



Recrafting Waste using a Stitch-Based Methodology: A Collaboration between Makers and Matter

Helen Pailing

Introduction

Over the past 100 years, object-based art has been made to interrogate the relationship between ourselves and the material world. Today, as we enter the age of the Anthropocene, we are more aware of ecological and sustainability issues: hence why we make and what we discard has been brought into focus. The 2019 Making Futures conference was the first place where I shared my recently completed AHRC-funded PhD research, *Recrafting Waste using a Stitch-Based Methodology: A Collaboration between Makers and Matter*. At the core of this study is environmentally and socially conscious art production. It set out to define 'recrafting waste' and examine uses within contemporary art and craft practice for material viewed as waste. Through engagement with others and recrafting materials destined for landfill, I sought to open up a wider discussion about conservation and to create artwork that is a catalyst for changing or reforming behaviour about 'waste', as an 'activate' art strategy (Weintraub 2012). The starting point for the research was glass salvaged from National Glass Centre (NGC), Sunderland. However, my preoccupation with the language and techniques of textiles became entangled with the cast-offs and remnants of glass, and a 'stitch-based methodology' emerged. This paper summarises my findings, with a focus on the new methodology.

My practice

The direct engagement with materials is a simple but important reason for doing my work. I see the creation of artwork as a collaboration between the materials and myself – a haptic dialogue. Anthropologist and writer Tim Ingold describes this meld in his 'art of inquiry', expressed as 'These materials think in us, as we think through them' (Ingold 2013). I 'recraft waste' using my own making skills, whilst also acknowledging that craft can be a creative way of thinking and an attitude for working with others. Like Richard Sennett in *The Craftsman* (Sennett, *The Craftsman* 2008), I argue that making and thinking are part of a unified process. Reusing materials destined for landfill has become my own 'gentle activism' (Corbett 2017) and a way to acknowledge the value of all matter. Through transforming materials deemed by others to have little or no value, I seek to elevate their status and fulfil their performance potential. Having studied contemporary embroidery, I take a lateral approach to the subject, which is underpinned by considering 'stitch' in the broadest sense of that

word. To stitch or to sew is one of the simplest ways of connecting materials. It features across nearly all cultures, places and periods of history and consequently can be a vehicle for showing how we are universally connected. My role as connector of materials, ideas and people is central to this research; therefore, the action of stitching is used both literally and metaphorically throughout. It remains the constant factor, and crucially pulls together what could otherwise be seen as a fragmented narrative of practice.

Stitch-Based Methodology

The desire to visualise my research resulted in the development of my own 'stitch-based methodology' (Figure 1) that I have used as the framework to analyse my practice via four creative investigations. The resulting creative approach to both making and research methodology looks to explore contemporary craft production in an active way, bridging boundaries between fine art, design and applied art. The elementary structure of the stitch design that symbolises this approach – a needle and thread piercing layers of fabric – is used to illustrate how practice, research and theory are interconnected to form the thesis. In keeping with the ethos of the research, the multi-layered stitch design is inspired by Kantha embroidery that sees old, worn and damaged saris stacked together and hand stitched with a simple running stitch. Its simplicity is intended to represent economy of means and material; a fundamental principle that underpins the practice.

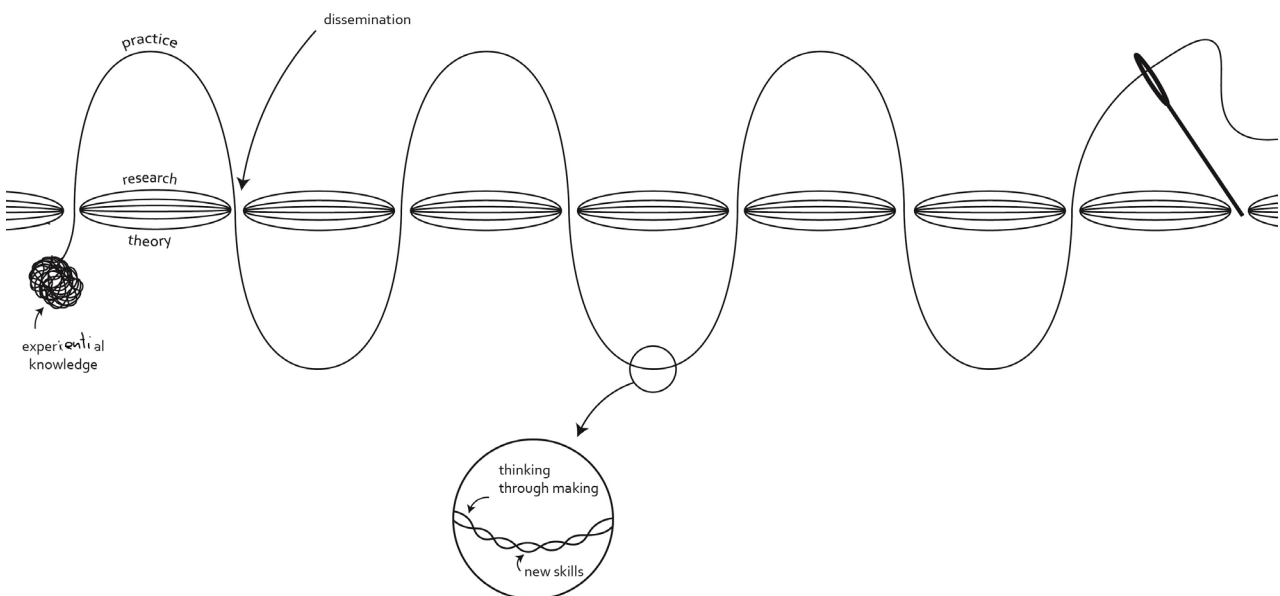


Figure 1

A knot at the start is 'experiential knowledge' and acts like an anchor. The layers of fabric represent the multiple layers of research and theory. The thread running through these layers and holding it together is the practice. The yarn is made out of strands that are plied together and these strands represent the acquisition of new skills and thinking through making. The point where the practice pierces the research and theory, and thus joins everything together, is where new findings are disseminated.

