Graphic Glass: Development of creative approaches to expressions of ethnicity

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A thesis submitted in partial fulfilment of the requirements of the University of Sunderland for the degree of Doctor of Philosophy

October 2011

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Jeffrey R Sarmiento - University of Sunderland 2011

Abstract

This study frames and records creative and technical processes behind a body of original glass artworks inspired by ethnic contexts. Foregrounded by my practice as a glass artist and post-colonial experiences as a Filipino-American, the content of the work is rooted in expressions of hybrid ethnicity. Encounters with foreign cultures stimulate the creative process in my work, an approach that is inspired by contemporary art in its various appropriations of ethnographic methods. This is also an important and emerging discourse within the field of glass art. The graphic image in glass offers potentials for using unique qualities of the material to express this content in artworks.

This research aims to identify, develop and demonstrate how the graphic image in glass might be used to express aspects of ethnicity. The methodology consists of subject finding through personal experiences, interpretation of cultural contexts, and their visualisation through developing techniques to fabricate artworks in glass. Three case studies address specific cultural sites as the source of inspiration for glass artworks. A field study in the Baltic States observed Soviet-era architecture and interpreted its social impact. A study of ethnographic artefacts in Sunderland Museum revealed local connections to historical and contemporary Northeast England. The development of a layered plan explores one way of making a commissioned cultural map of Liverpool.

My contribution to knowledge is the interpretation of a multiplicity of perspectives in ethnic contexts, a working method utilising graphic images, layered and encapsulated in unique glass sculptures that convey complex narratives. These are created through a novel combination of screenprinting, waterjet cutting, kilnforming and glass grinding techniques. As a model of practice for meaningful making, this research adds to conceptual discourse and technical innovation in the field of glass art.

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Author Declaration

According to the regulations, I declare that during my registration I was not registered for any other degree. I have not used material in this thesis for any other academic award.

Acknowledgements

I would like to thank the Research Councils UK and the University of Sunderland for awarding me an RCUK Academic Fellowship. This research was also supported by Tyne and Wear Museums and National Museums Liverpool. I wish to specially thank Shauna Gregg, Keeper of Fine and Decorative Arts, who commissioned the artwork for Sunderland Museum and Winter Gardens. Thanks also to Phil and Alexis Redmond, sponsors of the project at Museum of Liverpool.

For the *Liverpool Map* project, the Bullseye Glass Co. Research and Education team provided technical support. In particular, I wish to thank Ted Sawyer, Tom Jacobs and Jim Weiler for their generosity in troubleshooting my glass projects.

I am grateful for the years of guidance from my Director of Studies, Professor Kevin Petrie, and my co-supervisor Dr Andrew Livingstone. Professor Peter Davies deserves my gratitude for motivating me to begin this research.

I would like to thank the Museum Ethnographers Group and the Glass Art Society for allowing me to present at their Annual Conferences and to engage in their dialogue. Special thanks to my colleagues Inge Panneels, with whom I collaborated on the *Liverpool Map* commission, and Dr Anna Vesele, with whom I worked closely during my pilot project in the Baltic States.

I dedicate this thesis to my parents, who always wanted me to be a doctor. Finally, I wish to thank my wife Bettina Nissen, without whose support on all fronts I would never have completed this work.

Chapter 1 – Introduction

This chapter introduces the research and describes the conceptual underpinnings of my creative practice: its origins as an autobiographical expression of post-colonial ethnicity, its development into a notion of constructed ethnicity, and beyond into 'ethnographic' explorations of foreign ethnic contexts. Informed by contemporary art discourse, the practice is situated within the field of glass art. The properties of glass in combination with the graphic image, and making processes to achieve these effects play a key role in the visual qualities of resulting artworks. This backdrop offers opportunities for development for which a research aim is articulated. An overview of the methodology shows the approach taken in the practice. A statement of the research aim, its objectives, and a brief summary map the contents of the written thesis.

1.1 Overview of research context

Glass, a versatile material for artists, can be shaped in cold, warm and molten states, through grinding, casting and blowing. By finishing surfaces through polishing, transparency in glass offers optical effects that many other materials cannot. Glass was also an early substrate for photography, and various photographic and printing techniques can be used to print an image on a glass surface. By combining printing techniques with a range of glass working processes, it is possible to place graphic images, defined here as text, pattern and halftone pictures, on or even within the glass. The encapsulated image in glass is a growing tendency in the material-specific field of glass art. This literal integration of form and content serves as a ready nexus for juxtaposed and complex narratives.

As a glass artist, I work within a field in which the refinement of techniques creates a formal vocabulary that informs the possibilities of expression. Artists using glass explore personal narratives, fantasy, and histories, among other subjects. My expressions of personal ethnic heritage with contemporary experiences in places both familiar and foreign, developed through the use of glass as the main material, place me within this context.

Prominent examples of ethnic expressions exist within contemporary glass art practice. However, a well-developed, on-going discourse involving ethnic contexts can be found within contemporary art. Instead of responding exclusively to physical space, artists have turned to cultural discourse as a specific 'site' for making artworks (Kwon 2004). Post-colonial cultural debate, appropriations of and inspirations from ethnographic fieldwork, museum practice, and cultural mapping are aspects of this area in contemporary art. This context informs my understanding of how an artist might approach expressing ethnicity.

This combined context—material, discourse, and practice—presented an opportunity to explore ethnic contexts as well as glass techniques. In this research, I have developed my glass art practice through an approach combining experiences in ethnic contexts, the conceptual discourse of contemporary art, and the creative use of glass making processes. Practical elements of this research refine and make explicit the combination of screenprinting and kilnforming processes to incorporate the graphic image in glass artworks. The research also reflects on the conceptual development of my creative practice, which is focused on the expression of ethnicity. Contemporary art is influential in its discourse on ethnic expressions, cultural critique, and appropriations of ethnographic approaches. This context informs a methodology for developing a glass art practice that is inspired by ethnic contexts. This approach might inform other glass artists who want to articulate both meaning and making in their work.

1.2 Locating ethnic contexts in my practice

My experiences as a Filipino-American in various cultural contexts are expressed in glass artworks that combine the image and sculptural forms. Ethnicity is the specific aspect of cultural identity I deal with in my work. With its root *ethnos* meaning 'people or nation', ethnicity refers to one's specific cultural origins. Jenkins (1997 p.9) defines ethnicity as one's identification with a group of people with the "belief shared by its members that they are of common descent." Jenkins adds that ethnicity is also cultural, collective and individual, and to some extent variable and manipulable (ibid). I can trace this extended definition of ethnicity through a creative practice that spans several bodies of artworks created in the past decade. My earliest works visualise aspects of an autobiographical statement that exposes my Filipino-American ethnicity. They can be

viewed as expressions of a post-colonial experience. A living experience in Denmark put a fixed inheritance of my ethnicity to the test, and artworks made during this time were inspired by a notion of constructed ethnicity. This evolved into a project that I carried out in Denmark over the course of a year, aspects of which might be considered an 'ethnographic' approach to exploring and expressing ethnicity. This in turn has inspired the approaches taken to exploring other ethnic contexts in this research. Through an engagement with material processes in each body of work, I utilised the properties of glass to express my changing conceptions of ethnicity.

1.2.1 Exposing my post-colonial ethnicity

This autobiographical statement recalls my personal experience of ethnicity and describes early artworks inspired by the attempt to expose and reverse negative attitudes toward my upbringing. By reflecting critically on the biography and artworks, what might be considered a post-colonial experience emerges.

Although I had not yet lived anywhere but in the United States, immigration played a significant role in both my personal life and my work as a glass artist. For much of my life, I was embarrassed by my Filipino heritage. I was born in the United States to immigrant parents. They were the first to leave their village in northern Luzon, finding careers in medicine and citizenship in America. Unable to speak any Filipino dialect, I was raised to be an English-speaking American at home, where we maintained a traditionally Filipino lifestyle. Our household consisted of my parents, four grandparents, six children and a constantly changing cast of newly arrived immigrant aunts, uncles, cousins and family friends. I clearly identified myself as American. This immigrant lifestyle was comfortable in our mixed urban neighbourhood in Chicago. But our move to its western suburbs revealed my Filipino-ness in the surrounding white American community. My feeling toward my ethnicity was shame. When I would leave house, the telling signs of my ethnicity—the odour of native cooking on my clothes and a lurking accent in my otherwise perfect English—remained on my person, as did the indelible colour of my skin. Fearing rejection as a teenager, I shunned social interaction with other Filipino Americans.

One could point to racism in the white American suburbs the cause of tension, but that would be far too simple an explanation. My struggle for identity could be considered the

product of complex international power relations, with the personal ethnic dynamic set in motion by immigration. As a second-generation Asian immigrant, a cultural 'home' does not exist. In the community, we were all considered foreigners. And within the household, it was we, the American-born children, who were critical of their parents' conspicuous foreign accents, habits, appearances and attitudes. This conflicting state of self-identification with and against one's ancestral culture is reflected in the writing of Franz Fanon, whose work exposed the racist, negative definitions placed upon him. By unconsciously internalizing the values of the colonizers of Martinique, his identity was preconceived by himself and others as "a phobogenic object, a stimulus to anxiety" (Fanon 1986 p.151). His writing is an intellectual and political resistance to dominant narratives.

Even within established ethnic groups, communities and families, the definition of ethnicity is unstable. This generation gap and internal conflict over ethnicity widens with differences in language and the lived experience, as recalled by Espiritu (1996):

> *I would argue that in the immigrant population, people are able to draw on their knowledge of an alternative way of life or their social ties to 'home'. So when they talk about ethnicity, it is very experiential, it is something very much lived. Whereas for the second generation, ethnicity is largely cognitive in the sense that when you ask people about ethnicity, they will say, 'Well I read this wonderful book about Filipino American history,' or 'I went to a talk and learned about Filipino American history.' So they really don't have a sense of talking about being Filipino in the sense that the parents do. So when the parents talk about ethnicity, they say, 'Our children know nothing about Filipino culture.' And the children say, 'Well, you never taught me, you never sat down and taught me the language.'*

My early artworks were a deliberate attempt to expose negative perceptions of my ethnicity. Using glass as a material that reflects, distorts, blurs and focuses, I exposed my Filipino roots as a rich source of content, image and form. I recalled my personal and family history, drew from folklore and mythology, and analysed indigenous handmade objects that Filipino immigrants commonly use to decorate their homes in America. By confronting ethnicity through artwork, I transformed my shame into pride. I found a new way to see myself as a product of immigration, to express myself as a Filipino-American, and to make a connection to the community I once rejected. For example, *Natives* (Figure 1) uses a glass sphere as a lens to interrupt an old family snapshot of my Filipino immigrant family with a historical image of Filipino 'savages'.

Figure 1 Jeffrey Sarmiento, *Natives*, 2002. Enamelled and kilnformed glass with hot-formed sphere. 21x13x8 cm

The immigrant experience that inspired this body of artworks could be considered post-colonial. Whilst colonialism "involves the settlement of people in a foreign place, a practice of imperialism" (McLeod 2000 p.9), the post-colonial indicates an awareness of the history of imperial conquest as well as resistance, exchange and integration. Post-colonial critics illuminate the flexible and multiple nature of ethnicity against single and fixed definitions. To be Asian-American evokes the double identification that references the effect of inscriptive historic power relations on one's self perception and the perception of others. In this hybrid location, Bhabha (1994 p.89) finds that "the depersonalized, dislocated colonial subject can become an incalculable object, quite literally difficult to place."

Figure 2 Jeffrey Sarmiento, *Triple Self Portrait*, 2007. Printed and fused glass. 30x21x3 cm

In asserting my Asian-American ethnicity, I revealed the problem of post-colonial history and its continued influence on my identity and perception. This complexity was visualised in *Triple Self Portrait* (Figure 2). From one perspective, the work registers as a single, vaguely Asian-American face, with the black and white halftone image

suggesting a vintage photograph. The image, however, was composed from three separate portraits of my grandfather, my father and myself, each screenprinted to glass, cut into strips, laid on edge and fused. When viewed from various angles, the portrait is dissolved and resolved. It is equally my own portrait and the portrait of three generations, each having different experiences of what it means to be Asian-American. If one could consider ethnicity as a proportion between Asian and American, each man in this self-portrait might define his experience as more of one than the other. Using the transparency of glass and the dimensionality of the deconstructed graphic image on the glass surface, *Triple Self-Portrait* strikes a balance whilst provoking more questions about identity. For example, the work is in the format of a standard facial portrait, but it is debatable whom it is meant to identify.

This generational view, developed over history and contingent upon context follows the immigrant experience as described by Radharkrishan (2003, p.121):

> *The narrative of ethnicity in the United States might run like this. During the initial phase immigrants suppress ethnicity in the name of pragmatism and opportunism. To be successful in the New World, they must actively assimilate and therefore hide their distinct ethnicity… In the call for total revolution that follows, immigrants reassert ethnicity in all its autonomy. The third phase seeks the hyphenated integration of ethnic identity with national identity under conditions that do not privilege the 'national' at the expense of the 'ethnic'.*

This viewpoint is a challenge to 'Orientalism', the key problem in post-colonial studies. It is both the study of the 'non-West' and the framework of power relations that manipulates ways of seeing the world. This relationship has been a centre of contemporary post-colonial debate. The distinction between the West and the Oriental 'other' is constructed through a dichotomy of opposites. An underlying cause for the misreading and negative assumptions is what Said (1978) calls a 'textual' relationship of the West to the Orient. Beyond the history of colonialism, Said (1978 p.201) extends the argument of textualization into learning and cultural production:

> *My principle assumptions were and continue to be that fields of learning, as much as the works of even the most eccentric artist, are constrained and acted upon by society, by cultural traditions, by worldly circumstance, and by stabilizing influences like schools, libraries and government; moreover that both learned and imaginative writing are never free but are limited in their imagery, assumptions and intentions; and finally that the advance made by a science like orientalism in its academic form are less subjectively true than we often like to think.*

Viewed in opposition to the West, the Orient is interpreted as exotic, feminine, depraved, and illogical. This view is perpetuated by a fixed, written record, a process of inscription that denies that the Orient continues to develop and change over time. The contradiction of a fixed, 'oriental' objectification with the living Asian-American subject reveals the limits of the Orientalist fiction.

1.2.2 Constructing my ethnicity

The flexibility of Asian-American ethnicity, visualised in *Triple Self Portrait*, exists within the falsely perceived unified ethnic group. Lowe (2003 p.136) refers to Asian-American identity as heterogeneous, hybrid, and multiple. She proposes, "Cultural identities come from somewhere, have histories. But, like everything which is historical, they undergo constant transformation. Far from being externally fixed in some essentialized past, they are subject to the continuous play of history, culture and power." Being a Filipino-American is not an identity with a fixed meaning, but a hybrid identity, manipulable and variable, and subject to change dependent on context.

Being a foreigner within my home country exposed a Filipino cultural inheritance. However, an experience of life as a foreigner in Denmark stretched my understanding of ethnicity beyond bloodlines. A summer of living in Copenhagen greatly influenced my art practice. Continued over several travels back to Denmark between 2001 and 2004, the experience inspired not only a new body of artworks, but also a new artistic strategy based on the exploration of foreign ethnic contexts. Whilst in Denmark I found a new depth of foreignness and lack of familiarity. I ate pickled herring, tried to decipher maps I couldn't read and attempted to function in a society whose unwritten rules and customs I struggled to unravel. My desire to return to Denmark for a longer term led me to attempt assimilation and integration into Danish culture. I trained for this through language learning (teaching myself Danish from a book called *Teach Yourself Danish*), studying and participating in Danish daily life; and through glassblowing (a skill I used for my own artwork) for hire and for integrating myself into the Danish craft community.

Figure 3 Jeffrey Sarmiento, *I Lige Måde,* 2002, Blown and cast glass, sandblasted text. 36x23x8 cm

My life as a foreigner in a new cultural context extended my perspective: “I saw ethnicity not just as something inherited, but rather as something I could construct, develop, and even invent” (Sarmiento 2007 p.50). The attempt to learn Danish inspired new artworks, such as *I Lige Måde* (Figure 3). Made in a studio on the site of an old American glass factory, the work makes reference to production and repetition in its form, created by blowing into cast iron industrial moulds. The sandblasted Danish text translates in English to a commonplace courteous reply, ‘same to you’. Danish written language, however, does not link well phonetically with its pronunciation. My repeated attempts to manoeuvre my mouth into saying these words were recorded in glass castings of my own tongue. The glass tongues were embedded whilst the bottle forms were still in a hot state, creating a mouth-like cavity on the vessel surface.

The form of the tongue, conceived as a tool for language, was used again in *Map/Tongue* (Figure 4). This work records the first time I was instructed on how to get from one location to another in Copenhagen, the advice being told to me entirely in Danish. One element of the work is a map, sandblasted and enamelled on a piece of white glass. Red details outline sections, magnified in the six clear cast glass tongues. The polished glass surface reveals the details, etched to the bottom surface of the tongues. *Map/Tongue* is a metaphor for exploration and navigation of Danish culture, with details being revealed to me with my growing familiarity in the language, and consequently the ability to blend in more easily. An attempt to 'become' Danish inspired my idea of a flexible, constructed ethnicity, recorded in autobiographical artworks.

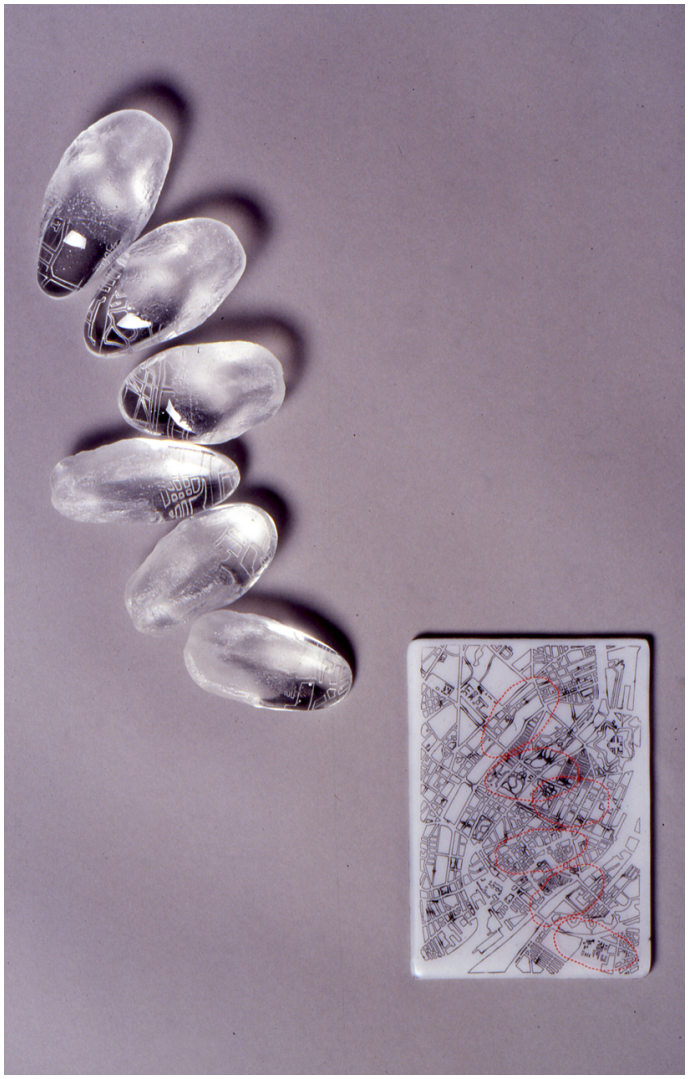


Figure 4 Jeffrey Sarmiento, *Map/Tongue,* 2003. Enamelled and fused glass with sandblasted cast glass. 45x36x1 cm

1.2.3 An 'Ethnographic' exploration of ethnicity

My interests in Danish language, culture, and glass culminated in a Fulbright Grant for international study and research from 2003-4. Its proposal was to use folktale, craft practice, and the glass art community as a window through which to understand Danish culture, and to produce new artworks informed by the experience. The project was centred in Ebeltoft, a 700 year-old harbour town on the mainland of Denmark, a place so isolated that local folklore facetiously describes the backwardness of its inhabitants. Ebeltoft is additionally a centre for glass art, home to an international glass museum, a community of glass artists, and the pioneer of Danish glass art, Finn Lynggaard. For one year, I was embedded in the Danish glass community serving as Lynggaard's apprentice, working in various studios and participating in Danish glass conferences.

Figure 5 Jeffrey Sarmiento, *Flow/Strøm*, 2004. Blown glass, water, Danish text. 2500 x 1200 x 50 cm

Working with them gave me a view into their glassmaking methods, inspirations, and artworks. I learned that Danish glass art is inspired by the landscape (sea and sky are common themes and a source for colour schemes) and is strongly influenced by Scandinavian modern design and glass vessel production. Many prominent glass artists in Denmark pursue the vessel form as a sculptural practice. By using glass techniques I learned there, I produced new artworks inspired by language learning and regional folktales. *Flow/Strøm* (Figure 5) combined a word play in Danish text, read through

large spheres of blown glass filled with water (a source of inspiration for many Danish glass artists). The glass spheres were made using the *flaskepost,* a Scandinavian technique used to prepare hot glass for mould blowing.

Unlike the well-known fairy tales of Hans Christian Andersen, the *molbohistorier* are a body of regional folktales of foolish acts committed by the Molbos, as the local people were called. *Benene (Legs)*(Figure 6) was based on a folktale in which Danish villagers foolishly fail to recognize their own legs after they have been caught in a knot (Toggerbo 1998 p.34). A foreign man, called over to aid them, beats the legs with a cane, quickly resolving the issue. The irony of this tale, as it pokes fun at the stupidity of mainland Danes, is that Danish people wrote it. In the artwork, the legs are portrayed as doll parts wearing shoes shaped like wooden clogs. Etched onto each leg is a segment of the source story, suggesting that the viewer, if permitted to unscramble the legs, might be able to read this Molbo story from start to finish.

Figure 6 Jeffrey Sarmiento, *Benene*, 2003. Cast and sandblasted glass. Dimensions variable

As my fluency in Danish increased, my capacity for reading developed beyond comprehension into interpretation. This evolution is evident in the content expressed in *Invasion Paranoia Map* (Figure 7). The work is inspired by the story *Kirkeklokken*, in which the Molbos prepare for certain invasion by 'hiding' their prized church bell by rowing out into the middle of the bay and dropping it into the water. Having marked the side of the boat from which they cast off the bell, they return to shore, confident they

would find it again once the war is over. Through the pastoral image of Ebeltoft etched into the roughly gridded glass surface, one can see figures brandishing guns, knives, and arrows emerging from the negative space of the cast blocks. This 'map' refers not only to the story but also to the history of Denmark having been threatened by invasion during the World Wars.

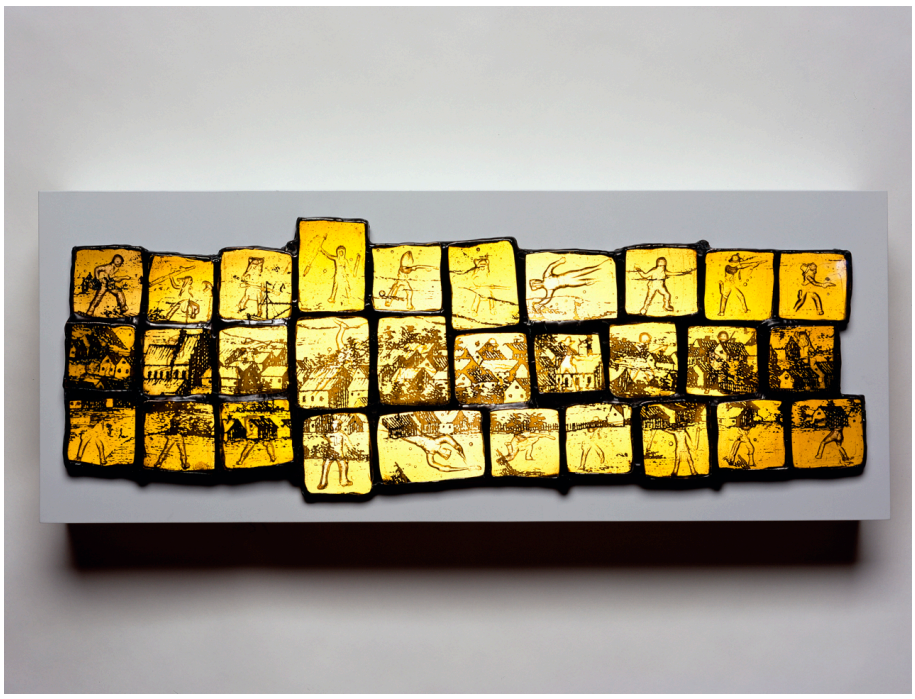


Figure 7 Jeffrey Sarmiento, *Invasion Paranoia Map*, 2005. Cast and enamelled glass with light box. 70x30x15 cm

The cultural history, identity, and politics in the work's content prompted one art critic to ask, "Is Jeffrey Sarmiento the first postcolonial glass artist? It's possible. With his Filipino heritage, he is dealing with marauding and invading cultures encountering indigenous peoples, even within Europe" (Kangas 2005 p.61). Shifting from a purely autobiographical perspective in foreign places, this body of work was inspired by an exploration in an ethnic context through language learning, integration into daily life within a community, and, using skills learned on site, interpreting observations through the development of artworks visualising aspects of culture. This strategy for working loosely resembles the first-hand experience of participant observation used more formally in ethnography, "a form of investigation using field research to provide a study of culture" (Putnam and Tufnell 2009 p.25). Ethnographic approaches include participant observation, interviews, focus groups and reflexive practice, the

acknowledgement and awareness that a researcher in the field is a social actor within his or her context (Hammersley and Atkinson 2007). This exploration of ethnicity is informed by a discourse within contemporary artist practice that is inspired by ethnography. Positioned as cultural critique, ethnography has been appropriated, interpreted, and parodied as a way of achieving site specificity. Instead of a physical place, cultural sites form the context in my artwork.

My relocation to Northeast England set in motion the projects that comprise this research. A new ethnic context (and opportunities to work in others) provided subject matter from which to generate artworks. My own methods of observation and cultural interpretation within these contexts prompted me to look deeper into the connections between ethnography and contemporary art practice. New possibilities in printed, cut and kilnformed glass extended my material knowledge and the range of visual possibilities combining the graphic image and glass, this development most clearly seen in the title artwork to my 2007 solo exhibition *Encyclopaedia* (Figure 28). The technical and conceptual use material, discourse, and practice crystallized into a project in which the phenomenological and practical aspects could be refined and reflected upon.

1.3 Research Aim

The artworks and their inspirations presented in this chapter trace the creative development of an 'autobiography' in an ethnic context. I have framed my subject matter as an expression of ethnicity, whether inherited or constructed. The artworks are examples of how the graphic image and object can be combined using images and text on the surfaces and interiors of blown and solid glass. Beyond the formal aspects, the juxtaposition of images within the glass form provides a stage for the interplay of personal narratives, cultural history, immigration, migration, and language.

Ethnicity has also been explored through explorations of cultural contexts. In my recent artwork, printed graphics on glass sheets are fused together into solid forms. Through the polished surfaces, the transparency of glass allows multiple layers of images to be viewed simultaneously. Working in new cultural contexts, creating new artwork, and

reflecting on my practice present the opportunity to examine both meaning and making in developing, designing and fabricating my glass artworks. The aim of the research is:

- To identify subjects, develop interpretations, and fabricate artworks, demonstrating how the graphic image in glass might be used to express aspects of ethnicity.

1.4 Overview of research methodology

Factual investigation, creative transformation, and material manipulation form a strategy for the making of artworks inspired by ethnic contexts. To accomplish my aim, methods include reviewing literature about contemporary art practice and identifying its relationship to ethnography, using case studies in ethnic contexts, refining techniques to make graphic glass artworks, and reflecting through writing on how the artworks demonstrate expressions of ethnicity. A multiplicity of perspectives was used to create cultural interpretations inspired by three specific ethnic contexts: observing architecture in the Baltic States, locating historical and contemporary contexts in a Sunderland ethnography collection, and creating a layered concept for a cultural map of Liverpool. Techniques for the encapsulation of the graphic image in kilnformed glass, including screenprinting, waterjet cutting, fusing and polishing, were combined to create original artworks. A methodology of identification, development and fabrication was used to create glass artworks.

1.4.1 Identification: subject finding in ethnic contexts

In the making of my artwork, glass is an essential material that is worked and refined into a finished product. I consider my subject to be an equally essential ‘material’. The subject informs an interpretation of culture (what might be considered the work’s content) and inspires my making. My observations extend beyond the spatial and geographical into the personal and cultural. In this research, subject finding was used in the three chosen ethnic contexts.

• Personal experience in a foreign context provides an observation of culture. In a new place, I encounter spaces, people, and things. Some of this takes place as participant observation within a community. The autobiographical aspect of this approach is a focus on my own recollection of sights and events. Approaches to recording this experience include taking notes, drawing and photography.

• By observing material culture, the live experience is replaced by artefacts and their descriptions and histories. The observation of ethnographic objects considers more than ethnic origins but also the multiple geographical and historical contexts of the past and present in which they exist.
• Symbolic representations, such as the map or folktale, are cultural 'texts' that provide a reading of a place.
The search is being made with the intent that language, stories, objects, spaces, and maps, might come to embody larger aspects of the ethnic contexts. It is my goal to extract aspects of ethnicity from an analysis of the experience.

1.4.2 Developing interpretations of ethnic contexts

In attempting to attribute meaning to my encounters, multiple voices and perspectives help to provide an interpretation. They include my own personal perspective (and its post-colonial cultural bias), theoretical constructs (such as the concept of object biography and a dialectic theory of material culture), interactions and dialogue with people within ethnic contexts, and the narratives inscribed through written histories.

One aspect of interpretation in ethnic contexts is translation. Bhabha (1994 p.325) constructs a reading of cultural translation that focuses on difference and foreignness (the untranslatable) as a site for 'newness,' or hybridity. The untranslatable might also be understood as multiple and possibly contradicting accounts and narratives. Interpretation of ethnic contexts is more than a search for origins, but rather the making of connections between disparate cultures, from the past into the present. Recognizing that there are aspects of foreignness that prevent a perfect conversion of experience, my intent of translation is to use metaphor to create a lens through which to comprehend observations. According to Benjamin, "In the same way a translation, instead of resembling the meaning of the original, must lovingly and in detail incorporate the original's mode of signification, thus making both the original and the translation recognizable as fragments of a greater language, just as fragments are part of vessel" (Benjamin 1999 p.79). A biographical approach, in which personal, cultural, historical, and contemporary perspectives comprise a meaningful and layered study of cultural context (Fischer 1986) parallels the glass artworks created in this study, in which the graphic image is layered within glass to complicate ways of seeing.

1.4.3 Fabrication: visualisation in graphic glass

Layered narratives are expressed in visual metaphor by considering material possibilities, a fusion of graphics in glass. Travelling within ethnic contexts and working with collections and maps provide visual sources of graphics, such as writing, drawings, photographs, signage, labels, and symbols. The encapsulation of complex narratives and multiple perspectives is accomplished through the use of the printed graphic image, embedded in solid glass sculptural objects. A blending of techniques—a crossing of photography, drawing, print, kilnformed glass, and computer-aided drafting—is utilized in the fabrication of the artworks.

1.5 Research objectives

Based on the research aim and methodology, the following objectives have been identified:

- To describe a context for the research by surveying contemporary ethnographic techniques, contemporary art's appropriation of ethnography, glass art practice, and glass making methods.
- As an artist working within specific ethnic contexts, to use approaches in case studies for subject finding such as personal encounters, working with material culture, and symbolic representations.
- Using a multiplicity of perspectives within the case studies, to interpret encounters with ethnic contexts, revealing complex, layered narratives.
- To fabricate artwork by developing a technique-driven process for the encapsulation of layered printed text and image fused within glass sculptures.
- To reflect on how the artworks express aspects of ethnicity.

1.6 Summary of thesis

This approach to glass art was used to create expressions of ethnicity based on three specific cultural contexts: Baltic States Architecture, Sunderland Museum Collection, and the Liverpool Cultural Map. A reflection on the research articulated in this thesis contributes to the conceptual discourse and technical dialogue in the field of glass art. This thesis is divided into six chapters that address research objectives, and a brief summary is as follows:

• **Chapter 1** introduces the context to the research, describes my glass art practice, and defines a rationale to provide aims, methodology, and objectives.

• **Chapter 2** is a contextual overview of literature on contemporary ethnographic approaches, precedents in contemporary art, and glass art practice, establishing conceptual and practical points of departure.

In the following three chapters, the methodology is applied to three case studies each located in a specific cultural context. Each project in this thesis considered through a description of ethnic context, interpretation, technical process, and reflection.

• **Chapter 3** describes a field study in the Baltic States. This chapter focuses primarily on the objective of subject finding. Using participant observation responding to an encounter with Soviet-era housing, a body of artworks embodies my experience in printed and cut glass architectural silhouettes.

• **Chapter 4** exposes the development of an interpretation of an artefact in Sunderland using a multiplicity of contexts. Reflecting on the concept of object biography, a body of artworks was fabricated in response to ethnographic objects in Sunderland Museum, embedding in glass the objects' relationship to local history and identity.

• **Chapter 5** focuses on the fabrication through print and glass techniques of a large scale public sculpture, *Liverpool Map.* Layered narratives about a local and international sense of place in Liverpool are captured through the encapsulation of the graphic image in glass.

• **Chapter 6**, the conclusion, reflects on the study as a whole. The chapter considers the methodology and the execution of research objectives and aim, states the contribution to knowledge, and outlines possibilities for further research.

Chapter 2 - Contextual Review

This chapter sets the context for graphic glass artworks inspired by ethnic contexts. Ethnography is described through contemporary ethnographic approaches. A survey of examples from contemporary art practice reveals appropriations from, references to, and critiques of ethnography. The review examines how glass has been used in artistic expressions of ethnicity, and how the graphic image has been incorporated into glass artworks. Theoretical and practical aspects are brought into focus, framing the development of creative approaches to graphic glass inspired by ethnicity.

The previous chapter described several bodies of graphic glass artworks. A strategy of working within varied ethnic contexts to develop the subject matter of the artworks can be linked to cultural studies, particularly ethnographic methods. Whilst the artworks themselves are not ethnography and should not be read as such, it is important to consider influential connections and coincidences. Ethnography has made an impact on contemporary art practice; it has been appropriated as a method for achieving 'site specificity', and the works of selected artists has greatly informed and influenced my creative approach. My own readings of culture stimulate the development of visual metaphor in glass, a material used by other artists also working with culture as subject. Methods for making graphic glass are key to how I create my works, and these processes have been developed with the knowledge of a field of practitioners combining the image and glass. This overview of the field of practice provides a relevant context from which to develop approaches in my art practice.

2.1 Contemporary ethnographic approaches

In making artworks about ethnicity, exploring specific ethnic contexts forms the core subject matter behind my creative practice. My activities have included living in foreign countries for both short and extended periods, language learning and communication, participating in subcultural groups, observation of social customs, reading local literature, looking at and collecting artefacts, interpreting cultural representations in and through maps, and visualising my observations through metaphor in artworks. Some of these processes have emerged naturally from events in my life. However, this method of working, including the terminology used to describe it, has been made with the

awareness not only of contemporary art practice but also of methods for studying culture.

In particular, some of my actions resemble ethnography, an approach used in anthropology and cultural geography that is "literally writings about people" (Ekinsmyth and Shurmer-Smith 2002 p.26). Ethnography can be defined as "the scientific description of peoples and cultures with their customs, habits, and mutual differences" (Oxford Dictionaries 2011). Other definitions include "the study and systematic recording of human cultures; also, a descriptive work produced from such research" (Miriam-Webster 2011). Another description emphasises the ethnography as a piece of writing:

> *The classic ethnography by a social anthropologist trained via Malinowski and Levi Strauss would be a work in which the life of a tribe would be encapsulated into a volume, divided very clearly into certain topics: life cycle, economics, land tenure, social organization of the village notables as opposed to the various classes. In the appendix you would put a section of folk tales…the traditional model would be to encode the account so that it is implicit that you have been there, without actually stating it (Rony 1996 p.38).*

Anthropologist James Clifford created an expanded, critically informed definition of ethnography: "Ethnography, seen more generally, is simply diverse ways of thinking and writing about culture from a standpoint of participant observation" (Clifford 1988 p.9). Within these varied descriptions some patterns emerge about ethnographic practice. Ethnography entails the study within specific cultural groups, a phenomenological approach that does not seek generalizations. A multiplicity of (at times contradictory) perspectives provides a rich and complex understanding of a cultural context. Ethnography also refers to a recording or writing, a product of the study. The following particular contemporary ethnographic techniques are relevant to this study.

2.1.1 Participant observation

A defining characteristic of ethnography is that it is conducted within a particular cultural context. Fieldwork generally involves a period during which a researcher is embedded with the chosen group of people in a specific place. The element of participation implies that an understanding of a particular way of life is gained through direct contact with people and place. The ethnographer performs mundane activities,

playing more than a purely observational role in an attempt "to understand the everyday lives of other people from their perspective" (Shurmer-Smith 2002 p.135). The researcher's own experience cannot be extracted from the study; going further, the ethnographer must be prepared to change personal appearances, methods of communication and habits in adaptation to changing conditions in the field: "Participant observation obliges its practitioners to experience at a bodily as well as an intellectual level, the vicissitudes of translation. It requires arduous language learning, some degree of direct involvement and conversation and often a derangement of personal and cultural expectations" (Clifford 1988 p.24). The experience of 'culture shock' is derived from the inherent difference of an unfamiliar setting: "Confrontation of the ethnographer with an alien culture is the methodological and epistemological foundation of the anthropological enterprise" (Hammersley and Atkinson 2007 p.81). Participant observation might also be conducted within more familiar settings by experiencing a cultural context through a reframed perspective.

The in-depth approach of participant observation implies that such fieldwork occurs over longer periods, which may not be feasible. Bennett (2002 p.148) states, "Participant observation is not the method to use for a short term research project." A similar but less deeply involved method could be called a short field project, an example of which is described by Shurmer-Smith (2002 p.162).

2.1.2 Interviews and focus groups

Communication with people is a key aspect of ethnographic practice. In addition to living and working within people groups, asking key questions is a more direct technique of understanding a cultural context. Whereas the interview implies a dialogue between a researcher and an individual from a cultural group, the focus group asks people considered to be a representative sample to respond to questions or participate in discussion. There are varying degrees of formality involved in these techniques, achieving different results: "Interviews in ethnographic research range from spontaneous informal conversations in the course of other activities to formally arranged meetings in bounded settings out of earshot of other people" (Hammersley and Atkinson 2007 p.109).

In participant observation, the ethnographer experiences and observes aspects of a cultural group, interpreting a course of events. In contrast, people being interviewed are aware that they are describing their way of life and beliefs, a conscious and 'artificial' self-representation. The focus group lends itself to projects in which longer fieldwork opportunities are limited: "Focus group work is a good method to use when time is a constraint; hence its evolution through market research" (Bennett 2002 p.151).

Some overlap might be seen to occur amongst these methods, but a combination of techniques can be used to develop a more complex basis from which to make an interpretation: "Done well all methods have their use, but the aim of focus group work and interviews to expose differences, contradictions, and, in short, the complexity of unique experiences" (Bennett 2002 p.151). Ethnography cultivates cultural meanings through the interpretation of a multiplicity of perspectives.

2.1.3 Cultural texts and representations

Beyond speaking to and working with people, ethnographers consider the living environment and physical and written materials elements in a complex mix of sources. These might be referred to as cultural 'texts' from which to form an interpretation of culture: "It has become conventional in the manner of Ricoeur (1978) to extend the term beyond print on paper to apply to anything with a degree of permanence that communicates meaning" (Shurmer-Smith 2002 p.123). A myriad of written texts communicate in official, commercial and casual capacities. People create, consume and collect objects in their daily lives. The functions of these objects range from utilitarian to artistic to ritual; for example an object can be functional as well as a marker for status. One might be able to 'read' things to gain insight into the meanings of everyday activities and personal and public relationships established through the use of objects. This applies also to the built environment and how it affects ways of living and worldview. Hammersley and Atkinson (2007 p.136) state, "We ought to pay serious attention to the material circumstances that constrain social activity, how a sense of place is reflected in individual and collective identities, and how places are used by social actors, just as they use any material and symbolic resources." Human object production and intervention in the physical environment play a powerful role in Miller's

(2010 p.48) ‘dialectical theory of material culture’, in which ‘stuff’ forms a context that in turn shapes human behaviour.

These cultural texts can also be called ‘representations’ because they communicate aspects of culture in a symbolic way. The study of these representations is known as textual analysis, and the study of multiple texts engaging in dialogue within culture can be called discourse analysis. But, as a mediated form of communication, these representations, especially written texts (also called ‘inscriptions’), must be considered as fragments:

> *“Representation is not just a matter of presenting again (re-presentation), it is also about putting a particular view forward in a privileged fashion. All representations contain an element of self-censorship even if they do not contain embellishment. Textual analysis (including landscapes, pictures, and music) is valuable for understanding the processes of representation and the ways in which these act in dialogue with everyday life, but it is difficult to derive any meaning from a text unless one already has some knowledge of the context in which it was produced” (Shurmer-Smith 2002 p.96).*

2.1.4 Reflexive practice

Contemporary ethnography avoids quantitative or scientific approaches, but additionally does not abide by notions of naturalism, an ability to observe phenomena in its unaffected environment (Hammersley and Atkinson 2007 p.5). A person exploring ethnic contexts cannot possibly be omniscient or truly objective. It is important to state the theoretical framework within which one is working, for example whether it is postcolonial, feminist, Marxist, or a combination thereof. This point of view might also include one’s personal background and motivations for doing the research, as it has an effect on the researcher’s process of observation and decision making in the field. Reflexive practice acknowledges the necessary subjectivity of the ethnographer and existence within the studied context having an effect on both the observer and the observed: “Reflexivity is the term to denote this process whereby the researcher considers his/her role in the research process and its findings” (Bennett 2002 p.178).

