy of human being, tool and raw material (2000: 352).

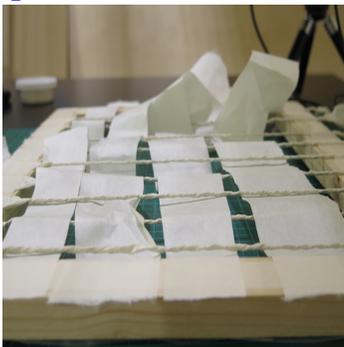
Russian neuroscientist Nikolai Bernstein's argued that "the essence of dexterity lies not in bodily movements themselves, but in the responsiveness of those movements to surrounding conditions that are never the same from one moment to another" (Bernstein 1996). Taking his cue from Bernstein, Ingold elaborates that skill "is a property not of the human body as a biophysical entity, a thing-in-itself, but of the total field of relations constituted by the presence of the organism-person, indissolubly body and mind, in a richly structured environment. This is why the study of skill, in my view, not only benefits from, but demands an ecological approach" (ibid: 353)

It was this emphasis on the environment of making which I wanted to explore in my project, however, initially I found it difficult to conceive of what an ecological approach may entail. At this time I had been thinking about sound as an often undervalued aspect of ethnographic fieldwork, and reading about the relationship of field recordists to the environments in which they work (Lane & Carlyle 2013). I came across a paper by Ana Maria Ochoa where she articulates a theory of sound in which "entities that listen and entities that produce sounds produce each other" (2013: 23). This argument perfectly complements Bernstein and Ingold's theories of skill and dexterity, and I realised that sound would be a fruitful way to explore the complex relational field of making.

Process

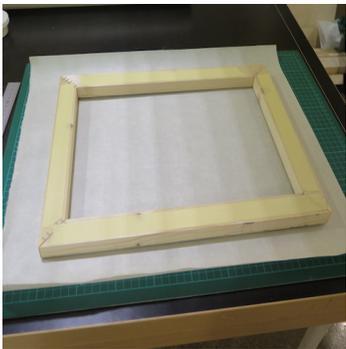
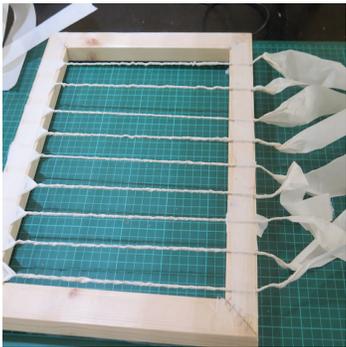
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The approach which I decided to take in order to explore the relationship between making, environment and sound was to use a contact microphone to ‘feed back’ the sound of my movements through headphones while I was in the process of manipulating my chosen material. I chose to use a contact microphone, which is designed to sense audio vibrations through solid objects rather than air vibrations, because it would enable me to really focus in on my movements and their effect on the material. Just as photography enables us to see aspects of the world which cannot be seen with the human eye, listening to the vibrations made by the touch of hands or implements on a solid surface enables us to experience a normally hidden layer of experience.

Because a contact microphone requires a solid base from which to detect vibrations, I decided to manipulate the paper around a rectangular wooden frame, with the contact mic taped to the bottom with masking tape. When stuck to the work surface with blue tac, this ‘anchor’ enabled me to pick up the vibrations from my manipulation of the paper with limited interference from the frame hitting the table. Pulling the paper tightly over the frame and securing it with double sided sticky tape created a taut surface with a drum like effect which amplified the vibrations. I tried many different techniques to transform the flat surface of the paper. They included:

- Burning: using an incense stick to burn small holes.
- Cutting: slicing long slits into the paper with a surgical knife.
- Twisting: attaching strips of paper to the frame with double sided tape, then twisting them into long strings. I could then pull them taut, attach them to the other side with masking tape and make a ‘plucking’ sound.
- Drawing
- Painting
- Writing
- Weaving

It was important for me to foreground the process of exploring materials rather than manipulating them towards a certain end, that of creating a product. Some techniques produced a beautiful final piece, such as the burning technique, while with others I simply ripped the paper off the frame and started again. While the primary aim of the microphone was to be able to listen to the sound of making while I was involved with the process, I also recorded each technique, the results of which were the closest thing to a final product. I also took some photographs and filmed at certain points, all of which contributed to developing a record of the various encounters and experiences.