The shape of the research was modified as the work progressed. It became apparent in the early stages that incorporating a 'backstitch' seemed crucial as this feature allows for reflection and analysis (Figure 2). A later version designed as a moving image (view animation via the link here: <https://vimeo.com/251711986>) illustrates how the thread, once stitched, gathers loose fabric together (Figure 3). Here I seek to communicate an idea about collapsing past, present and future so the process is not cyclical and alludes instead to a rhizomatic notion of time as non-linear and always 'in the middle, between things, interbeing, intermezzo' (Deleuze and Guattari 1987).

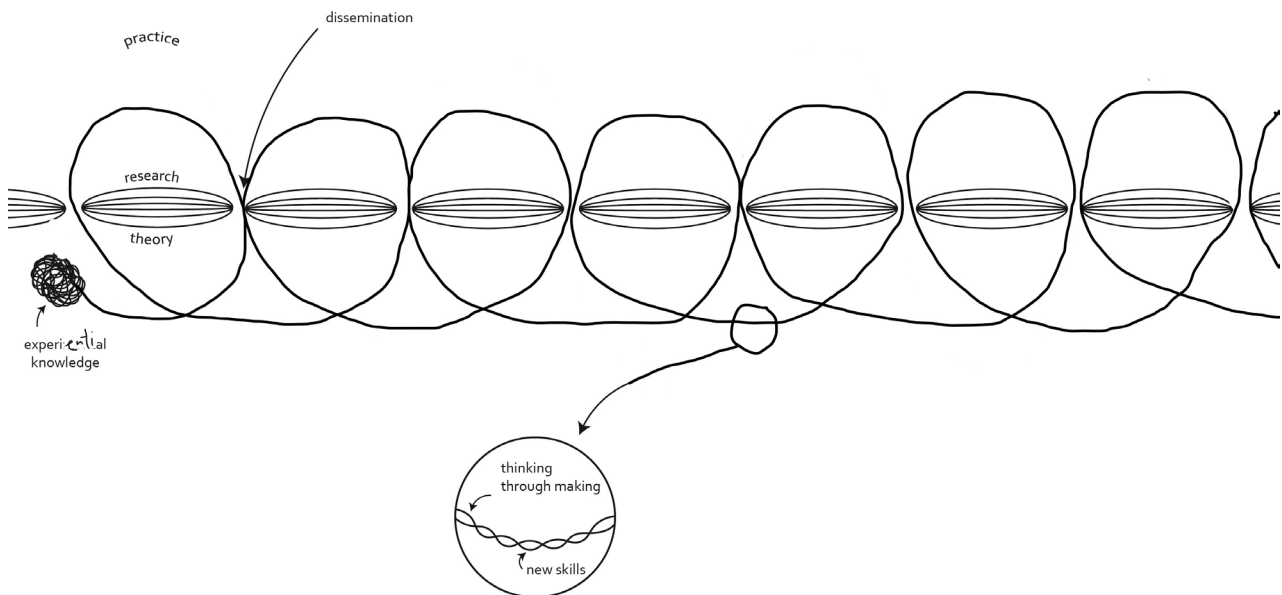


Figure 2

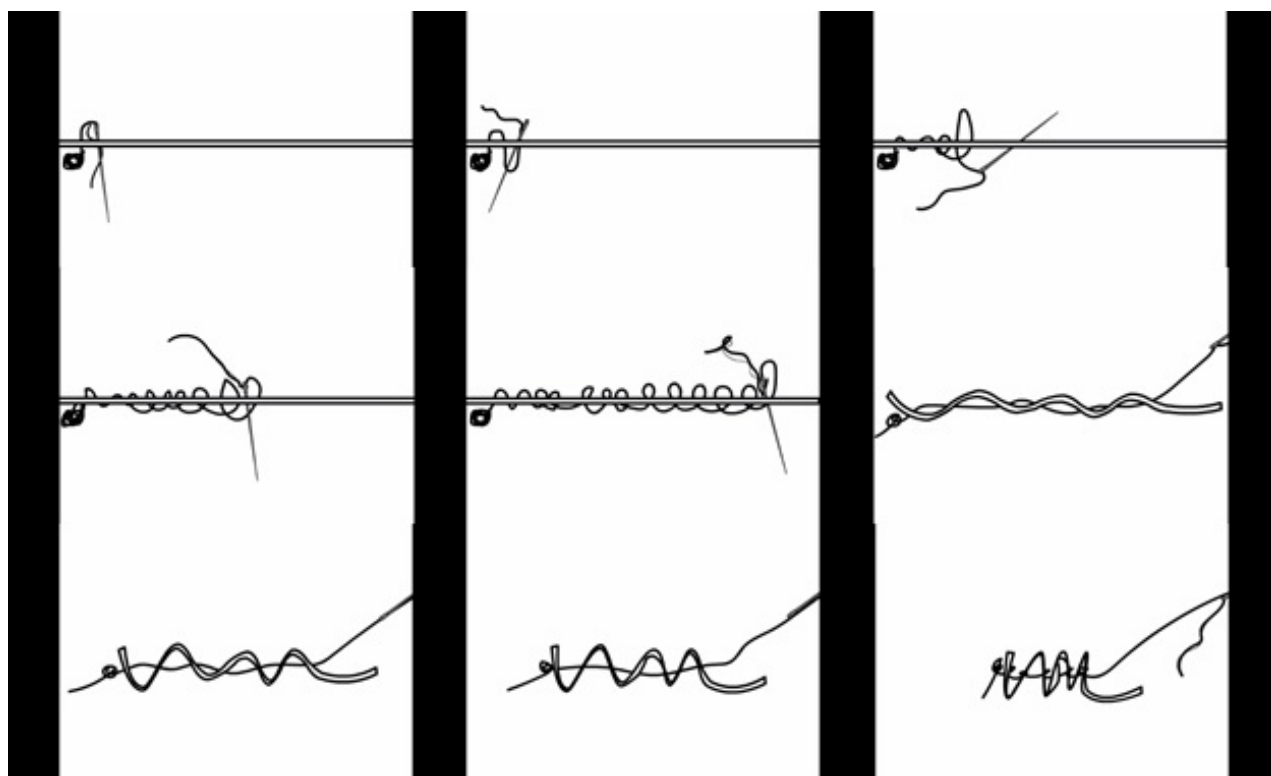


Figure 3

This compression of the theory and the research through the pulling of the practice, combined with the use of discarded materials, could be compared to a gardener making compost. As with composting, I have used the research as a period of time to focus ideas and energy. I have started with remnants, harnessed the valuable nutrients and 'activated' the waste to produce an outcome that has the potential to feed other research.

Here I set out the features of the stitch-based methodology. This framework is applied to all the practice-based investigations exploring 'recrafting waste'. Each investigation emphasises different aspects of the methodology.

- Cast-offs = Discarded Materials
The 'cast-offs' are the waste or crafted waste materials that form the starting point for the new work produced. This element subsequently leads the practice, theory and research.
- Thread = Making x Thinking x New Skills
Thread or yarn is made of up of fibres spun together. The thread is three ply and represents 'thinking through making' spun with 'learning new skills', inextricably linked to the third which is the making of the work or the 'practice'.
- Pierce = Dissemination
When sewing, the needle must pierce through the cloth in order to pass the thread through it. The point at which the plied thread (practice) pierces through the layers of cloth (theory and research) is where ideas are disseminated via an exhibition, artist's talk, presentation or workshop discussion.
- Spool = Engagement

A spool is the vehicle that carries the thread. The practitioner brings their practice to others through engagement at workshops and events. The personal analogy of 'self as stitch' can be used to describe the dialogue with materials.

- Knot = 'Felt difficulty' (Scrivener 2013) in the research