A critical awareness of one’s personal perspective is important throughout the process, including preconceptions of a cultural context, chosen methods, execution of the study, and the way in which it is documented, analysed and disseminated. In theoretical frameworks such as postmodernism, post-structuralism and deconstruction, ethnography

as a document is considered critically: "…the language used by ethnographers in their writing is not a transparent medium allowing us to see reality through it but rather a construction that draws on many of the rhetorical strategies used by journalists, travel advisers, novelists and others (Hammersley and Atkinson 2007 p.12).

Through these ideas about ethnographic techniques I can see how aspects of my creative practice are derived from cultural studies: "Most of us dabble with different forms of research for different aspects of our work. Often we do this in the name of method triangulation but most of us put our real trust in one forward method which sits easily with our view of the world, seeing other ways of working as enforcement" (Shurmer-Smith 2002 p.97). It is important to state (reflexively) that these techniques bear some resemblance, some of which is incidental and not deliberate, to ways in which I have operated in cultural contexts in the making of my artwork. I do not use these techniques as an expert or professional ethnographer. When I refer to ethnographic techniques in my work, my application is not intended for knowledge production in the social sciences. Rather, ethnographic techniques play a role in my creative methodology for understanding cultural contexts to inform my artworks, which can be considered personal and/or cultural representations.

2.2 Appropriations and adaptations of ethnography in contemporary art

An influential source of inspiration for my creative practice comes from contemporary art. This context bears many connections to the field of glass art, although the links are stronger in conceptual development than material practice. Postmodern contemporary art, and particularly post-colonial art, has clearly been influenced by ethnography among other sciences: "Artists have incorporated the methodologies of anthropologists in idiosyncratic ways, making inventories, carrying out fieldwork, using interviews, and engaging with anthropology's theorizations of cultural difference" (Schneider and Wright 2006 p.3). Contemporary artists have appropriated the techniques of participant observation, interviews, focus groups, working with cultural texts, and reflexive practice. Methods of fieldwork, museum display, and mapping have been adapted as sources of content, context and as visual devices. Whilst these strategies have the potential for expressions of post-colonial ethnicity and cultural critique, the risks of such appropriations include problems of loose (amateur) methodology,

misrepresentation and misinterpretation. The following examples of contemporary art practice show both the potentials and risks of the use of ethnographic methods within contemporary art.

2.2.1 Adaptations of participant observation in contemporary art practice

Working literally in the territory of the ethnographer with indigenous people and subcultures, contemporary artists manipulate fieldwork in creative ways to explore issues of self-identity and post-colonial ethnicity, as well as to critique imperialism through the practice of participant observation. Techniques of documentation figure strongly in the visual outcomes of these works, incorporating aspects of field notes, photography and video. The following examples interpret participant observation in different ways from those who are focusing heavily on the participant aspect, to those who are focusing on the methods of observation.

Lothar Baumgarten and Juan Downey, among other artists, have lived with the Yanomami people of South America as participant observers. Baumgarten has used documentation of his experiences and indigenous texts to challenge colonial sensibilities in his artworks. By adding indigenous texts to photographs and the surfaces of gallery spaces, he exposes displaced native cultures. In *Amazonas-Kosmos* (Figure 8) he superimposed tribal names on a photograph of what appears to be a rainforest landscape to "linguistically make reference to peoples whose cultures, based in nature, have been altered by Western values and practices" (Rorimer 2000 p.35).

Figure 8 Lothar Baumgarten, *Amazonas-Kosmos,* 1969-70. Altered photograph

Baumgarten's 1997 work in the Documenta X art festival takes the form of documentary photography, shown as a photocopy collage pasted directly to the gallery

wall. They appear to represent a draft copy of illustrations for an ethnography textbook, but function instead as a form of politically-themed art installation: “Although his photographs satisfy the empirical demands of anthropologists and represent a broad view of Yanomami life—gardening, canoe making, hunting, drug taking and disputes—their site of display marks them as art” (Schneider and Wright 2006 p.15).

Figure 9 Juan Downey, *Two Yanomamo with CCTV Camera*, 1976. Photograph

In a more explicit interpretation of participant observation, Downey’s *Video Trans America* project (1973-9) depicts his attempt to document indigenous peoples of the American continents. His work prefigured that of reflexive use of photography and video in anthropology practiced by Da Silva (2000, see Section 2.2.2) and Pink (2007) in that he literally turns the camera around, placing the cameras in the hands of the Yanomami (Figure 9). Whilst clearly a take on fieldwork, Schneider (2008 p.180) observes, “Downey’s approach is different from most ethnographic films of this period and earlier…in that he brings the role of the observer into play, or rather plays with the position of the observer…as well as experimenting widely and even wildly with the technical possibilities of video.” He is also experimenting with ways of documenting his participation in Yanomami life. Downey’s video installation, *The Laughing Alligator,* utilizes multiple monitors and effects to record and visualize his and his wife’s experience of making and taking indigenous hallucinogens with the Yanomami. Both Baumgarten and Downey operate as participant observers, but their artworks use the method to expose colonialist attitudes and critique the inscriptive documentation that dominates ethnographic practice.

Artists such as Sophie Calle and Nikki S. Lee manipulate participant observation to explore both ‘real’ and imagined identities, embedding themselves in interpersonal scenarios as a source for their photographic practices. Lee, a Korean-American woman, infiltrates subcultures such as Japanese schoolgirls, retirees, African American hip-hoppers, and rural American trailer park communities (Figure 10). The snapshot documentation, usually of Lee with her subjects in their ‘native’ environment, is displayed as evidence of the fieldwork undertaken. However, the images feature heavily Lee’s transformation into ‘native’ through makeup and costume.

Figure 10 Nikki S Lee, *The Ohio Project,* 1999. Photograph

The constructed narratives of Sophie Calle tread the line between reality and fiction, in which she investigates herself and others. She consciously positions herself in vantage points from which to develop these narratives. In *The Hotel* (Figure 11), she was hired as a chambermaid, and whilst cleaning she “examined the personal belongings of the hotel guests and observed through details lives which remained unknown to (her)” (Calle 1999 p.140). This field study is documented in quasi-ethnographic field notes and photography. Her way of working developed into a collaboration with the author Paul Auster, who used works such as *The Hotel* to shape a fictional ‘Maria’ in his novel *Leviathan*. In a further twist, Calle transforms herself into this character, performing acts from the novel and playing the roles of ethnographic subject, participant, and

observer: “Calle’s use of the ethnographic present tense and also her staging and manipulation of self/other relations draws heavily on the ethnographic model, in which fieldwork is used in order to reconcile theory and practice and to reinforce the basic principles of the participant/observer tradition” (Kuchler 2000 p.95).

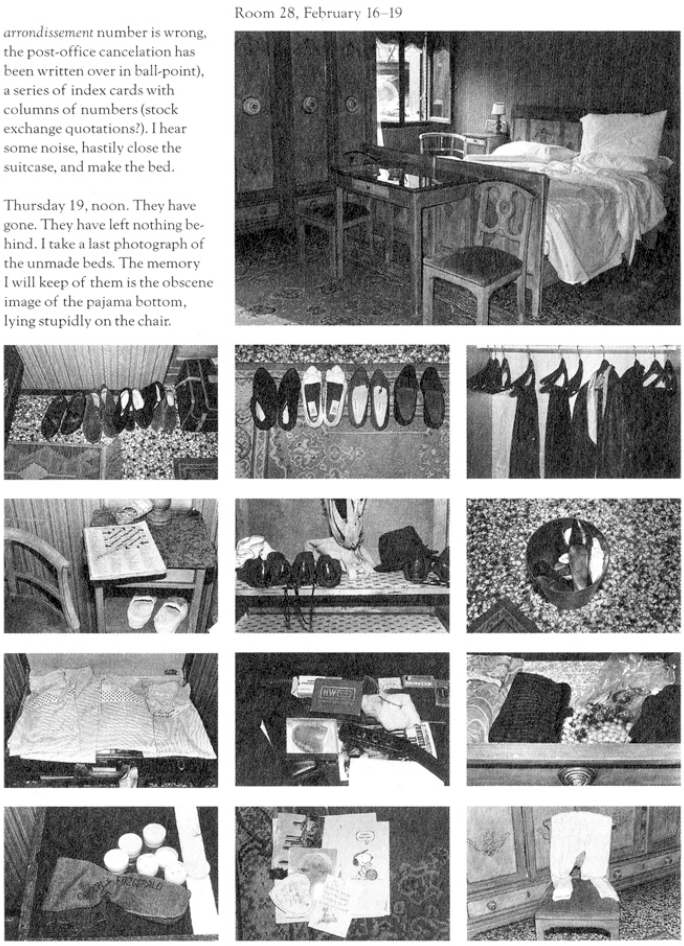


Figure 11 Sophie Calle, *The Hotel: Room 28,* 1981. Text and images

The artistic use of participant observation has been critiqued for the currency and consistency of its method, its motives, and its effects. According to Foster (1996 p.181), ethnography as a strategy is especially appealing to contemporary, post-modern artists: “A new ethnographer envy consumes many artists and critics. If anthropologists wanted to exploit the textual model in cultural interpretation, these artists and critics aspire to fieldwork in which theory and practice seem to be reconciled.” Foster believes this appropriation became popular for the contemporary artist because of its scientific alterity (a state of otherness), focus on culture as its object, inherent context, and the possibility of interdisciplinary work.

These aspects are evident in the fieldwork-based art practices by Lee, Calle and Downey, whose artworks might demonstrate possibilities for creative, visual ethnography. However, their deeply reflexive ethnography-inspired art practices are problematic, because the artists are neither informed, skilled ethnographers, nor objective workers in the field. Furthermore, their products keep the artist within, and sometimes in the centre, of the frame. In Foster's assessment of the 'artist as ethnographer', he warns that "self-othering can flip into self-absorption, in which the project of 'ethnographic self-fashioning' becomes the practice of a narcissistic self-refurbishing" (Foster 1996 p.180). They establish ethnographic 'authority' through personal experience, and the artworks function as self-portraiture. Kwon (2000 p.85) finds this problematic, in that "such work abstracts subcultural communities as fashion tableaux, how it reduces the crisis of identity to a game of costume changes, and, most importantly, how it ultimately *refuses* the other." Kwon uses Lee's work as an extreme example of how ethnographic strategies in art most often excel in visualising the experience, but fail in the recognition of the other by perpetuating, rather than challenging, stereotypes.

Kwon states, "The concept of participant observation encompasses a relay between an empathetic engagement with a particular situation and/or event (experience) and the assessment of its meaning and significance within a broader context (interpretation)" (ibid p.75). The appropriation of participant observation, despite its risks, has been utilised by artists to make personal, political, and ethnic expressions.

2.2.2 Artistic use of interviews and focus groups

The examples of participant observation within contemporary art show how some artistic practice comes from an awareness of ethnographic techniques. In their use of interviews and focus groups, some contemporary artists invoke ethnographic techniques more explicitly to acquire new information they can interpret, and to expand on themes of cultural identity and difference.

An example of the production of knowledge through a combination of anthropological and photographic methods, the photographer Olivia Da Silva utilised "deliberately constructed expressive photography" by working with her interviewees, who chose

backdrops and objects with which they would be depicted (Da Silva and Pink 2004 p.164). In her practice-based PhD research (Da Silva 2000), she used the fishing populations in the UK and Portugal as long-term case studies, illustrating the effect of incorporating new fishing technologies upon individual workers and their communities. The resulting photographs, which reference historical representations in portraiture, were displayed in their local contexts. Working in ethnic contexts, the contemporary artist's specific 'site' can be a literal place (or places), with historical, ethnic, and social layers. Different methods might be used within each layer to gather a more complete understanding of the context. Mohini Chandra's creative practice is a good example of such a multi-sited study using multiple methods. In her practice-based research, Chandra (1999) chose vernacular photographic practice within her ethnic autobiographical context. Motivated to express aspects of the Fiji-Indian diaspora, her works traced her family history through found photographs and video documentary. As a documentary project that also combines "meaning and intersubjectivity to understand the roles of the photographer and the sitter as co-authors of a portrait" (Da Silva 2010), the result is both a creative visual output that also involves a form of interview.

Figure 12 Olivia da Silva, *Pescadores Matosinhos,* 1997. Photograph

Working in ethnic contexts, the contemporary artist's specific 'site' can be a literal place (or places), with historical, ethnic, and social layers. Different methods might be used within each layer to gather a more complete understanding of the context. Mohini Chandra's creative practice is a good example of such a multi-sited study using multiple methods. In her practice-based research, Chandra (1999) chose vernacular photographic

practice within her ethnic autobiographical context. Motivated to express aspects of the Fiji-Indian diaspora, her works traced her family history through found photographs and video documentary. It is possible to consider Chandra and her globally dispersed family as a focus group from whom she collects photographs, video diaries and text. As both 'ethnographer' and subject, *Album Pacifica*, an installation and publication, excludes the fronts of her family photographs in favour of the hand-written text on the back, to 'map' the movement of her family across generations and geography.

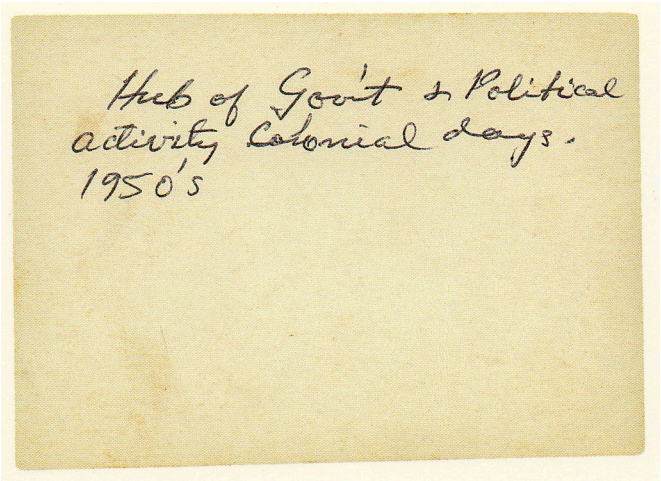


Figure 13 Mohini Chandra, *Album Pacifica*, 2001. Installation and publication

Through the selective display (and concealment) of the image and text, her artwork does not document her specific history but rather demonstrates the multiplicity of the diaspora experience. Edwards (2006 p.156) writes that this artwork and its fieldwork research functions as ethnography:

> *Such work…is not simply an idiosyncratic articulation of fragments of method and concept but a carefully formulated response and translation of research data. In this register, (Chandra's works) function like a contemporary ethnographic monograph, translating and extrapolating general understanding from explicit individual observation and experience through conscious subject positioning of the author.*

This aspect is pushed further in her fieldwork in Fiji, in which her study contrasts government photographic archives with a popular form of studio photography. She interprets that the idyllic backdrops upon which families and couples were photographed (a subaltern expression) work against the official photographic documentation of the essentializing colonial government. Chandra's analysis of Fiji-Indian photographic practice is revisited in text (her PhD thesis) as well as in practice.

To create artworks, Chandra appropriates a vintage photography studio to create new family portraits.

Along with text, the documentary component to artworks using interviews and focus groups might involve photographic and video practice (and the use of the graphic image). The uses of interviews and focus groups can sometimes blur the boundaries between artistic and anthropological practice.

2.2.3 Contemporary art and cultural texts

The definition of a cultural text (see Section 2.1.3) extends to anything that communicates meaning. Artists working with ethnic contexts therefore are interpreting culture through 'reading' what it might communicate, as well as producing visual cultural texts to be interpreted by others. Some contemporary artists simulate cultural texts through performance, whereas others create artworks interpreting the map as a cultural text. Installed physically in institutional or non-art spaces, contemporary art's use of cultural texts and representations are in fact also sited within social issues and cultural discourse. Artworks can thus be multi-sited. Kwon (2004 p.26) traces the genealogy of site-specificity in art from a spatial concern to what she calls 'discursive' site specificity, which focuses on "a field of knowledge, intellectual exchange or cultural debate…generated by the work (often as 'content') and then verified by its convergence with an existing discursive formation." The reception of such artworks is contingent on the preparedness of the target audience, and the power relations between the producer and the cultural context within which the work is sited.

Exploiting their ethnicity as a platform for expression (and the site around which their work is centred), some artists manipulate cultural texts into spectacles that expose political and post-colonial ramifications. According to Schneider (2006 p.48), "Anthropologists have shown many times over how identities are multiple, constructed, and shift with historical context. As there are no 'originals' in art, so there are no fixed ethnic, racial or national categories—but only different claims by these groups and individuals." In *Couple in a Cage* (1993), Coco Fusco and Guillermo Gomez-Peña parody displays of the early 20th Century World's Fair by masquerading as pre-modern savages, presented as a curiosity in various (non-art) public squares in the US and

Europe. The performance was filmed along with reactions by both skeptics and those fooled by the satire, revealing "the racism, or at best the paternalist condescension, of spectacles which offered up mute, exoticized specimens for curious and titillated crowds" (Clifford 1997 p. 198). In a reversal of the *Cage* work, Rikrit Tiravanija's *Free* (1992) consists of a mundane cultural text performed in institutional art spaces. His cooking and serving of *pad thai* in a New York gallery is an act of giving that challenges the commodity of the art object (Meyer 2000 p.12). Tiravanija, Fusco and Gomez-Peña's creation of cultural texts typifies the model of a contemporary itinerant artist whose 'site' travels to various institutions: "It is now the performative aspect of an artist's characteristic mode of operation…that is repeated and circulated as a new art commodity with the artist him/herself functioning as the primary vehicle for its verification, repetition and circulation" (Kwon 2004 p.47).

Its visual language consisting of text and the graphic image to describe ethnic contexts, the map is a cultural text used creatively by artists as a visualization of social facts, the organization of an alternative (sometimes fictional) cosmology, or as postcolonial critique. Foster (1996 p.184) refers to the "analogy of mapping" as a development of the use of social and cultural contexts as sites for art. It is the partial adherence to the literal qualities of the map, the exploitation of its abstractions, and the addition of imagery that distinguish map-inspired artworks.

Figure 14 Stephen Walter, *The Island*, 2008. Inkjet and screenprint on paper

Alternative cosmologies can be represented through the making of map-based artworks. In these works, the map is integrated into the artworks as a 'found object,' which is stripped and replaced with the artist's own understanding of an interconnected world. Stephen Walter's *The Island* (2008) is a hand-rendered map of a London borough that is intricately detailed with more than just roads, landmarks and facilities (Figure 14). He includes ethnic neighbourhoods, trivia and even personal recollections of place in what he calls "an intense exercise in cultural mapping merged with the realization of its own ridiculousness" (Harmon 2009 p.203). Such a map refers less to the trade-driven, purpose-built maps than it does to visions of the world depicted by the medieval *Mappae Mundi* that depict the world centred on Jerusalem and encompassed within the body of Christ. Lippard (1998 p.81) suggests, "Artists are harking back to the premodern, subjective map that concentrated on geographical meanings and offered as full an impression as possible of the lived texture of the local landscape."

Figure 15 Simon Patterson, *The Great Bear*, 1992. Print on paper

The very nature of the map as symbolic representation is subverted in the works of Simon Patterson. His works, such as his remapping of the London Underground, *The Great Bear* (1996), consist almost exclusively of text, often names, applied to existing maps and diagrams that have been stripped of the actual information the text is meant to supply (Figure 15). He twins the expectation of information with evocative names, which conjure up mental images in the viewer as well as creates cultural connections both natural and unexpected. The viewer's ability to make the connections between the text and idea is the key to the work. According to Fibicher (2002 p.10), "Shifting categories, superimposing one semantic field over another, only functions if a *tertium comparationis,* an analogy, can be established."

Extending the map beyond the objective presentation of geography, contemporary artists use two and three-dimensional visual devices to create works intended to point out social observations in ethnic contexts. Demographic data is a factual centre point to these works that are visual derivatives of charts and graphs. Norwood Viviano's sculptures map the post-industrial decline of 20th century cities. The angles of the diamond-shaped bronze forms are determined by the dynamic population growth and shrinkage of cities such as Detroit (Figure 16). Of his blown glass installation *Cities: Departure and Deviation*, Drury (2011 p.58) states, "Increases and declines in 'headcount' determine the appearance of every blown glass object in order to give vivid

visual expression to the facts and figures collected in a two-dimensional, statistical world." His picture of post-industrial decline represents people by quantity (including the artist, a Michigan resident); this shrinkage also indicates an increase in poverty and a decrease in living conditions and wellbeing. Viviano uses a visual intensification of demographic data to make a social observation more compelling.

Figure 16 Norwood Viviano, *Detroit Population Shift*, 2009. Cast bronze

Even in the most neutral of visual representations influenced by cartography, a multicultural perspective can be extracted. In *Systematic Landscapes* (2006), Maya Lin installs within the gallery the visual language of cartography—projections, topography, and the atlas as found object—to engage the viewer with the dynamic qualities of landscape. In the *Atlas Landscape* series (Figure 17), Lin treats the map as a found object, carving contours into the books' pages to reintroduce dimension into a flattened representation of the earth: "Atlases and maps restrain our physical, experiential knowledge of the land in order to create functional clarity and legibility. Lin's interventions into atlases suggest a visceral confrontation of the difficulties of representing our location in the world" (Clemons 2009 p.253). Despite the relative anonymity of the geography being described in her works, Maya Lin achieves another kind of specificity, one that embraces multicultural perspectives: "Lin's translation of natural formations have parallels, in fact, in the invented landscapes with Zen gardens known as Kansho-niwa" (Andrews 2006 p.74). Lin herself connects the work to her Asian-American identity, saying that "this Asian influence has led to a body of work that is experiential and educational in nature; they are passages to an awareness to what my mother would describe in Taoism as 'the way': an introspective and personal

searching" (ibid). This might be an example of multicultural ethnic autobiography as one source for Lin's work.

Figure 17 Maya Lin, *The Rand McNally New International Atlas*, 2006. Altered book

2.2.4 Artists working within museums as cultural representation

Artists also work with museological representations of ethnicity, exposing the constructed nature of cultural interpretation as "ways of decentring established centres of art/cultural production and display" (Coles 2000 p.59). A critical eye is cast on the museum as a site for aesthetic inspiration, postcolonial critique, and a venue to question historical constructs of knowledge. A powerful 'contact zone' for active intercultural negotiations and power relations within the institution, "The museum, usually located in a metropolitan city, is the historical destination for the cultural production it lovingly and authoritatively salvages, cares for and interprets" (Clifford 1997 p.193).

The role of curator has been usurped, in agreement with the institutions, by the artist. According to James Clifford, "One's task as an ethnographer (defined predominantly as cultural critic, a defamiliarizer and juxtaposer) was to mine the museum, in Fred Wilson's terms, to probe the cracks, search for the emergent" (Coles 2000 p.55). African-American artist Wilson exposes and challenges institutionalized racism in his reworking of the Maryland Historical Society's collection. In *Mining the Museum* (1992), Wilson rearranged objects and signage within the museum to present an

alternative narrative. Slave shackles join fine silver in a vitrine of 'Metalwork 1793-1880,' and a whipping post is surrounded by Victorian furniture. Stein (1993) reads the title of the work as a triple pun: 'mining' as excavation of the depths of the collection, as a weapon to load representation, and as a possessive search for black identification within the museum.

Figure 18 Fred Wilson, *Mining the Museum*, 1992. Installation in Baltimore Historical Society

Mark Dion's strategy of collection and display exposes rather than mines the museum. As he states, "I think the politics of representation as it involves the museum has always been part of my practice" (Kwon and Dion 1997 p.16). Rather, in work such as *Tate Thames Dig,* he digs into the surrounding dirt to retrieve material culture, publicly performing his excavation, cleaning and classification on common (sometimes contemporary) detritus. This performance, a creation of his own taxonomy, is given permanence through filling in cabinets of curiosity, an anachronistic method of display that connects with early ethnography:

> *Visual technologies and methods had been central to the Victorian project as anthropologists sought to record, map and classify native peoples. Initially linked to a paradigm that arranged peoples and cultures in a complex evolutionary schema, visual evidence served as primary data for the construction of ambitious speculative theories about the development of human society. If physical characteristics were the focus of early scientific attention (racial types), visible manifestations of culture (clothing, ritual, material*

> *objects) were increasingly the focus of attention during the late 1880s and 1890s (Grimshaw and Ravetz 2005 p.4).*

Susan Hiller used travel and artefacts to inform *At/From/After the Freud Museum* (1991-7), pointing to de-centred, fragmented and reconstructed personal and cultural narratives. The context of the Freud Museum in London, with its historical focus on psychology, serves as a context within which personal narrative can be interpreted: "The common denominator in all Susan Hiller's works is their starting point in a cultural artefact from our own society. Her work is an excavation of the "overlooked, ignored or rejected aspects of our shared cultural production" (Foster 2003). An anthropologist by training, Hiller collected objects, texts and images, collated into standardized cardboard boxes, and exhibited in a glass case. Their readings are complicated by the use of museum display texts that serve as descriptions, labels, or samples of surrealist writing exercises.

In a hybrid practice of curation and making, the potter Edmund De Waal investigates historical ceramics, interacting with them through arrangement and display with his own vessels, all of which are shown in vitrines or purpose-built shelving. *Arcanum* (2004), De Waal's installation of the De Winton Collection unpicks historical layers indicated by markings on the objects' foot rings:

> *To map these stories is to start to map eighteenth-century porcelain. Stories about why it was made and who it was made for. Stories about styles and about taste, about use and about display, and how they intersect. Stories about technologies and who knew what and when they knew it. Stories about collectors, marriages and alliances. Stories about trade, about patronage, about politics. This porcelain teapot is a palimpsest (De Waal 2004 p.4).*

De Waal's handmade ceramic works, consisting of variations of glazed white porcelain on shelves, form his response to the historical ceramic object. *Signs and Wonders* (2009), his installation in the Victoria and Albert Museum, consists of 425 handmade pots referencing his childhood visits to the museum's ceramics collection (Figure 19). A collection in their own right, the pots reference three eras of ceramics displayed as a continuum on a circular shelf suspended from the gallery dome. Subtle variations in the porcelain forms and colours create an 'after-image' of the collection, and "by using combinations of colours it is possible to build up the layerings, evoke the memories of seeing the shadowy tones of porcelain through a vitrine" (De Waal 2009 p.28).

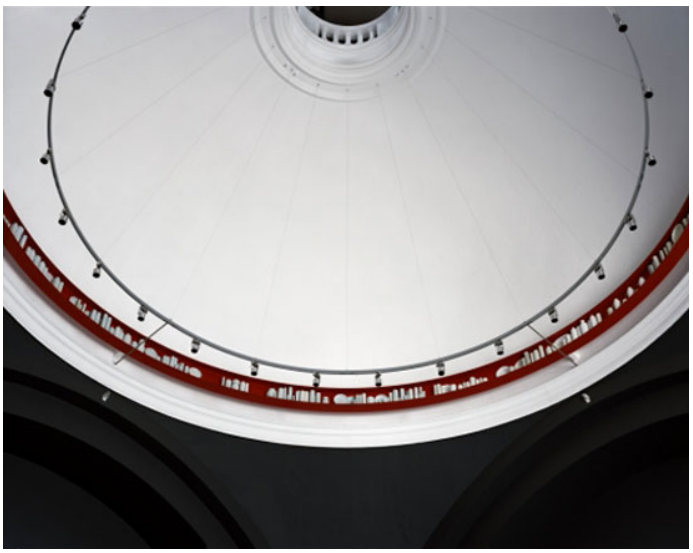


Figure 19 Edmund De Waal, *Signs and Wonders,* 2009. Ceramics and steel. Victoria and Albert Museum

2.2.5 Artists using reflexive practice

Artists working in ethnic contexts are conscious of their personal perspective and how it affects their reading of what it is they observe. This aspect of their practices could be regarded as reflexive. Reflexivity also entails their acknowledgment of their presence within and its effect on their chosen context. The artists described in this section activate their reflexive practice, in which their 'reading' of an object provokes a response by actively making within the museum. Taking up aspects of collections such as display methods, signage and labelling, artists personalise historical collections by infusing them with the creation of new objects that reflect new meanings on to historically 'fixed' collections. The museum, a particularly culturally loaded location, is the context for two of the three case studies presented in this research.

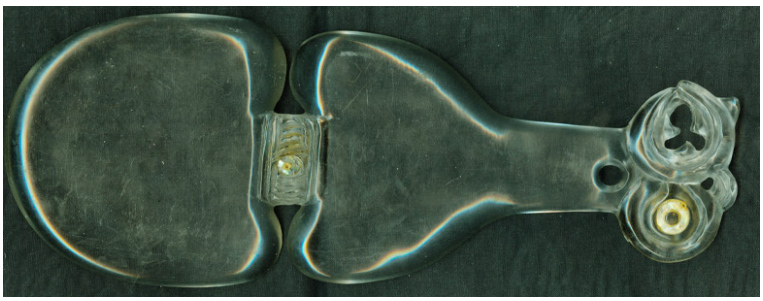


Figure 20 George Nuku, *Perxpex Kotiate,* 2008. Carved and polished Perspex

Through their introduction of new materials and their metaphorical properties into traditional making, George Nuku and Dinh Q. Lê create hybrid traditional objects. An artist of mixed Maori and Scottish descent, Nuku carves work in Perspex, using power tools and a solvent that gives the plastic transparency (Figure 20). Nuku reinforces the continuity of the Maori culture beyond geographic and historical borders, reflexively penetrating the fixed qualities of the ethnographic object removed from indigenous context. Nuku's *Te Whare Tupuna* (House of the Ancestors) staged a carved polystyrene version of a traditional Maori meeting house. By creating a sacred space in the Great Court, he challenged a concurrent display of Oceanic objects mediated by wallpaper of the New Zealand landscape as rendered by Europeans (Lee 2007). His work continues the Maori making tradition "handed down for thousands of years in artforms that expand life and enhance survival" (Pacifika Styles 2008).

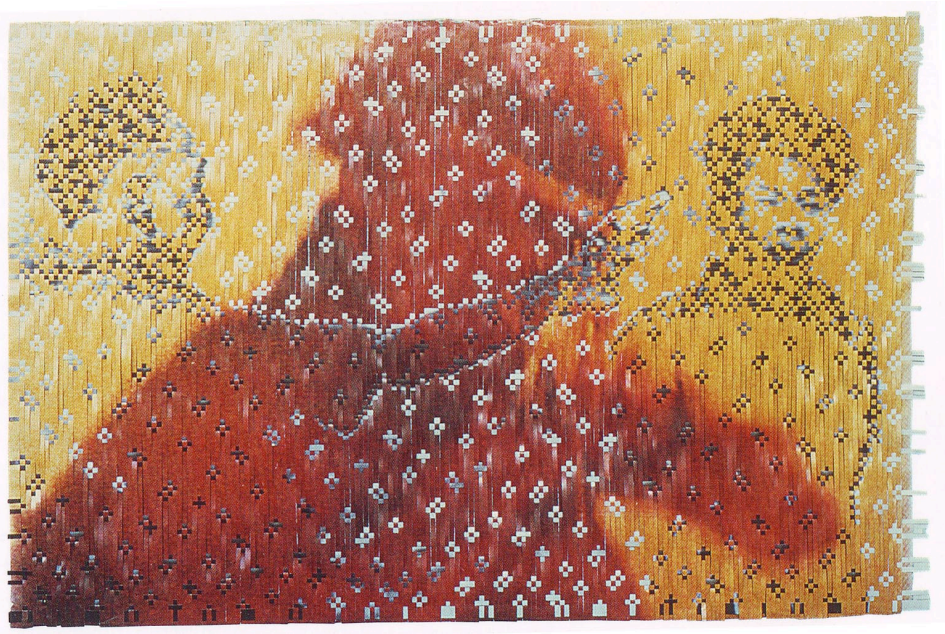


Figure 21 Dinh Q. Le, *Untitled (Tom Cruise, born on the Fourth of July/Street Execution)*, 2000. C-print and linen tape

In contrast, Lê's art practice is located firmly within the context of contemporary art. His photographic works blends media images together in what appears to be a pixelated montage, but the method of manipulation is in fact physical. Referencing traditional Vietnamese grass mat making, his works weave popular films with actual footage of the Vietnam War and personal snapshots to point out how collective and individual memories of the war are shaped by Hollywood fantasy. Like Nuku, Lê invokes an indigenous craft technique, recontextualised in the art gallery, imposing cultural critique

in an expression of ethnicity: “For the traumatic place from which to hold all the multiple perspectives on the Vietnam War, and from which to consider Vietnamese, Vietnamese-American, and American identities in conflict—all of them held simultaneously by the artist—is the very quest of Dinh Q Lê’s work” (Catalani 2007 p.11)

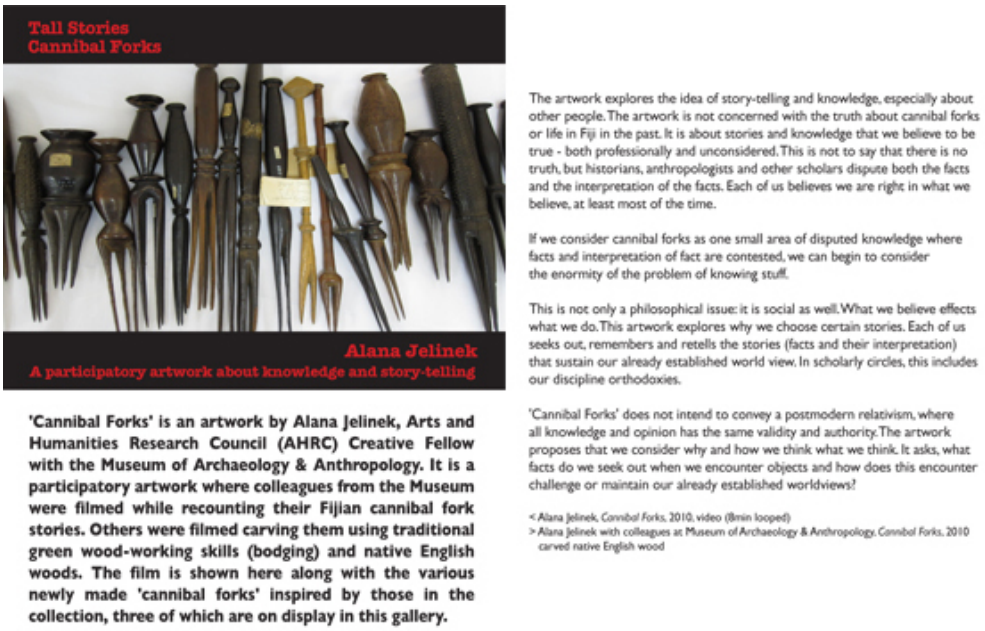


Figure 22 Interpretive text for Alana Jelinek, *Tall Stories: Cannibal Forks*, 2010. Mixed media and video

Post-colonial critique through artwork can be created using and exploiting methods that approach museum ethnography, sometimes in collaboration with the institution itself. Employed as a Creative Fellow in the Museum of Archaeology and Anthropology in Cambridge, Jelinek (2011) exposes the myth of truth normally associated with the museum and the problems of power and agency that affect cultural interpretation. Questioning the museum’s role in transmitting an established narrative of colonial history, Jelinek’s *Tall Stories: Cannibal Forks* (2010) parodied the recording of oral history, the instruction of indigenous making techniques, and ethnographic display of ethnographic objects. Though she states that “art is neither education nor interpretation and must not be used as such” (ibid.), and a panel text clearly explains the project (Figure 22), the placement of the artwork within the museum display (a ‘non-art’ space) results in the possibility of misinterpretation.

Figure 23 Josiah McElheny, *Verzelini's Acts of Faith,* 1996. Blown glass, text and display case

Object biography, a concept forwarded by Kopytoff (1986), treats the ongoing history of the object as a 'career' from which readings and comparisons can be drawn. Josiah McElheny invents the biographies of his objects through museological display of blown glass vessels (Figure 23). Whilst he does actually blow glass vessels for use in sculpture, McElheny's creative act in his artwork is the development of interpretive signage that describe his objects. *Verzelini's Acts of Faith* (1996) is a museum-like vitrine containing four shelves of various cups, vases and plates. It is the display and descriptive text (that one expects from factual museum display) that activates a meaning for the viewer: "Using drawing, photographs, text, and titling, McElheny clarifies what would otherwise remain opaque, that the relationship between the two-dimensional realm of ideas and three-dimensional life of objects is the essence of the endeavour" (Gross 1999 p.60). The text is a fictional portrayal Verzelini, a known historical glassblower, in which he recreates "for his private religious veneration" blown glass as shown in Renaissance and Medieval paintings of the life of Christ. This work operates on multiple levels, in that whilst the text describes the glassblower's act of belief, the hand-blown glass is a pursuit of perfection of his craft by McElheny himself. This reference is confirmed by the cups rendered after those depicted in *The Last Supper*, one of which is known also as the Holy Grail. Glassblowing is re-imagined as a process for generating knowledge: "McElheny's recent work, by embodying concepts rather than conceptualizing glass, may be considered as part of a broader artistic movement aimed

at reasserting the sources of representation in ornamental practice" (Hickey 1999 p.18). The making and use of the objects is less relevant than the written narrative on signage (an inscription of 'fact') that describes what the vitrines should contain. The use of museological display offers the possibility of constructing narratives that refer to material, history and ethnicity.

The examples of contemporary art practice incorporating aspects of ethnography suggest possibilities for a strategy for a glass art practice of working with ethnic contexts. The three case studies using this research methodology operated on multiple sites: physically in a geographic location and/or institution; culturally, interacting among local and foreign identities (including my own); and temporally, examining relationships between the colonial past and post-colonial present. Participant observation, interviews, focus groups, cultural texts, and reflexive practice play a role in the development of my work to express aspects of ethnicity. What follows is a brief survey of the incorporation of creative and technical approaches to glass art in ethnic contexts.

2.3 The context of graphic glass in ethnic contexts

The previous two sections identify ethnographic techniques and trace their influence on dialogues in contemporary art. Together they inform my own 'graphic glass' practice, which is situated in the field of kilnformed glass art. This section surveys the field of glass art practice and identifies ways in which glass artists incorporate ethnic contexts into their artwork. This section defines graphic glass, identifying through explaining image transfer methods how it might be used. It also considers current glass methods of research to establish the location of this study and how it might make a contribution to knowledge.

2.3.1 Contemporary glass art

The genre within which my creative practice participates can be called contemporary glass art. The on-going movement of American Studio Glass dates to Harvey Littleton's manipulation of archaic hot glass techniques, reclaiming the medium from industry, in the 'search for form' in the early 1960s (Littleton 1971). He worked directly with the material to exploit the dynamic properties of glass and its unique visual qualities:

"Aesthetically one of the values of a finished glass article is found in its modulation of light, white and colored, which illumines and extends its form. An article of glass embodies the moment of its invention" (Littleton 1971 p.14). What has been called 'New Glass' in Europe can be traced to the movement of individual artists away from Europe's declining glass industry and. In comparison to the American movement, New Glass was in earlier years (the 1960s and 70s) more inclusive to kilnforming, coldworking, and non-making designers (Frantz 1989 p.148). Contemporary glass art has evolved into a material-specific art 'world' with unique origins, participating artists, glass art galleries and museums, biennales and fairs, schools, critics and collectors. Today, contemporary glass art is a global field with exchanges of technical and creative sources. Hajdamach (2009) describes contemporary British studio glass as being internationally inspired by a multitude of sources including modern design, Italian glassblowing, and Czech kilnformed sculpture.

Major debate within the field considers the value of technique in artistic expression, argued as either 'cheap' or a crucial aspect of excellence. Ricke (1990 p.13) believes that although craft is no longer the dominating factor in content and expression-based glass art, "a profusion of adequate technical design-possibilities had to be developed for the abundance of new conceptual beginnings." However, the material-specific focus connects glass to the decorative arts (also called the crafts), a term made plural to accommodate similarly situated media such as ceramics and jewellery, as opposed to fine art. With both technique and subject matter as elements to contemporary craft practice, glass art occupies a debated place within the traditional hierarchy of the arts: Petrova (2010 p.12) states, "There is still a prejudice rooted in nineteenth-century German Classical Philosophy derived, from Hegel, with a tendency to divide art into higher (fine art) and lower (applied, decorative) forms, or even to evaluate new forms on the principle of materials used."

Some contemporary making techniques utilised for glass art are rooted in the medium's origins in making utilitarian wares. This is evidenced by the prevalence of what Frantz calls 'the non-functional vessel' as a common theme in the practice of many glass artists, as I observed during my study in Denmark (see Section 1.2.3). This might be considered as a reason why contemporary glass has not been considered within the

context of sculpture: “This refusal to accept the vessel form as anything other than craft or design was manifested in a dismissal of the work by the art press and a lack of serious consideration by art historians.” (Frantz 1989 p.182). There are some exceptions to the rule, exemplified in the practices of glassmakers such as Howard Ben Tré in his use of the abstracted vessel as large-scale sculptural form (Figure 24) and Josiah McElheny’s display of the pseudo-historical vessel as a metaphorical artefact (Figure 23), though these two would likely self-identify as fine artists given their gallery affiliations and placement within the museum of their collected works.