<http://vimeo.com/116182793>

Findings

Initially I had been interested in listening to making in order to experience an emphasised sense of the rhythm of my movements. André Leroi-Gourhan was concerned with this rhythmic and mnemonic character of technical activity, arguing that “rhythms are...the creators of forms” (1993: 308), set up through continual sensory attunement. The act of making is a “dialogue between the maker and the material employed” (ibid: 306). By using sound, I am emphasising the vocalicity of the material, rather than judging its response through touch or sight. I had thought that, not being especially dextrous at the techniques which I wished to apply, amplifying the texture of that movement would enable me to detect inconsistencies in the same way that the hands and eyes can detect an uneven weave. While in some cases this was true, I think that the experience opened my ears to more than the possibility of increased accuracy.

Techniques such as weaving and twisting require consistency when the aim is to develop a particular form, such as a woven surface or a piece of string. However, if there is no intended outcome a steady rhythm is unnecessary. Other types of transformation such as drawing or painting require a level of inconsistency and improvisation. These alternative approaches suddenly become foregrounded when listening to the sound of your movements. I also discovered an increased awareness of pressure, direction, and speed as well as characteristics of my tools such as heat and sharpness. For example, when using the incense to burn holes in the paper, the tip would gradually wear to a smaller point and cool. This caused it to ‘stick’ to the hole it created and make a ‘popping’ sound when I pulled it out of the paper. In contrast, a freshly lit stick would slip into the paper like butter, making a soft melting sound. Similarly, while a slightly blunt knife would create a violent ripping sound, a new blade would simply slip through the paper. The richness of these diverse characteristics, which have the ability to elicit physical and emotional responses, are often ignored when the aim is to produce a particular resulting form, such as an object.

What I hope this experiment suggests is that sound can be a very thought provoking way of documenting the encounter which takes place between maker and materials. This is especially so when the act of listening takes on a heightened importance in the process of making. What I discovered was that creating and listening to sound sharpened my perception in a way which

enabled me to reflect on the complex balance between different material properties in any action. This may be a result of the primary role usually afforded to sight and touch in such an encounter.

The experience also highlighted an important concern which I would like to explore in more depth. While the recordings documented the encounter between the paper, tools, and my hands, the recording could only take place because of the static wooden frame around which I shaped my manipulations. There is an interesting co-dependence between rigidity and malleability in this relationship, where the frame is an enabler (or container?) of movement and the transformation taking place within.

References

Barrett, T. 1983. Japanese papermaking: traditions, tools, and techniques. New York: Weatherhill.

Bernstein, N. A. 1996. On dexterity and its development. In *Dexterity and its development*, M. Latash and M. T. Turvey (eds.) Mahwah, N. J.: Lawrence Erlbaum Associates, pp. 3-244.

Ingold, T. 2013. *Making: Anthropology, archaeology, art and architecture*. London: Routledge.

Ingold, T. 2000. "Making Culture and Weaving the World." In *Matter, Materiality and Modern Culture*, P. M. Graves-Brown (ed.) London: Routledge, pp. 50-71.

Lane, C. & Carlyle, A. 2013. *In The Field: The Art of Field Recording*. Axminster, Devon: Uniformbooks.

Leroi-Gourhan, A. 1993. *Gesture and Speech*. Cambridge, Massachusetts: MIT Press.

Ochoa, A. M. 2013. *Sound, Modernity, and the Politics of Life in Latin America and the Caribbean*. Hearing Modernity Conference. Harvard University Department of Music, 2013-14.