 Experiential knowledge is illustrated as a knot at the start of the research, and it acts as an anchor for the research. However, through the course of the research it is likely that threads will tangle and new knots will appear and upset the flow of the stitching. This results in the research becoming temporarily stuck.
- Backstitch = Analysis and Reflection
 The trajectory is ultimately progressing but is augmented by continuous loops backwards and around. The backstitch illustrates the cyclical nature of the reflection process. It is here that the findings and outcomes from the above features are examined and critically analysed.

Structure as Patchwork

The overall layout of the research can be seen as a patchwork quilt. Drawing upon projects that are included in this research, Jacqueline Anderson, a fellow student, created a diagram to describe its structure (Figure 4). The front of the quilt represents all the artwork I have produced that is exhibited or shown to the public. The reverse of the quilt is where the thinking, making and theory can be found. The edges are the further research and threads that are needed to pull it together.

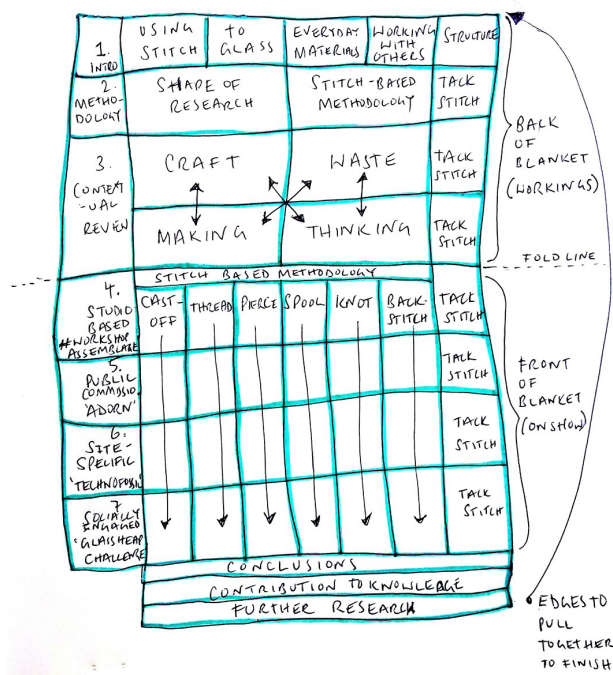


Figure 4

In order to formulate the research, I collated pre-made elements into new assemblages, like patchworking. This idea of dealing with what is to hand is aligned with 'bricolage'

methodology. This method was adopted in the research of artist Mike Collier, who believes 'It is flexible enough to allow a collage of overlapping timeframes to develop, each area of research informing the others in a conversation or dialogue between the reading, writing and studio work that moves back and forward in time allowing ideas to overlap and interconnect' (Collier 2011). Although not described as a bricolage, Dr Katie Collins in a paper addressing the 'Materiality of Research' describes a way of writing that has similarities to Collier's method. She uses the metaphor of quilting to explain how piecing fragments together is a more realistic method of writing and that piecing is also a 'decentred activity' in that it removes the human from a central role in the research:

When quilting, one can plan, cut and stitch many individual squares whenever there is a moment spare, before bringing them together to form the overall pattern, which is flat and in aesthetic terms may have no centre or many centres, and no predetermined start or end. This holds true both for the practice of quilting and how we might think differently about academic writing, with each contribution not a brick in a structured wall but a square ready to stitch onto other squares to make something expected or unexpected, the goal depth and intensity rather than progress (Collins 2016).