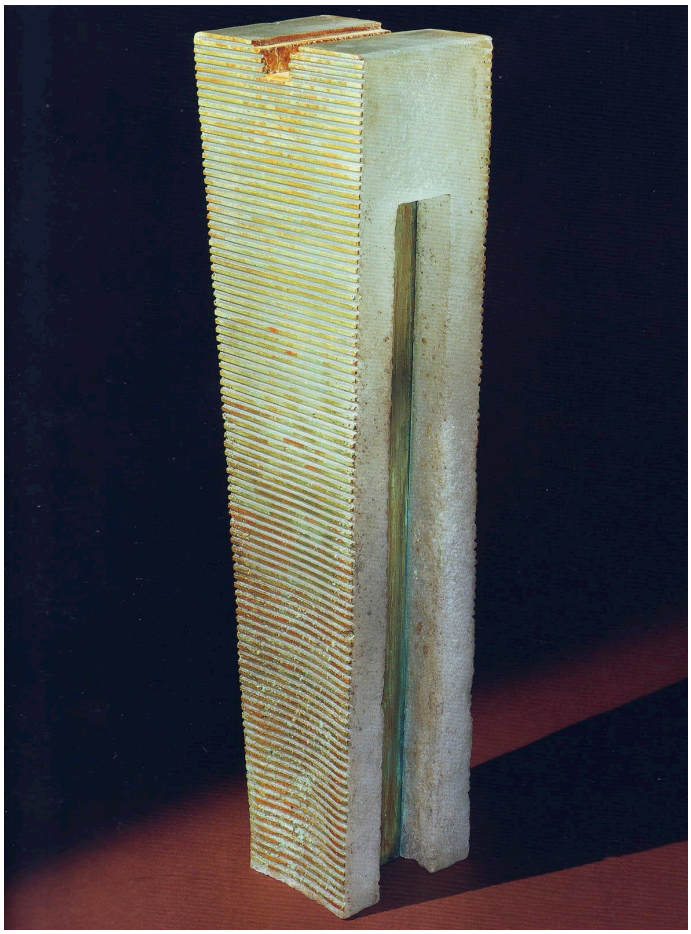


Figure 24 Howard Ben Tre, *Dedicant #8,* 1987. Sandcast and ground glass with gold and copper leaf, pigmented wax

The discourse within glass art is built around issues of meaning and making, both of which are essential to the success of glass art practice, but the issues can be viewed as incompatible: “Those artists working with the medium of glass must often overcome the preconception that their work is first and foremost materials-based, and that is therefore not concerned with larger conceptual or political issues” (Page 2008 p.15). This debate

motivates jeweller and critic Bruce Metcalf to claim that the field is not actually art at all. Technical virtuosity is a principle concern for artists working in glass, and a risk of the dual concerns of material and expression is that such virtuosity might be confused for creative excellence. Metcalf (2009 p.22) further states that glass art in which technique is 'fetishized' as an end in itself does not engage with contemporary art:

> *"Sculpture is not just a bunch of 3D objects. It's a discourse just like all other forms of fine art. It is an extended conversation, or more properly a debate...but the mainstream of glass has focused on smallish, technically sophisticated objects that do not partake of the sculpture discourse. My view and the view of the majority of the art world, is that most glass is not convincing sculpture. It lacks consistent engagement with the discourse."*

To engage with contemporary art discourse, recent curatorial projects have attempted to address the gap between glass and contemporary art. Exhibitions such *Shattering Glass: New Perspectives* (2008) feature a mix of works by fine artists, glass artists, and designers to expose the diverse use of glass in contemporary art, offering little thematic criteria other than an exploration of the single material. Morgan (2005 p.26) finds the premise of the 2005 *Glass, Seriously?* exhibition to be of debatable value, but finds that "glass as an artistic medium has no fixed rules, no ownership that excludes it from the premise of serious art, regardless of the labels given to its practitioners by themselves or others." Rejecting the glass art practitioner altogether, Adrian Berengo has exposed the contemporary art world to using glass since 2009 through his *Glasstress* venture. *Glasstress* is a combination of a glassmaking foundry for high-profile contemporary artists and designers, specially commissioning works for a large-scale satellite to the Venice Biennale, represented artists, and a touring exhibition. Deliberately seeking out artists such as Vik Muniz or Thomas Schütte to try glass as a new material, the only non-commissioned works in Berengo's exhibitions are examples of glass use from modern art history. He is critical of Studio Glass, stating that "if the Studio Glass movement made a mistake, it was to make a world apart, to engage in an insularity that created, if I may, a kind of material masturbation, more interested in how things are made than about what is made" (Yood 2011 p.41).

Figure 25 Anna Mlasowsky, *Hand Made,* 2010. Manipulated window glass and video

Berengo's sentiment is shared by emerging glass practitioners who have curated exhibitions featuring their reinvention of glass art. The *How is this Glass? Video Festival* (2010), and *Superposition* (2011) have attempted to enter the fine art discourse and "lead everyone out of the much discussed glass ghetto and toward the more innovative and genre defying works" by exploring glass as a concept rather than a material (Duggan 2011 p.48). In these exhibitions, glass, or its properties, history and phenomena, are treated as a starting point for mixed media installations, videos, performances, and conceptual artworks. Problematically, successful discourse with contemporary art has come at the expense of the material itself. The physical materials do not always function as standalone objects. For example, Anna Mlasowsky's *Hand Made* (2010) consists of a video of the artist manipulating glowing, heated window glass whilst wearing a pair of fireproof mitts. In the *Superposition* exhibition, the glass objects on a plinth in front of the video serve as a by-product, activated by the gesture shown on the screen (Figure 25). Despite their presence in the glass art context, such as Heller Gallery (a prominent glass venue in New York) and the Glass Art Society Annual Conference, very little glass is ultimately displayed in these exhibitions. This begs the question of why such exhibitions take place within the glass art arena. From its history to the contested present, the issues of material and meaning are still clearly part of the context and debate within contemporary glass art.

2.3.2 Kilnformed glass art

The works in exhibitions such as *Glasstress* point to what might be called a 'fine art' view of authorship through making, a contrast the considerable amount of importance placed on the glass artist being the sole author of an artwork. Cummings (2009) refers to this as the 'designer-maker' model. He believes that a critical aspect of the glass artist's practice is that he or she is in control of the making and conceptualisation of the work from start to finish, developing the work creatively throughout planning and making. In contrast, authorship of the idea within contemporary fine art is prioritized, reducing the importance of making. Damien Hirst's spot paintings are examples of this way of working, with creation beyond their conception left purely to a matter of fabrication. Still closer to the subject of this study, the contemporary artist Kiki Smith utilises painted, blown, cast and flameworked glass components, but "minimizes the intentionality of the maker in their translation, to avoid any additional flourishes, interpretations or concepts to become apparent" (Petry 2008 p.130). Cummings points out that glassmakers (many of them glass artists in their own right) regularly create artworks made partially or entirely out of glass for contemporary fine artists, in the same way that a foundry might produce a bronze from an artist's model.

Many glass artists are aware of context and concept in their work and identify themselves as artists. A portion of the community of contemporary glass practitioners would describe their work as kilnformed glass, defined as "glass that has been formed, usually into a mould, by the action of heat in a kiln" (Petrie 2006 p.120). Cummings (2009 p.74) describes a context for his survey of contemporary kilnformed glass:

> *Each maker has actively chosen their path from within an informed and liberal context, usually while on a course at an education establishment, often at degree or higher level. They have made the self conscious choice of kilnforming as a means of self expression, and they describe their creative practice in terms that are redolent of the language of the fine arts, albeit leavened with the vocabulary of their chosen material and that of the decorative arts. The adoption of titles for works is near universal, and is a reflection of both the individual's view of their creative endeavour and the expectations of craft gallery, buyer and specialist publication.*

The term 'kilnforming' has been commonly attributed to the glass artist Klaus Moje, whose signature works consist of intensely patterned wall panels and non-functional vessels. Moje, a pioneer in glass art, manipulates coloured sheet glass by using multiple

cycles of cutting and fusing, using the cut glass strips (an 'edge construction') as a way of creating a striped effect. This method of working has been influential to emerging practitioners such as Jeremy Lepisto, a glass artist whose technical methods and, to a degree, image-making motifs and processes, closely resemble my own. Lepisto (quoted in Cummings 2009 p.92) describes his process as follows: "Each piece is constructed from a number of separate sheets of compatible glass cut to form, and fused together in a kiln…On one or many of these layers, hand-rendered images are created using high fired enamel paints to make the fine hard lines." His use of hand-cut stencils, enamels and glass powders, produces a graphic effect of buildings, bridges and other constructions embedded in ground and machine-surfaced glass forms, which according to Craig (2008 p.38) contain "a particular emphasis on the narrative of the familiar, yet non-specific, urban space." My focus on the subject of ethnicity, expressed through the technique of printed and kilnformed glass, is an approach in the mould of the designer-maker model and most closely fits the methodology in this research.

2.3.3 Graphic glass

The above description of Lepisto is a good example of practice in the material-specific field of glass art. An equal importance is placed on methods and processes for making, and this in turn informs how glass can be used expressively. In his writing and artworks, Petrie (2010 p.3) combines of print techniques with glassmaking methods in what might be termed 'graphic glass': "The unique properties of glass mean that printed imagery can be applied on the glass surface, encapsulated within the glass form and actually made of glass. This offers great decorative as well as metaphoric potential for artists." Glass artists have pursued various techniques for printing the graphic image (defined here as image, text and pattern) on, in and with glass. Photographic, screenprinting and digital printing techniques can be applied to glass (Petrie 2006). Combined with other forming techniques, a wide variety of visual qualities can be achieved.

The glass surface can be used as a surface upon which the image is placed, fired, or abraded. The integration of photosensitive emulsions and films with glass, the method of early photography, provides the most photographic effects. In this technique, a light-sensitive emulsion is bonded to the glass surface, and the glass is then processed, using negatives with photographic chemistry in a darkroom. Mary Van Cline's three-

dimensional constructions housed a photographic image, printed to a sheet of glass using darkroom processes. Her more recent works use large films bonded with sheets of glass to create 'photosensitive glass' (Figure 26).

Figure 26 Mary Van Cline, *The Healing Passage of Time*, 2008. Photosensitive glass

Figure 27 Judith Schaechter, *Donkey Ducky Dream,* 2004. Stained glass panel with painted, sandblasted and engraved flash glass

The image can also be transferred to the glass through abrasion of the surface, a photosensitive form of glass engraving. A photosensitive emulsion in the form of a sheet can be exposed to a film positive and adhered to the glass surface. The exposed emulsion acts as a resist to sandblasting, resulting in a contrast of matte and shiny surfaces. Coloured layers of 'flash glass' can be removed to create images with higher contrast. Judith Schaechter employed this technique in the images of viruses in *Donkey Ducky Dream* (Figure 27).

Figure 28 Jeffrey Sarmiento, *Encyclopaedia,* 2007. Screenprinted, fused and polished glass. 100 x 15 x 15 cm

Screenprinting, using photosensitive stencils, can be used to transfer text, patterns, and half-toned images in enamels onto glass. Once fired, these enamels are permanently bonded to the glass surface. Taking advantage of the transparency of glass, the glass sheets can be further formed through fusion with other glass. Images can be stacked and fused in layers, made simultaneously visible through the polishing of glass surfaces. This transfer process is the primary method of creating imagery in my work (Figure 28).

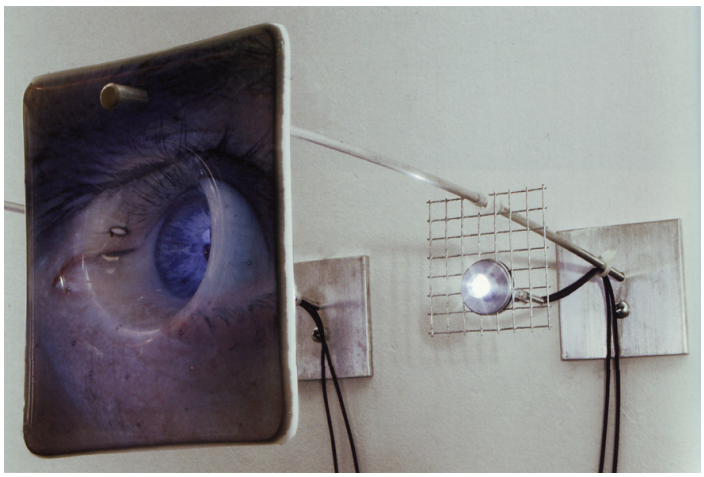


Figure 29 Brian Bolden, *Looking and Blindness*, 2006. Kilnformed glass, aluminium, steel digital glass prints, LEDs

Using a transfer technique, enamels can be printed to a decal paper through screenprinting. The image can then be moved onto the glass surface. A full colour image can be achieved using digital printing of enamels to the decal paper. Brian Bolden utilises the digital transfer technique in his mixed media work (Figure 29). After being fired permanently to the glass surface, the image can be further distorted through manipulating the glass by fusing, cutting or slumping. Recent use of digitally programmed waterjet cutting produces accurate contours that can form images. Combining image transfer techniques with kilnforming processes provides possibilities for visual depth and richness.

2.3.4 Glass methods of research

Practice-based academic research in glass art plays a role in the development of glassmaking methods and creative approaches. By comparing abstracts and methodologies of some recent glass art PhDs, it is possible to trace common concerns and approaches. These research projects are being performed from the perspective of a glass art practitioner, and each consists of a written thesis and corresponding body of artworks.

Whilst the projects are primarily concerned with the development of personal creative practice, the majority of these projects are focused on practical techniques that others might use. The use of technologies new to this field of practice includes the development of new ranges of coloured glass (Almeida 2010 and Brachlow 2010), combinations of glass and ceramic bodies (Kelly 2009), creative uses of waterjet cutting (Cutler 2006), or the use of the Internet to develop collaborative artworks (Whitbread 2009). Other researchers have taken practical approaches to developing new techniques for surface work on glass (Antonio 2009, Wightman 2011 and Leatherland 2012). They serve as documentation of material technology that has been refined through rigorous testing. Methods common to these projects include materials testing, a demonstration of creative potential through case studies utilising processes on the works of other artists and the use of reflective practice to develop personal work.

This multi-method approach is paralleled by recent research projects that involve elements of cultural study. Brachlow used an art historical approach in her examination

of existing coloured kilncast artworks to help inform her own testing of coloured glass mixtures. It has also been used more specifically in two studies that deal directly with ethnic contexts, in that each of the authors focus on the region of their birth. Using historical, empirical, reflective and experimental approaches, Vesele (2010) created a survey of glass art practitioners in the Baltic States. Identifying common threads in Baltic glass art, Vesele, a native Latvian, positions her artworks made in the UK within the context of the Baltic States, engaging "a debate about the cultural identity of artists of different nationalities in Europe in an age of globalization" (Vesele 2009 p.172). A similarly autobiographical approach is taken by Lu (2009) in her reflective study of how the importation of western methods of 'studio/academic glass' has contributed to the development of glass art in China. Contextual review, the examination of historical and contemporary Chinese glass objects, and Lu's study in a UK university inform the making and exhibition of personal artworks.

Research methods derived from cultural studies and the development of technical aspects can be found in recent PhD projects that follow the designer-maker model. The methodology in this study contains both these approaches in looking to ethnic contexts as a source of inspiration as well as the development of practical techniques in combining the image and glass.

2.3.5 Glass art inspired by ethnic contexts

As this survey has so far shown, glass art practitioners are invested in achieving technical mastery of their medium as well as visualising expressions of their subject matter. Beyond technical aspects, the field of glass art is engaged in a discourse on meaning. The possibilities of ethnic expression through glass making are wide, ranging from imitations of ethnographic material culture, revivals of ethnic heritage, or as a casting material for taking imprints. Ethnic contexts can be located in the practices of numerous glass artists, whether as the source for a motif, an expression of heritage, or an engagement in cultural critique and political commentary.

The appropriation of cultural iconography is not a new practice in art. Examples include the use of exotic 'oriental' themes in Romantic painting, and the use of African masks as the inspiration for Cubist abstraction (Schneider and Wright 2006). Glass artists draw

from global sources as a source of imagery and form. Photographic landscapes captured during her travels to Crete, Peru and Japan were transferred to glass sheets in Mary Van Cline's three-dimensional constructions (Figure 26), and her early works include herself as the figure in the foreground. Hajdamach (2009 p.432) observes that "Nigerian burial houses, Hopi ceremonies in America, and oriental philosophy inform the work of Keith Brocklehurst," an example of the widening influence of mixed ethnic contexts on contemporary British glass art. In works with titles such as *Spirit Box*, Brocklehurst appropriates culturally specific symbols incorporating them as cast, cut and glued components.

The influence of foreign experiences is less explicit but equally obvious in the work of Howard Ben Tré, whose series of 'Dedicant', 'Basins', and 'Primary Vessels' and even his bench forms appear to have elements of archetypal ceremonial objects (Figure 24). Rendered as large, minimally shaped sculptures in glass, they have utilitarian roots and painted and clad metal architectural details that might be interpreted as liturgical, not unlike altars and baptismal fonts. According to Klein (2001 p.24),

> *Ben Tré is a seasoned traveller and much of his inspiration comes from looking at medieval cathedrals, Mayan Temples, the ruins of Ancient Greece, Rome or Mexico, and gravestone inscriptions in the Jewish cemetery of Prague. There are no direct references to any of these in his work, but their solemnity, mystery, ceremony and beauty all give strength to his artistic output.*

Indigenous crafts were an early source of inspiration for decorative pattern in the work of Dale Chihuly, who has a room in his Seattle hot glass studio dedicated to his early *Navajo Blanket Cylinder* series. On shelves that line the room, examples of his artworks sit alongside his collection of Native American textiles, ceramics and baskets. Bergand (1999 p.12) comments, "It is revealing that the most international of contemporary glass artists, one known for his appropriations and reinterpretation of Italian, Persian and Japanese cultural traditions, founded his career on indigenous Native American craft traditions." Glass artists' use of foreign motifs points to cultural but perhaps not specifically ethnic contexts. Bergand points to Chihuly's use of Native American motifs as part of an anti-establishment rejection of dominant Western themes, and Klein analyses Ben Tré's works coming from an 'agnostic' search for spirituality that reflects 1960s sentiments.

Figure 30 William Morris, *Idolo grouping,* 2003. Blown and sculpted glass

The most direct formal link between the ethnographic artefact and blown glass can be found in the work of William Morris (Figure 28). His glass sculptures developed from replicas of prehistoric burial sites and painted *Standing Stones* into a more figurative practice focused on museological vignettes of invented artefacts and 'native' body adornment that "blend loose references to multiethnic physiognomy, costume, and belief" (Morris 2003 p.36). The source imagery of his ritual objects and vignettes was appropriated from a wide variety of pre-modern cultures. According to Klein (2001 p.152), "There is no attempt at historical or anatomical accuracy in his work. Drawing on imagination and nature, he is more concerned with portraying the mystical power invested in historical and human or animal remains." Despite their appearance, what might characterize Morris's work as non-ethnic, and non-ethnographic, is that it appropriates cultural imagery and presents it without context, an aspect that art critic Janet Koplos finds 'offensive'. Koplos (2006 p.45) argues, "They're kind of equivalent to digital pictures, something manipulated that doesn't even necessarily begin with a fact…these works are not a story of his encounter. Instead Morris essentially borrows the gravity of his sources, their cultural meanings, their local truth." The appropriation of ethnic motifs can elicit problematic readings when glass artworks take on the aspects of representation found in museological display.

Mining their own ancestry as a source of imagery, some artists take to manipulating the material qualities of glass as a way of unearthing, contemporizing or questioning their heritage. Glass provides a vibrant new palette for the reiteration of cultural iconography,

but at the same time can be seen as a source of ambiguities about post-colonial positioning, meanings or interpretations.

As the artwork of William Morris proves, glass can be formed to emulate and imitate a wide range of materials. Methods of colouration, sandcasting and carving provide a rough-hewn look to the work of Isabel de Obaldia. Her practice in glass, exemplified by her 2010 work *Rey del cenote,* consists of large-scale figurative objects that refer to her ancestry. Oldknow (2010 p.97) states, "The thin, staff-like form of De Obaldia's crocodile alludes to the partly submerged body of the crocodile in water, as well as to the ceremonial batons used by a number of indigenous peoples of Panama. The weathered-looking surface gives the sculpture an air of antiquity, as if it had been excavated after centuries of burial." She manipulates techniques in glass to emulate the artefact—sand and coloured powders provide a crusty surface to her pieces, which are hot-cast into cavities in sand. She replaces traditional engraving with marks made with diamond-sintered industrial grinder. This reveals the transparency of the glass and allows light, a symbol for spirituality, to transmit through to the surface. The iconography of de Obaldia's work—imagined creatures, trees, and winged headless torsos—evokes a culturally specific mythology either inherited or invented as a personal expression.

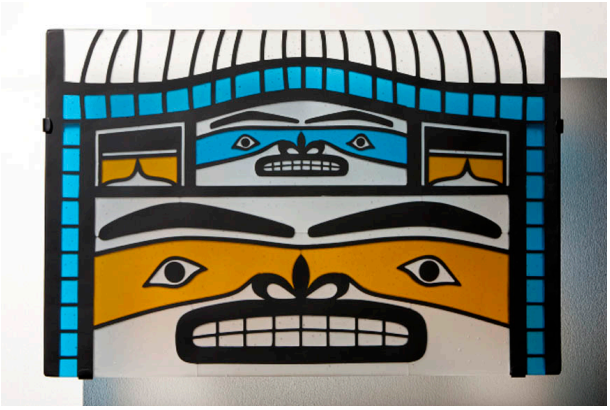


Figure 31 Preston Singletary, *Chilkat Robe Panel,* 2009. Waterjet cut and kiln-fused glass

The potential for ethnic expressions in sculpted glass can be seen in variations on the artefact placed within a geographic, historical and political context. Utilising sculpting techniques similar to Morris, Preston Singletary references his Native American heritage through quotations of figurative Tlingit tribal and ceremonial objects in blown, sandblasted, and, more recently, waterjet cut and kilnformed glass. Now self-identified

with his ancestral tribe (he was raised in urban Seattle), he views his role as a modern heritage artist: "It's sort of a reclamation process of taking charge of what it is that our people do and declaring who we are—contemporary people as opposed to an anthropological study" (Josslin 2010 p.25). Singletary has become a practicing member of his tribal community in the creation of public art and participation in rituals, and is also represented in the collections of both art and Native American museums. He comments, "I sometimes hope that people will view my work on other levels not associated with 'ethnic art.' At the same time, it is this inspiration that gives my work its power" (Singletary 2003 p.43). As a post-colonial expression of ethnicity, however, Singletary's work takes a non-critical approach. Assessing his retrospective *Echoes, Fire and Shadows* (2010), Josslin writes:

> *"The chief source of the dissonance of this exhibition is, on one hand, our enjoyment and appreciation of the marriage of highly refined Western techniques and materials with the ceremonial craft of an old and rich culture; and our awareness, on the other hand, of the long, painful relationship between European America and Native America, an encounter that resulted in lost languages, customs, religion, health, and lives. While Singletary approaches his subject matter, his material, and his style with great seriousness, in no way does his work acknowledge that historic clash of cultures" (Josslin 2010 p.24).*

Unlike the work of George Nuku (Figure 20) the work does not utilize the properties of new material in a traditional idiom as a commentary or challenge to the colonial past, but rather a restoration of Singletary's tribal decorative tradition. Singletary's engagement lies primarily in the preservation and celebration of his culture.

Figure 32 Chilkat blanket, Tlingit. Collection, Musee du Quai Branly, Paris

The claim of heritage is hybridized in the artwork of the Mexican brothers Einar and Jamex de la Torre, who take a globalized, plural approach not only to using glass but extend it to their cultural borrowings. Glassblowing is a dominant process in their work, in which they sculpt into vignettes the mixed iconography of ancient and contemporary Americas. They ascribe to no single 'national' technique in their glassblowing, and they complete their sculptures by gluing multiple components together (an anti-purist technique) along with culturally loaded found objects and ephemera. Cultural plunder might be one way to describe their way of working, and their visual statements consist of a (rather lush) critique of capitalism, and the expression of bastardized and remixed cultures.

The works of de Obaldia, Singletary and the de la Torre brothers show personal approaches to expressions of ethnicity, but their common primary medium of glass suggests an attempt to utilise this material as central to their claim of cultural identity despite its absence in their ethnic traditions. Catalani (2012) compares the works of glass artists with those of others using various craft media, and exposes ways in which craft techniques such as textile making, mat-weaving and ceramics link to culturally specific traditions. He states, "The recovery of artifacts, materials and processes of craft has become a tool in many artists' practice to access cultural memory, and to investigate both personal and collective identity" (ibid p.31). Catalani believes that whilst other craft disciplines, through their historical links, can be 'reclaimed' to address issues of heritage and/or constructed identity, glass does not bear the same links to folk traditions. Instead he views glass as a material that brings the contemporary element to expressions of cultural identity.

Glass artists, therefore, find ways of using glass to develop other ways of expressing aspects of ethnicity. Along the lines of Catalani's assessment of glass and other crafts, Dafna Kaffeman combines the 'languages' of glass and textiles as a method of communicating aspects of the Israeli-Palestinian conflict. Educated in Europe, her current works were stimulated by her return to Israel and experience of the ongoing political unrest and depart from her established motifs (Page 2011 p.24). The artworks inspired by this ethnic context are centred on a traditional mourning handkerchief with texts in Hebrew and Arabic embroidered into its surface. The texts are sourced from

newspapers recording the conflict from both sides. Kaffeman completes the compositions with flameworked glass replicas of plants and insects both native and transplanted to the Middle East, the contemporary (perhaps alien) material adding another layer of complexity to the narrative. The compositions use the iconography as a metaphor for human emotions within political ethnic conflicts.

Figure 33 Dafna Kaffeman, *Red Everlasting*, 2008. Flameworked glass, embroidered handkerchief

In his take on the same conflict, Palestinian-Australian artist Sary Zananiri uses glass as a tool for taking an imprint to produce objects that symbolize conflict. *On the Road to Jerusalem* (2009) consists of glass castings of negative spaces on a West Bank wall, created by bullet holes, installed "in a small marginal space, narrow and confined, much like the space allocated to the Palestinians by Israel" (Holsworth 2009). Zananiri represents the Palestinian-Israeli conflict as an architectural displacement revealed in glass: "What looks like rubble in space may evoke feelings of nostalgia or anger through dispossession to one person, but may appear a tabula rasa for another" (Zananiri 2010).

Combined with the graphic image, glass offers the possibility of claiming cultural identity through exposing supressed histories and can even be used as a tool for creating language in expressing aspects of ethnicity. The liturgical history of glass is referred to

in Marsha Pels' contemporary reclamation of an ethnic site. During her Fulbright Fellowship year in Germany, she proposed the *Bahnhof Bunker Project* (1998-9). The project proposed to create a monumental glass façade, printed with the image of the old synagogue, surrounding the bunker that came to replace it. The coexistence of the two forms, visible simultaneously, would 'reclaim' the site as Jewish, and continue to confront the German legacy in World War II. The role of graphic glass in her 'restoration' of the synagogue, according to Pels, is symbolic: "Glass is an important material in the construction of any house of worship because of the way it holds and fractures light, and in its transparent beauty, glass alludes to the higher aspirations of the spirit" (Pels 1999 p.27).

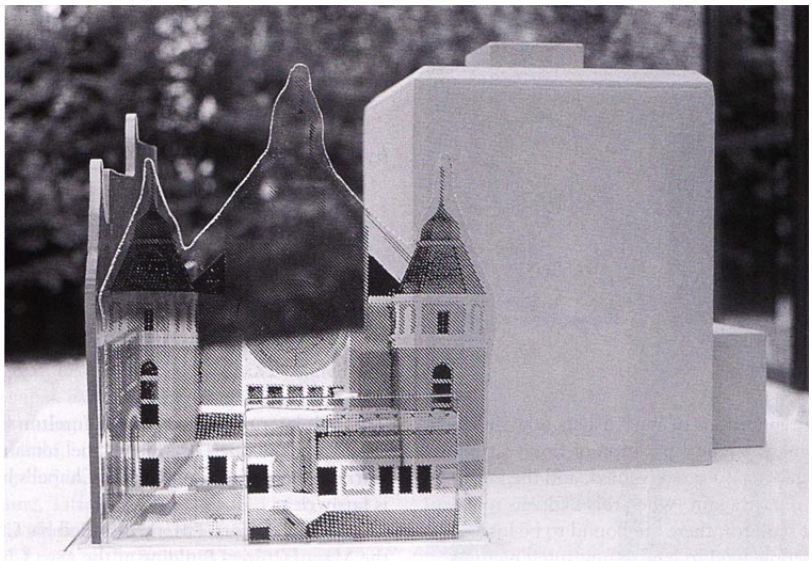


Figure 34 Marsha Pels, Model of *Bahnhof Bunker* Project, 1998

Venezuelan-born Edison Osorio-Zapata addresses language through the graphic image as the centre of ethnic identity. His works utilize glass as writing tools that come in the form of the traditional scroll. By carving embossed text onto three dimensional objects, his pieces can be loaded with a printing medium and pushed to produce abstract marks which are imbued with multiple "languages" as a texture. His experiences as a foreigner and migrant and efforts to communicate have "provided (him) with three languages, Spanish, Japanese and English; this has been (Osorio's) driving force to create" (Osorio-Zapata 2008). His work "explores the breakdown of understanding that takes place when people with diverse backgrounds, customs and perspectives attempt to communicate with each other" (Rosen 2007).

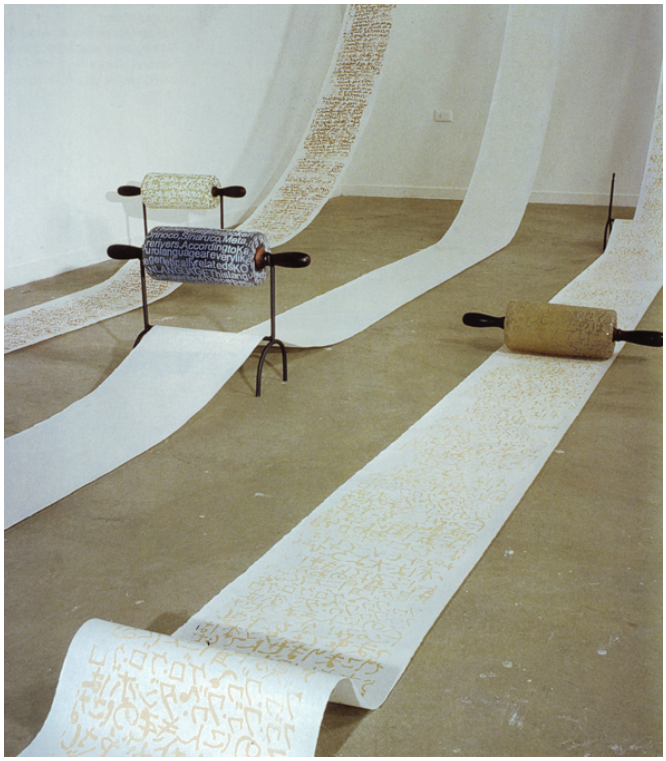


Figure 35 Edison Osorio-Zapata, *...English is my Second Language*, 2004. Blown and sandblasted glass, metal, wood, ink, paper

2.4 Summary of review

This survey has identified key concepts and contexts appropriate to the making of graphic glass artworks inspired by ethnic contexts. References to ethnographic techniques have been clarified through definitions drawn from textbooks on ethnography and cultural geography. A review of practice in the field of contemporary art shows how ethnographic techniques—participant observation, interviews and focus groups, interpreting cultural texts and representations, and reflexive practice—have been appropriated and interpreted by artists. This survey also exposed parameters for the glass art context, locating the field of practice for this research. Glass art practice, current glass methods of research, and graphic glass have been surveyed to identify examples of how artists have approached glass both conceptually and technically. The survey concludes with an examination of the current issue by analysing examples of how glass artists have made work inspired by ethnic contexts. This survey sets the stage for the approach taken—subject finding, interpretation of a multiplicity of contexts, and fabrication of artworks—in the following three case studies.

Chapter 3 – Graphic Glass artworks inspired by experiences of architecture in the Baltic States

This case study presents a body of graphic glass artworks made in response to a short field project in the Baltic States. Verbal, visual and spatial aspects of the urban and cultural landscape were experienced through participant observation, leading to the identification of subject. This experience was considered from a multiplicity of perspectives and voices, shaping an interpretation of embodied meanings in architecture in the Baltic States. Inspired by the geometric form and metaphoric qualities of a façade, an original body of artworks was developed. A combination of technical approaches led to the fabrication of forms that combine the graphic image with kilnformed and waterjet cut glass. The project is then considered against examples of artists, architects and filmmakers working with aspects of urban experience, and reflected upon as a model of practice for glass art practice as a designer-maker.

3.1 Project synopsis

This case study describes how a short field project in an ethnic context was influential in the creative development of glass artworks. This body of kilnformed graphic glass represents a departure from my previous artworks in terms of its chosen subject matter, iconography, and technical processes. The origin of this project is my experience in the ethnic context of the Baltic States. In August 2007, I participated in the *Stiklo Sodas* Glass Art Symposium in central Lithuania. Over nine days the invited artists, most of whom were native Lithuanians, Latvians and Estonians, lived together in a house, working in collaboration with a local glass factory to develop new artworks, the early results of which were shown in an exhibition in Galerija XX, in Panevezys. My contributions to the exhibition were inspired by local Soviet-era architecture. A follow-up visit was arranged in January 2008 to teach workshops in Estonia and Latvia. Whilst there, I explored urban spaces and more examples of tower block architecture. My interactions with local people informed me further about the region's complex history, which might be seen as embodied in its buildings.

These perspectives coloured my creative interpretation, rendered as architectural silhouettes fabricated in geometrically cut glass with embedded graphic patterns. Images and text, collected in the recording of the experience, were compiled, traced, and synthesized into graphic patterns and building-like contours for the making of artworks. Artworks based on this field study were featured in 2008 in a solo exhibition, *Translations*, at Bullseye Gallery, Portland, USA. This body of work has continued to be developed, and individual works have been exhibited internationally from 2009 to 2012. The two visits to the Baltic States, involving a form of participant observation, were critical to the identification of subject in this body of artworks. Multiple perspectives—historical, personal, local—form a complex reading of this ethic context. Finally, the visualised sculptural response is made through combining techniques to achieve new forms.

3.2 Subject identification: participant observation and experiences of urban space in the Baltic States

This analysis of my experience through participant observation is formed from memory, written recollection and photograph. It is inherently personal in a similar way that Sophie Calle's art practice (see Section 2.2.1) "necessarily reflects a subjective experience, the diary which forms the basis for secondary listings of observations says as much about the ethnographer as it does the site and subject of the fieldwork" (Kuchler 2000 p.97). It is therefore important to consider reflexively that my motivations for accepting the invitation to develop artwork and teach in Lithuania, Latvia and Estonia were both professional and creative. I was keen to make new colleagues, meet students as well as travel to a place about which I knew very little. Participating in the symposium as well as teaching, travelling and working with Baltic glass artists gave me access to daily life that tourists might not see. This aspect of the field study takes on aspects of participant observation. Through this method, I was hopeful that the foreign experience would stimulate ideas for new artwork. In this case study, I have found my subject in considering my experience of space in Baltic urban life. These spaces are interpersonal (between myself and local people in the Baltic States), interior (of domestic spaces) and urban (the local landscape from an architectural perspective). Reflections and recollections of local people, as well as their actions, provided a key to my understanding of these spaces. These observations are

anecdotal on the surface, but I looked to them with the belief that specific observations of "social action are comments on more than themselves" (Geertz 1973 p.23).

3.2.1 Observation of interpersonal space

In my experience within the Baltic glass community, interpersonal space—communication in both verbal and body language—revealed ways of understanding the ethnic context. During the symposium, the twelve delegates lived in the organizer's house on the edge of Panevezys, a small city in the centre of Lithuania. Meals were made and taken as a group, and meetings were held in the house to develop ideas for the exhibition. Communication within this group, and with factory workers at Glass Remis, where the work was produced, was critical to the completion of the artworks in time for the exhibition.

The lack of a common language amongst the delegates served to complicate our interaction. This language barrier is partially the result of cultural and recent political history. Despite close ethnic ties, the three national languages, Lithuanian, Estonian, and Latvian, are too different to be mutually understood. Because of the Soviet occupation and the migration of Russians into the region, the common language among most of these Baltic artists was, and still is, Russian. Despite being the most common language among the delegates, there seemed to be an unease about speaking it. During the planning sessions and work in the factory, a multiple-stage translation was required for communication. The insistence on speaking in Russian (or alternatively the refusal) was one way in which our arguments were made apparent. The complexity of communication was made apparent again during my trip to Estonia, when a Latvian colleague had to deliberate over which language (English or Russian) to choose to speak to a taxi driver. She wanted both to avoid offending him with Russian, as well as avoid being cheated on the fare by giving away the fact that we were English-speaking tourists.

Interpersonal communication does not exist exclusively of verbal communication. The observation of body language in an otherwise mundane setting, and its interpretation by local people, was an instance that exposed ethnic tension and pointed to the history of Soviet occupation. Whilst eating lunch in a Riga amusement park, I sat with my Latvian

colleague and her family inside a restaurant across from another group. Without hearing them speak, she correctly distinguished them as Russian. She explained that one could distinguish the Russians from the Latvians because they tend to wear their hats indoors instead of removing them. In our resulting conversation on the topic, my colleague's father also mentioned that it was also typical for Russians to leave their spoons inside their teacups, holding the spoon handle whilst drinking. This small difference in custom was a method by which Latvians during 'Soviet times' could identify Russian spies. The noticing of these Russian habits was humorous, but at the same time referred to strained relations between Baltic people and the legacy of 20th century Soviet domination.

3.2.2 Observation of interior space

My experience of interior spaces in a school, a hotel, and an apartment in the Baltic States revealed some of the physical remnants of the Soviet occupation. I was intrigued by the possibilities of what exploring physical spaces might be able to tell me about this ethnic context. I wanted to know whether, beyond the obvious language differences, a place could communicate aspects of a culture. As with my understanding of verbal communication, the recollections of local people helped to colour my impressions by giving a context for what I saw and experienced in these institutional, transitory, and domestic spaces.

Figure 36 'Hidden' code to exterior lock, Latvian Academy of Art, Riga

In Riga, I stayed in a room that was reserved for guest lecturers at the Latvian Academy of Art. The distinctive aspect of this room, a self-contained hotel-like unit with a shower, toilet and kettle, was in the doorway. First, the door to the inside of the room consisted of a standard, inward-swinging door with a lock. Upon opening this door one found a second door in the same doorway, which opened outwards. This door seemed to have been built for extra security, as it held two additional locks, one of which was a double cylinder deadbolt. The door led into a common hallway and exit that required no keys. If one wanted to enter this side of the building, the exterior lock offered another, unusual layer of security. To access the interior, the door required the use of a number combination on a push-button lock. However, this number combination was revealed to the initiated in a 'secret' way. Painted with a clear gloss, the brick wall directly opposite the entry the wall appeared to have no markings. Viewed from an angle, the glare of the gloss paint gave away the three-number combination to open the door. I am not certain there is a link between this coded entry and life in the Soviet era (it is located at an art school), though the heavily bolted double door on the room suggests a desire or need for security.

Figure 37 Hotel Panevezys, Panevezys, Lithuania

The Soviet influence on the Baltic States is more clearly evident in its most common form of architecture—the concrete high-rise. Urban planners did not favour major cities and placed the buildings uniformly across the countryside, as the "industrial method favoured plain construction sites and standard houses of predetermined height" (Hallas-Murula 2007 p.84). Twenty years after the end of Soviet rule, many of the buildings, such as Hotel Panevezys (Figure 37) remain in poor states of repair. This hotel was the most prominent feature of the city centre, easily spotted from our gallery across the street. Out of curiosity, a few delegates and I walked in for a look. We were able to see that the hotel had likely not been redecorated for some time. Interior features including wall decorations and lighting were of a geometric, modern design. Before a manager hastily ushered us out, we walked through a narrow hallway of the top floor—a poorly lit tight corridor with many doors. It certainly felt compressed; based on this impression, the rooms could not have been very large. The imposing concrete hotel was a feature of many cities I visited whilst in the Baltic States. My interest prompted a Latvian colleague to share her memory about a similarly block-shaped hotel in Riga. She said that in the Soviet times, this hotel was exclusively for the patronage of foreign visitors. This extended beyond the housing to the shop below, in which one could only pay for goods in US dollars. Latvian relatives and acquaintances were allowed to come into the hotel to visit guests, but it was not always allowed for the guests to visit others in their homes. For her, the hotel represented more than an architectural edifice, but rather a transitory space of uneven exchange, controlled by the government.

Daily life in the Baltic States is not unlike other places in Europe. Supermarkets, shops and banks have a similar look and feel, with recognizable international firms represented in signage. One can watch music videos on a bus from Riga to Tallinn, or check emails using Wi-Fi inside a taxi. The Soviet-era tower block apartment is a form of housing in which many Baltic people lived, and today continue to live. My experience of the interior of one such building provided me an idea of contemporary life in the region but also some impressions of life in the Soviet times, and possible clues to how policy might have shaped living spaces. I spent an evening in one tower block apartment in Riga, making dinner for friends, university students typical of the people who lived in the building. Whilst cooking, I noticed both the overall low ceiling (repeatedly banging my head on a hanging lamp), as well as the cramped conditions of

the kitchen relative to the rest of the flat. When I asked about this, my friends explained that rooms in these towers were designed with low ceilings in order to increase overall occupancy. Furthermore, they said the kitchens were deliberately designed to be small and minimally functional. According to them, this was a Soviet ploy to keep people from staying inside their living quarters and to force people to eat in public canteens. Based on this information, one can conceive of the form of the building as more than a tight space, but rather an embodiment of an oppressive government in which the housing is shaped for a specific function. My experience of interior space in the Baltic States was given a socio-political context through the reflection and memories of local people.