Collins uses the 'subversive material' metaphor to talk about how writing is part of life, and she challenges the idea of the solitary scholar. For her, this approach is gendered, 'with metaphors that emphasise the piecing of fragments, both every day and exceptional, we recognise a way of working in which every fragment that can be pieced together into a square is the preservation of a woman's voice' (ibid). What Collier and Collins have in common is an interest in connections rather than separations, and both refer a non-linear approach to academic writing and research. This notion of having no beginning and no end is like the aforementioned rhizome, a root-like subterranean stem seen in plants such as ginger. Based upon the botanical rhizome, Deleuze and Guattari introduced the concept in their book *A Thousand Plateaus*:

As a model for culture, the rhizome resists the organizational structure of the root-tree system which charts causality along chronological lines and looks for the originary and source of 'things' and looks towards the pinnacle or conclusion of those 'things'. A rhizome, on the other hand, ceaselessly establishes connections between semiotic chains, organizations of power, and circumstances relative to the arts, sciences, and social struggles (Deleuze and Guattari 1987)

By considering Deleuze and Guattari, I could see a correlation between this rhizomatic way of thinking and my own research development that was forming out of a sequence of seemingly happenstance events. In reality they were all interconnected, borne out of my engagement with a range of people and projects, coming into play at different points in time.

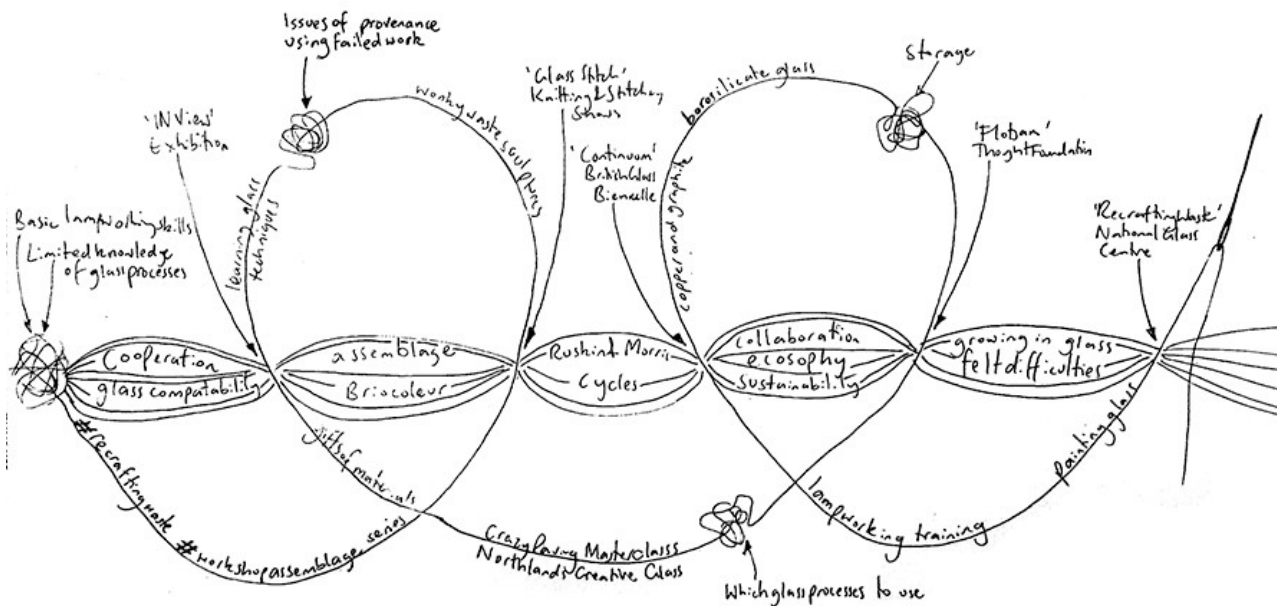


Figure 5

Investigation 1: 'Recrafting Waste' at National Glass Centre

The first investigation I tested the methodology against was 'recrafting waste', using glass work developed at NGC. This investigation exposes two particular elements of the stitch-based methodology: Thread (making x thinking x new skills) plus Knot (felt difficulty). It explores ideas about the workshop as a place for cooperation, collaboration and learning about social relations. The works produced in the early stages of this research encountered issues of failure, glass as the connector and glass processing. The outcomes and 'knots' enabled me to establish the parameters of the research. For example, as my research is rooted in environmentally conscious art production, it seems counter-intuitive to use energy-intensive processes to make artwork. I therefore decided to use flameworking, as it has been identified as one of the more energy-efficient methods of glass making (GAS and Chihuly Garden & Glass 2017). The #workshopassemblage series is a collection of about sixty hand-held sculptural objects. This initial research project became a 'way in' to understanding the making processes of my chosen site, and identifying the waste streams available for recrafting. Tying things together (both literally and metaphorically), drawing on my intuition to compose and arrange multiple elements into new sculptural forms, is at the core of my creative practice. The early items in #workshopassemblage series were assemblages that did not involve processing. The cast-offs were joined together using wire, threads, cable ties and clamps.



Figure 6

Through arranging where and when I could collect secondary material, the staff, students and technicians became aware of my practice and initial research ideas. The acquisition of material required cooperation, as well as a change in habits and routines of the makers, which were adjusted to accommodate my project. Collecting the waste material from each area could be seen as a 'win win' form of exchange (Sennett 2012), in that I was gaining material to work with and at the same time making positive use of the build-up of discarded material. This exchange, and my presence, led to the introduction of clearer signage on the bins around the studio floor. A more altruistic form of exchange occurred when 'gifts' of salvaged materials appeared on my desk, from a range of staff and students.

Collecting the remnants at NGC became a form of collaboration, as the artwork would not be possible without the cast-offs from the other makers' making process. This occurred in a passive way in that I worked with what I reclaimed or was given, but also more explicitly as an opportunity to share the experimental and creative process with another artist who was a resident in the Glass and Ceramics Department at Sunderland, Jenny Purrett. Purrett and I worked together on a three dimensional¹ drawing called *Flotsam* (2017), presented on suspended glass in the *Thoughtful Planet* exhibition at Thought Foundation.

As I became more familiar with the broad range of processes (stained glass leading, lost-wax investment casting, blowing bubbles, frameworking borosilicate rods and tubes, and waterjet machining) and relevant materials, I began to cross-pollinate and connect the glass remnants by utilising this palette of materials: covering glass with wax (Figure 7),

setting glass in plaster, sealing processed garnet abrasive from the waterjet cutter within salvaged borosilicate (Figure 8). This approach creates the space for innovation, where new connections are instigated. For example, copper foiling, traditionally a process using flat pieces of glass to make flat surfaces, was applied to flameworked waste. This led to the creation of the artworks *Catalyst* (2017) (Figure 9) and subsequently *Adorn* (2017).



Figure 7



Figure 8

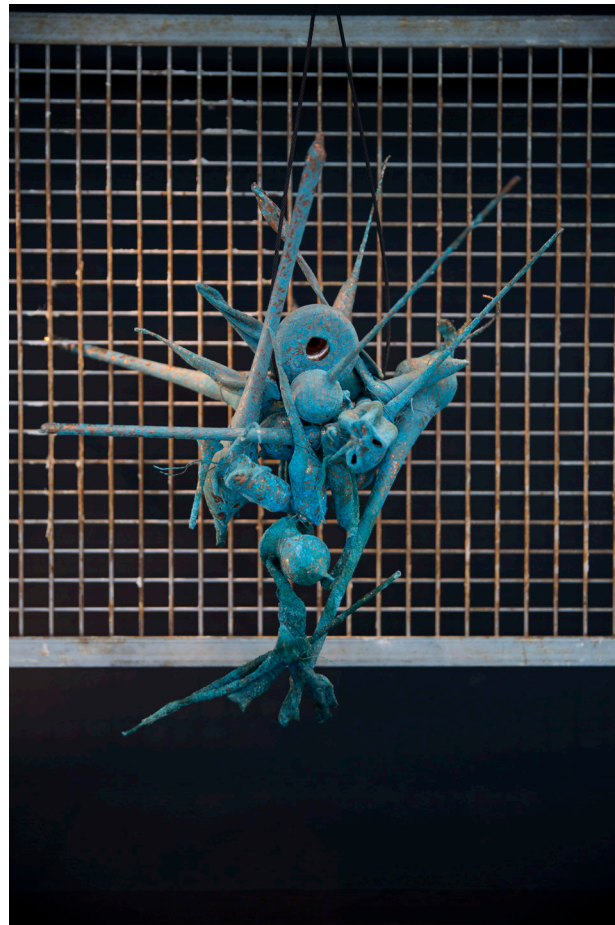


Figure 9

While most glass artists tend to focus on specific processes and areas within the studio, my lateral, non-expert approach captured elements of the practice of glassmaking, which might not be the way a glass artist would typically approach their material. The artworks made within this investigation were exhibited to a textile audience (Knitting & Stitching Show, 2016) and a sculpture audience (Royal Society of Sculptors, 2016), and they were also received positively by glass-oriented audiences. Selected for the British Glass Biennale 2017, *Continuum* (2017) (Figure 10) is a small sculpture made from pieces of salvaged float glass from the waterjet cutter, attached to each other with shirring elastic. The elastic allows the formation to be altered and stretched. The pointed glass elements are reminiscent of wind turbines, suggesting movement, and reflecting the work's title, they refer to the idea of gradual change. Although a paradigm shift is required to stop current levels of damage to the environment, this piece seeks to communicate the idea that action taken at an individual level, no matter how seemingly insignificant, could be a catalyst for changing attitudes towards the value of resources. It might inspire others to work with remnants or act as a reminder to take action.



Figure 10

Beyond these observations on a craft-informed perspective, this investigation also engaged with questions of value, by virtue of the choice of materials as well as the ways in which they were utilised. By reframing what others perceived as rubbish or not good enough to keep, I realised that I was presented with a wealth of waste material to work with, to the point that it was difficult to cope with its volume, and other ethical issues arose surrounding the responsible use of waste.

This initial investigation drew upon my established approaches as a point of departure for the research. It brought me to a point of greater familiarity with a specific material, as well as the processes and people engaged in its creative making. Self-identified as a relative outsider within the glass art context, I utilised another set of skills and concepts, derived from approaches to embroidery, to bring the glass together with other materials. This has been a source of entirely new experiences with material and making, and along the way I developed valuable new skills in the manipulation of glass, which provided a crucial connection to my own approach to stitching things together. I did encounter some difficulties based on these positions. While I describe these knots as problems, working through solutions helped me to resolve choices made in this study relating to the working medium, the working process and the scale of production. When confronted with complexity in this investigation, my response was to scale down and simplify my approach.