3.2.3 Observation of urban landscape

Figure 38 View from tower block apartment in Panevezys, Lithuania

My encounter with tower block architecture informed an understanding of aspects of life in the Baltic States, both in the present and in the Soviet Era. Within the buildings, narratives of daily life continued despite being under Soviet rule. Yet, the blank concrete façades gave anonymity to their inhabitants. The flats functioned as modular units of a whole building, and these buildings were repeated in geometric configurations of their own (Figure 38). However, as I have implied in the previous section, such geometry might be seen as more than purely structural. A meaning might be extracted from this method of urban planning. As Wodiczko (1986 p.425) states, “Mimicking and embodying a corporate moral detachment, today’s ‘architecture’ reveals its inherent cynicism through its ruthless expansion.” This expansion can be seen in an extended row of tower blocks in Riga, commonly called the ‘Great Wall’ in reference to the

seemingly endless one in China. I found the geometric repetition throughout the landscape visually arresting and unlike other places I have visited, though the possible meanings and memories from local people suggest a different evaluation.

Figure 39 House of the Blackheads (left) and Museum of the Occupation of Latvia (right), Riga

Tower block apartments can be found throughout the Baltic States, following the Soviet vision that "differences between urban and rural settlements were to be abolished" (Hallas-Murula 2007 p.84). They define the urban landscape, as do other historical impositions of power. Towering over the wooden houses of Riga were Stalinist buildings, with their oversized tribute to classical architecture. The imposition of one ideology over another is most evident in the middle of the Riga city square (Figure 39). The House of the Blackheads, an ornate building dating to the 14th century, was razed in 1948 after being bombed during World War II. Instead of restoring this building, the Red Riflemen Museum was built in 1970, a few hundred feet away. This Museum has a distinctive black metal geometric façade. In the post-Soviet era, the museum was renamed the Museum of Soviet Occupation. In 1999, the Blackheads was restored to its original location. In this way, two competing visions of the city of Riga are evident simultaneously. My observation of interpersonal, interior and urban spaces in the Baltic States was a way of locating my subject within this ethnic context. Historical and local perspectives, in addition to my own observations, can be used to analyse and interpret subject.

3.3 Developing an interpretation of the Baltic States

Figure 40 Jeffrey Sarmiento interviewed at Stiklo Sodas symposium on Lithuanian television

By the fourth day of the Stiklo Sodas symposium, it was clear that my experience of spaces in the Baltic States was heavily influenced by intercultural language barriers (one might even say intracultural), interior spaces that conjured memories of local people, and the dominance of Soviet-era concrete high-rises in the visual landscape. From my own perspective and that of my Baltic colleagues and friends, it is possible to consider the architecture as a cultural 'text' from which one could read meaningful aspects of an ethnic context. During a short televised report on the symposium, I was interviewed and asked about my experience of Stiklo Sodas. I described to the reporter my fascination with the local modernist buildings. The angular geometry of Hotel Panevezys in the city centre and the local landscape of tower blocks were examples of architecture I had never experienced in person, and that it inspired me to make new works for exhibition at the end of the symposium. I later watched the interview on national television, was dubbed into Lithuanian. Whilst I could not understand any of the spoken report, I noticed that the spelling of my name was translated phonetically (Figure 40).

In an essay written about the Stiklo Sodas symposium, I recalled the experience of working with the international artists, the factory, and the outcomes of each artist's work. I wrote, "Based on my first travels to the Baltic, my work revels in the encounter with Soviet architecture, the ideology that shaped it, and the experiences of the period that my new colleagues have related to me. The intent of this work is the make a beautiful portrait of Panevezys, seeing it with new eyes" (Appendix 1). In addition to

my participant observation and the voices of local people, a historical and critical perspective provides a possible frame within which one might interpret the ethnic context of the Baltic States. The personal observations are corroborated by the historical context of Baltic relations with Russia. My own fascination with the ambivalent readings of these edifices is reflected in a debate over the preservation or destruction of Soviet-era architecture.

3.3.1 Historical context of the Baltic language barrier

My observations of language, buildings and landscape might be considered entirely personal. But placed in context, they are indicative of a long-running history of dominance with parallels in colonialism. The history of political relations between Russia and the Baltic States reveals a continued language barrier and ethnic tensions. Russian oppression of the Baltics as targets of imperial interest can be traced to the late 18th century. The three countries were briefly independent in 1917 only to be occupied by the Soviet Union for most of the 20th century (Williams, Blond and St Louis 2006 p.26). Lithuania, Latvia and Estonia were liberated from Soviet control and recognized as independent nations in 1991, becoming members of the European Union in 2004.

The independence and revitalization of the Baltic States is not as simple as it might seem. The assertion of national and ethnic identity is problematic as one of the far-reaching effects of the occupation includes a large Russian and Russian-speaking minority in each country. For example, the population of Latvia consists of 58.3% ethnic Latvians, but they are minority to Russians in the capital city as well as most major cities. Stiff naturalization laws have been met with either a failure or resistance to learning the national languages (ibid p.179). In my observation, this was further complicated by a generation gap between younger people who receive English education as a second language in school, and those who learned Russian in school during the Soviet era. My experience of the communication problems during the symposium was heightened by the need for a common language (English or Russian) amongst speakers of the incompatible languages of Lithuanian, Latvian, and Estonian. In the Baltic States, language translation is tied to complicated cultural history, and it affects daily life in the region.

3.3.2 Contemporary debate on embodied meanings in Baltic architecture

Figure 41 Still from Estonian film *Autumn Ball*, directed by Veiko Ounpuu, 2007

As the previous section states, the history of ethnic conflict has an effect on people's daily communication in the Baltic States. Beyond this, Soviet-era policy exerted a measure of control that helped to shape the visible urban landscape throughout the region. It might be analysed that this aspect of the ethnic context is manifested in the architecture. This perspective could be seen to parallel Miller's (2010) claim that in the same way as we shape material culture, material culture shapes us. In his 'dialectic theory of material culture', he considers 'things', including the natural and urban landscape to be actors upon our culture. Their passive nature as inanimate objects presupposes that the landscape is a frame within which we live and act. According to Miller:

> *The surprising conclusion is that objects are important not because they are evident and physically constrain or enable, but quite the opposite. It is often precisely because we do not see them. The less we are aware of them, the more powerfully they can determine our expectations, by setting the scene and ensuring appropriate behaviour without being open to challenge. They determine what takes place to the extreme that we are unconscious of their capacity to do so (Miller 2010 p.50).*

This narrative of individual's lives framed and, in some ways affected by, life in Soviet tower blocks has been commented on in other media. For example, the film *Autumn Ball* (Figure 41), situated in late Soviet-era Estonia, is focused on the intertwined lives of inhabitants of a tower block in Tallinn. According to the director, the film "tells a tale of human seclusion and the incapability to reach others" (Õunpuu 2007). The film

punctuates the duality of individuality by ‘zooming in’ to portray interactions amongst tenants and ‘zooming out’ to show a vista of identical, repetitive housing units built across the landscape. Multiple perspectives on the meanings, aesthetic qualities, and legacy of Soviet-era architecture shed light on the complexities of understanding the ethnic context of the Baltic States in the frame of social housing.

It is possible to reconsider the formal qualities of the local architecture, which I found to have a visual appeal, as a frame through which to observe Baltic culture in the present day. At the same time, it is clear from the recollections of local people that a history of oppression is embodied in the Soviet-era architecture. My observation of this debate is supported by Stellaccio (2009) and Chaubin (2011) in their reassessment of Soviet-era architectural works. One way to view the architecture is as an eyesore and remnant of past that has fallen into disrepair and should be removed. As Glancey (2011) states, “Most Soviet architecture was still in the prefabricated style of the 1950s laid down by Khruschchev, with cheap concrete, straight Modernist lines, and little place for the artistic imagination.” At the same time, some of the buildings such as the public housing or the Occupation Museum, have either been repurposed, or continue to be in use.

In the present day, remnants of Soviet-era architecture, a mix of the mundane and the dramatic, have multiple readings. The architecture can be viewed to signify a past that should be forgotten, but more recent debate asserts aspects of heritage and value retrospectively. It could be perceived as indicative of the underappreciated innovative tendencies in Soviet architecture. Photographer Frederic Chaubin’s seven-year project to document unusual Soviet buildings includes images of the Palace of Weddings in Vilnius, Lithuania, a “registry office for weddings built on a huge scale to encourage people away from getting married in churches” (Glancey 2011). Shifting the frame of the undetected non-human actors that determine human life, one might see the architecture in a different way. As Chaubin states, “It was possible to reverse what for twenty years had been a cliché of contemporary photography, ‘the post-Soviet world seen in terms of decay.’ I much preferred its utopias” (Chaubin 2011 p.8). This reframing is key to Stellaccio’s advocacy for the preservation and protection of major architectural ceramic works, which are perceived negatively for representing Soviet

ideals: “Though chronologically Soviet and made in accord with official policy, these works are a part of Lithuanians’ cultural heritage” (Stellaccio 2009). He argues that the state-sponsored architectural clay works in Lithuania were expressive, expansive beyond typical studio practice, and original. Through decorativeness, Soviet-era ceramists were able to develop a creative visual language whilst maintaining the institutional mandate of Social Realism (Stellaccio 2006 p.81). In the case of the Soviet-era buildings in the Baltic States lies the dilemma of recognition or denial of something that is still clearly part of the visual and living environment. Chaubin (2011 p.8) observes a changing opinion:

> *Today, however, there are signs of rehabilitation. In Estonia and Lithuania for example, new generations are calling for certain buildings to be listed. Rejecting ideological assumptions, they are simply realizing that it is better to preserve an ambiguous heritage than to face a historical void. Slowly, and unevenly, people are beginning to look at these strange vestiges. But it took the freedom of movement and thought of a ‘tourist’ to re-establish connections between one country and another, and to compose this set of images.*

Both the region’s historically and politically complex language barriers and recent criticism and re-evaluation of Soviet era architecture in the Baltic States are perspectives that contribute to my personal observations and those of local people in considering possible interpretations of this ethnic context.

3.4 *Translations, Façade, Edifice*: fabricating visualisations in graphic glass

These multiple perspectives—personal, local, historical, critical—were influential in my development of a new body of graphic glass artworks inspired by the ethnic context of the Baltic States. Shaped with recollections of local people, I experienced intercultural language barriers, the space within architecture, and the remnants of Soviet influence as it was imposed on the urban landscape. The body of artworks forms my creative, visual response to the cultural context; its iconography is centred on a creative reworking in graphic glass of the concrete architectural façade. Through the use of perspective drawing, my interpretation of Baltic architecture is rendered with imposing angles and vanishing points. Angular geometry and the ‘endless’ repetition of the tower blocks make visible the aspects of faceless imposition on the urban landscape of the Baltic States. The facelessness is mitigated by the use of graphically ‘turbulent’ interior surfaces, hidden behind a blank exterior as a way to show contradiction. Finally, the

concept of individual, contemporary life within the tower block is represented through the use of the window as a visual device to reveal an interior beyond the façade. The glassmaking processes combine two-dimensional screenprinting and waterjet cutting with three dimensional assembly and kilnforming. This section articulates how these visual concepts are fabricated as glass sculptures.

3.4.1 Development of initial sketches and early works

It is possible to consider my participation in Stiklo Sodas Symposium as a model for my working approach in the identification of subject, development of an interpretation of the context, and fabrication of a 'graphic' glass artwork. The symposium was a stimulus for new work in its requirement that the delegates come to an unfamiliar workshop (the Glas Remis factory) and in a few days create new artworks for a gallery exhibition. My goal was to represent in glass the prominent concrete buildings visible from the gallery window.

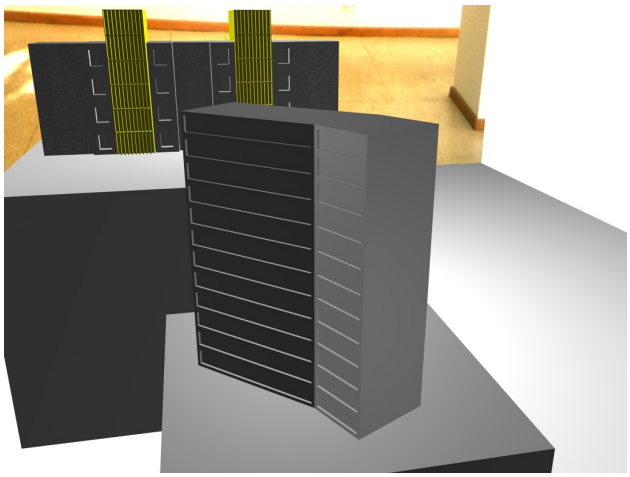


Figure 42 3D sketch of tower block and hotel buildings in Panevezys, 2007.

One challenge for me was that the work was to be created primarily by the production team of master glassblowers and polishers. As their typical production consisted of polished paperweights, I focused my designs to solid-worked glass with some variations in colour and bubble patterning (a simple 'graphic' image). Based on the tower block apartments and hotel in Panevezys (Figure 38), I created simple cardboard models and a 3D computer model (Figure 39), and presented these to the factory team to fabricate. *Tower Block* (Figure 40) consisted of nine polished rectangular solids placed in a tight row to resemble the tower block apartment. Exhibited in Galerija XX in centre city

Panevezys, local people were invited to see the glass artwork, which I conceived as an unusual 'portrait' of their city. This quickly composed artwork is the basis for the expanded body of work exhibited in the *Translations* exhibition in 2008 (Appendix 2).

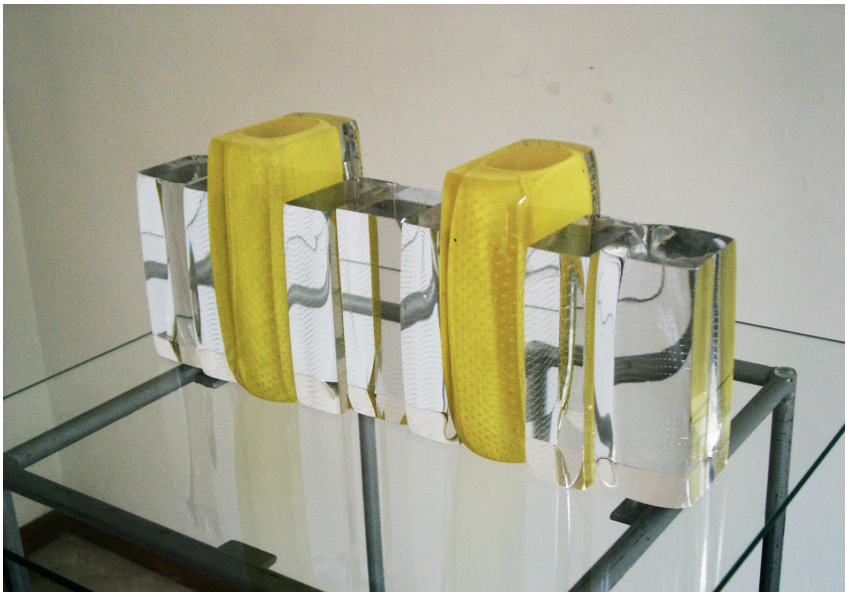


Figure 43 Jeffrey Sarmiento, *Tower Block,* 2007. Hot-formed and polished glass. Fabricated by Glas Remis for Stiklo Sodas Symposium.

3.4.2 Fabrication of graphic glass artworks inspired by Baltic States architecture

The concepts developed for the Stiklo Sodas Symposium inspired the making of an extensive body of work. The following descriptions of selected artworks are shown as examples of the visualisation in glass of façade, turbulence, perspective, and the window as they relate to the cultural history of the Baltic States. To emulate the geometric qualities of the Baltic architectural façades, I expanded my techniques for printing, kilnforming and polishing glass to include waterjet cutting. These processes are used in various sequences to create an integration of the graphic image in the glass form. The artworks created can be seen to reconsider the visual qualities of the Soviet-Era architecture that has become the source of debate in the Baltic States (Section 3.3.2) as well as express aspects of ethnicity based on multiple perspectives.

Figure 44 Jeffrey Sarmiento, *Hotel (Terra),* 2009. Screenprinted, kilnformed, and polished glass. 30 x 21 x 5 cm

Hotel (Terra) (Figure 44) is representative of an approach to visualise in kilnformed glass the compressed nature of the Soviet-era housing within the geometric, forms found its architecture. Drawings of weather patterns were printed to sheets of transparent coloured glass, and fired to fix the enamels to the surface. These sheets were then cut and stacked (the layered appearance representing the compressed multiple floors in Soviet-era housing and hotels) into a mould to create the angular front face of the sculpture. Once fired into a solid piece of glass, the artwork is then completed through a grinding process that creates a symmetrical shape on the rear face and an overall polish that reveals the enamel printed weather patterns. This work resembles most closely the small glass models of local architecture created during the Stiklo Sodas Symposium (Figure 43).

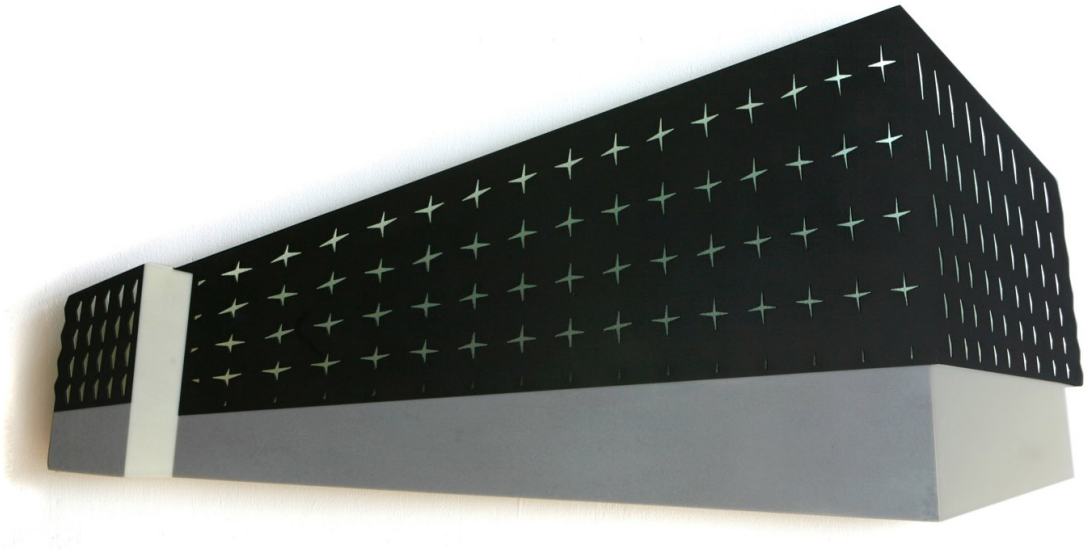


Figure 45 Jeffrey Sarmiento. *Occupation*, 2008. Fused and waterjet cut glass. 108 x 53 x 4 cm

A series of wall-based artworks turned photographs of Soviet façades into cut contours in glass. Photographs of the buildings taken during the field study were used as a basis for vector drawings on a computer. The goal of these drawings was not to achieve a perfect quotation of the buildings as seen, but rather to visualize through the cutting of contours an angular, imposing façade. Such modified architecturally inspired works include *Occupation* (Figure 45) based on the museum in Riga (Figure 39), and *Hotel* (Figure 46), based on the Hotel Panevezys (Figure 37). *Occupation* consists of a large black glass face elevated above a base made of two grey coloured glasses. The three glasses were waterjet cut to form a version of the perspective drawing. Placed into the kiln, the parts were fused together, held in place by a custom-cut kiln shelf border. In a second stage of waterjet cutting, *Occupation* diverges from the geometric relief on the original building, represented instead by a grid of diamond-shaped windows.

Figure 46 Jeffrey Sarmiento, Hotel, 2011. Fused, waterjet cut and fire polished glass. 50 x 45 x 4 cm

Perspective and hidden turbulence are visualised together in *Great Wall* (Figure 47), an interpretation of the tower blocks that are ubiquitous throughout the Baltic States. *Great Wall* is the visualization of the vanishing point experienced when standing at a miles-long building complex. This work is made of two flat planes of glass, combined into a three-dimensional object.

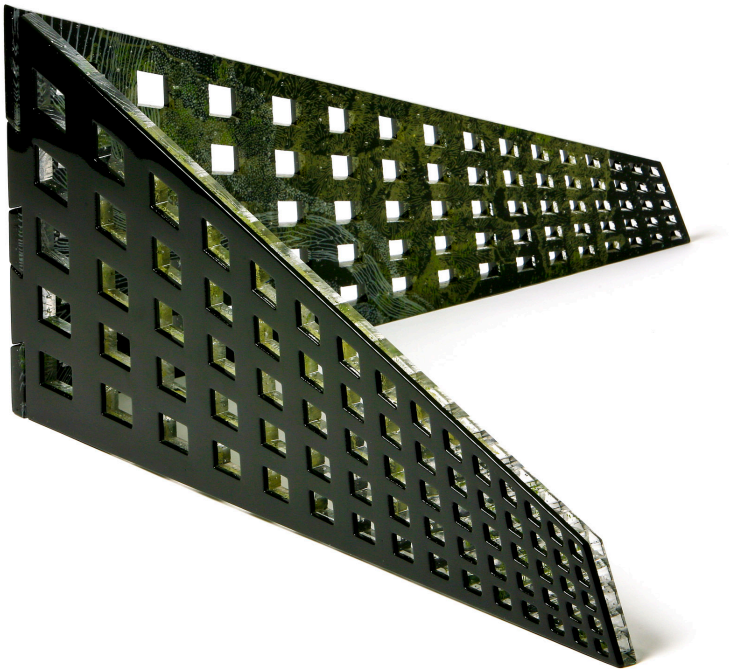


Figure 47 Jeffrey Sarmiento, *Great Wall,* 2009. Printed, fused, waterjet cut and fire polished glass. 46 x 46 x 21 cm

Like *Occupation*, the front façade consists of a shiny, fire-polished black glass face. From the rear view, however, clear glass reveals printed images of geography and symbolic representation of tidal and wind patterns. The graphic patterns represent a visual and metaphorical 'turbulence', hidden underneath the surface. What connects the two parts is a glass version of an interlocking dovetail joint, normally used in woodwork, cut by waterjet and finished by hand.

Biblioteka (Figure 49) was named for the word for 'library' in Lithuanian and several other European languages. The initial three-dimensional model of a six-story library is not based on a specific building, but rather a combination of a building façade and a bookcase. The model is converted into digital contours, and a multiple-stage cutting and fusing process is used to fabricate the work. The six-part exterior is waterjet cut in a white glass. The 60 window spaces, each of which is a unique shape due to the perspective drawing, provide a glimpse of what is going on 'inside' the building. In concept the windows refer to Baltic people living in the high-rise buildings and their own experiences within the blank face of Soviet architecture.

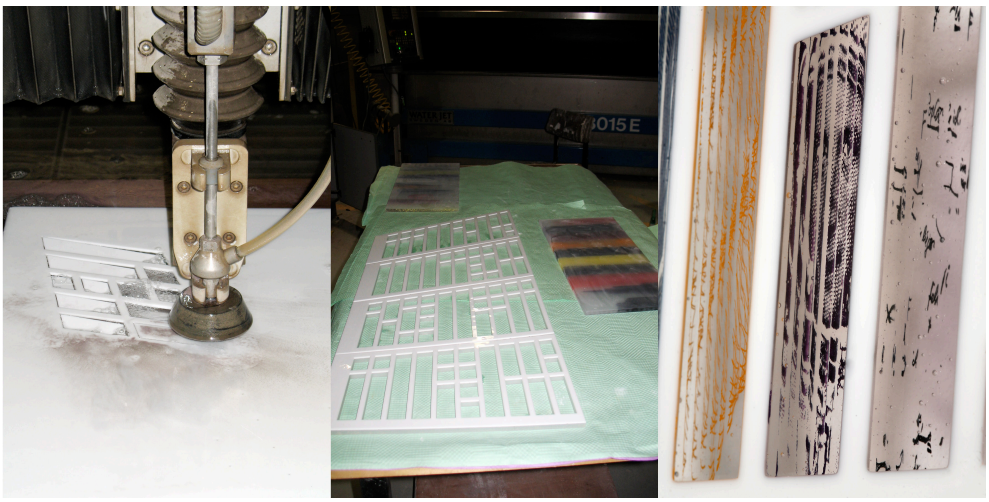


Figure 48 Process shots of *Biblioteka:* waterjet cutting (left), the cut panels before fusing (centre), and the 'compressed' image (right)

To achieve the visual effect of an image packed into the window space (Figure 48), clear glass sheets were printed with text, images and patterns created and collected whilst travelling and working in the Baltic States. To fit the images within the windows, the clear glass sheets were cut in strips, placed on edge and fused together to create a clear sheet with the spliced images as used in *Triple Self Portrait*. This fusing was then

used as a material from which to cut out the ‘windows’. Once filled, the white and clear printed glass are fused together to create six panels, which when installed comprise the perspective drawing of the building. The images are visible from the face as small accents of colour, but from an angle are visible as a compressed image.

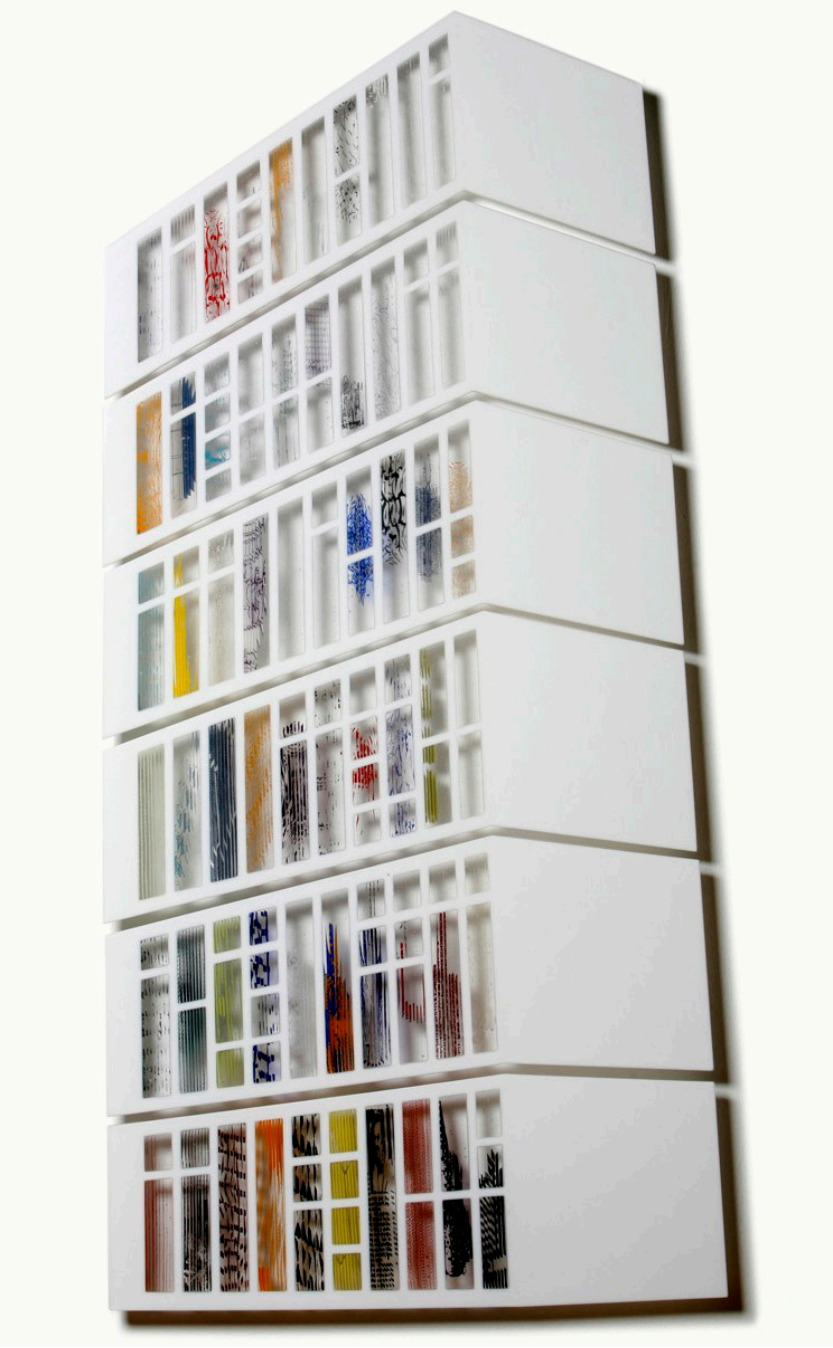


Figure 49 Jeffrey Sarmiento. *Biblioteka,* 2008. Printed, fused, waterjet cut and polished glass. 120 x 60 x 5 cm

3.5 Reflection

The resulting artworks were first displayed as *Translations*, a solo exhibition in 2008 at Bullseye Gallery (Appendix 2). Consisting of screenprinted and fused graphic glass, this body of work represented a departure from the previous show, *Encyclopaedia* (Figure 28), both in terms of form and content. The densely layered multiple images embedded into thick, clear glass blocks in the earlier works were replaced by thinner, taller fused works in which the screenprinted graphic is more of a pattern than a photographic image. The form of the book was augmented into polished, angular forms that resemble simplified models of modernist buildings. A new series of wall-based works introduced an architecture-inspired iconography. This reflection considers the finished artworks and their visual qualities, reconsiders the research methods used in light of the end products, and considers possible interpretations within the field of practice.

3.5.1 Reflection on visual outcomes: analysing the artworks

The representational aspect of these artworks is visible in the overall shape of a majority of the works. They have a photographic basis in that some of the buildings are immediately recognizable as the originals that inspired them. However, instead of being a part of a pictorial composition, the architectural façade has been cut out and is itself an object made of glass. The compositions also depart from the originals in terms of their contours (an interpretation rather than a quotation of an architectural façade) and their use of the graphic image and glass. The work *Museum (Turbulence)* (Figure 48) is based on the photograph I took of a museum building in Lithuania. This work combines the cut contours of a building with the printed graphic pattern of transatlantic currents floating just above a white glass surface. Windows have been cut through this building contour and then replaced with clear spaces. The composition is completed through the fusion of a tinted blue skyline and a black ground, both components alluding to vanishing points in a perspective drawing and subverting a more common rectangular picture plane.

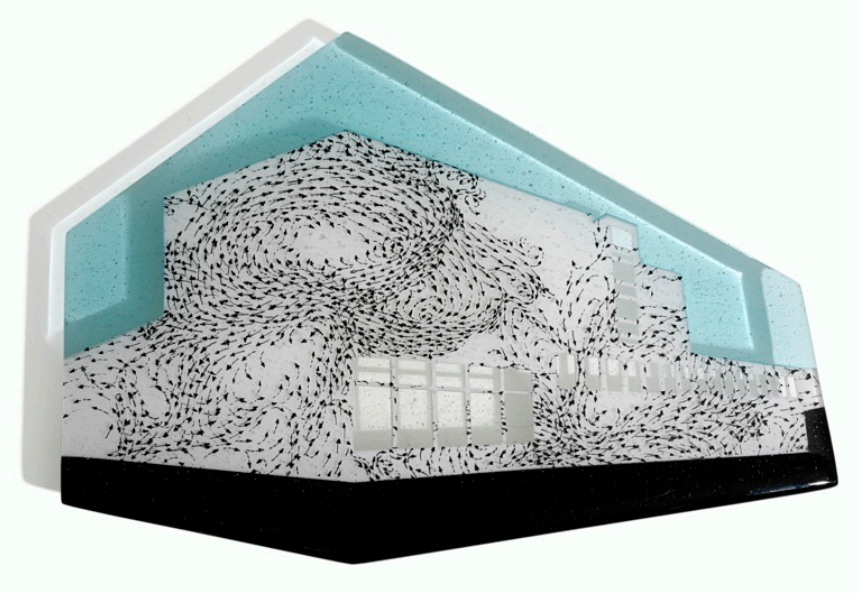


Figure 50 Jeffrey Sarmiento, *Museum (Turbulence),* 2008. Printed, fused, waterjet cut and fire polished glass. 60 x 35 x 3 cm

This body of graphic glass artworks clearly have a relationship to buildings, but the glass is employed to create geometric abstractions. All of the works are either made into the shape of an architectural façade, or detailed patterns inspired by technical drawings, which is apparent in the work *Isometric* (Figure 51). Whereas the screenprinted enamels create the patterned imagery for much of the work, *Isometric* utilizes the waterjet-cut glass in different colours as the source for the pattern. The printed patterns and use of coloured glass begin to distance the artworks from the buildings that inspired them. A key aspect of the compositions is the use of the space between layers of glass, and the contrast between opaque and transparent colours to create illusions of depth and to cast coloured shadows on the walls upon which the works are mounted.

Creative choices in compositions create the variations in colour and form. In translating these façades into glass, the artworks do not appear to be imposing or crumbling. Rather, one might consider this representation a visual transformation. Glass gives the geometrically precise building-like shapes bold and intense colours, embedded patterns and new shapes.

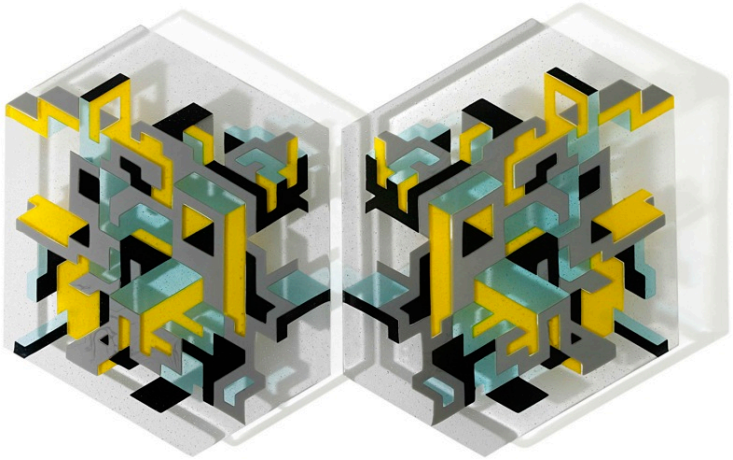


Figure 51 Jeffrey Sarmiento, *Isometric,* 2008. Waterjet cut and fused glass. 90 x 60 x 4 cm

3.5.2 Reflection on methods used to develop artworks

One could interpret this body of artworks as a visual extension of my understanding of a complex ethnic context embodied in the architecture: a fascination with the Modernist forms, the influence of their politically charged history, their existing remains throughout the Baltic States, all juxtaposed with a brief experience of contemporary life in the region. The artworks in this case study are a visual outcome of the methods of subject identification, interpretation of multiple perspectives, and fabrication.

My personal experience during this short field study was inspired by ethnographic approaches. As is typical for any travel to a foreign place, what I saw and experienced is recalled through images and objects collected whilst there. These images are the source for the architectural shapes in this body of artworks. Going further, it was important to interact with Baltic local people, which was accomplished through my involvement with an artist symposium and teaching. Aspects of participant observation and informal interviews provided experiences of space in the Baltic States, augmented by anecdotes and memories of local people. Their reflections on various aspects of their culture and their personal experience of history that colour the way I saw and interpreted local architecture.

I looked to the buildings as a form of cultural text, from which I could develop a reading of the ethnic context. Their recollections on the buildings and on relations with Russians were corroborated by written history on the region, which confirms the

conflict and oppression they spoke of. However, whilst it was relatively easy to detect a history of oppression and remaining ethnic tension, I was also struck by contemporary attitudes, the creative vision of the Baltic glass artists I worked with, and the enthusiasm of the students I taught whilst there. Though the final works appear to illustrate buildings, it might be possible to interpret from this a reconsideration of architecture that has fallen out of favour, or a positive outlook for the Baltic States in the present day. The façade in graphic glass reflects a duality of this enthusiasm and tense political history. It was a device to create contrasts between the repetitive geometry in opaque glass, but also a visual turbulence underneath the transparent surface. Windows cut into the surface represent a barrier in *Occupation*, but they also represent the individual in the more colourful *Biblioteka*.

These interpretations were a catalyst for the development of new combinations of fabricating methods. Whilst continuing to use screenprinting to layer images inside clear glass, the imagery was utilized primarily as a pattern to activate cut architectural shapes. Waterjet cutting was introduced into my fabrication methods, as was the use of CAD drawing to create the geometric cut shapes. These methods allowed me to expand on the precision of cut glass shapes and construction of forms (as in *Great Wall*), to increase the scale of the kilnformed glass, and to work creatively with opaque and transparent glasses to create contrasting front and rear surfaces. These fabricating techniques inform the way in which graphic glass is developed in the next two case studies.

3.5.3 Reflection on artworks within field of practice

This body of artwork has since been exhibited throughout the US and the UK, and curation, description, and criticism of the works provides some indication of how the artworks have been received and interpreted. Two small glass artworks (Figure 40) created for the Stiklo Sodas Symposium were the point for the *Translations* solo exhibition at Bullseye Gallery in 2008, which focused almost exclusively on the Baltic States field study as the source of its content. From the artworks, some viewers were able to read aspects of the Soviet occupation from the work, and even read into it current political conflict. For example, Jahn (2008) reviewed the exhibition and observed from the work *Occupation* that “it stands as an aesthetic ethical reminder of

the dangers imposed from inflexible intellectual and social practices." Jahn attributed further relevance to the exhibition's timing in relation to current events, specifically the 2008 Russian invasion of Georgia.

Three years later, *Hotel (Terra)* (Figure 44) was included in the *Façade: Through a Glass Darkly* exhibition at the National Glass Centre, alongside architectural models, material samples and video works exploring the role of glass in an "ambiguous play between material surface and its depth - what lies beneath" (Wilson 2011). The physical qualities of glass in *Hotel (Terra)* were interpreted as "a tension between its smooth glossy exterior and rich layered interior" (ibid). Three wall-mounted works, including *Hotel* (Figure 46) and *Art School* (Figure 90) were included in a concurrent exhibition, *Edifice*, which focused on artists from Northeast England exploring the impact of Brutalist and Modernist architecture on the urban landscape. The gallery signage described my work as follows: "…Sarmiento's graphic architectural interpretations recapture the sense of grandness that now only exist as crumbling concrete and steel façades" (National Glass Centre 2011). *Dual Nature*, a 2011 exhibition of contemporary glass and jewellery by Asian and Asian-American artists at Wing Luke Asian Museum, displayed both *Great Wall* and *Occupation* in the context of cultural identity. Whilst one of the underlying concepts beyond the choice of medium was to explore ethnic dualities, Kunimatsu's (2011) review featured instead the breadth of technical achievements by artists in each medium, making the distinction that my works employ waterjet cutting in their making, a less familiar process than glassblowing.

Technique, content and form have been aspects of the works that feature in the criticism and exhibition of this body of artwork. The methods of subject identification and interpretation, inspired by ethnography, are influenced by the practices of artists working within a fine art context, particularly the participant observation by Sophie Calle and use of cultural texts by Mohini Chandra (see Section 2.2). The outcomes, based on my fabrication methods, operate more on the level of designer-maker practice. The resulting objects have been generally exhibited and reviewed within a glass art context. Visually and technically, these works bear some relationship to Preston Singletary's wall panel works (see section 2.3.5) in that they quote cultural iconography in glass renderings. My artworks are inspired by my interaction with Baltic people and

their recollection of Soviet oppression, adding a layer of social history to the glass architectural façades. They are, however, less overtly political than the works of Zananiri and Kaffeman, in which violence is visualised as bullet holes and blood-red embroidery. I believe in my work I am attempting to point out the complexities and possibilities for multiple interpretations of ethnic contexts. The properties of glass can be used to visualize individual, subjective aspects of cultural identity that also approach interpretations of ethnic contexts. In the next chapter and body of work, this approach is used to stretch the historical and geographical aspects of ethnicity.

Chapter 4 - Ode on a Maori Paddle: Sunderland Museum Commission

This chapter describes a case study that uses creative approaches to graphic glass art practice inspired by ethnic contexts. The artworks exploit the visual properties of glass to connect multiple narratives in the context of a museum collection. This approach is applied to an interaction with the ethnography stores at Sunderland Museum and Winter Gardens. Observation of the written record recalls the history of the objects and their collector, an identification of subject. The interpretation of labels and markings, and more recent study by both museum staff and the artist, provides multiple contexts for the foreign objects. A history of Sunderland, told through a Maori paddle, is encapsulated in the fabrication of a new original artwork, for which printing, fusing and cutting processes have been refined to embed the graphic image in glass. A reflection on the project considers the visual aspects of the resulting artwork, examines its exhibition and discusses its relevance to ethnic contexts.

4.1 Introduction and synopsis

The artist Mark Dion believes that "once a museum is opened, it should remain unchanged…stuck in its own time" (Kwon and Dion 1997 p.17). The process of ethnographic collection could be seen as an act of freezing. Artefacts are encased in museums with descriptive texts that offer evidence of the diversity of culture beyond local boundaries. At the same time, once they are removed from their place of origin the objects begin their own existence. They bear marks from exchange, from travel to a new home, from ownership of private collectors, and from cataloguing and handling by museum workers. A body of artworks was made that addresses the historical and contemporary perspectives on a collection of ethnographic objects. Artefacts housed in Sunderland Museum have been remade as sculptures, but they are not simply replicas. Bone and wood are replaced with fused glass, the layers of which reveal a new context in which these foreign objects have come to belong. The 'ossified' glass artworks serve as a metaphor for the encapsulation of a complex narrative of foreignness and belonging in Sunderland.

Ossify (2009), a glass sculpture, was commissioned from me by Sunderland Museum and Winter Gardens for its permanent collection. The artwork was created for inclusion in *Collected Fragments* (2009-10), an international group exhibition focused on artists working creatively with taxonomy and collection. In order to develop the project, I was given access to the museum's archive of objects and records. I chose to work with artefacts in the ethnography store because their history was one with which I could identify. From one perspective, the objects are foreign: varied in geographic origin, with their own native materials, aesthetics and functions. With their context, storage, and method of display, I argue this is the dominant way of considering the objects. However, an alternative point of view suggests the possibility of viewing the ethnography store as a collection with its own local connection. Constructing a local identity from these foreign artefacts, informed by historical and contemporary care and study, is the point of departure for a body of graphic glass artworks.