Investigation 2: Public Art Commission

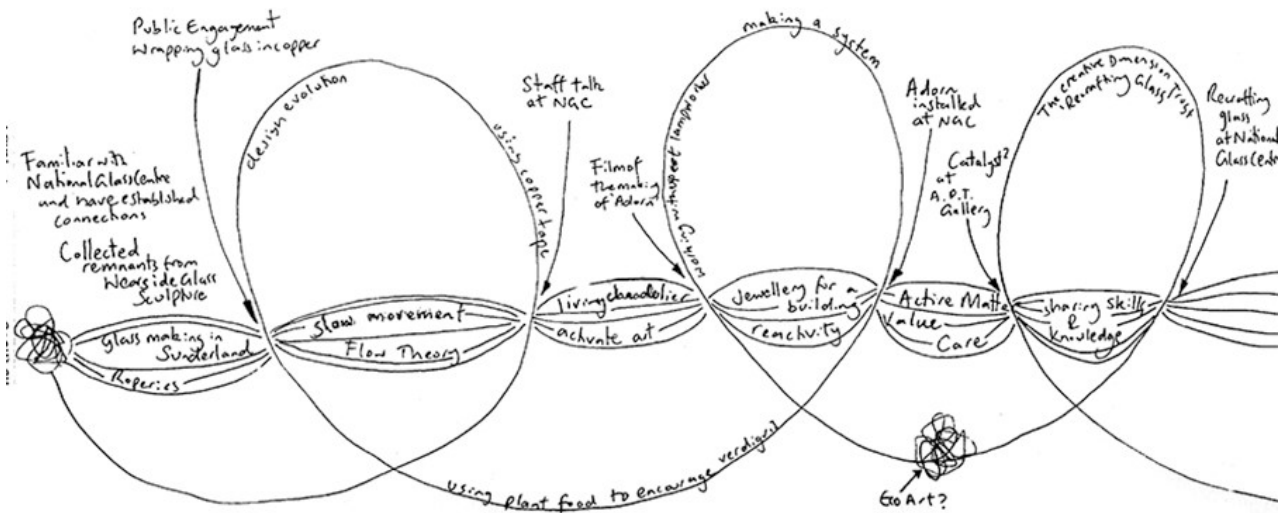


Figure 11

The artwork Adorn (2017) (Figures 12, 13) is a semi-permanent artwork commissioned for NGC, a public building. This second investigation exemplifies 'recrafting waste', with each of the features of the stitch-based methodology being brought into focus in equal measure. NGC has been the initial site of the research, and the Adorn commission enabled me to make a piece that worked towards a more sustainable way of working, given that the main source material, the making, engagement and installation all occurred within the same building.



Figure 12



Figure 13

Adorn was made using nearly one thousand pieces of recrafted remnants of borosilicate. The preliminary stage involved sorting through the collected offcuts to find forms that I could modify by attaching a glass hoop with a flameworking torch. The making process in this

work incorporates my attempt to draw making and matter together. Other investigations within this research were conducted in isolation, or in a gallery setting with other artists, or as workshops, whereas this provided a different form of encounter and engagement with the work. Volunteers helped to wrap the glass in copper foil tape at two participatory sessions; one at NGC and the second at my home. Through the act of wrapping the glass remnants in this way, the entire surface of glass is handled for the first time (as it will have been extracted from its body whilst hot). Imbued with a sense of care, whilst applying the tape the participant must rotate the glass in the hands. By re-examining what it is to be human, Ehrenfeld & Hoffman explain that the concept of 'sustainability-as-flourishing' depends upon recovering what makes humans unique, namely the capacity to care:

Care reflects a consciousness of our interconnectedness with the world (the web of life) and the historic recognition that well-being depends on acting to keep these relationships satisfied. Caring interpreted this way, is the fundamental foundation to explain human Being – the experience of living (Ehrenfeld and Hoffman 2013). This also relates to Heidegger's idea of thinking as doing: 'The nearest kind of association is not mere perceptual cognition, but, rather a handling, using and taking care of things which has its own kind of knowledge' (Heidegger 1953).



Figure 14

Through the act of recrafting, the waste glass has been transformed from something of perceived low value to a higher value; thus, the status of the glass has been literally and metaphorically elevated. Recrafting waste to make something traditionally seen as a

symbol of luxury and status (because of the high costs of making chandeliers) could be seen as a subversive act that questions elitist systems. Initially marginalised materials have now become the centre of attention, and in recrafting waste I have attempted to empower the materials, giving them a platform to fulfil a greater potential.

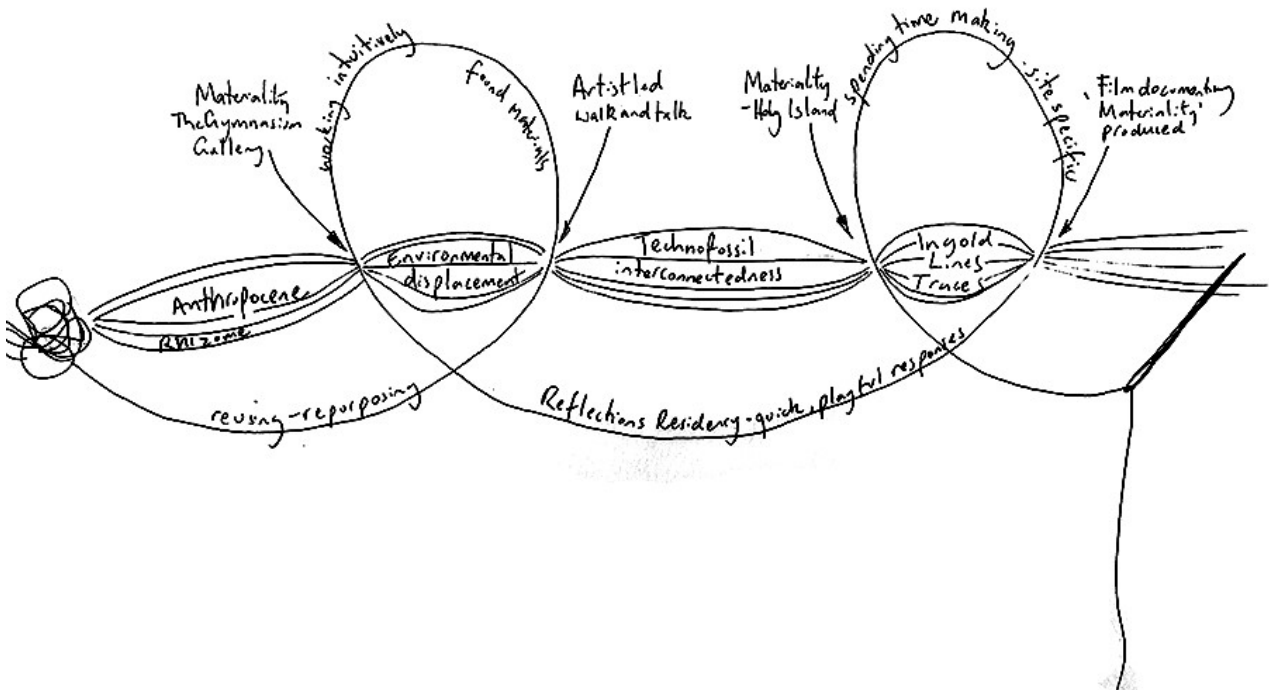


Figure 15

Investigation 3: Site-Specific Installation

The third investigation moves away from the studio-based investigations within NGC and follows the development of artworks for Materiality, two group exhibitions held on the far north east coast of England in 2017. The response to a different site and new challenges for my focus on an economy of means motivated a body of work beyond my initial location, and exposed my processes to a broader use of my stitch-based methodology. Here I describe how the stitch methodology applies to the creation of Technofossil (2017) (Figure 16) made for Materiality – Holy Island, and I focus on Cast-offs (material) plus Thread (making x thinking x new skills).