My study of a selection of objects considers specific places, including the location from which the objects were acquired; their private ownership in Victorian-era Sunderland; and the permanent collection in the museum. A historical perspective considers the possible date of the objects' origins; the acquisition and cataloguing of the objects into museum collection; recent study of the objects by museum staff; and the contemporary interaction of my creative project with the collection. These perspectives inspired my interpretation of the collection in new artworks. A new combination of screenprinting and kilnforming techniques explores methods combining the graphic image and form in glass. The development of artworks and their display in the museum for exhibition formed a creative representation, exposing the idea of the cultural text that could be "read" by the viewer. The title of this chapter is a play on John Keats' ode (1884), a poem that animates figures in the image programme on a Greek vase. In what follows, fragments of the poem are used to suggest the visualization of narrative used in this study.

4.2 The 'ethnic' context of ethnographic collections

In contrast to the previous case study, this body of artworks is inspired not by an experience of a foreign ethnic context, though it may be argued that as an Asian-American I am (and might always be) foreign to the UK. Locating the multiple

perspectives on an ethnic context led me to consider how one might extract local identity from a foreign object. This issue is a source of debate within the field of museum ethnography as colonial-era collections in the UK are reconsidered. On the surface, the museum appears to provide an authoritative narrative through display in sealed vitrines, with definitive signage that inscribes a meaning onto the objects contained. However, a post-colonial perspective breaks down the reality behind the signage and display, revealing that such interpretations are always based on partial information. Stanley (1989) describes 'competing readings' for ethnographic objects: the search for an geographic origin, its natural history as material culture, and the rationale for placement within a collection, whether displayed, integrated, or hidden at the discretion of the collector or curator. The museum itself is a complex ethnic context, about which Putnam (2005 p.16) states, "Like a work of art, a museum provides a multi-layered reality of its own." My creative approach to working within a collection of artefacts in the Sunderland Museum echoes some critical questions about origins, acquisition, collection, display, care, and use of ethnographic objects.

4.2.1 Object biography

The framework of object 'biography' unpicks the cultural significance of an object through taking into account an object's cultural origin, as well as its continued 'life'. An object's 'career' might consist of a series of contextual changes that determine its status and value as either a commodity or a unique, 'singular' object. Kopytoff (1986 p.67) asks:

> *"In doing the biography of a thing, one would ask questions similar to those one asks about people: What, sociologically, are the biographical possibilities inherent in its 'status,' and in the period and culture, and how are these possibilities realized? Where does the thing come from and who made it? What has been its career so far, and what do people consider to be an ideal career for such things? What are the recognized 'ages or periods of a thing's 'life' and what are the cultural markers for them? How does the thing's use change with its age, and what happens to it when it reaches the end of its usefulness?"*

An object's biography is multi-faceted, and the cultural context in which it is being assessed provides possible readings of the object. *The Other Within* project revisits 'world' objects in the Pitt-Rivers Museum collection in search of English roots. Connections to England are found in objects that were: actually made in England;

donated to the museum from within England; or in the private collection of an English donor. Wingfield (2009) states,

> *'Relocating England' at the Pitt Rivers Museum does not necessarily mean excising and separating the English Collection away from all the rest, or even assigning them to locations in the English countryside. Instead, it can mean locating them within the complex matrix of relations, both spatial and temporal, in which they are suspended in the museum.*

Like *The Other Within* study, I attempted to expose what the ethnographic store might reveal about English culture. The object biography challenges readings focused purely on ethnic and geographic origins and might reveal local narratives from an object that on first impression appears to be foreign.

4.2.2 Rationale for collection

Following the career of a museum object often indicates that the object has changed hands over time. For every collection, there is also a collector, or many of them. This perspective might reveal a worldview that speaks more of the time and place of the collector than the ethnic or geographical origins of the objects themselves. As Benjamin states,

> *For inside him there are spirits, or at least little genii, which have seen to it that for a collector—and I mean a real collector, a collector as he ought to be—ownership is the most intimate relationship that one can have to objects. Not that they come alive in him; it is he who lives in them (Benjamin 1999 p.69).*

The Pitt Rivers Museum is well known for its morphological approach rather than an ethnographic arrangement of its collections by culture and geography. *Rethinking Pitt-Rivers* is a recent project that reconsiders the museum collection through a study of the man, General Augustus Pitt-Rivers himself. He donated the collection that comprises the museum in 1884, but continued to collect privately a full museum's worth of objects. By assessing this second collection a new picture of this era can be made, as "it is impossible to understand the history of collecting and the development of museums in the period without taking account of Pitt-Rivers' activities and ideas" (Coote 2010). Meticulous records of the now-dispersed holdings might reveal a different collection philosophy and strategy to the one assumed today. The relationship between a collector and the object challenges a more familiar way of looking at objects and their accompanying signage.

4.2.3 A creative approach to glass artwork inspired by museum collections

My methodology works to visualize in graphic glass artworks the layered narrative beyond the text and object presentations in vitrines. This way of working parallels projects by contemporary artists who, according to Weight (2008 p.116), "reinvigorate and activate the compacted layers of the museum, turning things over, seeing things with a fresh eye, finding new meanings and making connections to concepts and ideas outside the familiar pragmatic discourse of the institution." Historical connections and contemporary interactions with objects and people involved with the ethnography store in Sunderland Museum inspired some new considerations of graphic glass and the development of new fabricating techniques. In identifying the subject, I analysed publicly available documentation about a Sunderland historical figure and his collection. The contemporary handling and study of the ethnography store in Sunderland Museum adds to the multiplicity of perspectives of this ethnic context. This multiplicity is addressed in the process of fabrication, in which the graphic image is integrated with the glass object, visualising the complex narrative established by the study. Through its display in the museum, the resulting artwork suggests one alternative to considering the ethnography store by expressing aspects of ethnicity and exposing the local history of an ethnographic object.

4.3 Identifying the subject within the ethnography store

> *What leaf-fring'd legend haunts about thy shape*
> *Of deities or mortals, or of both… (Keats 1884)*

Being given access to the museum archives provided me with more than the source of unusual objects to look at. Rather, my seeing, handling, and drawing of artefacts in the ethnography store, combined with museum records and the history of the collector who brought them to Sunderland, created a complex 'object biography' from which I could draw local connections.

4.3.1 Identifying objects, collection and collector

Initially, I examined objects in the ethnography stores, creating sketches and notes from what I could observe (Figure 52) The objects are organized mostly by shape and size, with rows of spears, staffs, and paddles tied vertically to wall racks, and other items in boxes and plastic crates. Tied to most of the objects are tags with museum accession

numbers, which again relate neither to geographic provenance, nor the date of accession. Rather the numbers indicate only to the order in which the items were catalogued. Several objects offered more clues in the form of old museum documents.

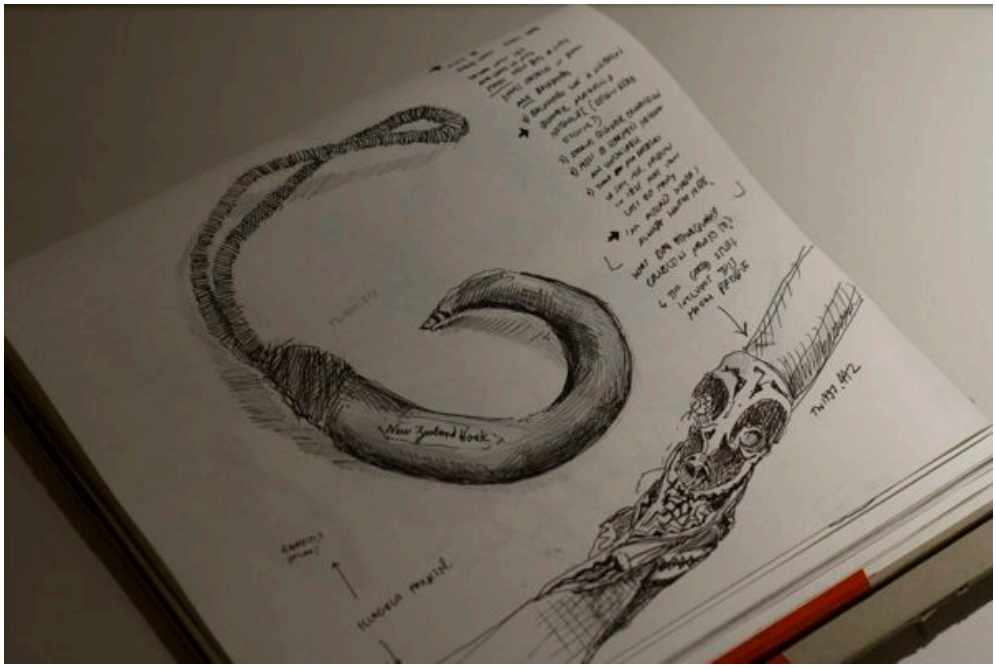


Figure 52 Jeffrey Sarmiento. Sketches and notes of ethnographic objects from New Zealand. 2009

A hand-written record of a portion this collection, 'Rough List of Objects from Australia and New Zealand in the Museum,' dates to 1909-11. This record (Figure 53) helps to identify specific objects from the 'Edward Backhouse Collection,' currently in the ethnography store. The rough list and accession records provide information such as material, object, cultural and geographic origins, and function. Notably missing are diagrams and a numbering system (the numbers in the notes appear to have been added more recently).

The majority of c700 objects in the ethnography store likely belonged to Edward Backhouse Jr. (1808-79), a prominent Sunderland philanthropist and Quaker minister (Stephen 2004 pp.105-6). Written records help to identify the collector, individual objects in his collection, his donation to the Sunderland Museum, and the collection's use within the local museum community. Texts written by and about Backhouse might provide clues to how and why he collected these objects.

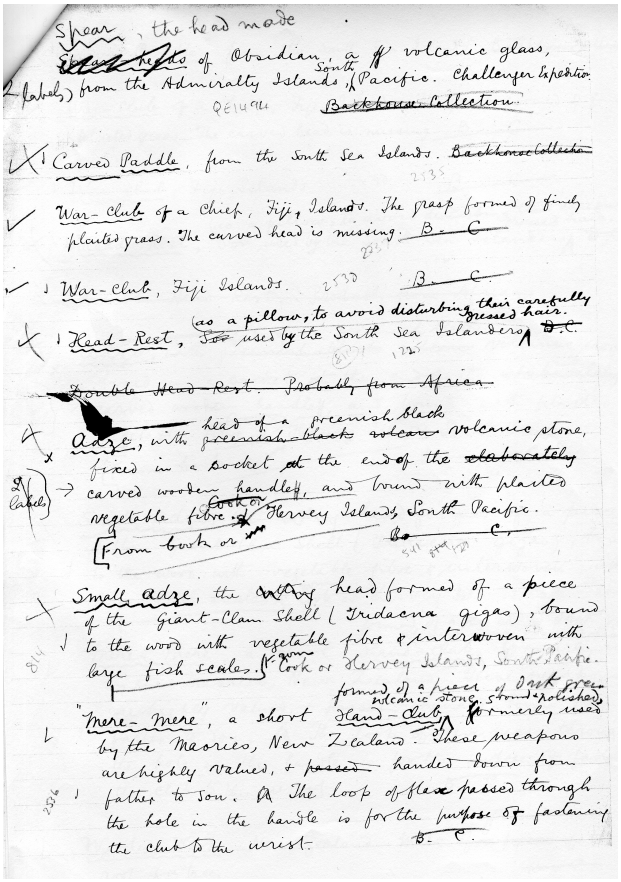


Figure 53 Excerpt from "Rough List" accession notes marked 1909-11

His writings indicate his devotion to the Quaker religion. Backhouse (1870) contrasts dominant church practices against those of the Society of Friends, which supports the abolition of a formal clergy, organized mass, and religious holidays, and the inclusion of women in ministry. This perspective is highlighted in his posthumously published *Early Church History*, which he "thought might prove useful to some as exhibiting the principles and practice of the churches, viewed from a Quaker standpoint, and compared as nearly as (he) could with apostolic precedent" (Hodgkin 1892 p.xii). Although he was born into a wealthy banker's family, Backhouse devoted himself instead to public service and philanthropy. Newspaper records indicate he led the North of England Temperance League. He founded Sunderland's Mission Hall for social outcasts. Hodgkin (ibid p. xi) explains, "The sorrows and sins of great cities, and especially of the great seaport near to which he himself lived, claimed a very large share of his time and thought, and he spent not only money, but health and energy freely in the endeavour to alleviate and reform them."

Backhouse also travelled within Europe, where he pursued interests as an amateur painter and naturalist whose “large collection of shells and butterflies were the most complete in the North of England” (Robinson 1900 p.155). It was perhaps his “zeal for usefulness” (ibid p.156) that motivated his collecting habits, much of which he donated. For the opening of the Sunderland Public Library and Museum in 1879, the collections in the Museum were given “a thorough refacing, and have been enhanced by gifts from the late Mr Edward Backhouse, Mr F. Corder, and others” (Newcastle Courant 1879). The donation of his full collection to the Sunderland Museum did not occur until 1907, more than twenty years after his death.

4.3.2 Identifying the subject through marked objects

Few conclusions about the ethnography store can be drawn from the early museum records and Backhouse’s own writings. Despite having widely travelled in Europe, he had likely never been to the South Pacific, the presumed origin of many of his ethnographic objects. No records exist of how these objects were kept or displayed whilst in his personal collection (the objects in the ethnography store forming only a mall portion of his total collection. His identity as a civic-minded Quaker and philanthropist are confirmed, as is his tendency for collection, of which the ethnography stores form a small portion.

Before being allowed to work in the stores, I was briefed by museum staff in proper handling methods for the objects (the use of non-marking gloves, careful lifting and moving, and wrapping in acid-free papers and plastics). I found it surprising that some of the more prominent information on the objects was in fact deliberately inscribed on them.

Figure 54 Bedposts made from narwhal tusks. Edward Backhouse Collection Sunderland Museum Ethnography Stores

For example, the Rough List describes a “Bed-post, made of ~~cut from~~ a Narwhal’s Tusk (~~Monodon monoceros~~). The tusk is only found in the male Narwhal, and is nearly always that of the left side of the upper jaw” (Figure 54). What the list omits is easily found upon inspection of the object (Figure 55): a label, carved into the lathe-turned base of the tusk. The text reads: ‘Bedposts of James Everett. Obit 1872. Left by him by letter to me: Edward Backhouse.’

Figure 55 Detail of bedposts with carving in Edward Backhouse's hand

The markings confirm that the narwhal bedposts, as well as several other objects, belong to the Edward Backhouse Collection. Texts in Edward Backhouse’s own hand have been written in ink and varnished, or physically carved into the objects’ surfaces. Additionally, some objects have been marked later with ‘EBC’ or ‘Edward Backhouse Collection 1907.’ In the absence of a compete inventory, the physical markings could be considered an important part of the written record. This ‘writing’ establishes geographic and cultural origins, the function of the objects, and the date and method by which he acquired the pieces. The origins of unmarked objects in the collection are less definitive. It is the indelible mark on this and other objects that establishes a physical link between Backhouse and his collection, providing clues to his acquisitions and what he knew about them. In most cases, no attempt been made to conceal his writing. On a number of objects he has written directly to multiple surfaces on the objects, most often with the original country or culture as the most prominent feature: Australia, Greenland, Zulu.

This interaction with the objects suggests his interest in how the objects should be understood.

In the process, the marked objects become linked to 19th century Sunderland as the point of cultural exchange, legacy, research, and debate. It is possible to consider the markings as a defacing of the objects, which can no longer be restored to their pre-collection appearance. At the same time, it is the markings that provide critical information and the most direct contact with the writing of Edward Backhouse. Backhouse, whose donated collection helped to launch the Sunderland Museum and Winter Gardens, is the main connection to Sunderland, both historically and in the present day.

4.4 Contemporary perspectives on the collection

What little town by river or sea shore… (Keats 1884)

Despite their known foreign origins, the artefacts can be used to construct a picture of Sunderland through their connection with Edward Backhouse. The contemporary perspective elaborates on local connections by establishing not only the historical links but also the relationships that continue to form between Sunderland and the objects. Such a process underlines the malleability of the meaning of things exchanged via colonial exploration. According to Thomas (1991 p.25),

> *As socially and culturally salient entities, objects change in defiance of their material stability. The category to which a thing belongs, the emotion and judgment it prompts, and the narrative it recalls…conveys something of our projects in foreign places and our aesthetics—something which effaces the intentions of the thing's producers.*

The interaction between recent keepers and the collection forms another key relationship, in which the artefacts continue to be researched, preserved, and displayed. The hand-written museum accession notes have been replaced with a MODES database. This digital inventory provides physical descriptions and images, as well as place of production, field collection, collector, conservation condition, acquisition by museum and previous owners, accession numbers, storage location, and the name of the recorder of this information. In 2000, Leslie Jessop, then Keeper of Biology at Sunderland

Museum, took a detailed inventory of the objects in the ethnography store. His notes comprise the majority of the MODES ethnography database.

Figure 56 'Maori paddle, with *manaia* figures at base of blade and end of shaft. Probably of early to mid 19th century date. Carving similar to the Parkinson-figured paddle in the Hancock Museum, but shows no traces of printed decoration' (MODES database, Tyne and Wear Museums and Archives)

One object that Jessop studied intently was a Maori paddle (Figure 56). The 'Rough List' describes this item among other identifiable objects in the ethnography stores as, "Carved Paddle, from the South Sea Islands. Backhouse Collection." The carving is Maori, and suggests a possible 18th century date; its form is similar to other 'painted paddles' (Neich 1993 pp.53-73), but in this case the blade is not painted. There is no documentation to allow us to trace its history other than to the Backhouse bequest.

In 2003, Jessop described a similar Maori paddle in the Hancock Museum in nearby Newcastle upon Tyne about which much more is known (Jessop 2003 p.109). The red painted pattern on the blade indicates that this paddle was one of three sketched by Sydney Parkinson during the voyage of the *Endeavour*; it was acquired in 1769 in New Zealand. Written records enable us to trace the acquisition of this paddle to the purchase at auction of George Allan's collection in 1822 by the Newcastle Literary & Philosophical Society. The paddle is marked, not only in its printed decoration, but also in labels. The letters 'NHS' on the paddle blade refer to the Natural History Society (founded in 1829: the letters were possibly added in the 1830s when Allan's collection was being divided between the N.H.S. and the Society of Antiquaries). Allan glued a distinctive oval label on to many items in his collection, on which he wrote a description. The label has been removed from this paddle, leaving an oval-shaped stain on the shaft and remnants of text from the ink, which has bled through.

In search of Backhouse's writing, dye patterns or other identifying marks, Jessop conducted a thorough visual scan of the Sunderland paddle, using infrared camera, ultraviolet light, and light filtered through coloured cellophane films. He was able to reveal some deeply faded text on the object. He found no Backhouse writing, nor dye patterned marks, but he did find something else. The text, the words ‘Zealand’ and ‘paddle’ repeated in a printed hand along the edge, confirmed the likelihood of a South Seas origin; the word ‘Roberts’ appears once, very faintly, on the blade (Figure 57). Whereas Backhouse's writings provide a narrative for origin, function and acquisition, the rationale for this marking of the object is unknown. In discussions I have had with Jessop, he speculates the word ‘Roberts’ might possibly be James Roberts (1752-1826), one of Joseph Banks's servants on the *Endeavour* voyage who might have written on the object.

Jessop's search for clues in the origin of the Maori paddle is an example of how complex these objects can be, and how they can continue to have a life beyond their accession. The carved object with decorative *manaia* figures refers to Maori origins in the mid 18th century. Edward Backhouse later owned the object and, unlike with other significant ethnographic objects he owned, elected not to mark this object in his own hand. And finally, once donated to the Sunderland Museum, the paddle has been conserved and analysed by keepers such as Jessop, revealing the ‘Zealand’ and ‘paddle’ markings made at some point between its trip from the South Seas and its collection in Northeast England. Analysis of multiple perspectives exposes the complex ethnic contexts in which this paddle belongs.

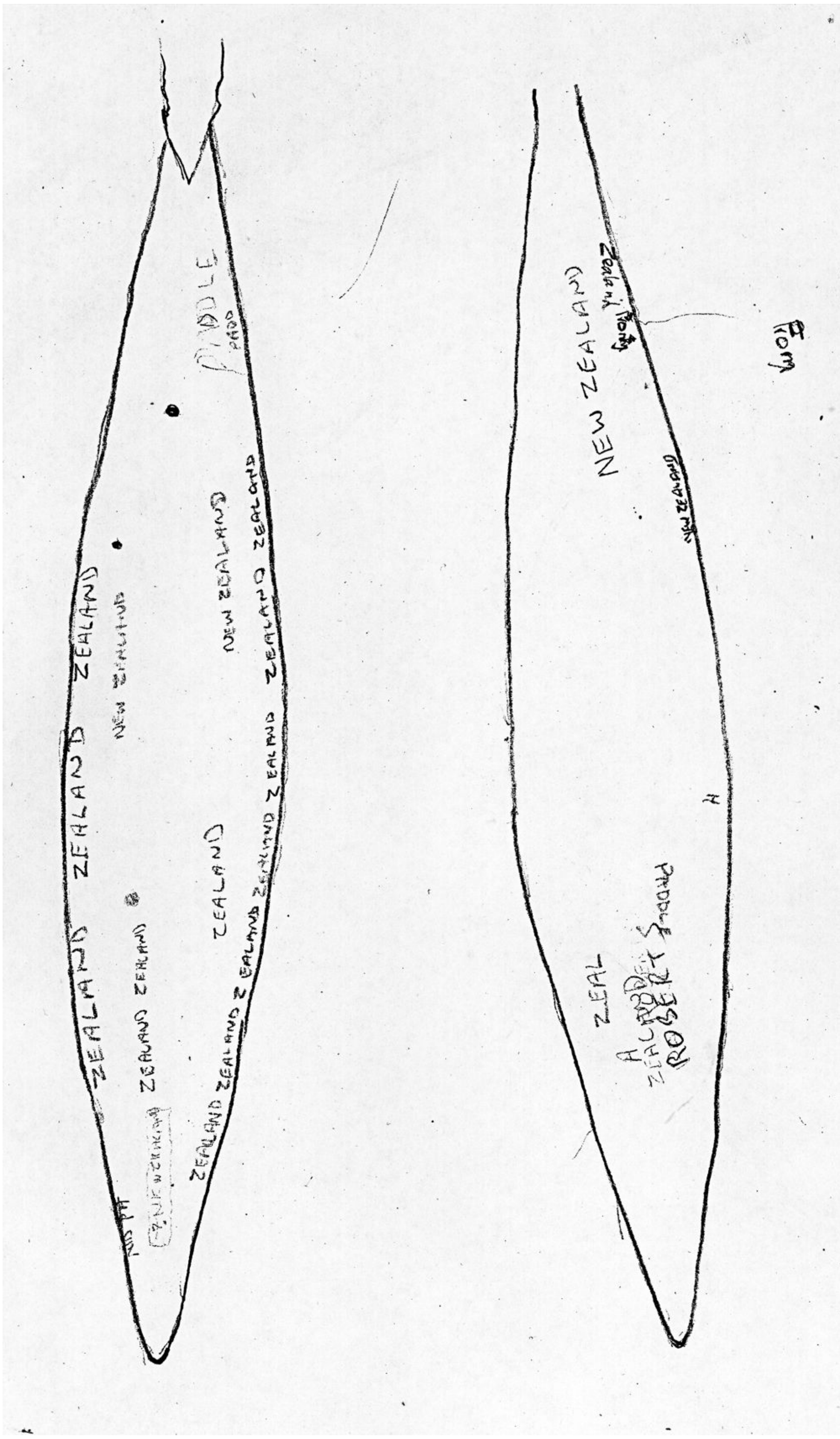


Figure 57 Les Jessop, diagram of found text on Maori paddle

4.5 Fabrication: creative interpretation of the collection

O Attic shape! Fair attitude! with brede
Of marble men and maidens overwrought… (Keats 1884)

In Sunderland Museum and Winter Gardens, the Maori paddle sits in the World Art display, themed 'Identity,' with other objects from the ethnography stores (Figure 58). The label placed on its plinth describes in two sentences its origin and design, as well as the invisible 'Zealand' and 'paddle' markings. In this method of display, very little of the object's history can be revealed to the viewer, particularly its Sunderland history and its recent interactions with Les Jessop and myself.

Figure 58 World Art display, Sunderland Museum and Winter Gardens, 2009. The Maori paddle is laid on the floor in front of the largest plinth.

What if the object could tell its own story? To turn Keats's 'Ode on a Grecian Urn' inside out, could an object be created that does tell it? Inspired by the complex history of the paddle, I was inspired to visualise the multiple perspectives within a graphic glass object. I wished to include its original form through creating a replica in glass. But I also wanted to incorporate the written records, museum acquisition and handling, and Backhouse's identifying inscriptions that bring detail to the paddle's biography. I proposed the making of a graphic glass artwork that might be able to illuminate the layers of cultures, collectors, and museum practice that comprise this context.

The fabrication of this body of works expands on combined techniques of screenprinting, waterjet cutting and kilnforming used in the previous case study. This case study adds the use of selective transparency in coloured and printed glass as well as carving and polishing processes resulting in a deeper integration of the two-dimensional image and the three-dimensional form.

A unique aspect of this project was the choice of glass in the replication of forms found in the ethnography store. Glass for the studio artist is made in a variety of colours, with the *Encyclopaedia* works consisting exclusively of clear glass, and the Baltic States works using a combination of opaque and transparent coloured glasses. In this body of artworks, the colour pallet was simplified to combinations of clear, translucent 'opaline', and white glass. This developed from two fabrication ideas. The white and opaline glasses could be made into forms replicating museum objects, and that this colour would give the objects the appearance of a wood or bone-like material. With this colour choice, a visual connection could be drawn between the glass and the original materials of the ethnographic objects.

Figure 59 Jeffrey Sarmiento, *Comb*, 2009. Printed, fused, and carved opaline glass. 15 x 8 x 1 cm

In contrast to the use of the layered screenprinted image creating a random pattern on the cut contours of the Baltic States works, strategies for specific placement of prints within the kilnformed glass were developed to create new visual effects. Two distinct approaches to manipulating the printed image within fused glass were identified. The first was a manipulation of printed text, used as a 'graphic grain' within cast glass, cut and carved into form. In *Comb* (Figure 59), the handwritten notes from the 'Rough List'

were copied and screenprinted in brown enamel and fired onto a sheet of opal glass. This sheet was then hand-cut into 15mm thick strips, turned on edge and fused into a single block of glass. This technique produces two distinct effects. First, the cut and fused glass reveals the layers in cross section, making visible the veils between the cut strips of glass. The embedded text on the veiling appears as a linear pattern inside the glass.

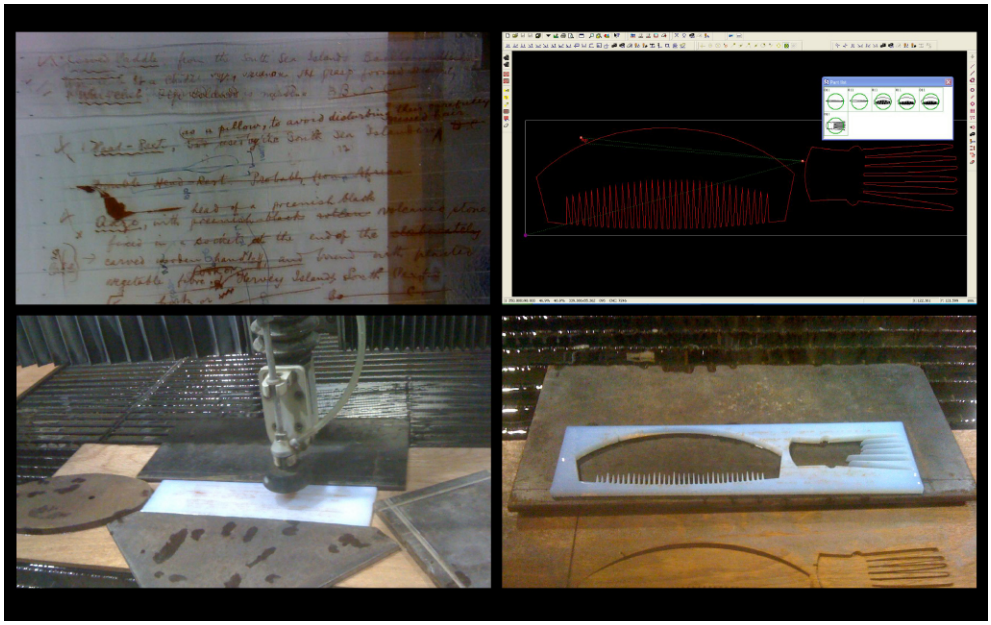


Figure 60 Process: printed and cut text on glass, CAD drawing of comb, waterjet cutting shape, remnants from cutting.

The resulting glass block with a 'graphic grain' could be considered a material prepared for cutting and carving, referring to the wood or bone in which the original handmade artefacts were produced. To demonstrate this, the shape of a wooden comb from the Sunderland Museum ethnography store was drawn in a computer-aided drawing (CAD) application. Processing this drawing, a waterjet cutter was used to cut the comb's contours out of the glass block. As the cutter is driven in only two dimensions, the resulting 'comb' is square on the edges, with 15mm thick tines. To finish the work, I carved and polished the object with an abrasive belt sander. This softened the edges for a refined shape more closely resembling the original object. When *Comb* is viewed from an angle, the text is easily legible through the polished glass.

A second approach to manipulating the printed, fused glass could be called a 'carvable image'; this technique was employed in the making of *Ossify* (Figure 63). This work

emulates the form of the Sunderland Maori paddle, carved from a material with embedded graphics: a portrait of Backhouse, a drawing of the carved *manaia* pattern on the paddle, and an excerpt from the *Newcastle Courant* on the opening of Sunderland Museum. The challenges in this work were to produce a three-dimensional form using white glass whilst preserving the legibility of the embedded images.

Figure 61 Process: screenprinted multiple glass sheets (left), kiln fusing setup (right)

This departed from the first approach in that the sheets of glass were screenprinted with the same, repeated image, then stacked and fused together (Figure 61). Using grinding tools, an object could then be carved out of the block. Because the image is the same throughout the glass, the carving away of the front layer results in revealing a layer of print below. As the brick-shaped block is given its final form and then polished, the overall image continues to hold together despite heavy removal of material. The resulting fused block was waterjet cut to produce the paddle's outer shape. Using a water-fed pneumatic grinder with diamond abrasive discs, the glass was carved and polished into a form resembling the original paddle (Figure 62). Sheets of clear glass were placed in between the printed white glass layers in order to reveal more of the images. As a result, the carved image emerges legibly from a striped clear and white polished glass form (Figure 63).

The final inscription on *Ossify* consists of text, permanently etched onto the surface of the glass object. On the back of the sculpture, the marks that Jessop revealed have been sandblasted (using a photosensitive resist) on the blade of the paddle as they appeared in Jessop's notes. Placed among these marks is one in my own hand: 'Sarmiento.' These

marks add the contemporary interaction with the collection onto the artwork, and make visible the multiplicity of perspectives in this ethnic context. Inspired by the English biography of the ethnography collection, I wanted to visualise in these artworks that where an artefact is from and where it belongs might be more complex than is initially visible. Utilizing drawing, photography and text, embedded into layers of glass through print, *Ossify*'s contents give the artwork a Sunderland-specific context.

Figure 62 Process: fully fused glass, shown with stack of parts (left), grinding glass into final shape (right)

Figure 63 Jeffrey Sarmiento, *Ossify*, 2009. Printed, fused and carved glass. 102 x 10 x 4 cm

4.6 Reflection

Figure 64 *Collected Fragments* display case with ethnographic objects, sketchbook, accession notes and glass versions of objects in the collection

This body of work was first exhibited in *Collected Fragments* in Sunderland Museum, in a section focused on artworks related to the theme 'Museum'. *Ossify* was displayed in a vitrine accompanied by two displays tracing the development of the commission. The first case (Figure 64) included objects from the ethnography store, my sketchbook, the original notes on the Backhouse accession, and graphic glass versions of objects in the store (*Comb* and a harpoon barb). The second case (Figure 65) focused on local interactions with the ethnography store and the development of the 'carved image'. Portraits of Edward Backhouse, Les Jessop and myself were rendered as printed, fused and carved glass preparatory works. This mixed display of objects and artwork exposed one alternative reading of the ethnography stores, in a contrast to the display of the Maori paddle in the gallery across the hallway. It adds another layer to this ethnic context, echoing James Putnam's statement about the making and curating in Edmund De Waal's practice: "Interweaving artefacts from the past with those of the present provides an essential link between the hand of the maker and the museum object, but also represents a fascinating subversion of the museum's dependence on linear time" (Putnam 2005 p.19). This reflection considers the body of artworks within the field of practice, a consideration of inscription as it is related to the artwork, and possible interpretations of the project.

Figure 65 *Collected Fragments* display case with 'carved image' portraits

4.6.1 Reflection within field of practice

This body of work considers the museum as a physical site as well as a cultural and historical context; this working method is reflective of tendencies within contemporary art practice. Artists working in this way are inspired by and, in some ways challenge, how objects in a museum can be read as cultural texts. In this sense, the artists are creatively interpreting object biographies.

In *Collected Fragments*, the body of work was situated next to Justine Cooper's *Saved by Science* series. She used of a vintage film camera from the New York Museum of Natural History to create photographs of its storage areas, including stuffed animal specimens queuing for pesticide freezing, fossils wrapped in 19th century newspaper, and a dinosaur skull in a cabinet. Her photographs do not document these artefacts; instead they show how they are organized and handled. Her process shares a resonance with this study in its exposure of hidden historical and contemporary narratives within museum practice. This way of working parallels Mark Dion's creative considerations of the museum as a 'time capsule' and acknowledgment of work with artefacts going on behind the displays (Section 2.2.4). He makes a suggestion to "open up the laboratories and storerooms to reveal art and science as the dynamic processes that they are" (Kwon

and Dion 1997 p.19). He mimics archaeology through ‘digs’ in specific historical and cultural contexts, displaying contemporary ephemera in nineteenth century-styled cabinets of curiosity.

Figure 66 View of *Collected Fragments*: *Ossify* with Justine Cooper’s *Saved by Science* series

With the layers of embedded graphics that provide an alternative context of Northeast England to the work, the artworks *Ossify* and *Comb* visualise the concept of object biography (Section 4.2.1). Working within the museum context, this work, along with previously described artworks by De Waal and Jelinek (Section 2.2.4), artists interrupt what appear to be established narratives set up for viewers in the museum and invite other ways of interpreting museum collections. Access to museum objects and the creation of narrative also inspired Chris Dorsett’s artistic work with Cheltenham Museum, in which he utilised “forms of interpretation to achieve communal success without institutional authority” (Dorsett 2010 p.253). Curating the museum ‘reserves’, his narrative of the town’s last tram, stuck in storage and so large that it could not be moved to a display area, was visualised by showing a single artefact—a fragment of the tram in the gallery. The object biography was augmented by signage that described the tram’s connection to a former Rolling Stones drummer, evidenced by an apocryphal photograph. He states, “Given the anecdotal appeal of the tram story, the mirror was as powerful on display as a photograph would have been, had one eventually been found in the local history archive” (Dorsett 2008 p.130).

One aspect that distinguishes this project from others is the use of graphic glass to create objects such as *Ossify* to encapsulate a narrative of Northeast England. Techniques of kilnformed glass and screenprinting are combined to integrate image with object as a visual metaphor for the way in which Les Jessop's present-day search for clues to the history of Edward Backhouse and the Sunderland Museum is embedded in the biography of one of the objects he collected. Unlike the work of Jeremy Lepisto, in which his urban landscapes are revealed in the polished surface of transparent glass, my work uses opal white glass as a visual link to bone. Like bones, the glass is carved into an artefact-like form, and the visualised narrative is physically embedded as a texture and image.

4.6.2 Consideration of mark making and inscription

As an artwork made in graphic glass inspired by an ethnic context, mark making was both an inspiration and a source material for the fabrication of this body of work. In this way both the content of the work as well as its construction reference the effect of inscription. Literal markings on both the collected object and the fabricated artwork make multiple meanings.

I was deeply inspired by the search for marks, particularly permanent labels, on objects in the Sunderland Museum ethnography store. The possibility that the history of the object is more complex than is initially visible spoke to my intent to express mixed ethnicity whilst removed from an 'original' cultural context. Thus, the search for ethnic origins of these objects were less relevant to my study than the context in which the ethnography store is currently located, that of Northeast England. The mark making or labelling of these objects was particularly important because the carving and ink stains are permanent and indelible. Even if the texts written by Backhouse could be removed, the information has been recorded and used as a tool for identification by the collection keepers of Sunderland Museum. What might be considered damage to an ethnographic object has become a permanent and vital record of its 'biography'. The artworks made in response utilize drawing, photography and text, embedded through print into layers of glass. The printed marks become an integral part of the glass—as graphic grain and carvable image. *Ossify's* contents give the work a Sunderland-specific context. The

clarity of the image, a portrait of Edward Backhouse, and the text, a description of an event in Sunderland history, were critical to this.

A parallel dialogue about inscription within museum ethnography is concerned with the issues that inspired my artwork. The inscriptive process through which a 'thing' in real life becomes an ethnographic museum object is central to Wingfield's (2010) study of the now-dispersed ethnographic collection of the London Missionary Society museum. Because the collection consists of objects that have been in museums longer than they have been used in daily life, the labels serve not only as clues to finding the indigenous origins of various objects. He states, "Attending to museum labels as documents can arguably tell us more about the cultural practices of museums and the people who work in them than they can about those of the people who originally made the objects they display" (Wingfield 2011). This statement makes clear that my visualisation of the paddle's object biography, inspired by marks made on its surface, resonates with contemporary discourse within museum ethnography.

It could be argued that the focus on the ethnic context of Northeast England and a Sunderland-based collector is the dominant narrative, and that my artwork based on a Maori paddle could potentially be seen as a continuation of colonialist narratives. It is important to state that whilst Keat's *Ode on a Grecian Urn* might describe a particular artefact, the urn is only the starting point of a poetic interpretation. The subject matter could be discussed as a musing on the impermanence of youth and beauty. Therefore this is not intended as a Maori study, but rather as an artwork that reveals a multiplicity of perspectives surrounding an object that has settled in Sunderland, reflecting my personal experience within an ethnic context. The introduction of myself into the narrative, an inscription of my own name onto the surface of the artwork, is a way of visualising Wingfield's thinking on the marked object and the shifted frame of reference from one ethnic context to another.

4.6.3 Possible interpretations of the artwork

It could be said that the body of work created is a visualisation of the Sunderland Museum paddle's biography of possible origins referenced through its form, and its collection and career in a public museum exposed in the embedded graphics in the

glass. The multiplicity of perspectives include an assessment of the object's collector, as well as the object's English history, both in the early 20th century and in contemporary Sunderland. A biography of *Ossify* is already under way. Its inspiration and fabrication have been thoroughly documented. The maker, location, and collector are known. An inscription process, its documented acquisition into the museum collection, has already taken place. The work has functioned as visual art for exhibition. But what will be its career? One challenge will be the way in which *Ossify* and the associated works are curated and displayed. Removed from the Sunderland Museum context, both *Ossify* and *Comb* have been exhibited as standalone artworks in galleries and museums (Appendix 5.2.2).

The body of work is a fusion of contemporary craft process and an expression of post-colonial identity. The post-colonial aspect of this artwork is located in the artist (myself) as an Asian-American living in Northeast England. The work *Ossify* is made in the form of a utilitarian object, but based on one that has not been used for its function since its inclusion in a collection of ethnographic objects. As a sculptural form, it does not fit the tradition of decorative arts collection in Sunderland Museum and Winter Gardens, which consists primarily of painted and production ceramic vessels for which the area was once well known. But it does represent the contemporary scene in glass art, with Sunderland playing an important role.

From a reflexive perspective, the work is a visualisation of my attempt as a foreigner to cultivate a sense of belonging to the community and culture of Northeast England. The work may perhaps be seen to serve the mission statement of the institution: "Our mission is to help people determine their place in the world and define their identities, so enhancing their self-respect and their respect for others" (Tyne and Wear Archives and Museums 2010). The following chapter takes on locational identity from another perspective in that the fieldwork is not being performed within the museum, and not on location. Rather, methods of fabrication to visualise the commissioned cultural map are the focus of the making of a large-scale permanent artwork for a new museum in Liverpool.

Chapter 5 – Fabricating a Cultural Terrain: Liverpool Map Commission

This chapter follows the development and fabrication of a public art commission, Liverpool Map. A synopsis of the brief, an overview of Liverpool history, the concept of a sense of place, and a consideration of the map as a cultural representation provide a context for the development of the commission. Multiple perspectives, including those of the artists, sponsors, the museum site, and members of the public shaped a creative approach to visualising a 'cultural terrain'. This chapter is focused on technical methods used to fabricate a large-scale printed, waterjet-cut, fused and polished glass sculpture. A reflection on the project considers artworks created by other artists for the same cultural context, possible interpretations, and technical achievements.

5.1 Project overview

Liverpool Map is a public sculpture permanently housed in the Museum of Liverpool, which opened to the public in July 2011. Open Culture, partnered with National Museums Liverpool and the Liverpool Daily Post, sponsored the commissioned artwork. The Liverpool Map project was based on an original idea by sponsor Phil Redmond, head of Open Culture and Chairman of the Board of Trustees of National Museums Liverpool. The project was initiated in 2007, "aiming to define the city's boundaries geographically, historically and culturally" (Williams 2007). According to the brief, the Merseyside public was invited to participate in this decision. The boundaries, international connections, as well as Liverpool motifs and people depicted on the artwork were chosen by local people through web-based poll and written submissions to the *Liverpool Daily Post*. The resulting artwork, *Liverpool Map,* was a winning entry to an open-call competition to create "a lasting legacy of Liverpool's year as European Capital of Culture" (National Museums Liverpool 2008).

Figure 67 Inge Panneels and Jeffrey Sarmiento, original concept model for *Liverpool Map*, 2008

5.1.1 Project synopsis

In response to the competition, glass artist Inge Panneels and I collaborated on the concept for a 'multi-layered glass monolith' that was both a literal map and a collage depicting Liverpool's history, people and culture. Based on a road map of the centre city, our model was cut from opaque white glass that would form a 'skeleton' upon which the rest of the transparent sculpture would be built. Progressively larger segments of the road network would be presented in layers, radiating toward the edges of Merseyside. We proposed a montage of screenprinted images and text, layered within precisely cut street contours and the Mersey River in coloured glass. Fused into a standing solid glass block, the layered imagery would be visible from all sides.

Having won the commission, Panneels and I developed the project, using the poll results and texts on Liverpool history. We also developed a community handwriting event and a second set of online polls in consultation with project partners, adding to a layer plan to create a final design. The large-scale glass sculpture was prototyped and fabricated at the National Glass Centre, Sunderland, over a two-year period. The resulting artwork measures 225 x 200 x 5 cm, and it consists of six 100 kg printed, fused, waterjet-cut, kilnformed and polished glass slabs.

Figure 68 Cut, printed and fused glass sample presented for *Liverpool Map* competition, 2008

5.1.2 Overview of Liverpool's history

A brief to create a cultural 'map' visualising the ethnic context of Liverpool was the starting point for this study. The following overview describes the city's history the sculpture was intended to include. By considering the geographical, historical, and cultural 'boundaries' of Liverpool, a narrative of the dialectic relationship between local community and global network connections can be established. Local identity is shaped through the city's growth and decline in global commerce, as well as the resulting influx of multicultural influences.

Declared a Borough by King John in 1207, Liverpool's official history stretches back 800 years. Situated along the Mersey River, Liverpool's earliest maps show the first seven streets that are still existent in its current layout. From the 16th to 18th centuries, Liverpool was at the centre of the globalized commerce by sea. The city is shaped by its rise to prominence as a world-leading port city: "Britain became the 'workshop of the world' and leading imperial power in the nineteenth century, and it was Liverpool which served this workshop and acted as 'gateway' to this empire" (Meegan 1995 p.64). The prosperity of this era is symbolized in the local landscape by the prominent architecture on the city's waterfront as well as its warehouses, factories, and banks. As

the British hub for Atlantic commerce by sea, the docks became Liverpool's most important feature:

> *The first commercial wet dock in the world…was to remain at the heart of all commercial activity for almost a century. Its location determined the configuration of the streets of central Liverpool, which converged at the dock and continued to do so long after it had become redundant. This explains the apparent irrationality of the street layout of modern Liverpool (Longmore 2008 p.121).*

The 'triangular trade' and the Irish diaspora, among other global connections, left their mark not just on Liverpool's landscape but also on its population. Liverpool profited greatly from the slave trade and resisted its abolition longer than most cities, an attitude that "marked the beginning of a long history of the townspeople defining themselves in opposition to others" (Meegan 1995 p.69). Yet, global influence as a result of trade, industry and immigration created a sense of cosmopolitanism that is evidenced in its contributions to culture. For example, the Merseybeat scene that spawned the Beatles is a 'hybrid' of influences adapted from the Irish and African influence on country and rhythm and blues, imported to Liverpool as American music by the 'Cunard Yanks' (ibid p.80). Thus, a local identity is cultivated through worldwide influences. According to Massey (1995 p.61), *"*As each new set of links is established, so new elements are added to the character of the place, (in the case of Liverpool from profits of trade, to street names, to music), mixing with and in turn being moulded by, the place's existing features."

Post-industrial decline and a recent movement toward regeneration also shaped Liverpool's sense of place. The end of empire, the World Wars, the development in globalized production, and an inward shift in the European trading economy led to a dramatically shrinking population and urban decay in the second half of the 20th century. Meegan (1995 p.84) describes the 'schizophrenic' representations by the city as both on its way back up to encourage investment and as needy enough to secure government aid. He argues, "It is precisely when people in places feel themselves threatened by developments seemingly outside their control that the issues of identification with place and representation of place become more urgent." Funds for regeneration have in recent years been provided to remedy the city's official status as part of a 'lagging region' according to the European Union. The celebration of its year

as 2008 European Capital of Culture represents Liverpool's resurgence to international prominence. The Museum of Liverpool, built in conjunction with this program, is the largest newly built museum in the UK in 100 years. It is prominently placed on the Pier Head next to the Albert Dock, which has been repurposed as a centre for culture and a UNESCO heritage site.

5.2 Developing a creative approach to a cultural map

In our proposal, we chose to represent the community, or ethnic context, of Liverpool as a sculpture in which the dominant feature is a map. As any map is a cultural representation, subjectivity is a key issue in its construction. Alternative views show how maps might be used as a space for reflection on a sense of place and cultural interpretation.

5.2.1 Mapping as social construction

The map represents more than statistical data overlaid onto satellite photography. Three issues problematize the validity and meaning of maps in society. First, this subjectivity is exemplified by the drawing of boundaries. Whether they define time zones or nations, the boundaries are a fabrication. Massey (1995 p.68) points out,

> *"These lines do not embody any eternal truth of places; rather they are lines drawn by society to serve particular purposes…All of the boundaries, whether the national borders on the world atlas or the lines marking property and parish on a local map, are socially constructed…Natural features are not naturally boundaries."*

Second, maps are created with a specific vision in mind, representing the mapmaker's interpretation. But they can also embody a particular worldview imposed by map's commissioners, who choose what to depict, and also what to leave out: "Maps act as backdrops for statements about politically imposed boundaries, territoriality, and other notions of power and projection…Like artworks, maps are selective about what they represent, and call out differences between collective knowledge and individual experience" (Clemons 2009 p.10).

Third, and most problematically, we are socially trained to believe that maps represent the truth. The world is most accurately represented as a globe, yet our understanding of its shapes is mitigated by its projection onto the two-dimensional surface of a map.

Distorted projections such as the Mercator, Mollweide or azimuthal, are burned into collective memory in education, business and travel, and the centre point of each reveals the perspective of its makers. As Wright (1993 p.41) states, "No world map is 'neutral', and none is totally 'true'. Most world maps have some good qualities, but all have limitations." Presented to us as objective and 'correct,' maps as we read them cultivate our understanding of place in the world. Lippard (1998 p.78) writes that, "The 'naturalization' of maps—the myth that maps show the world the way it really is—veils the fact that maps are cultural and even individual creations that embody points of view. They map only what the authors or their employers want to show; resistance is difficult."

5.2.2 Mapping a sense of place

The making and analysis of maps is a particularly powerful example of the complexities involved in exposing cultural aspects that determine one's sense of place. Two critical perspectives offer alternative ways of understanding place. Lippard (1998) cultivates her concept of 'the local,' the human notion of belonging to a 'place' that is determined by a combination of historical, geographic, and socio-political factors. She details the ways that historical and contemporary maps, both intentionally and unintentionally, reveal the 'cultural construction of landscape'. The metaphor of mapping is applied to Lippard's conceptualization of the local:

> *Inherent in the local is the concept of place—a portion of land-town cityscape seen from the inside, the resonance of a specific location that is known and familiar. Most often place applies to our own 'local'—entwined with personal memory—known or unknown histories, marks made in the land that provoke and evoke. (Lippard 1998 p.7).*

Lippard offers examples of resistance to the supremacy of mapping in a combination of forms of ethnographic activism and discursive site-specific art. She cites the 'map biography' work of anthropologist Hugh Brody, created with British Columbia native people to challenge local industrial development. According to Lippard, "Within this cross-cultural collaboration, memories and stories of land use were overlaid upon official spaces; subjective visual layers together form a multivocal history approaching an 'objectivity' that could not have been written in words alone" (ibid p.76).

Globalisation has challenged the notion that one might look to a physical place of origin as a romanticized source of stability. For example, the influx of foreign banks, imported clothing, and ethnic food to the English high street, has caused a fragmented sense of what is local. Massey (1994) claims that whereas a 'fixed' sense of place entails using maps to establish a fixed historical understanding of a physical place, an 'open' sense of place, based on the network of international relations and historical and contemporary connections, provide a sense of local identity. She writes:

> *Economic, political and cultural social relations…stretched out over the planet at every different level, from the household to the local area to the international. It is from that perspective that it is possible to envisage an alternative interpretation of place. In this interpretation, what gives a place its specificity is not some long internalized history but the fact that it is constructed out of a particular constellation of social relations, meeting and weaving together at a particular locus (Massey 1994 p.154).*

These interpretations of place—the inward-looking local and the outward-looking network—inspired our creative development of *Liverpool Map.* The map, both as art and cultural artefact, is a format in which personal, social and political perspectives can be displayed. An attempt to visualise a sense of place was one of the motivations behind *Liverpool Map.*

5.2.3 A creative approach to making *Liverpool Map*

Unlike the other case studies in this research, *Liverpool Map* was a public art commission with a specific brief. Instead of identifying the subject through direct experience with local people or through a personal investigation of a collection of objects, our goal was to interpret the combined perspectives of the commissioners, museum, press and members of the community. The commissioners of the artwork, who have both a vested interest and an expertise in Liverpool's sense of place, informed our understanding of the subject, and provided the development of boundaries to be depicted on the map. The local press was involved in engaging the public through online polls, and also through a community-based handwriting collection event. National Museums Liverpool was used as a resource for the imagery used to compose the sculpture.

Based on this information, our interpretation involved the development of a structure for the creative visualisation of a cultural map. Cultural icons, historical highlights,

physical landmarks and handwriting were incorporated into a literal map. This concept is realized through the incorporation of layered text, image and cartographic features into a large-scale glass sculpture. Our creative role and original contribution was an approach to subject interpretation, development of an artistic visualisation of this ethnic context, and the refinement and expansion of fabrication techniques. Processes of glass printing, fusion, waterjet cutting, kilnforming and polishing were developed for the execution of the artwork. As a cultural representation, *Liverpool Map* encapsulates, both technically and conceptually, multiple aspects of the city's narrative.

5.3 Sources of information

Multiple perspectives were consulted to inform the content of a cultural map of Liverpool. The stakeholders of the project, including financial sponsors, local press, and museum staff, were a key source of information. Their local expertise was useful in giving us a sense for the geography, history, and culture that distinguishes Liverpool from other places. Beyond the image and text-based resources they provided, the local press solicited public participation in developing the content of their own cultural map. They helped to facilitate the collection of poll results to obtain public opinions on boundaries and local iconography to be included in the map. This gave us some data as a starting point for the scale and composition of the map. Finally, we developed a unique activity to acquire the handwriting of local people and excerpts from an epic Liverpool poem to be included within the artwork.

5.3.1 Input from stakeholders

The project was initiated in late 2007, almost a year before we were selected as the commissioned artists. The initial team of stakeholders consisted of National Museums Liverpool (NML), Open Culture, Phil and Alexis Redmond, and press partners the *Liverpool Daily Post*, *Echo*, BBC Radio Merseyside and Radio City. Their aim was "to create a map showing where the people of Merseyside think the boundaries of Liverpool really lie…The map will highlight Liverpool's local, national and global influences" (National Museums Liverpool 2009). The stakeholders and patrons played a role in the acquisition and reading of public opinion, giving us information we could use to represent local people.

Since 2007, the local press was actively involved in engaging the public in the wider context of the City of Culture celebrations, and in soliciting comments from their audiences, ultimately contributing raw data for *Liverpool Map*. The *Liverpool Daily Post* collected contributions through newspaper articles and online polls. NML provided logistical support and access to local archives, which formed the image-based content of *Liverpool Map*. Their remit was to "support and steer the artwork development, so it fits with their collection" (ibid). As an independent community interest company, Open Culture's mission is to increase the profile of and engagement with arts and culture on Merseyside; to allow people to engage and contribute or take part, to have their voices heard, their work exhibited and their opinions considered. Active since late 2007, it was initially part of Culture Company for Liverpool European Capital of Culture 2008.

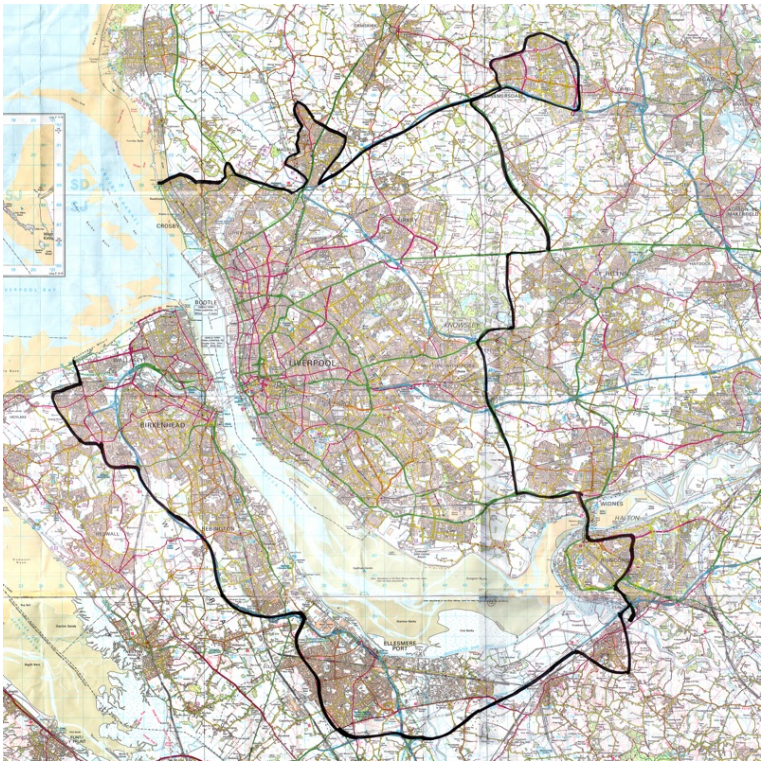
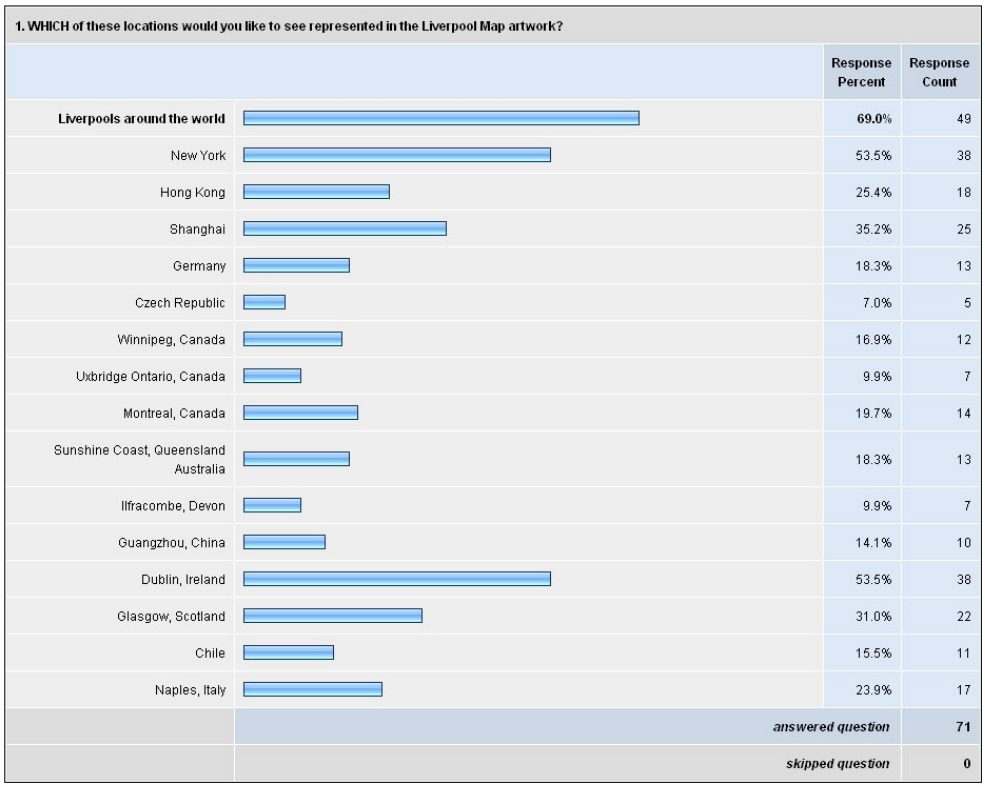


Figure 69 Ordnance survey map with 'emotional boundary' of Liverpool, drawn by Phil Redmond

Patrons played a key role in the shaping of the map. The principal sponsors of the sculpture were first to generate the idea of the 'Liverpool Map' as an art commission. According to Phil Redmond, a well-known television producer who has also written about and in support of Liverpool culture, "The principle was what Liverpudlians see as their city, not the physical boundary" (ibid). The map area represented was resolved

through a meeting with the Redmonds, during which a line was drawn to indicate 'the emotional boundaries' of Liverpool, extending this area beyond where the respondents to the *Daily Post* poll would have placed it (Figure 69). This decision was a starting point for the visualisation of the map.

5.3.2 Input via online poll



1. WHICH of these locations would you like to see represented in the Liverpool Map artwork?	Response Percent	Response Count
Liverpools around the world	69.0%	49
New York	53.5%	38
Hong Kong	25.4%	18
Shanghai	35.2%	25
Germany	18.3%	13
Czech Republic	7.0%	5
Winnipeg, Canada	16.9%	12
Uxbridge Ontario, Canada	9.9%	7
Montreal, Canada	19.7%	14
Sunshine Coast, Queensland Australia	18.3%	13
Ilfracombe, Devon	9.9%	7
Guangzhou, China	14.1%	10
Dublin, Ireland	53.5%	38
Glasgow, Scotland	31.0%	22
Chile	15.5%	11
Naples, Italy	23.9%	17
answered question		71
skipped question		0

Figure 70 Results from Liverpool Daily Post survey on international connections to Liverpool, 2008

The initial phase of the project was a poll focused on the boundaries, links, and motifs to be represented in the artwork. The poll was created by Open Culture and conducted online in 2007-8 by the *Liverpool Daily Post* (Figure 70). Places and motifs were nominated and added to a list of choices on the survey. The questions were as follows:

- *Which of the below areas should be included in our cultural map of Liverpool - the areas of Merseyside which have most felt Liverpool's influence?*
- *Here are the nominations we have received for areas which should be excluded: Which do you agree with?*
- *Which of these (international) locations would you like to see represented in Liverpool Map artwork?*
- *Which of these (international) locations do you wish to exclude from Liverpool Map?*
- *What should the Liverpool Map motif be?*

The survey established two viewpoints critical to the generation of the map's content. First, the questions attempt to confirm that Liverpudlians have a clear sense of local identity that stretches beyond municipal boundaries, and that Liverpool is represented by commonly regarded landmarks. Second, an identification with Liverpool can also be found in locations around the world as a result of its history in trade and the movement of its people. These viewpoints reflect both the 'layered' sense of the local proposed by Lippard and Massey's discussions of a map's boundaries and the global network that defines place (Section 5.2.2). According to Phil Redmond,

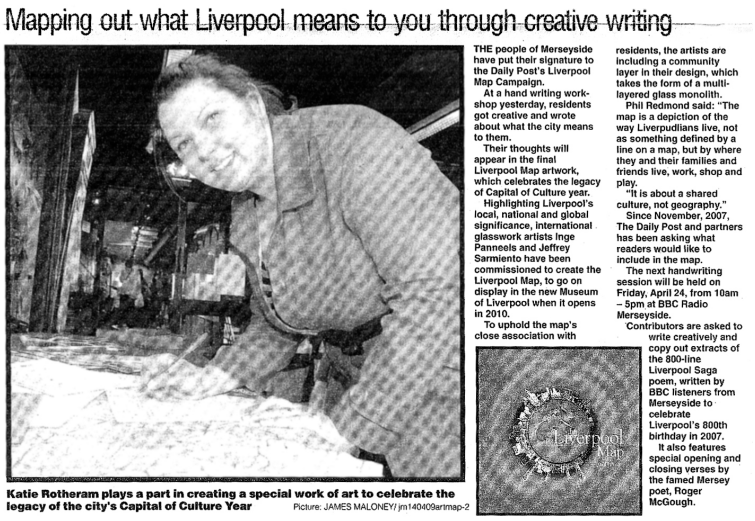
> *It is also about shared identity. For people in Liverpool, that means being a Scouser and what does that mean exactly? That debate has been raging for years, but beneath it is also how we perceive where we live. Is it just a line or is more to do with where your family and friends live or where you go to work or shop? That brings us on to the Scouse Diaspora, the Scousers who have moved away for employment or just to enjoy a different lifestyle. Like the Irish, does it make them any less a Scouser? (Williams 2007)*

The nature of the questions was also clearly intended to stir debate. Based on the survey data, what should be included and excluded could not be easily defined on *Liverpool Map*. The data was partial, with relatively few responses (fewer than 500 participants out of a population of 434,900). How to depict the suggested worldwide connections on the map became a problem to resolve in the design. Furthermore, the results were editorialized by the *Liverpool Daily Post* through articles that featured polarizing locations (particularly the Wirral peninsula across the Mersey) and an online forum through which individuals could post their opinions. For example, an article titled "Should Wirral be part of the city's map?" (Williams 2007a) featured Dave Kirby, co-writer of the play *Brick up the Mersey Tunnels*. Contributors to the forum commented on 'shock results,' and argued that "Wirral folk aren't real Scousers" (Liverpool Daily Post 2008).

The surveys on local boundaries did encourage debate and participation from the public, but provided few definitive results. The 'emotional' boundary lines drawn would be controversial no matter where they were placed. The survey question that was most effective was the dealt with international connections to Liverpool, in which it was clear that Liverpudlians felt some connection with namesake cities as well as places of Liverpudlian migration. This seemed to establish a global sense of place. A further survey was designed to determine the inclusion of cultural figures and landmarks, but

this time with longer lists and a 'top ten' selection system for important people in music, the written word, performance, visual art, sport, 'significant others', and Liverpool icons. From the survey activities, the scale of the map was determined, as was content for a visual programme.

5.3.3 Input through community engagement



Mapping out what Liverpool means to you through creative writing

THE people of Merseyside have put their signature to the Daily Post's Liverpool Map Campaign.

At a hand writing workshop yesterday, residents got creative and wrote about what the city means to them.

Their thoughts will appear in the final Liverpool Map artwork, which celebrates the legacy of Capital of Culture year.

Highlighting Liverpool's local, national and global significance, international glasswork artists Inge Panneels and Jeffrey Sarmiento have been commissioned to create the Liverpool Map, to go on display in the new Museum of Liverpool when it opens in 2010.

To uphold the map's close association with residents, the artists are including a community layer in their design, which takes the form of a multi-layered glass monolith.

Phil Redmond said: "The map is a depiction of the way Liverpudlians live, not as something defined by a line on a map, but by where they and their families and friends live, work, shop and play.

"It is about a shared culture, not geography."

Since November, 2007, The Daily Post and partners has been asking what readers would like to include in the map.

The next handwriting session will be held on Friday, April 24, from 10am – 5pm at BBC Radio Merseyside.

Contributors are asked to write creatively and copy out extracts of the 800-line Liverpool Saga poem, written by BBC listeners from Merseyside to celebrate Liverpool's 800th birthday in 2007.

It also features special opening and closing verses by the famed Mersey poet, Roger McGough.

Katie Rotheram plays a part in creating a special work of art to celebrate the legacy of the city's Capital of Culture Year Picture: JAMES MALONEY/ jm140409artmap-2

Figure 71 *Liverpool Daily Post* article describing handwriting workshop activity, 2009

Through a special, non-geographic layer to the artwork, public engagement was used to mark the moment of the map's creation. To develop content for what we called the 'community layer', Panneels and I invited the people of Liverpool to literally 'make their mark on the sculpture. Two events were organized by the NML and the *Liverpool Daily Post* to collect samples of handwriting by locals "to uphold the map's close association with residents" (Liverpool Daily Post 2009). With paper and pen, participants were asked to create their own texts recalling their own thoughts on life in Liverpool, or alternatively to write out sections from the 2007 epic poem *The Liverpool Saga* (Figure 71). Through this activity, we were able to incorporate text as a graphic element in the sculpture. Whereas the creation of 'emotional' geographic boundaries and the choice of cultural icons gave a local and global context to the artwork, the development of the community layer was a reflexive process that provided us with unique handwritten marks that could tie the sculpture to a particular time and place. Conceived as a montage of handwriting, the community layer, created in part by the people of Liverpool, helps to define and personalize the map.

5.4 Interpretation: designing the *Liverpool Map*

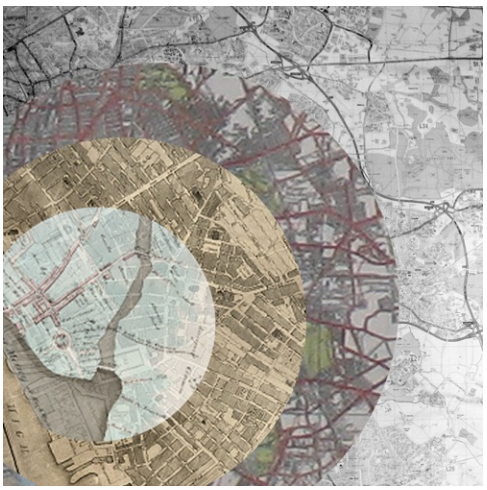


Figure 72 Early concept sketch for *Liverpool Map* with concentric ring plan, 2009

Figure 73 Early design sketch for *Liverpool Map*, 2009

The multiple perspectives on Liverpool culture, based on online polls, consultation with the museum, press and sponsors, and community engagement provided us with a rich collection of text, locations, historical moments, key landmarks, and important people. Historical images of important documents, Liverpool life, and cultural figures were sourced from the archives of National Museums Liverpool and the Liverpool Records Office. We developed a visual interpretation that would incorporate this information into an artwork, one that we hoped could convey a sense of place through a dense collage of images within layers of transparent glass. This interpretation of Liverpool reflects the way that Lippard gives an expanded, spatial definition of place:

> *Place is latitudinal and longitudinal within the map of a person's life. It is temporal and spatial, personal and political. A layered location replete with human histories and memories, place has width as well as depth. It is about connections, what surrounds it, what forms it, what happened there, what will happen there. (Lippard 1998 p.7)*

We developed a layered programme of image, text, and line pattern. Based on the final layout of the map, we were able to represent transport links, international connections, landmarks, and key people surrounding the Mersey River, featured prominently as the centre of Liverpool's history and present (Appendix 4.2). The iconography of a map is used to create a 'cultural terrain', consisting of four main themes, subdivided into four layers each. The following sections detail the structure of the complex layering system.

5.4.1 Section One: Historical Liverpool

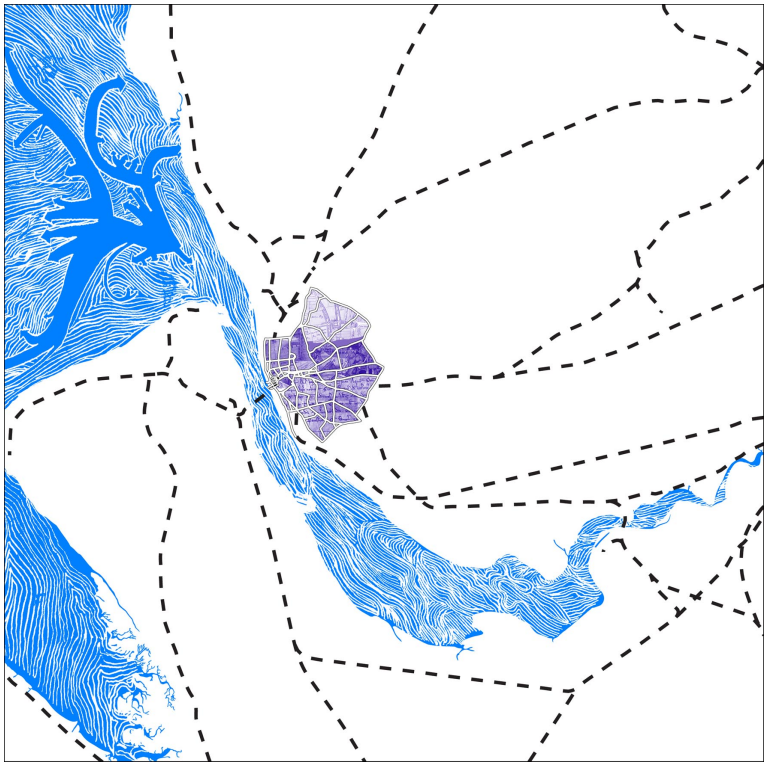


Figure 74 Section One: Historical Liverpool, depicting the city's origins, transport, and international connections

'Historical Liverpool' considers the natural geography that leads to the city's origins and international connections. The Mersey River, depicted in sea-blue, forms the dominant shape in the overall map. Framed by a small segment of roads in white, the first printed layer depicts Liverpool's beginnings: an early map naming the first seven streets, a fragment of the 1207 royal charter, an illustration of King John signing the royal charter, and an image of the castle. Local and regional transport forms another layer, in which the railroads radiate from the city centre connecting Liverpool to the surrounding community. The Mersey Ferry crosses over to the Wirral, and an airplane represents the Speke airport. Large sailing vessels and the diagram of a slave ship refer to Liverpool's involvement in the history of trade. A contour drawing, based on vintage maps, represents Liverpool's historical and contemporary role as an international gateway. This line drawing, overlaid onto the Mersey River, includes a large, multi-directional arrow that is detailed with the names of places suggested by respondents to the *Liverpool Daily Post* survey. These include other cities worldwide named Liverpool, international twin cities, and popular trade routes that span outwards from England to Ireland, Europe and beyond.

5.4.2 Section Two: Shifting Boundaries

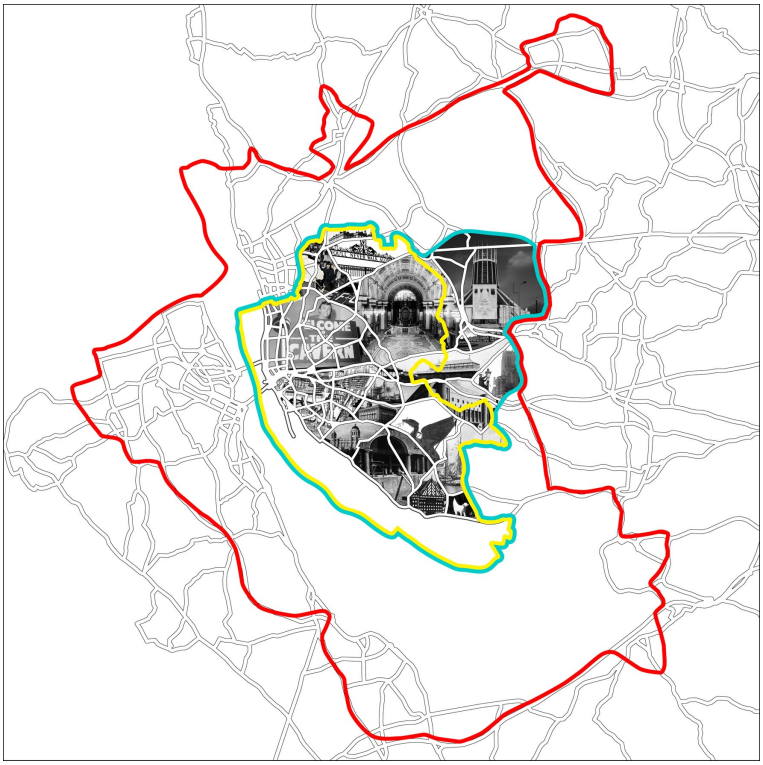


Figure 75 Section Two: Shifting Boundaries, depicting streets and interpretations of Liverpool's boundaries

'Real' and imaginary boundaries define the second section, in which the roads, rendered in white, form the skeleton that unifies the map's image programme (Figure 75). The shape of Merseyside's streets, heavily concentrated in the centre and dispersed beyond, is supported by historical context. The port, international trade, and associated industry led to an expansion in population of the city and surrounding areas. Bryson (1995 p.190) recalls in his experience of the city that "Maritime commerce brought Liverpool not just wealth and employment, but an air of cosmopolitanism that few cities in the world could rival, and it still has that sense about it." This is represented in a layer of images depicting the city's icons, voted in by the *Liverpool Daily Post* survey. The Liver Bird is joined by other landmarks, such as St. George's Hall, the waterfront's 'Three Graces' (Cunard, Liver and Port of Liverpool buildings), the Cavern Club, and two cathedrals.

A blue line surrounds the city's icons, and represents the results of the emotional 'boundaries' poll conducted by the Post. Stretching beyond the Liverpool's official boundary (indicated by a yellow line), the neighbourhoods Walton, West Derby, Edge Hill, Walton, Allerton, and Huyton are included. Southport (not within the scale of the

map) and the Wirral are excluded. Beyond this is a red line, standing for Phil Redmond's choice for the much more inclusive emotional boundary. As a cartographically accurate map, one borderline represents an official position, but multiple boundaries provide a context for other points of view.

5.4.3 Sections Three and Four: People's City and City of Culture

Figure 76 Section Three: People's City showing historical images and Community Layer handwriting

The concept of a 'cultural terrain' is represented in the two dense layers covered in image and text. Depicted primarily in green and brown enamels, not unlike the colours of a topographical map, the layers consist of key moments and people in Liverpool's history and culture (Figures 76 and 77).

'People's City', the third section, features people and places as a portrait of Liverpool's social landscape. A mapping of the 'face' of Liverpool, a number of images feature people during the city's cosmopolitan height, such as a crowded Pier Head landing stage, sugar warehouse workers, and the women's suffrage movement. The decline of international shipping and the devastation of war coincide with Liverpool's economic decline, visualised by an image of the Albert Dock silted over and the bombed out

Victoria Monument. The growth of the city and need for civic services is represented by images of children, slums, and the educational and housing developments generated in response. With the handwritten community layer montage in red ink within the Redmond line (also in red), this section additionally marks the time period of the making of *Liverpool Map.*

Figure 77 Section Four: Culture—popular selection of prominent people who represent Liverpool

In the 'Culture' section, popular and iconic personalities are given their place as the colourful green areas on the map. Selection of these personalities was based on the culture survey held by the *Liverpool Daily Post*. Portraits of leading figures in music, sports, the arts, and religious and social leadership are collaged together in a pattern based on the Ordnance Survey municipal area boundaries. The overlaid images in these two sections form the variegated green and brown terrain associated with aerial maps.

Using this system of layering, a design was devised that could be fabricated in glass. The finished design appears as a map, but functions also as a portrait of Liverpool's history and culture. A three-dimensional model previewed the underlying concepts of transparency/opacity, and the layering effect.

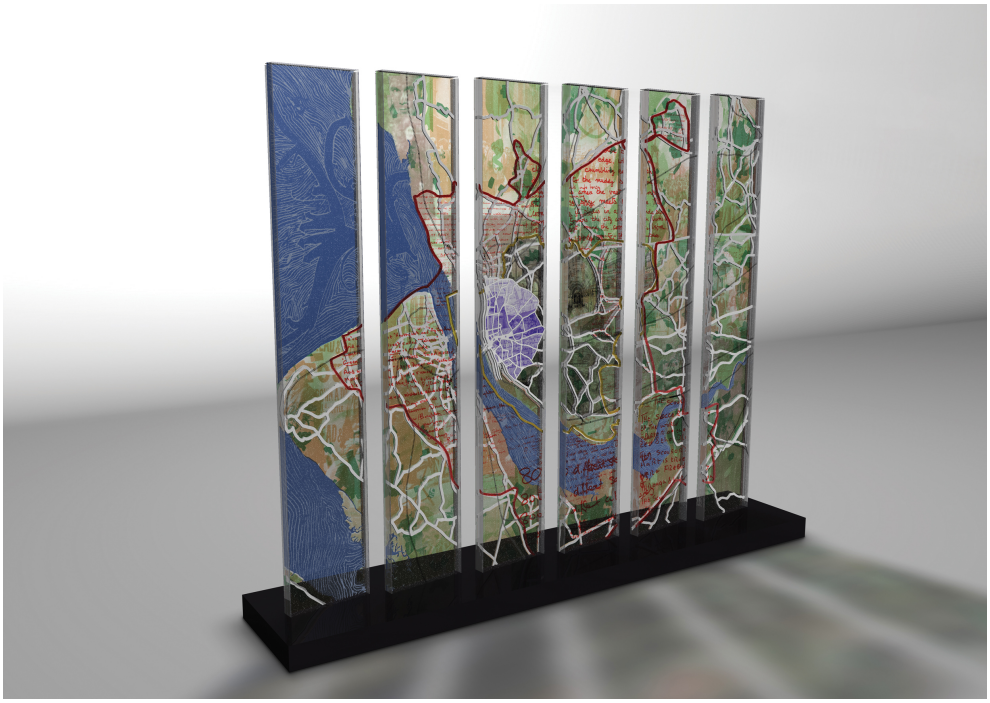


Figure 78 Inge Panneels and Jeffrey Sarmiento, *Liverpool Map (visualisation)*, 2009. Three-dimensional model

5.5 Fabrication

The project was finalised through the fabrication and display of a graphic glass sculpture. The final composition consists of six standing slab-shaped columns of kilnformed glass. Made with the unique printing, cutting, kilnforming and polishing facilities at the National Glass Centre, *Liverpool Map* was constructed using a combination of techniques that, within this study, represent a culmination of scale, complexity, and refinement. The following sections describe working processes, technical problems, and custom solutions for working on a monumental glass sculpture.

5.5.1 Screenprinting for long sheets of glass

The design was split into a 17-layer construction plan of images, pattern and text (Appendix 4). Ordinance Survey maps were used as a source for a geographically accurate mapping of the Mersey River, roads, rail, and municipal boundaries. Images of landmarks and cultural icons, cleared for usage by National Museums Liverpool, were digitally manipulated to create large-scale, halftone transparencies. Hand-drawn approaches were also used to create graphics. Spread across Merseyside on the sculpture is the 'Community Layer'—a collage of handwritten text made by Liverpool locals. The writing has been scanned, resized and placed to reflect their memories on

particular locations in the city. Finally, the beauty of hand-drawn maps of Liverpool from the 1800s inspired the largest and most detailed drawing. In a tribute to historical mapmaking, dip pens and ink were used on tracing paper to recreate the fine contour lines following the River Mersey, stretching across the whole sculpture. This is a laborious process, but drawing on the actual scale of the glass gave a hand-made quality that would be difficult to achieve on a computer.

Figure 79 Jeffrey Sarmiento screenprinting enamels onto long sheet of glass

Screenprinting was the method by which we transferred the graphics to large sheets of glass. It is commonly called silkscreening, in reference to the original material from which the screens were made. This printing process involved a nylon mesh stretched onto a frame (a screen), coated with a photosensitive emulsion that forms a stencil when exposed to ultraviolet light. Once the artwork was exposed to the screen, coloured high-temperature enamel was used as a printing ink. A rubber squeegee was used to force the ink through the mesh onto a flat surface such as paper, or in this case, a sheet of glass. The ink passes only through the 'open' areas of the mesh, thus producing the image. This technique is based on processes described in Petrie (2006). Each layer of halftone images was printed in different enamels, but the colours were not intended to recreate the original photographs. Instead they mimic the colour palette of a map—portraits of cultural heroes in two shades of green, historical moments in two browns, iconic buildings in black, the river in a transparent blue, and the community layer text in red.

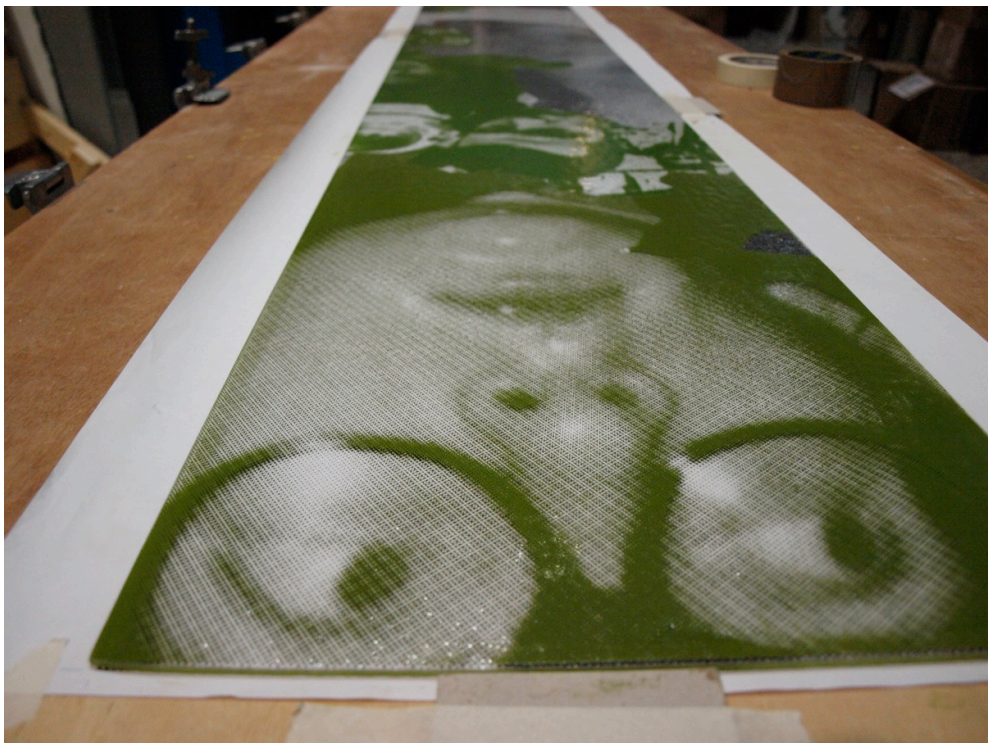


Figure 80 Screenprinted long sheet glass, using registration through transparent sheet glass

Printing the length of the sheets required a custom solution. In the case of *Liverpool Map*, the studio printing bed was not long enough to accommodate the nearly two-meter sheets of glass, nor was there a screen big enough to match the transparencies. The long, thin sheets of glass were so fragile that, if carried from the corners, they would bend in the middle and possibly break. To resolve these issues a bespoke wooden table was built on a steel frame with wheels. This way the glass could be moved from print area to kiln with the least amount of risk. The table was also fitted with hinged clamps to fasten multiple screens to the bed.