'Technofossil' is a term used to describe the layer of manmade artefacts that are preserved in the Earth's stratigraphy. Technostratigraphy can help to characterise the deposits of a potential Anthropocene Epoch, and the emergence of this epoch marks a step change in planetary mode (Zalasiewicz, et al. 2014). Through the act of embedding a manmade fibre along the natural ridge of an exposed rock shelf, I sought to mimic a technofossil. I spent a week wrapping stones in salvaged baler twine, and the final piece covered about fifty metres of the cove where it was sited.

After the exhibition week, I carefully cut down and removed each piece of twine, leaving the site as it was when I first arrived. Here Mike Collier describes the work:

Helen Pailing's Technofossil plays with ideas of 'active matter', whilst referencing the very real problem of accumulated waste that increasingly litters the island's shoreline. It is made up of multiple lengths of knotted baler twine embedded along a ledge of rocks at Coves Haven. There is a meditative and reflective element to this work, which uses an economy of means to gently question the relationship between the natural and the manmade in our age of the Anthropocene (Collier 2017).



Figure 16

Coves Haven lent itself to the intervention; my eyes were drawn to the pronounced ridges in the rock that encircle the cove, like the frayed edges of cloth. In *Lines*, Ingold describes how most lines fit into either 'threads or traces' (Ingold 2007) and observes, through watching a knitter, a writer and an embroiderer that, 'the embroiderer... starts with the traces on a surface, as on the page of her pattern book, but in her activity with the needle she translates those traces into threads (ibid). I realised that in selecting the space between the ridges of the rock I had found a natural trace in the land which I could 'thread'. In embedding the wrapped rocks, I was sewing the seam, stitching into the landscape. Inspired by Ingold, stitching myself into a landscape became my way of knowing. I think of the work as a temporary visual statement which references the permanent outcomes of human intervention on the landscape and the careless treatment of the environment. Recognising the use of stitch as an approach in glass in the previous two investigations has helped me to understand my relationship to the environment. Technofossil also channels my broader approach to the use of materials.



Figure 17



Figure 18

Since the start of this research in 2015, there has been a seismic shift in the way that plastics are perceived. In the UK, this has to a large extent been the impact of the BBC's Blue Planet II documentary that saw David Attenborough show the devastating effects of plastic in the world's oceans. There is an urgency to deal with waste and this makes works such as Technofossil even more timely. It is an artwork that draws directly on research into art and the Anthropocene, as the word 'technofossil' has only emerged as a consequence of our impact on the planet. In the final investigation I turn the focus to creative engagement with

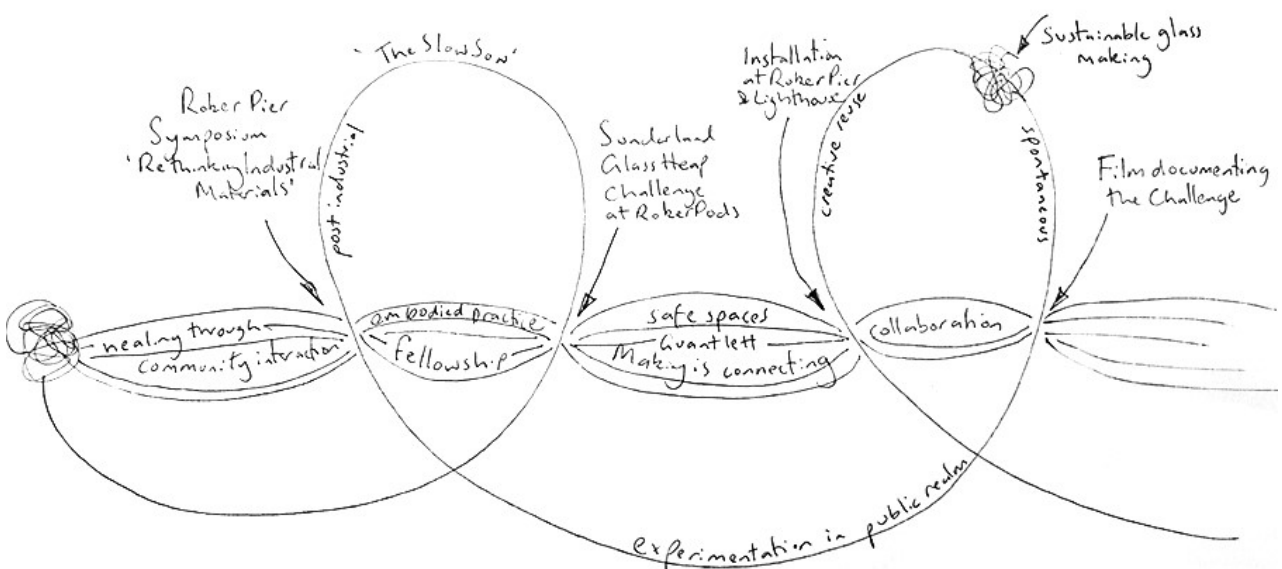


Figure 19

others as a way of considering our behaviour with waste.