The transparencies were split to fit onto screens no longer than a meter; this way they could be printed individually, and the image could be assembled on a single sheet. In this case, printing with clear glass was an advantage. It was possible to register a paper version of the images to the screen. Because the glass is transparent, it is easy to position. In total, 52 sheets of glass were screenprinted, usually more than once, and fired in a kiln at a low temperature to fix the enamels to the glass. Registered precisely on the custom-built table, deeply layered graphics were printed to the glass, visible in front of, behind and through *Liverpool Map.*

5.5.2 Waterjet cutting the graphic image

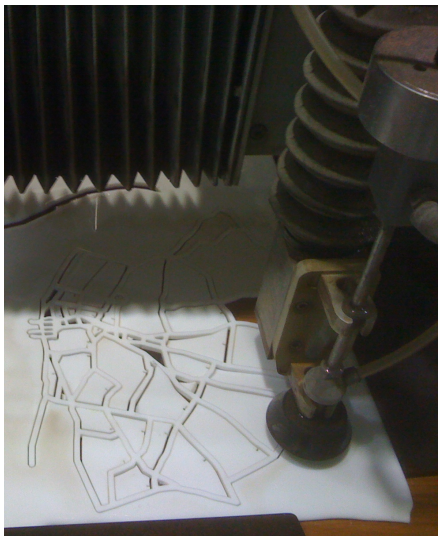


Figure 81 Waterjet cutting section of white glass road map

Figure 82 Blue glass with white printed enamel, waterjet cut inlay for road map

The graphic elements of the road map 'skeleton' and boundary lines were made in cut and fused coloured glass. Cutting the pattern from sheet glass provides strong colour density and transparency, as well as a physical thickness that cannot be duplicated with screenprinted enamels. In this method, the waterjet cutter is employed as a printer, plotting out an image in glass. In this industrial manufacturing technique, high-pressure water is mixed with sand to produce a powerful stream that cuts through extremely hard materials including glass, metal, or stone. The 'jet' is made of water, and the material being cut is supported by a metal grid in a large pool of water. This is especially important as it keeps the glass from getting hot enough to melt or crack.

A digital file from Ordnance Survey provided an accurate representation of geographic and municipal contours. Vector drawing applications Adobe Illustrator and AutoCAD were used to create and separate positive and negative areas. By cutting out these areas of the drawing in white and clear, glass for a full layer was produced. Blues, yellow and red were added to the palette to form the boundary lines and the river contour. Utilising a combination of techniques derived from jigsaw puzzles (manipulating offset to create close-fitting parts) and die-cast model toy kits (the addition of small bridges in the drawings to preserve small parts), a complex, multi-coloured waterjet cut and fused piece of glass is created. Hundreds of elements, some of which were as thin as .5mm,

were puzzled and fused together to create 198 x 33 cm images rendered in glass. Three layers of waterjet cut and fused sheets were incorporated into the printed glass, merging geography with graphic images.

Figure 83 Inge Panneels puzzles together waterjet cut coloured glass components prior to fusing

Figure 84 Fusing puzzled glass elements together in kiln

5.5.3 Large-scale kilnforming

With the individual layers of printed and waterjet cut glass complete, the 17 layers of each column were stacked in order and carefully placed in a large electric kiln. In a process known as kilnforming, the glass sheets were fused together into a solid block. The kiln at the National Glass Centre at the University of Sunderland, one of the biggest

in Europe, is designed to fabricate monumental glass artworks like *Liverpool Map,* which require long firing schedules and precise control of its temperature. For a fusing involving embedded print and waterjet cut graphic images, the key concerns were image registration, fusion of glass into the desired form, and firing to optimize surfaces. Modifications to the fusing process considered scale, shape, weight, and consistency in the six large columns of *Liverpool Map.* The kilnforming process consists of three main components: a mould system, supporting bricks, and a firing cycle.

Each of the six firings contained 100 kilos of glass, which is capable of moving at full firing temperature. The mould system was a way of containing it when heated in the kiln. Once molten, however, the glass also takes on any detail of the surfaces it touches. A framework of high-temperature ceramic bricks, boards and fibre was constructed as a mould to give the columns their final shape. The kilnforming of *Liverpool Map* called for some custom-made solutions, because none of the materials used are manufactured for work of this scale. To create a flat surface on the floor of the kiln, three long, ceramic shelves were laid end-to-end and shimmed with small steel plates to make it as level as possible. A wet mould mix of plaster and a temperature-resistant molochite was used to fill the seams between the shelves. To keep the glass from sticking to the shelves and to leave the cleanest possible surface, the kiln floor and edges of the glass sheets were covered in a ceramic fibre sheet, painted with a ‘kiln-wash’ release and topped with a piece of Thinfire, a paper-like ceramic material. The glass sheets were then stacked 17 layers deep and matching strips of the fibre were placed on the edges.

Dams used for smaller fusings usually consist of strips of kiln shelf supported by bricks, or vermiculite board fastened together with stainless steel screws. To support a much longer and heavier fusing, An L-shaped profile was fabricated from vermiculite, a natural material used as high temperature insulation, and laid along each edge of the stacked glass. Weighed down by heavy kiln bricks, the sleds held the glass in place during the firing. This system was adapted from a design by Bullseye Glass Company for the large glass fusings of Jun Kaneko (Kaneko 2008).

Figure 85 Jeffrey Sarmiento and Inge Panneels inspecting large kiln setup, showing brick and 'sled' support system

After closing the kiln doors, the glass was fired to a full fusing temperature of 830˚C (considered a 'warm' temperature in glassmaking) and then very slowly cooled down (Appendix 4.4). This process of controlled cooling, called annealing, alleviates the glass of any stress and makes it safe to display. Despite the large amount of glass being fused, the annealing of the full size columns required only six days – no more than the small test samples. This is because the length of firing corresponds primarily to its thickness, rather than its length.

One of the complications in fusing large slabs of glass is thermal expansion—the glass grows slightly bigger in extreme heat. On smaller work (such as the 33 x 33 x 5 cm sample), an expansion of 0.7% is insignificant. But once heated to full fusing temperature, the 225 cm long slabs of glass expanded laterally by 1.6 cm, with enough force to shift the sleds supporting its ends. Soft kiln bricks were cut to 'wedge' in the fusing, but this created more problems. The molten glass was capable of pushing the sleds out of place, or even bending and cracking them. Finally, a better system was devised; border supports were set up at both tall ends to slide slightly, allowing the glass to expand and contract naturally. Fortunately the distortions on the edges were minor, and were corrected through grinding and polishing.

5.5.4 Large-scale cold polishing

Figure 86 Column 6 of *Liverpool Map* on cold polishing jig

There were two key reasons for coldworking *Liverpool Map*. By grinding the glass with coarse diamond abrasives, it was possible to remove sharp edges and to correct areas that came out of shape in the firing. But grinding also leaves a rough, cloudy finish. Polishing with felt discs and fine powders restored the optical clarity of the glass and revealed a sense of depth. The resulting surface allows viewers to see through the glass and pick out the individual layers within the solid fusing.

Fortunately, the kilnforming stage of this project was a great success, minimizing the need for coldwork. Polishing huge expanses of the front and back surfaces would have presented a considerable amount of risk. The power tools used in coldworking are designed to spray water and prevent overheating and cracking the glass. Careful calculation of firing schedules kept the glass at a high fusing temperature for the shortest possible time, preserving a naturally glossy, melted finish on the large front faces of the columns. The preparation of the kiln floor left the rear surfaces with a lightly textured finish through which the printed images in the ‘culture’ layer are fully legible.

This left the top, left and right edges of each column to be finished. An ergonomic solution for polishing the long, narrow glass surfaces had to be devised. Fused into large slabs, the glass was not only heavy but also cumbersome. Two to three strong men were needed every time a column was moved, so the goal was to minimize the number of times it had to be lifted or turned over. A purpose-built jig consisted of a heavy-duty steel frame with a wooden V-shaped structure on top. Set into this channel and blocked in with foam wedges, the glass could be set securely on its edge and easily polished.

The jig was mounted on wheels so the glass could be safely rolled from the kiln to the coldworking area, a wet room equipped with drains and compressed air for two water-fed angle grinders, one pneumatic and one electric. Though only the narrow faces of the sculpture were brought to a full polish (a total area of less than a square meter), the coldwork process lasted 20 full days for the six columns.

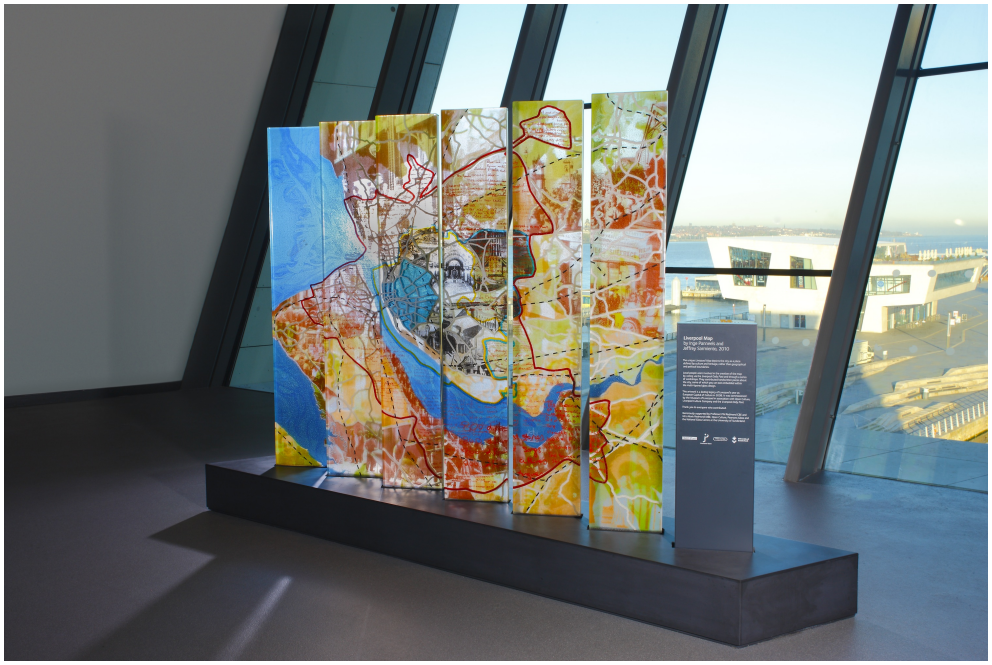


Figure 87 Jeffrey Sarmiento and Inge Panneels, *Liverpool Map*, 2010. Printed, fused, waterjet cut, kilnformed and polished glass. Each column 225 x 33 x 5 cm

With the fabrication complete, the artwork was crated and delivered to Museum of Liverpool. *Liverpool Map* was set in a custom-made structure bolted to the gallery floor. The structure is designed to protect the glass from toppling should anyone fall against it. Six steel sleeves are welded to the heavy metal base. Each sleeve is lined with a thick layer of neoprene, an industrial rubber, to make sure that the glass and steel never touch.

This is covered in a Corian plinth. As per the visualisation, it was installed with the columns stood upright and spaced closely together.

5.6 Reflection

Our concept for how to visualise Liverpool's multifaceted ethnic context was inspired by Calvino's meditation about urban places. *Invisible Cities* narrates a fictional conversation between Marco Polo and Kublai Khan, describing places in the ruler's empire. Polo imagines cities of concentric canals, spider web structures, and scaffolding. The descriptions converge, however, into a single place: "Every time I describe a city I am saying something about Venice" (Calvino 1979 p.69). *Liverpool Map* encapsulates a multiplicity of interpretations of the city: geographic, historical and cultural.

Glass is a fitting medium to reveal these perspectives, integrating portraits, historical vistas, and contemporary opinions on local boundaries and global connections. Through printing, cutting and fusing processes we attempted to visualise a sense of place within the deeply layered montage of images, pattern and text, appearing as a 'cultural terrain' integrated in the familiar layout of a map of Merseyside. By considering *Liverpool Map* metaphorically as a window, a canvas and a mirror, it is possible to reflect on this case study through comparisons within the field of practice, through the involvement of Liverpool locals in shaping the map and populating it with content, and through considering its function for viewers in a museum gallery.

5.6.1 The map as window: comparisons within field of practice

Two recent Liverpool-specific commissions set a context for how the city can be viewed through artworks. Simon Faithfull's *Liverpool-to-Liverpool* (2010) also deals with place name as the rationale for a connection. Through documentation in digitally transmitted sketches (and physical postcards sent to random Liverpool locals), Faithfull recorded his journey via container ship from the UK to a small Canadian port town of the same name. The drawings, which also included the global coordinates of the places where they were made, were then etched into the glass windows and pavement surrounding Liverpool Lime Street Station. The artist's personal experience on Liverpool's international connections is inscribed into the urban environment. As a

commission operating more along the lines of my project with Sunderland Museum discussed in the previous chapter, this subtle artwork blends into the architecture, a stark contrast to *Liverpool Map's* prime location facing a major vista of the city skyline: "Faithfull's project instead insists upon the importance of the local and the vernacular, and the persistence of history and memory in even the most modernized environments. (Moran 2010 p.xi).

By depicting a 'cultural terrain' Liverpool in a map, the sculpture is a literal representation of the city. Perhaps even more literal is the landscape painting of Ben Johnson, whose commissioned artwork is also displayed in the Museum of Liverpool. During his artist residency at the Walker Gallery, Ben Johnson allowed local people to witness the completion of his epic painting, *Liverpool Cityscape* (2005-8). The photo-realistic landscape of Liverpool renders the city in even, idealized lighting. Museum-led community activities surrounded the commission but did not influence its making. For example, the issue of what to include in this panorama was, similarly, not chosen by popular vote: "The final viewpoint was agreed by the artist in discussion with representatives from the *Cityscape*'s commissioners" (Bukantas 2008 p.41). Despite the impersonal depiction of the city, painted devoid of people, Johnson invites its use as a window to their personal view of Liverpool. He states, "For some it'll be just a 'fancy' picture. For others it may be an opportunity to discuss areas they know and love and consider what the city of Liverpool means to them." (Bukantas 2008 p.63). Recent public commissions show elements of the personal, public, and patronage in their depiction of the city, each providing a 'window' through which to view aspects of the place of Liverpool.

5.6.2 The map as canvas: role of the artists in *Liverpool Map*

What distinguishes *Liverpool Map* from the other Liverpool commissions is the way in which the artists are not personally part of the subject of the artwork but rather the facilitators of one visualisation of Liverpool culture. Our commission was driven by the participation of cultural institutions, the press, and the public of Liverpool, and the artmaking approach provided opportunities for local people to inscribe a mark of 'ownership' on their local map. In this way the artwork could be thought of as a 'canvas' that allowed the public to choose and create the content placed on the map.

Instead of mapping our own impressions of place, our remit was to interpret in glass the 'voice' of the Merseyside public through a cultural representation in printed images and borderlines based on their survey responses and handwriting. The artists' role in this case was to develop a creative interpretation of a Liverpudlian sense of place. Like the painted canvas, *Liverpool Map* is an artistic composition, a montage of historical moments, famous places, and familiar faces that represent Liverpool. The map motif in *Liverpool Map* is used as a surface for the inscription of cultural identity. This aspect is most clearly demonstrated through the inclusion of community mark making. Their writing records time, in the way that a signature permanently places a person in a specific place and time in history. Instead of inserting labels of place names, representatives of the Merseyside population have placed their own handwritten memories and parts of the city's saga. It is Liverpool's own collaboratively marked object.

Beyond their composition of a cultural 'canvas', the key development for the artists in this case study was the way in which *Liverpool Map* was brought into reality. The project can be viewed as a successful application of fabrication methods to create a monumental graphic glass sculpture. We encountered many challenges to making such a large piece of glass artwork. The scale at which we were working required custom solutions, as most commercially available materials and tools were too small to accommodate the glass. The waterjet cutting of this artwork combined multiple colours of glass as well as shapes that ranged from 2mm to 2m in length, all of which were assembled to make a highly accurate and detailed map. The screenprinted images, made from digital and hand-drawn transparencies, are registered to each other and the map cutouts to complete the composition. In the end, the final artwork came as close as possible to the 3D model that was proposed.

5.6.3 The map as mirror

Placement of *Liverpool Map* in the museum was specific to its design in glass. Installed in the People's City Gallery of the Museum of Liverpool, the completed sculpture stands in front of a window overlooking a panoramic view of the city. Landmarks depicted on the map are visible through the window. If it is said that *Liverpool Map* is a

reflection of the people of Merseyside, then perhaps the glass sculpture could be seen as a sort of cultural ‘mirror’.

This work was created with the intention not to critique, but rather enhance and inspire people’s understanding and identification with the local. Whilst stylized, the map contains the handwriting of actual people, their memories, emotions and opinions about their home city. It is a space where people can reflect on the historical origins of their city. The map serves as a metaphor for place—one that consists of local, familiar roads and rails, but also points to the network of international places with local connections. The topography of the map has been replaced with a ‘cultural terrain’ featuring well-known people, places, and events specific to Liverpool. Viewers can locate themselves on *Liverpool Map* whilst looking upon a vista of the city. By offering a connection between local geography and a sense of place. *Liverpool Map* is an artwork that visualises the voice and ethnicity of the people of Liverpool.

Figure 88 Jeffrey Sarmiento and Inge Panneels with *Liverpool Map.* The Liver Bird is visible in the window behind the sculpture and is also printed in black on the fourth column.

Chapter 6 – Conclusion

The concluding chapter reflects on the study, identifies its contribution to knowledge, and suggests opportunities for further research. This written thesis, the three case studies and corresponding bodies of artwork are considered together in terms of research objectives and aim. The contribution to knowledge consists of a methodology, three bodies of original artworks, and a novel combination of glass making techniques. The creative and technical contributions to knowledge and their dissemination indicate how the context of glass art has changed. Finally, opportunities for further research offer possibilities to extend these approaches.

6.1 Conclusion in reference to research objectives and aim

Viewing the artworks and writing as a cohesive study, this section reflects on the objectives and aim in this research. The objectives (Section 1.5) follow a creative approach to the conceptualization, development and making of graphic glass artworks inspired by ethnic contexts. An evaluation of the objectives exposes how the research aim was accomplished.

6.1.1 In reference to research objective 1

- To describe a context for the research by surveying contemporary ethnographic techniques, contemporary art's appropriation of ethnography, glass art practice, and glass making methods.

The introductory chapter to this thesis provided a detailed description of my creative practice, including underlying experiences, emerging themes, and choice of medium and methods in the artwork. This identified directions for my work to develop in this study. Developing new bodies of graphic glass artworks inspired by ethnic contexts required a thorough understanding of the conceptual and practical discourses in which my practice is located. This research and its intended audience is situated the field of glass art practice. The designer-maker model, as described by Cummings (Section 2.3.2), fits both the demands in my practice for a conceptual development of subject and the refinement of techniques in glass, a medium out of which all my artwork is made.

In the literature review I was able to define and survey some key areas. I identified contemporary ethnographic techniques, including participant observation, interviews and focus groups, understanding cultural texts and representations, and reflexive practice, aspects of which helped to describe my approach to working creatively in and with ethnic contexts. Contemporary art practitioners appropriating aspects of ethnography in their artwork demonstrate approaches to working with cultural contexts, whether through experiences in the field, through cultural texts in the museum, or symbolic representations such as mapping. The field of contemporary glass practice has drawn on culture as a source of inspiration. This is reflected in artworks as decorative motif, a source for forms, and also as subject matter. Recent glass research methods have aimed largely at technical development of material practice, with the area of glass and print as one focus of recent studies. It is within the area of kilnformed 'graphic' glass in designer-maker practice, with a creative focus on approaches to working in ethnic contexts inspired by ethnography, that this study has been conducted and can be located.

6.1.2 In reference to research objective 2

- As an artist working within specific ethnic contexts, to use approaches in case studies for subject finding such as personal encounters, working with material culture, and symbolic representations

The creative approach developed in this study expanded and refined the ways in which I chose and worked with ethnic contexts. Inspired by explorations in foreign places, the expression of hybrid ethnicity through my autobiographical artworks has been the focus of my glass art practice. As an artist who is making work in response to my experiences, I am always a part of the subject. The focus of this study shifts from exposing my ethnic identity with new contexts to finding and visualising narratives about ethnic contexts. This method of subject finding involved various approaches to observing and working with people, examining objects and their complex histories, and taking on a brief to visualise a cultural map. This way of working was informed by contemporary art's expansion of site specificity to include 'cultural' sites, and by how particular artists have drawn their inspiration from ethnography.

Ethnographic techniques, as defined in the literature review, can be found in appropriated, simulated or critically parodied forms in contemporary art practice. As an artist I acknowledge that my identification of a subject within an ethnic context as a subject may share links, both conscious and coincidental, with ethnography.

Aspects of participant observation can be seen in my field study activities in the Baltic States, in which my experience dwelt on interpersonal, architectural and urban space. My work with the Sunderland Museum involved a specific site, and a collection of artefacts considered through historical and contemporary filters to provide an alternative, local interpretation. This study considered objects as cultural text, and to a degree exposed aspects of the 'ethnic' context of Sunderland Museum through my engagement with museum staff. My dialogue with local people in each of these contexts informed me of ways to consider what I was seeing, drawing and photographing. Though not formalized as interviews or focus groups, these interactions exposed their reflections on objects and architecture within these ethnic contexts. In the case study of *Liverpool Map,* the subject was a commission to create a cultural map. The subject finding in this work was the compilation of a variety of cultural texts: photographs, images of historical maps and landscapes, online polls, and the literal handwritten texts of local people. In collaboration with project sponsors and another artist, an impression of Liverpool's sense of place was developed.

This study does not claim that the artworks and the methodology used to produce them are ethnographic. Instead, I believe that my methods of subject finding within ethnic contexts is one approach to a search for image and form that relates to my personal motivations and expansion of an artistic visual vocabulary. As a glass artist, this is my attempt to engage a discourse in the arena of contemporary art and to advance an emerging dialogue within glass art practice.

6.1.3 In reference to research objective 3

- Using a multiplicity of perspectives within the case studies, to interpret encounters with ethnic contexts, revealing complex, layered narratives.

What I personally find fascinating about working in foreign places is that there are so many angles from which to view a situation, an object or a place. It is a reflection of my

personal point of view on my experiences as an Asian American living abroad. It is the search for a multiplicity of perspectives that inspires my artworks. The subject, an ethnic context, is a collection of experiences, photographs, sketches, conversations, objects, written histories and maps. I look to 'layered' descriptions of ethnic contexts in my work, in which complexity is retained as opposed to resolved. The perspectives include my own personal understanding of a context, the historical and current views of local people, and analysis of culture through theoretical constructs. The concepts of cultural translation, the dialectic theory of material culture, object biography, and a sense of place developed my interpretations of these multiple perspectives and inspired the making of new artworks.

Experiences in foreign ethnic contexts require translation. In my earlier practice, this was done in a literal sense, with language as a source of inspiration for developing new artworks. In this study, cultural translation considers the complexity and even impossibility of full comprehension. The elements of an ethnic context are considered as fragments from which to build a multi-layered cultural narrative.

Considered through the dialectic theory of material culture (Section 3.3.2), objects and the landscape play a significant role not only as evidence of culture but also as part of a framework that shapes people. For example, the legacy of Soviet occupation in the Baltic States is evidenced in Baltic language barriers as well as the debate over the cultural value of architectural remnants from that period. This inspired my artworks, which interpreted the concrete façades as a source of forms, and as an alternative way of visualising the ethnic context of the Baltic States. The embedded graphic images and patterns represent a turbulence that echoes some of the impressions I received from local people about their experiences of living with that architecture.

Autobiography has been a key feature of my art practice, but within this study, the biographical aspects are turned to focus on the specific cultural contexts. Inspired by Kopytoff's concept of object biography (Section 4.2.1), I developed a strategy for exposing multiple perspectives within which an ethnographic object can be located. My study of objects in Sunderland Museum attached them to a more complex narrative than is visible upon first glance. My idea for the artworks was that they could refer in their

forms to a foreign ethnic origin, but that their contents could expose a relationship and influence on Sunderland people and culture.

The multiple perspectives of sponsors, the press, and participating members of the Liverpool public were the influences behind the visualisation of a cultural map of Liverpool. Different representations of local heritage, including important people, historical moments and international connections, were incorporated into the literal form of a map. In this work these graphic images are embedded in layers within the glass sculpture in a colour scheme that signifies topography, which can be considered a metaphor for 'cultural terrain'. Contributions by Liverpool locals through polls and the handwriting activity were added to the map as a way of depicting contemporary perspectives in a representation of a local and global sense of place.

The creative process of developing an interpretation of an ethnic context inspired new images and iconography in my artwork. 'Graphic glass' is an excellent working method to visualise such narratives, and I consider the artworks to be visual metaphors for this complexity.

6.1.4 In reference to research objective 4

- To fabricate artwork by developing a technique-driven process for the encapsulation of layered, printed text and image fused within glass sculptures.

Following the designer-maker model and in keeping with current research methods in glass, the transformation of my interpretations of ethnic contexts into glass artworks was facilitated by developing methods of fabrication. This research has allowed me to expand on my practical methodology for making 'graphic glass'.

Combining the graphic image and glass is the foundation for all the artworks presented in this research, from its development in early artworks to their encapsulation in the latest graphic glass sculptures. Having experimented with various ways of transferring an image to glass, this study focused exclusively on screenprinting of enamels to fusible glass sheets. Because it is fired onto the glass, the image can be treated in all the ways in which glass can be manipulated. Deep layering of multiple images within transparent glass is one possibility. Other techniques include cutting and construction of image-

laden glass, offering effects that play on the optical qualities of the medium. The image can be applied to multiple surfaces and set in more than one axis within the glass as a spatial composition of two-dimensional images within the three-dimensional form.

This way of working with the image on glass can be applied to glasswork in general. Multiple processes are used within my work, but changing the sequence of processes provides a complex combination of images and forms. For example, printing, fusing, waterjet cutting and cold polishing are the processes behind both *Comb* and *Liverpool Map*, but each artwork is constructed for a distinct visible result.

Finally, the combination of handmade and digital processes is an important part of this working method. A wide variety of handmade marks, text and drawings provide visual contrasts when overlaid with digitally produced imagery. In this study, image editing and drawing software was used to prepare photographic images and to enhance faint hand-drawn marks for screenprinting, to compose montages of multiple images, and to create rendered visualisations that preview the sculpture. Whilst digitally driven glass cutting is a distinctive feature of the artworks created in this study, traditional techniques of cutting, printing, and fusing glass have been equally important in the making process.

Using techniques of kilnforming and screenprinting, waterjet cutting and cold polishing, I have been able to develop a working method in which the graphic image can be embedded and layered inside transparent solid forms.

6.1.5 In reference to research objective 5

- To reflect on how the artworks express aspects of ethnicity.

Each case study considers a specific ethnic context, describing the ways in which the subject was identified, the creative interpretation based on multiple perspectives, and the techniques used to fabricate the glass. A reflection evaluates formal qualities of the graphic glass objects as visible outcomes. The artworks are compared to relevant artist practice, setting the works in a context of contemporary art and designer-maker glass practice. How the artworks have been displayed, exhibited and reviewed was also

considered. Finally, by considering possible interpretations of the artworks, the study reflects on how the artworks express aspects of ethnicity.

The connections of the artworks to specific cultures are obvious, as the forms are sourced directly from the ethnic context to which they refer. Architecture was photographed, modelled and recreated as façade-shaped glass sculptures. The paddle and comb forms are taken from the collection of ethnographic objects in the Sunderland Museum. The map of Merseyside is clearly the basis for *Liverpool Map's* cartographic appearance. The creative element in the work, and the reason the artworks are not photographs or plaster replicas of the originals, can be found in the way the graphic image has been embedded within the glass objects. The chosen images, patterns and text interact with the glass forms, adding an inner composition that changes how a viewer might interpret the form.

It is in this way that the artworks are able to express aspects of ethnicity. Embedded patterning sitting on top of and within the building forms activates the surfaces of the glass buildings, adding a visual turbulence that is a metaphor for the Soviet past represented in the contemporary landscape of the Baltic States. *Ossify* and *Comb* fuse a quotation of the ethnographic object with a biography, revealed in indelible inscriptions including the ethnic context of Sunderland in its material. In adding the images and text to the *Liverpool Map,* the symbols of Liverpool's history, culture, and identity are integrated into a 'cultural terrain'. By evaluating the visual content of the artworks, these case studies show how the graphic image in glass is used to express aspects of ethnicity.

6.1.6 In reference to research aim

- To identify subjects, develop interpretations, and fabricate artworks, demonstrating how the graphic image in glass might be used to express aspects of ethnicity.

The objectives comprise the conceptual and technical development of my glass art practice. This research is one model of practice for an approach that blends aspects of form and content, which is motivated by the challenge to expose underlying conceptual issues and to articulate craft techniques used to produce the artworks. Locating my

practice in the context of glass art, I am working to balance creative interpretations with the equally important issue of making in my field. An analysis of artists in the review identified conceptual directions (influences of ethnography on art practice) and a technical focus (the printed graphic image in kilnformed glass) as a possible blending of subjects to approach issues of form and content. The methodology for glass art practice is inspired by ethnography. Working in cultural contexts inspired my practice and formed the subject of new glass artworks.

To demonstrate my approach, I created three bodies of place-specific glass artworks that express ethnicity. I responded to cultural contexts through subject finding, developing an interpretation from multiple perspectives and fabrication. The expression of aspects of ethnicity was visualised through layering printed images within kilnformed glass, combined with glass cutting and shaping techniques to determine how those images could be viewed. Through the encapsulation of graphic images in glass, complex integrations of form and content were accomplished. These artworks demonstrate that glass can be used to express ethnicity in unique ways that other materials cannot.

6.2 Contribution to knowledge

This research frames my practice within glass art and creates a trajectory for new developments: a deepening of conceptual underpinnings, a broader knowledge of the field of practice, the opportunity of new cultural groups to study, the building and use of a method with which to interpret these contexts, and a combination of techniques for fabricating sculptural works in glass. This research has combined practical and theoretical aspects in the creation of a method for making glass artworks with cultural identity as its conceptual core. This approach is not an invention of new ideas or techniques, but rather the novel combination of them. Its articulation represents an attempt to develop meanings as well as to refine techniques in glass art. A contribution to knowledge can be made explicit through an evaluation of the creative approach, its execution through glass art practice, and the effect of this research on the context.

6.2.1 Contribution through development of creative approach

The creative approach consists of subject finding within cultural contexts, interpreting multiple perspectives, and the fabrication of graphic glass artworks. This blending of

subjects expands on the technical and creative discourse within the field of glass art. Contemporary ethnographic techniques inspired my explorations in foreign cultural contexts, which form the subject matter for my glass art practice. Through contextual review, I was able to develop an understanding of ethnographic methods, their importance in contemporary art discourse, and how they relate to my creative practice. Elements of these methods—participant observation, interviews and focus groups, cultural texts and representations, and reflexive practice—inspired creative work on three case studies in specific cultural contexts.

This research offers a blending of practical methods, creative developments and contextual frameworks. A glass artist can use this approach to develop content in artwork in which the making informs concepts, and the concepts inform making. Glass can be used to create a variety of visual effects, but its material properties lend themselves to the expression of metaphor. As Frantz (2004 p.4) states, "The contradictory nature of the material provides a variety of comparisons." The multiplicity of perspectives within an ethnic context reveals how connecting fragments can reveal aspects of ethnicity. Using glass as window or lens might provide a viewpoint into a culture. The combination of the layered graphic image inside of transparent glass was used to capture the complexity of an ethnic context.

This research is an example how cultural discourse can inspire the making of glass artwork, a methodology common to contemporary fine art. It does not suggest that the work must be considered to have crossed a disciplinary border. Rather, the study might be useful to the glass artist, as a model for developing concepts within a material-led practice. This approach might lead to creative strategies for art making, whilst retaining a focus on the properties of glass that can help to visualise an idea.

6.2.2 Contribution of graphic glass as a model of practice

The interpretation inspired by the multiplicity of perspectives in an ethnic context inspired three bodies of original artworks, which encapsulate the graphic image in glass. The contribution to the field of glass art does not consist of new practical techniques, but rather a novel combination of them. This offers a working method of making glass artworks that conceals the origin of its manufacture. The cross-disciplinary treatment of

handmade and industrial glass processes--cutting, printing, kilnforming and cold polishing—uses no single technique as an endpoint. This is a model of practice that might allow for more cross-fertilization within the glass art practice, in which distinctions in genre might prevent the exchange of useful techniques.

Key techniques developed include:
• the 'splice,': printed glass is fired, cut into strips, rearranged and fused on edge. This technique can be used to change the angle from which the image is viewed, and to combine multiple images. This is used in *Triple Self Portrait* (Figure 2) and *Biblioteka* (Figure 49).
• inspired by puzzles and die cast model toy kits, the use of the waterjet cutter to create components that fit each other precisely. In *Liverpool Map* (Section 5.5.2), the components are cut from mixed coloured and printed glass.
• 'graphic grain': a variation of the splice, printed sheets of glass are fused together and then reshaped once cold. The layers of an image appear as a texture within the material. This technique was used in the work *Comb* (Section 4.5).
• 'carvable image': A variation on graphic grain used in *Ossify* (Figure 63), a single printed image is repeated on multiple layers of opal sheet glass, fused together. Reshaped with grinding tools, the image is revealed as the layers of glass are exposed.

I refined the techniques to create visual qualities in graphic glass artwork that express aspects of ethnicity. Removed from the context of this study, these techniques can be utilized by others in designer-maker glass practice for their own expressions.

6.2.3 Evaluating contribution through change in context

A methodology for creative approaches to the expression of ethnicity was employed in the making of three bodies of graphic glass artworks. My contribution to knowledge can be evidenced by ways in which this study has been disseminated in the field of practice through exhibition, research-informed teaching, presentation and publication.

The artworks considered in this study have been widely exhibited in galleries and selected for juried exhibitions and publications (Appendix 5.2). One artwork from each case study has been either commissioned or acquired for permanent collection. As part

of museum art collections, the artworks, considered as an example of practice, have the possibility of being shown in various thematic contexts in exhibitions. *Liverpool Map,* a public artwork sited in a city Museum, might not be related to other art practice in its permanent context. However, it does have the largest viewership of any works in this study. Since opening in March, the Museum of Liverpool welcomed 667,526 visitors in 2011.i

i

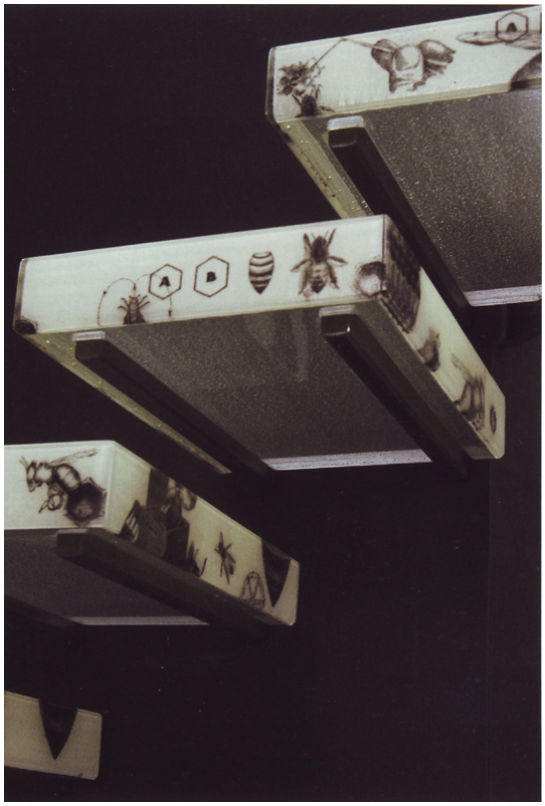


Figure 89 Michael Rogers with Bullseye Glass studio team. Printed glass stair treads, 2009. Screenprinted and fused glass

This research has refined and made explicit processes behind graphic glass. Embedded print in glass has been more widely proliferated amongst students, practitioners, and industry. One example of research-informed teaching is that these techniques have been integrated into the Glass and Ceramics curriculum at the University of Sunderland. I developed a 15-week module entitled 'Graphic Collisions: Permanent Image for Glass and Ceramics', in which print techniques are applied to glass and ceramics. Technical notes have been developed that help to teach and reinforce the techniques for students in the workshop. The quality of the resulting works has been of a standard for exhibition and publication (Petrie 2011).

Through the duration of this research, I have taught masterclass workshops in glass and print (Appendix 5.3), and continued to develop their delivery and content based on the processes used in my artworks. These workshops can inform and encourage practice by other artists in the field. For example, a workshop was given at Bullseye Glass Resource Centre in June 2009, and the outcomes of this workshop prove a change in the context. One student in the class was Michael Rogers, a well-known glass artist whose artworks previously used hand engraving to produce imagery on glass surfaces. As a result of this workshop, he set up a printing facility in his studio and created new works in glass and print exhibited at SOFA 2009, a world-leading fair for decorative arts. These techniques have also made an impact on the glass art industry. Bullseye Glass Co., a contributor of technical support to the *Liverpool Map* project and host of the above-mentioned masterclass, has also used my workshop as the foundation for a three-day class that is taught regularly at their Research and Education Resource Centers in three locations in the USA.

Conference paper presentations and publications exposed the practical and conceptual approaches behind the artworks to a wider audience in a variety of specialist contexts (Appendix 5.2). Presentations at BECon 2009 and the 2011 Glass Art Society Annual Conference, important events in the glass art community, took the form of lectures that emphasised the technical aspects of the case studies. The lectures were each tied to post-conference masterclasses. Paper presentations can also show how my artworks are inspired by, and can also inspire, cultural dialogues. For example, historical mark making inspired the interpretation of ethnographic objects, and print, a form of mark making was a key process in making the artwork *Ossify* (see Chapter 4). A paper on the approach to making this artwork was presented to the 2010 Museum Ethnographers Group (MEG) annual conference and is published in the *Journal of Museum Ethnography* (Appendix 3). At the conference, this paper resonated with other presentations on contemporary issues in museum ethnography, evidenced by a final discussion on the analysis of labels and catalogue entries: “While some argued that the main point of such work was to throw light on original provenance and thus on indigenous purpose and meanings, others emphasized the value of a focus on old labels and texts for studying the lives of objects in museums” (Museum Ethnographers Group 2011). This debate played a key role in inspiring the theme of MEG's 2011 conference,

'Objects and Words: Writing On, Around, and About Things'. Finally, *Liverpool Map* was a catalyst behind *Liverpool in Layers: Mapping a Sense of Place*, a forthcoming new book on Liverpool history and culture described through imagery embedded in the sculpture (Appendix 5.2).

As shown in the above examples of dissemination, this research can contribute to knowledge within, and sometimes beyond, the field of glass art. By making explicit a technical process as well as developing a concept-driven subject, this research participates in both material-based and concept-based discourses.

6.3 Areas for further research

Having utilized a creative approach to developing and fabricating three bodies of glass artworks that express ethnicity, this study concludes by suggesting areas for further research. This research is one case study of integrating the printed image with kilnformed, cut and carved glass forms, but presents opportunities for development through further exploration of three-dimensional movement of the image in glass. Continued work with object biographies presents possibilities of further work within museum collections.

6.3.1 Areas for further technical development

Techniques for embedded print in kilnformed glass have been recently explored, though focused primarily on the use of glass as a surface upon which the image is placed. Low-relief integrated glass printing exposed some aspects of three dimensions (Petrie 2006 p.76). In this research, screenprinting and kilnforming techniques extended the spatial qualities of graphic glass through the layering and fusing of multiple printed glass sheets. Techniques such as the ‘splice’ were employed to integrate the physical thickness of glass sheets with the printed surface, requiring the viewer to look from an angle in order for the image to resolve itself. The ‘carvable image’ technique (Section 4.3.3) integrated the image into a glass block from which a three-dimensional form was carved. Waterjet cutting was used to create contours that could also be seen as graphic images within thick blocks of transparent glass.

What remains to be explored in depth is the use of print in the interior space of 'in the round' three-dimensional forms. The insertion of printed and waterjet-cut graphic elements in a controlled fashion into kiln casting has not yet been detailed. If one of the goals of inserting print into three-dimensional glass forms is to retain image integrity, fusing and grinding processes in glass would need to be combined to create pre-cast glass 'slugs' that would allow the filling of a mould with minimal movement in the glass.

In this study, tight control of image placement was achieved through the construction of moulds to restrict the flow of glass. The dynamic movement of the graphic image within the glass form might be achieved through methods that encourage the loosening of control over the printed image. Graphic 'swim' of the printed glass has been mentioned briefly by Petrie (2006 p.64) but could use further exploration. In the casting of three-dimensional glass forms, glass is heated in a reservoir (either within or above the mould) until it flows to fill the negative space of a mould. Modifications to these reservoirs could create a variety of effects, such as stretching or pooling, as the image-embedded glass drops into the mould.