Investigation 4: Socially Engaged Practice

Ensuring ideas and intentions resonate with a wide audience is intrinsic to my practice and my approach to creating art. Therefore, dissemination and engagement are integral parts of the methodology. Investigations 1, 2 and 3 illustrate how I applied the stitch-based methodology to create site-specific installations, gallery exhibitions and public art. This section looks at how the methodology has extended beyond my personal work into professional practice as an arts facilitator and project manager. Through devising and delivering workshops and engagement projects I argue that an artist's use of approaches involving 'making' need not be limited to autonomous objects. The Sunderland Glass Heap Challenge is the project used here to illustrate how the methodology was applied, and I focus here on Cast-offs (material) + Pierce (dissemination) plus Spool (engagement). The initiative also brought together aspects of both personal and professional practice. The challenge, originally conceived by artist Matt Durran, was developed in tandem with Roker Pier Symposium: Rethinking Industrial Materials devised by Inge Panneels. My contribution was to create an iteration of the challenge specifically for Sunderland. The Sunderland Glass Heap Challenge was a way to complement the symposium, consolidate my own research and demonstrate how the stitch-based methodology can be applied to a public-facing event.

Five teams were formed, made up of staff, students and industry professionals. Each had salvaged cast-off materials, predominantly from NGC, as the starting point for the challenge. When the challenge concluded, the collection of experimental artworks produced on the day were carried down the beach and installed temporarily in the Roker lighthouse and in the pier tunnel. This unique venue was the ideal space in which to install and photograph the artworks. The lighthouse and pier played a key part in the glass making history of Sunderland. The industry was able to thrive because of the access to raw materials brought by ships along the River Wear (Simpson 2019).



Figure 20



Figure 21



Figure 22

A common definition of craft is to make something using your hands with skill. However, most of my work explores ideas about making in a context of connecting people. Gauntlett recalls John Ruskin and William Morris' ideas about creativity as part of everyday life, noting that they identify a binding force in 'fellowship', something that today we would call community. He argues that in their own ways they were saying that 'making is connecting', which still resonates today (Gauntlett 2011).

The Sunderland Glass Heap Challenge provided a space where others could 'recraft waste' collectively and collaboratively. Matthew Crawford, author of *The Case for Working with Your Hands*, writes that communal activities can evoke relationships between the skilled and apprentice, teacher and student, as: 'a kind of philosophical friendship, the sort that is natural between teacher, students: a community of those who desire to know' (Crawford 2009). This was evident in the Challenge event as it saw current students, graduates, researchers, technicians, lecturers and professional artists from outside of NGC come together to make new, experimental work in the public sphere. The outcome of this project demonstrates the potential for using 'cast-off' materials in engagement projects. It shows that it is less about the materials per se and more about how to approach them. The participants were learning about 'recrafting waste' through the process of material engagement.

Founded on the belief that generosity and sharing of knowledge is better than its being inaccessible or invisible, Piercing (dissemination) and Spooling (engagement) has taken place regularly over the course of the study. This research has enabled others to contribute to my artwork, learn new skills and techniques through workshops and adopt a 'recrafting waste' strategy themselves, through making at the Challenge event and other workshops and courses I devised.

Conclusions

Here I summarise the contributions that my creative investigations have made to my understanding of what it is to 'recraft waste'. I believe that to recraft waste is to reclaim the word 'craft' as strength and power and therefore through recrafting waste, the materials are re-empowered. Importantly this is re-empowering i.e. not claiming that the materials are unempowered to start with (in line with feminist theorists such as Jean Baker Miller, who do not want to flip the power from men to women, but want to show that the women were never the weaker to begin with). Recrafting waste is to be viewed as a form of 'gentle activism' (Corbett 2017) as it brings attention back to the material as valuable and vibrant. It can be a method of raising questions about responsibility for the planet and its resources, and can be a form of gentle protest. As shown by the work Adorn, recrafting waste can also question elitist systems. To recraft waste is to care for all materials, to re-evaluate and rethink value sets. This relates back to the consciousness of care that Ehrenfeld and Hoffman (2013) refer to. Through caring for the rejected materials, an active transfer of energy occurs so that the materials become re-energised. Drawing again upon Gauntlett's rationale for making as connecting, I argue that 'recrafting waste' is a form of connecting, as evidenced through the engagement outcomes and collaborative projects made possible through this research, such as the Glass Heap Challenge. It is possible to 'recraft waste' almost regardless of the type of material, and I see no hierarchy between materials, people and process. 'Recrafting waste' is therefore an approach, a strategy or an attitude rather than something defined by the material that is being used to make art. Finally, using waste glass and waste material in artwork is not a new idea, but 'recrafting waste' is to consider craft within the waste itself.

The evolution of my stitch-based methodology has been a useful aid to monitoring the progress of the research itself. In reality, instead of a neat, sewn line, the shape of the research resembles a mesh, like tangled thread. This version could be applied to Ingold's idea of 'meshwork' as described in his essay *On Human Correspondence*, in which he brings the knot metaphor to the tying together of all living beings: 'I suggest that in a world where things are continually coming into being through processes of growth and movement – that is of life – knotting is the fundamental principle of coherence' (Ingold 2016). I adopted a textiles mentality as a creative approach to recrafting waste glass. In a more general sense, working across the disciplines is perhaps the only way to address our current ecological predicament. One of the skills that an artist can offer is a visual approach. This is asserted by Boehnert who states that 'within the context of an increasingly visual culture, visual communication can facilitate ecological learning' (Boehnert 2018).

Other less explicit ways that I have activated others include discussing and presenting my work in a wide variety of ways and therefore reaching a diverse audience. Being

the catalyst for changing behaviour or attitudes, rather than providing the solution to 'waste' per se, has fulfilled a research objective. Matt Durran has stated that there is so much waste glass in circulation that it is no longer necessary to use raw materials, and he advocates reusing and even reducing the amount of waste through reuse (Durran 2018). Statements such as this help to confirm that 'recrafting waste', whatever the material, is essential if we are serious about reducing the production of waste. Working with remnants is not just about 'making do' but about challenging the notion that we need more. It is difficult to quantify the effect my work has had on the thousands of people who have come into contact with it. But like small, slow solutions, evidenced in models such as Permaculture, seeds might have been sown that change how others approach making and materials, and how they view the planet and its resources.

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