6.3.2 Areas for further subject development

This research integrates a process for subject finding and interpretation with the process of glass making to create graphic glass artworks. The relationship between making and meaning is of particular importance in contemporary glass art, a field that is technically diverse; a myriad of processes can be utilized to create visual effects. What I believe to be a greater challenge as a glass artist is to get the materials and ideas to match, producing work that is not only technically, but also conceptually, unique.

One development from the field study in the Baltic States is a continued focus on modern architecture, questioning my observation of the cultural specificity of the visual qualities of Soviet architecture. To reveal this tendency, new works have been produced such as *Art School* (Figure 90), a modernist façade in present-day England. It is a representation of the School of Art and Design at the University of Wolverhampton. This work was exhibited together with *Hotel* (Figure 46) in *Edifice*, a group exhibition at National Glass Centre in Sunderland that explored "how artists have captured the

sometimes oppressive and grand nature of these edifices within our urban landscapes" (National Glass Centre 2011). A project to create glass artworks based on housing estates in other locations in the UK and Europe is currently in development.

Figure 90 Jeffrey Sarmiento, *Art School*, 2011. Waterjet cut, fused and fire polished glass. 76 x 56 x 5 cm

One aspect of the case studies presented in this research is that glass was used as a sculptural material to interpret cultural contexts. The artworks based on the Soviet façades (Chapter 3) focused primarily on the concrete and steel elements, and not the existing glass, as the primary characteristics rendered. A more in-depth study of glass within Soviet architecture and the glass art context of the Baltic States as described in Vesele (2010), might provide more insight to the qualities of the material and meanings that can be expressed. Through the study of glass—its physical qualities, its function in culture, and the metaphorical possibilities of the material—one might locate areas for further study.

The making of 'object biography' in glass sculptures (Chapter 4) combined aspects of cultural texts in the ethnographic museum with creative practice. The resulting artwork is a visual metaphor, the graphic image in glass encapsulating a complex history and 'career' of an artefact within a cultural place. The possibility for further study exists by shifting subject finding to focus primarily on the 'biography' of glass. One such project

suggests collaboration with the Pitt Rivers Museum, a museum built during the Victorian period that maintains the appearance of the *wunderkammer*. What distinguishes it is its curatorial ethos, which is determined primarily by the development of material culture, for example, body adornment, weapons, or fire-making techniques, and less by ethnic origins (though this information is often made explicit in signage around or markings on the objects). In our conversation, Joint Head of Collections Jeremy Coote described it as 'a museum of technology in its broadest sense'. What is missing in the displays of this museum is an assessment of glass as a technology. Unlike other living processes or human 'technologies' for which the genealogy is made explicit, glass is dispersed throughout the collection, featured within other categories such as beads in the 'currency' section, and in the native use of bottles to create razors in the cabinets on body adornment. The history of glassmaking at the Pitt Rivers Museum could be explored in collaboration with a museum ethnographer as a curatorial project with a corresponding exhibition of glass art. This reading of the historical collection might expose new object biographies and provide source material to develop a new body of glass artworks by utilizing contemporary and historical methods of making. Such a project is an example of the creative possibilities of using glass to consider material and cultural representations in the museum.

When I started this research, I wanted to reconcile a desire to articulate the conceptual underpinnings of my creative practice with my passion for working with the material of glass. Through this study I have found more than a justification of my glass art practice. I have expanded my visual and technical vocabularies whilst engaging ethnic contexts, which this project pushed me to explore. It is my hope that in some way I have contributed an example of practice that might inspire others to pursue meaningful making in glass art.

References

Andrews, Richard 2006. "Outside In: Maya Lin's Systematic Landscapes." In Lin, Maya. *Systematic Landscapes.* Seattle: Henry Art Museum. pp. 61-75.

Almeida, Teresa, 2010. Luminescent Glass-art Works. In *Creativity and Innovation in Glass. Proceedings of the International Glass Symposium.* Wolverhampton: University of Wolverhampton.

Antonio, Jennifer 2009. *The development of new methods of working to create a greater integration of form and image in glass through the exploration of applied and residual surface coatings.* PhD Thesis Sunderland: University of Sunderland.

Backhouse, Edward 1870. *The Religious Society of Friends: Doctrines and Practices in Which They Agree with their Fellow-Christians and Others in which they Differ,* Sunderland.

Belchem, John ed. 2008. *Liverpool 800: Culture, Character and History.* Liverpool: Liverpool University Press.

Benjamin, Walter, 1999. *Illuminations.* London: Pimlico.

Bennett, Katy 2002. "Participant Observation" and "Interviews and Focus Groups." In Shurmer Smith ed. 2002 pp.140-162.

Bergand, Timothy 1999. *The Art of Craft: Contemporary Works from the Saxe Collection.* San Francisco: Fine Art Museum of San Francisco.

Bhabha, Homi 1994. The Location of Culture. London: Routledge.

Blazwick, Iwona 2002. "Widescreen Visions." *Simon Patterson.* Newcastle upon Tyne: Locus+. pp. 14-21.

Brachlow, Heike, 2010. Shaping Colour: Density, Light and Form in Solid Glass Sculpture. In *Creativity and Innovation in Glass. Proceedings of the International Glass Symposium.* Wolverhampton: University of Wolverhampton.

Braziel, Jana Evans and Mannur, Anita eds. 2003. *Theorizing Diaspora*. Malden: Blackwell Publishing.

Bryson, Bill 1995. *Notes from a Small Island*. London: Doubleday.

Bukantas, Ann ed. *Cityscape: Ben Johnson's Liverpool*. Liverpool: University of Liverpool.

Calle, Sophie 1999. *Double Game*. London: Violette Editions.

Calvino, Italo 1979. *Invisible Cities.* London: Picador.

Catalani, Stefano 2012. “memory:identity :: signs:craft.” Glass Art Society Annual Conference Journal. Seattle: Glass Art Society. pp.31-39.

Catalani, Stefano 2007. “Curator’s introduction.” *A Tapestry of Memories: The Art of Dinh Q. Lê*. Seattle: Bellevue Arts Museum. pp.11-17.

Chandra, Mohini 1999. *Pacific Album: Vernacular Photography of the Fiji Indian Diaspora.* PhD Thesis. London: Royal College of Art.

Chandra, Mohini 2001. *Album Pacifica*. London: Autograph.

Chaubin, Frederic 2011. *CCCP: Cosmic Communist Constructions Photographed.* Cologne, Germany: Taschen.

Clemons, Gayle 2009. “Introduction” and “Maya Lin: When Opposites Meet.” In Harmon, Katherine. *The Map As Art: Contemporary Artists Explore Cartography.* New York: Princeton Architectural Press. pp. 8-16, 246-253.

Clifford, James 1988. *The Predicament of Culture: 20th Century Ethnography, Literature and Art.* Cambridge, MA: Harvard University Press.

Clifford, James 1997. *Routes: Travel and Translation in the Late 20th Century*. Cambridge: Harvard.

Clifford, James and Marcus, George, ed. 1986. *Writing Culture: The Poetics and Politics of Ethnography*. Berkeley, CA: University of California Press.

Coles, Alex and Dion, Mark 1999. *Mark Dion: Archaeology*. London, UK: Black Dog Publishing.

Coles, Alex, 2000. “An Ethnographer in the Field: James Clifford Interview.” In Coles 2000, pp.52-71.

Coles, Alex ed. 2000. *Site Specificity: The Ethnographic Turn*. London: Black Dog.

Coote, Jeremy. 2010. “Rethinking Pitt-Rivers: Analysing the Activities of a Nineteenth-Century Collector.” http://www.prm.ox.ac.uk/rethinkingpitt-rivers.html. Accessed 18 August 2010.

Craig, Blanche ed. 2008. Contemporary Glass. London: Black Dog.

Cummings, Keith 2009. Contemporary Kilnformed Glass. London: A&C Black.

Cutler, Vanessa 2006. *Investigating the Creative use of Waterjet Cutting for the Glass Artist’s Studio.* Phd Thesis: University of Sunderland.

Da Silva, Olivia 2000. *In the Net*. PhD Thesis. Derby: University of Derby.

Da Silva Olivia and Pink, Sarah 2004. “In the Net: Anthropology and Photography.” In Pink, Kurti and Alonso eds. 2004. pp.157-165.

Da Silva, Olivia 2010. Open Lecture, School of Art and Design, University of Derby. 28 April 2010. http://www2.derby.ac.uk/openstudio/events/visiting-lecturers/207-olivia-da-silva-lecture Accessed 21 May 2011.

De Waal, Edmund 2004. *Arcanum: Mapping 18th Century European Porcelain*. Cardiff: National Museums and Galleries of Wales.

De Waal, Edmund 2009. *Signs and Wonders: Edmund de Waal and the V&A Ceramics Galleries.* London: V&A Publishing.

Dorsett, Chris 2010. "Making Meaning Beyond Display." In Dudley, Sandra ed. *Museum Materialities: Objects, Engagements, Interpretations.* London: Routledge. pp.241-259.

Dorsett, Chris 2008. "Glimpsing the Archive." In Bacon, Julie, ed. *Arkive City*. Belfast: University of Ulster/Locus+.

Drury, John 2011. "Norwood Viviano: Cities: Departure and Deviation (Exhibition Review)." Glass Quarterly 125 Winter 2011. p.58.

Duggan, Grace 2011. "Reflection: A new generation of glass artists seeks to broaden what it sees as overly narrow parameters for glass art." *Glass Quarterly* No.122 Spring 2011. p.48.

Ekinsmyth, Carol and Shurmer-Smith, 2002. "Humanistic and behavioural geography." In Shurmer-Smith 2002. pp. 19-27.

Edwards, Elizabeth 2006. "Travels in a New World—Work around a Diasporic Theme by Mohini Chandra." In Schneider and Wright 2006, pp.147-156.

Espiritu, Len 1997. "Filipinos?" Symposium transcript, University of California Irvine, 1996. In Bayerwaldt, Wayne. *Memories of Overdevelopment: Philippine Diaspora in Contemporary Art*. Manitoba, Canada: Plug In Editions.

Fanon, Franz 1986. *Black Skin, White Masks*. London: Pluto.

Fibicher, Bernard 2002. 'In the Name Of…' *Simon Patterson.* Newcastle upon Tyne: Locus+. pp. 6-13.

Fischer, Michael M.J. 1986. 'Ethnicity and the Post-Modern Arts of Memory'. In Clifford, James and Marcus, George E. eds. *Writing Culture: The Poetics and Politics of Ethnography.* Berkeley: University of California. pp. 194-233.

Foster, Alicia, 2003. "Susan Hiller." *Tate Women Artists*. London: Tate Publishers. Also available at http://www.susanhiller.org/Info/bio.html. Accessed 21 May 2011.

Foster, Hal 1996. "The Artist as Ethnographer." The *Return of the Real: The Avant-Garde at the End of the Century.* Cambridge, MA and London: MIT Press. pp.171-203.

Frantz, Suzanne 2004. “Fragile Tissue and Transparent Character.” *The other side of the looking glass: The Glass Body and its Metaphors.* Redding, CA: Turtle Bay Museum. pp. 4-7.

Frantz, Suzanne 1989. *Contemporary Glass*. New York:Abrams

Geertz, Clifford 1966. "Religion as a Cultural System," in Banton, M. ed. *Anthropological Approaches to the Study of Religion,* London: Tavistock. pp.1-46.

Geertz, Clifford 1973. *The Interpretation of Culture*. New York: Basic Books.

Glancey, Jonathan 2011. ‘Swansongs of a Superpower: Russia’s secret architecture’. *The Guardian* 7 February. http://www.guardian.co.uk/artanddesign/2011/feb/07/russian-architecture-soviet-union-photography. Accessed 9 February 2011.

Grimshaw, Anna and Ravetz, Amanda eds. 2005. *Visualising Anthropology*. Bristol: Intellect.

Gross, Jennifer 1999. “Josiah McElheny: Master Apprentice.” *Josiah McElheny.* Boston: Isabella Stewart Garden Museum. pp.15-20.

Hajdamach, Charles 2009. 20th Century British Glass. Woolbridge, Suffolk: Antique Collectors Club.

Harmon, Katharine 2009. *The Map As Art: Contemporary Artists Explore Cartography.* New York: Princeton Architectural Press.

Hallas-Murula, Karin 2007. *Sixties Architecture.* Tallinn: Eesti Arkitekturmuseum.

Hammersley, Martyn and Atkinson, Paul 2007. *Ethnography: Principles in practice* 3rd edition. London: Routledge.

Heller, Roanna 2005. “Becoming an Artist-Ethnographer.” in Grimshaw and Ravetz 2005 pp. 133-41.

Hickey, Dave 1999. “Hearts of Glass.” *Josiah McElheny.* Boston: Isabella Stewart Garden Museum. pp.15-20.

Hodgkin, Thomas 1892. ‘Biographical Preface’, in Backhouse, Edward. *Early Church History to the Death of Constantine* 4th Edition, ed. Charles Tylor. London: Headley Brothers, pp. ix-xiv.

Holsworth, Mark 2009. “@Seventh Gallery.” Melbourne Art & Culture Critic (Blog). http://melbourneartcritic.wordpress.com/tag/installations/. Accessed 7 December 2010.

Hyperopia Projects 2011. ‘Superposition.’ http://hyperopiaprojects.com/about.html. Accessed 4 February 2011.

Jahn, Jeff 2008. "Jeffrey Sarmiento at Bullseye." PORT (blog). http://www.portlandart.net/archives/2008/08/jeffrey_sarmien.html. Accessed 1 December 2008.

Jelinek, Alana 2011. "Words and Objects: The many things we know but don't communicate." Paper presentation, Museum Ethnographers Group 2011 Annual Conference, 14-15 April 2011. Pitt Rivers Museum, Oxford.

Jenkins, Richard 1997. *Rethinking Ethnicity: Arguments and Explorations.* London: Sage.

Jessop, Leslie and Starkey, Janet 1998. *No Contemptible Workmanship: Material Culture of the Pacific Region Represented in the Hancock Museum, Newcastle upon Tyne.* Newcastle upon Tyne, UK: Tyne and Wear Museums.

Jessop, Leslie, 2003. "The Exotic Artefacts from George Allan's Museum and other 18th Century ethnographic collections surviving in the Hancock Museum, Newcastle upon Tyne." *Transactions of the Natural History Society of Northumbria* 63. pp89-166.

Josslin, Victoria 2010. "Ancestor Worship: Preston Singletary's search for identity illustrates the power (and perils) of reverence for an idealized past." *Glass Quarterly* No.120 Fall 2010. pp.22-27.

Kaneko, Jun 2008. *Jun Kaneko.* Portland: Bullseye Gallery.

Kangas, Matthew 2005. "In a Manner of Speaking (Review)." *Glass Quarterly* (100) Fall 2005 p.61.

Keats, John 1884. 'Ode on a Grecian Urn', in Quiller-Couch, Arthur Thomas, Sir. *The Oxford Book of English Verse*. Oxford: Clarendon, 1919, [c1901]; Bartleby.com, 1999. www.bartleby.com/101/. Accessed 08 January 2011.

Kelly, Jessamy 2009. The Combination of Glass and Ceramics as a means of artistic expression in studio practice. PhD Thesis: University of Sunderland.

Koplos, Janet 2006. "Reconsidering Glass." Glass Art Society Journal 2006. Seattle: Glass Art Society. pp.43-47.

Koptyoff, Igor 1986. "The Cultural Biography of Things: Commoditization as Process." in Appadurai, Arjun ed. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge, UK: Cambridge University Press. pp. 64-91.

Kuchler, Suzanne 2000. "The Art of Ethnography: The Case of Sophie Calle." In Coles 2000. pp.94-110.

Kunimatsu, Susan 2011. "Greater than the Sum of Two: Dual Nature—Contemporary Glass and Jewelry." *International Examiner* Vol. 38 No.12. Posted 14 June 2011. http://www.iexaminer.org/arts/greater-sum-two-dual-nature-contemporary/ Accessed 17 February 2012.

Kwon, Miwon 2004. *One Place After Another: Site Specific Art and Locational Identity*. Cambridge: MIT Press.

Kwon, Miwon 2000. "Experience vs. Interpretation: Traces of Ethnography in the Works of Lan Tuazon and Nikki S. Lee." In Coles 2000. pp. 74-89.

Kwon, Miwon and Dion, Mark 1997. "Interview: Miwon Kwon in conversation with Mark Dion." *Mark Dion*. London: Phaidon Press. pp. 6-33.

Leatherland, Eileen 2012. *The manipulation of coatings on specialist float glass with particular reference to low-emissivity glass for creative application in architectural contexts.* PhD Thesis. Sunderland: University of Sunderland.

Lee, Amber 2008. "The Emergence of the Contemporary and the Disruption of the Frame: George Nuku's Te Whare Tupuna in the British Museum's Great Court." *Inferno: Journal of Art History XII* 2007-8. pp.15-25.

Lippard, Lucy 1998. *Lure of the Local: Senses of Place in a Multicentered Society.* New York: New Press.

Littleton, Harvey 1971. "Form, Glass, and the Artist." *Glassblowing: A Search for Form.* New York: Van Nostrand Reinhold. pp. 14-21.

Liverpool Daily Post 2008. "Wirral folk aren't real Scousers, says Map poll." Online Forum, *Liverpool Daily Post* 3 March.

Liverpool Daily Post 2009. "Mapping out what Liverpool means to you through creative writing." *Liverpool Daily Post* 15 April.

Longmore, Jane 2008. "Civic Liverpool: 1680-1800." In Belchem, John, ed. *Liverpool 800: Culture, Character and History.* Liverpool: University of Liverpool Press. pp.113-170.

Lowe, Lisa 2003. "Heterogeneity, Hybridity, Multiplicity: Marking Asian-American Differences." In Braziel and Mannur 2003. pp.132-155.

Lu, Xue 2009. *The investigation into the development of glass as an expressive medium in China through direct contact with Western methods of making, decoration and forming.* PhD Thesis: University of Wolverhampton.

Massey, Doreen 1994. "A Global Sense of Place." *Space, Place and Gender.* London: Polity Press. pp. 146-156.

Massey, Doreen 1995. "The Conceptualization of Place." In Jess, Pat and Massey, Doreen eds. *A Place in the World? Places, Cultures and Globalization.* Oxford: Open University/Oxford University Press. pp.45-86.

Mazutyte, Aiste 2007. Stiklo Sodas Symposium'. *Panorama* (Television program). Lietuvos Televizijos 24 August 2007.

Mcleod, John 2000. *Beginning Postcolonialism*. Manchester: Manchester University Press.

Meegan, Richard 1995. "Local Worlds." In Allen, John and Massey, Doreen eds. *Geographical Worlds.* Oxford: Open University/Oxford University Press. pp.53-104.

Metcalf, Bruce 2009. "The Glass Art Conundrum." *The Glass Art Society 2009 Journal: Corning, New York*. Seattle: Glass Art Society. pp.20-27.

Meyer, James. "Nomads: Figures of Travel in Contemporary Art." In Coles 2000. pp.10-26.

Miller, Daniel 2010. *Stuff*. Cambridge: Polity.

Miriam-Webster 2012. Miriam-Webster.com. http://www.merriam-webster.com/dictionary .

Moran, Joe 2010. "From Lime Street to Liverpool: A voyage in pixels, stone and glass." In Faithfull, Simon. *Liverpool to Liverpool.* Liverpool: University Press. pp.ix-xi.

Morgan, Robert C. 2005. "Who Takes Glass Seriously?" *Glass Quarterly* No.100 Fall 2005. pp. 26-33.

Morris, William 2003. "From the Craft, to the Object, and Back Again." *Glass Art Society 2003 Journal: Seattle, Washington.* Seattle: Glass Art Society.

Museum Ethnographers Group 2011. "MEG Conference 2011: Writing On, About and Around things." http://www.museumethnographersgroup.org.uk/index.php?option=com_content&view=article&id=14&Itemid=31. Accessed 18 May 2011.

National Glass Centre 2011. "Edifice." http://www.nationalglasscentre.com/whats-on/2011/06/11/edifice.html. Accessed 27 May 2011.

National Museums Liverpool 2008. "Liverpool Map." http://liverpoolmuseums.org.uk/mol/galleries/liverpoolmap/. Accessed 10 September 2010.

National Museums Liverpool 2009. Transcript of Liverpool Map Planning Meeting. Unpublished.

Neich, Roger 1993. *Painted Histories: Early Maori Figurative Painting*, Auckland: Auckland University Press.

Newcastle Courant 1879. "Sunderland Museum and Free Library." *The Newcastle Courant* no. 10688, Friday 7 November 1879. p.8 col.E.

Oldknow, Tina 2010. "Note: The Rakow Commission." New Glass Review 31. Corning, NY: The Corning Museum of Glass. pp. 95-97.

Õunpuu, Veiko 2007. *Autumn Ball* (film). http://www.sygisball.ee/en/film/about/. Accessed 13 February 2011.

Osorio-Zapata, Edison 2008. Artist Statement. UrbanGlass.org. http://www.urbanglass.org/node/338. Accessed 20 August 2008.

Oxford Dictioaries 2011. "Ethnography." http://oxforddictionaries.com/definition/ethnography?q=ethnography . Accessed 16 March 2012.

Page, Andrew 2011. "The Code Breaker." *Glass Quarterly* 123 Summer 2011. pp.22-27.

Page, Andrew 2008. "A History of Sculptural Expression in Glass." In Craig ed. 2008. pp. 10-15.

Pasifika Styles 2008. Artists: George Nuku. Pasifika Styles Exhibition. http://www.pasifikastyles.org.uk/artists/george-nuku.php. Accessed 15 February 2010.

Pels, Marsha 1999. "Reclaimed Site." *Glass Arts Society Annual Journal* 1999. Seattle: Glass Arts Society.

Petrie, Kevin 2011. *Ceramic Transfer Printing.* London: A&C Black.

Petrie, Kevin 2010. "Glass and Print: Blending approaches for innovation in creative Glass." *International Glass Symposium, Wolverhampton: Creativity and Innovation in Glass*. 27 August 2010.

Petrie, Kevin 2006. *Glass and Print.* London: A&C Black.

Petrova, Sylva 2010. "British Glass Biennale: Context, Content and Relevance." *2010 British Glass Biennale*. Stourbridge: British Glass Biennale. pp.9-12.

Petry, Michael 2008. "Through a Glass Darkly: Artists, Glass and Authorship." In Craig ed. 2008. pp.128-133.

Pink, Sarah 2007. *Doing Visual Ethnography: Images, Media and Representation in Research*. London: Sage.

Pink, Sarah, Kurti, Laszlo and Alonso, Ana Isabel 2004. *Working Images: Visual Research and Representation in Ethnography.* London: Routledge.

Putnam, James 2005. "Applying Art to the Museum," in *Arcanum: Mapping 18th-Century Porcelain—Edmund de Waal*, Cardiff: National Museums and Galleries of Wales, pp. 16–19.

Putnam, James and Tufnell, Ben 2009. *Mythologies.* London: Haunch of Venison.

Radharkrishan, R 2003. "Ethnicity in the age of Diaspora." In Braziel and Mannur 2003. pp.119-131.

Renfrew, Colin 1999. “It May Be Art But Is It Archaeology? Science as Art and Art as Science,” in Alex Coles and Mark Dion (eds), *Mark Dion: Archaeology*, London: Black Dog, pp. 12–23.

Ricke, Helmut 1990. “New Glass in Europe: Prerequisites and developments since the 50s.” *New Glass in Europe.* Dusseldorf: Glasmuseum Hentrich. pp.13-32.

Robinson, John 1900. ‘Sunderland Worthies, No. 6: Edward Backhouse’, *The Library Circular: A Quarterly Guide and Catalogue for Readers at Sunderland Public Library*, no. 8 (15 October), pp. 153–8.

Rony, Fatimah Tobing 1996. *The Third Eye: Race, Cinema and Ethnographic Spectacle*. Durham: Duke University Press.

Rorimer, Anne. “Lothar Baumgarten: The Seen and the Unseen.” In Coles 2000. pp.30-48.

Rosen, D.H. 2007. “Culture observed by an art of glass.“ *The Japan Times.* 14 Dec 2007.

Said, Edward, 1978. *Orientalism.* London: Penguin.

Sarmiento, Jeffrey 2007. “Old England.” *Glass North East.* Ed. Peter Davies. Sunderland: Art Editions North.

Schneider, Arnd 2008. “Three modes of experimentation with art and ethnography.” *Journal of the Royal Anthropological Institute* 14. pp.171-194.

Schneider, Arnd and Wright, Christopher 2006. *Contemporary Art and Anthropology*. Oxford: Berg.

Schneider, Arnd and Wright, Christopher 2010. *Between Art and Anthropology*: *Contemporary Ethnographic Practice.* Oxford: Berg.

Shurmer-Smith, Pamela ed. 2002. *Doing Cultural Geography*. London: Sage Publications.

Singletary, Preston 2003. “Indian-uity: Glass Symbols of Cultural Knowledge.” *Glass Art Society 2003 Journal.* Seattle: Glass Art Society. pp.40-43.

Stanley, Nicholas 1989. “The Unstable Object: Reviewing the Status of Ethnographic Artefacts.” Journal of Design History 2:2. pp.107-122.

Stein, Judith, 1993. “Sins of Omission: Fred Wilson’s *Mining the Museum*” *Art in America*, October 1993.

Stellaccio, Anthony 2009. “EU Structural funds and Soviet Era Treasure.” *Ceramics Technical* May 2009.

Stellaccio, Anthony 2006. "One Path in Lithuanian Art." *Ceramics: Art and Perception* No.63. pp. 80-83.

Stephen, Leslie (revd K. D. Reynolds) 2004. 'Edward Backhouse (1808–1879)', in *Avranches–Barnewall*, Volume 3 of H. C. G. Matthew and Brian Harrison (eds), *Oxford Dictionary of National Biography from the Earliest Times to 2000*, Oxford: Oxford University Press, pp.105–6.

Sunderland Daily Echo 1879. "Edward Backhouse II." *Sunderland Daily Echo* 19 December 1879.

Thomas, Nicholas 1991. *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific*, Cambridge, Mass., and London: Harvard University Press.

Toggerbo, Rasmus 1998. 'Benene.' *De Gamle Molbohistorier*. Ebeltoft, Denmark: Elles Forlag.

Tyne and Wear Archives and Museums 2010. Mission Statement. http://www.twmuseums.org.uk/about/ourmission/ . Accessed 13 January 2010.

Tyne and Wear Archives and Museums 1987-ongoing. MODES database, Tyne and Wear Museums. Unpublished.

Van Cline, Mary 2008. "Beyond the Studio." *Glass Art Society 2008 Journal:Portland, Oregon*. Seattle: Glass Art Society.

Vesele, Anna 2010. *Baltic Glass: The Development of new artworks based on historical and contemporary contextualization*. PhD Thesis. Sunderland: University of Sunderland.

Weight, Angela 2008. "Working with Contemporary Artists at the Imperial War Museum" In Bacon, Julie, ed. *Arkive City.* Belfast: University of Ulster/Locus+.

Whitbread, Delia 2008. Reconfiguring the Rose. PhD Thesis. Sunderland: University of Sunderland.

Wightman, Kathryn 2011. *The development and application of creative printmaking processes for the decoration of blown glass.* PhD Thesis. Sunderland: University of Sunderland.

Williams, Liza 2007. "Special Campaign to map the identity of Liverpool." *Liverpool Daily Post.* 19 November.

Williams, Liza 2007a. "Should Wirral be part of the city's map?" *Liverpool Daily Post* 23 November.

Williams, Nicola, Blond, Becca and St. Louis, Regis 2006. *Estonia, Latvia & Lithuania.* London: Lonely Planet.

Williams, Robert 1999. “Disjecta Reliquiae: The Tate Thames Dig,” in Coles and Dion 1999. pp.72-101.

Wilson, Rob 2011. “Developing Visions, Intelligent Skins.” Gallery guide for *Façade: Through a Glass Darkly* exhibition. 18 March-10 July. Sunderland: National Glass Centre.

Wingfield, Chris 2009. “Back To the Future? Locating and Relocating England” Paper presentation at Victorian Anthropology Seminar. Pitt-Rivers Museum, Oxford, UK. 13 March 2009.

Wingfield, Chris 2010. “Making Museum Objects: The archaeology and anthropology of curatorial practice.” Paper presentation at Museum Ethnographers Group Annual Conference. Museum of Rural English Life, Reading, UK. 12 April 2010.

Wingfield, Chris 2011. “Iconoclasm and the Label.” Paper presentation at Museum Ethnographers Group Annual Conference. Pitt Rivers Museum, Oxford UK. 14 April 2011.

Wodiczko, Krystof 1965. “Artist Statement.” In Stiles and Selz ed. 1987. *Documents and Theories of Contemporary Art*. Berkeley: University of California Press.

Wright, David R. 1993. “Maps with a message.” *Geographical*, Vol. LXV, No. 1. pp.37-41.

Yood, James 2011. “Glasstress Grows Up.” *Glass Quarterly* 124 Fall 2011 pp.34-41.

Yukanjali, 2011. “How is This Glass? Post Glass Artists/Glass Guerillas (blog).” http://howisthisglass.blogspot.com/. Accessed 4 February 2011.

Zananiri, Sary 2010. “Here.” In De Main, Helen and Hasager Maj eds. *Between Here and Somewhere Else.* http://www.betweenhere.net/Jerusalem/Essay.html. Accessed 7 December 2010.

Appendix 1: Stiklo Sodas Symposium Essay

This essay was written as the forward to an unpublished catalog for the Stiklo Sodas Symposium 2007. It includes a synopsis of the symposium and a description of the artists and works produced.

Malonumai is Karto:
Symposium Stiklo Sodas goes International

Fueled by underground spring water, inspired by Soviet hotels, and debated in multiple languages, the third annual studio glass symposium *Stiklo Sodas* brought Lithuanian and international artists a new global perspective. Driven by the theme of "joints," the organization Stiklas Plius looked beyond the borders of the Baltic and for the first time included delegates from the UK, the USA and Europe. Based in Panevezys, this group of artists created a body of individual works in a Lithuanian glass factory. Through varied national and regional approaches of glassmaking, the extension of the artist community through discussion and debate, and the exhibition of works in a public gallery space, this collaboration challenged the artists to make new works as well as expand the international possibilities for the organization's future efforts.

Kiek Daug Kunkuliojanciu Bangu: The Brewing of New Ideas in Hot Glass

The skilled factory team of Glass Remis facilitated the artists' works through four days of hot glasswork and cold polishing. Additional technical support of kilns, torches and specialized glasses were provided courtesy of American delegate Mark Eckstrand. The artistic and technical approaches of the delegates formed an interesting window into the ways in which glass art is conceived, composed and fabricated in different parts of the world.

The Estonians, returning from the previous year's symposium, came prepared with moulds, drawings and mixed media concepts. **Tiina Saraapu**, whose subtle work, often inspired by music, uses glass to affect our perception of spaces, worked toward balancing form against weight. **Eeva Kasper** utilized her time working on *Smell of Flicker*, a piece comprised of modular curving units of trailed hot glass. Fully assembled, the work takes the two-dimensional line into three dimensional space, its clear glass cane creating a shadow that is equally a part of the work.

Representatives of Latvia took a hot glass approach. **Juris Dunovskis**, a sculptor and a muralist, employed a team to hot cast painted, fused and pulled elements for a graphically oriented steel sculpture. **Anna Vesele**, currently working on her PhD on Baltic Glass at the University of Sunderland in England, utilized glassblowers in making the work *Generations*, which are abstractions of nesting and mother/child forms referring somewhat to native costume.

Native Lithuanians responded to the brief with a wide variety of abstract narrative works. **Irina Borodina** hot sculpted hand forms in glass, which she set into a kind of dialogue by connecting them with concrete blocks and steel**. Lina Nenartonyte**, a

stained glass artist, created highly polished glass blocks with inclusions offering perspectives on black and white. **Julija Pociute**, a recent graduate of the glass school in Kaunas, created a mixed media installation with an abstracted wind chime hung before a blindfolded self portrait with the recorded sound of dripping water resonating through the space. Organizer and exhibition curator **Egle Kartanaite**'s work was not as figurative, but more autobiographical. Her series of solid glass forms were quite literally impregnated with words or small orbs.

Artists from other parts of Europe brought their interpretation into the mix. **Susanne Koskimaki** made her work despite the radical difference in the tools and methods as compared to her native Finland. The simple vessel forms with a bold centre stripe show her talents as a skilled glassblower. Focusing on the psychological aspects of the medium, **Gabby Kowalska** of Poland flew in from the French Riviera to craft an array of glass spear forms, which were displayed suspended from the gallery ceiling greeting the viewer at the entrance.

The representatives of the UK and US are both American expatriates, and this interaction with the Baltic has left a solid impression upon their work**. Mark Eckstrand**'s usually playful collared glass fish is literally bisected as it travels through a brick wall, decorated with his import documentation. The work chronicles his year-long struggle with customs, immigration and his relocation to Lithuania. Based on a first-time travel to the Baltic, my work revels in the encounter with Soviet architecture, the ideology that shaped it, and the experiences of the period that my new colleagues have related to me. The intent of the work is to make a beautiful portrait of Panevezys, seeing it with new eyes.

Nepripazistantiems Kompromiso: Multicultural Challenges

Housed in Kartanaite's country home, where drinking water was drawn from a natural spring, the delegates were primed for 9 days of discussion, planning, and public artist talks. The premise seemed simple at the time—to organize a work schedule with glass masters, grind and finish all 12 artists' works, and to get it fully displayed within a week's time. But the reality proved a much more accurate picture of Lithuanian studio glass, its evolution and its future.

Glass Remis put in extra hours to fabricate glass components for the artists, who were double in number than the previous year. While their expertise lay in the production of heavily polished solid glass objects, the masters worked closely with the artists, working out solutions to visualize their sketches and models.

The international contingent also brought with it a new element—a language barrier. There was in fact no common language. Planning sessions and discussions as well as glassblowing had to be conducted in English, Lithuanian or Russian and sometimes all three. This interaction points out the very reason such a symposium is necessary. An artist should not come to such an event to simply replicate one's own studio practice. Rather, the multilingual aspect of *Stiklo Sodas* challenged preconceptions, built bridges and hatched new ideas as translations were composed. For the artists, the symposium served as a ground for experimentation and creation of new work, as well as a cultural exchange.

Zavinga saulelydzio akimirka: a finale

Local press covered the event in newspapers, and a report on the symposium was broadcast on TV, in the Lithuanian national nightly news. Each artist also gave a brief public lecture on their art practice, giving a full picture of their underlying conceptual aims and working process. In just over a week, the *Stiklo Sodas* symposium culminated in a finished exhibition in Galerija XX, in the centre of Panevezys. The choice of such a space indicates Kartanaite's vision to bring attention to Lithuanian studio glass, which is not yet as internationally known as its ceramics or stained glass.

Lithuanian glass is just emerging in its exposure to the rest of the world, but has a positive outlook to international exchange and collaboration. As a result of connections made at this symposium, Anna Vesele and I are planning a return to the Baltic States in 2008 to teach workshops on print techniques for glass in the Art Academies of Vilnius, Riga and Tallinn. Continued exchange seems imminent, and with Kartanaite willing to take on the challenge, *Stiklo Sodas* is a vehicle for future growth.

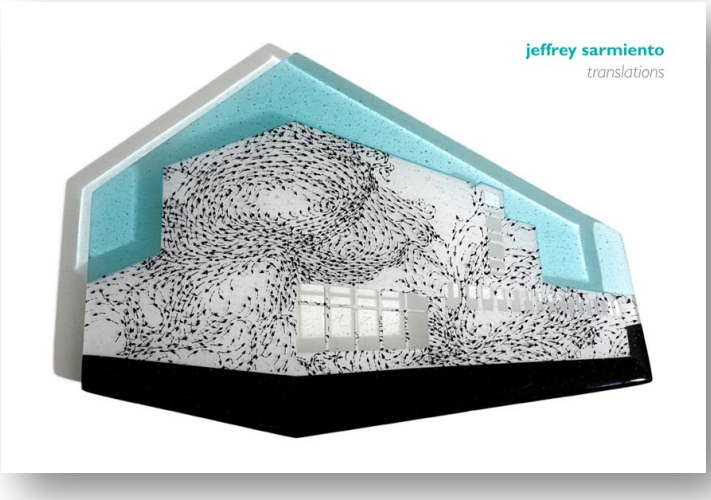
—**Jeffrey Sarmiento** is a Research Councils UK Academic Fellow in Glass at the University of Sunderland, England. His work explores cultural identity and the printed image in glass.

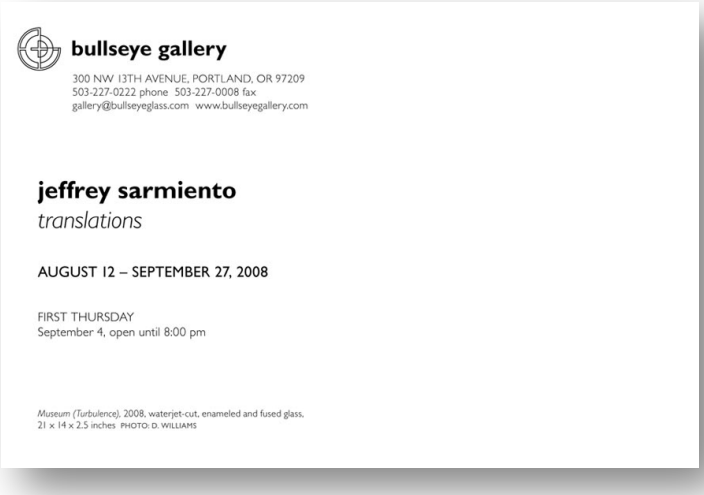
Note: Section titles in Lithuanian are extracted from the coffee menu of Cili Pica, a local café where key discussions took place.

Appendix 2: Press Release for Translations Solo Exhibition

Press and promotional materials for solo exhibition of artworks created in response to architecture in the Baltic States.

Appendix 2.1 Translations exhibition postcard





Appendix 2.2 Translations exhibition press release

bullseye gallery

300 NW 13th Avenue
Portland, OR 97209 USA
503-227-0222 phone
503-227-0008 fax
gallery@bullseyeglass.com
www.bullseyegallery.com

July 16, 2008
FOR IMMEDIATE RELEASE

Jeffrey Sarmiento: Translations
Contested cultural identities and architectural silhouettes juxtaposed in silkscreened glass.

When:	August 12 – September 27, 2008 Tuesday – Saturday, 10:00 am – 5:00 pm (and by appointment)
Where:	Bullseye Gallery 300 NW 13th Avenue Portland, OR 97209 USA View map
First Thursday:	September 4, open until 8:00 pm

Portland, OR - Bullseye Gallery is pleased to present the graphic and richly layered artwork of Jeffrey Sarmiento. The exhibition, ***Translations***, will be on view from August 12 – September 27, 2008.

Throughout his career, artist Jeffrey Sarmiento has mined his family history for inspiration, juxtaposing it with his personal experience of ethnicity. "The tension between the inherited and the constructed activates my work," he explains. "My work is an exploration of cultural roots through a strategy of self-imposed mismatches. The expression of my Filipino American heritage remains a constant, but I manipulate and remix this identity though new contexts. I intentionally work far from home to find new geographies, histories and languages. My attempts at assimilation force both a change in perspective as well as a reinforcement of held beliefs and values."

Much of Sarmiento's artwork takes the form of books and encyclopaedia volumes. By using glass as the medium upon which the information is printed," he explains, "I am able to compose and rearrange content to create new visual statements. Complex readings of the image are made possible through fusion, transparency and optics."

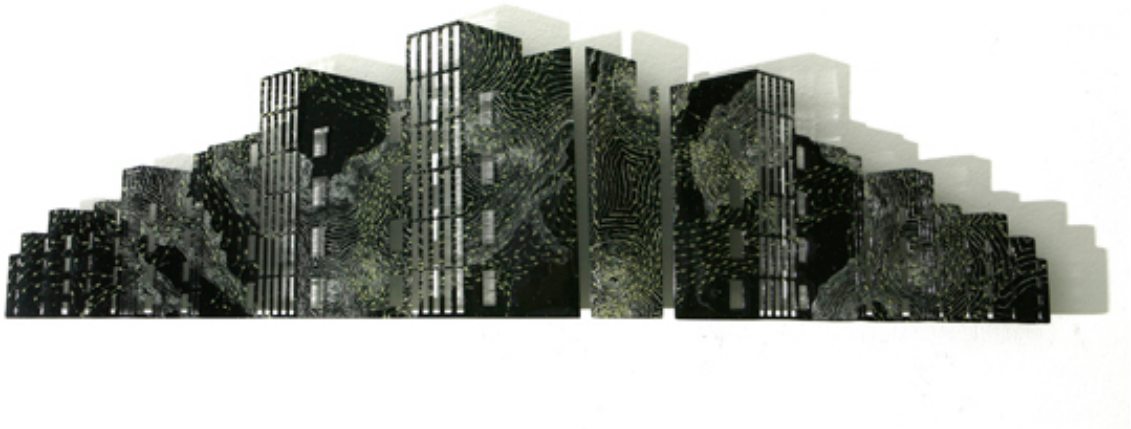
Sarmiento's studies and teaching have taken him around the world, providing him with new cultural contexts to explore. After a recent trip through the Baltic States, he began a graphic response to the crumbling concrete and steel façades of the former Soviet occupation. "These forms," he explains, "are re-presented as glass sculptures that utilize kilnforming and digital cutting for sharp and angular architectural interpretations. Through the refinement of works derived from old Soviet forms, [I] signal a new cultural perspective for [myself], as well as a celebration of a new era in Baltic society."

Sarmiento pursued his education at the University of Illinois at Urbana-Champaign, and later at the Rhode Island School of Design, where he also taught. He has received accolades and

fellowships from UrbanGlass (Brooklyn, NY), the Creative Glass Center of America (Millville, NJ), Pilchuck Glass School (Stanwood, WA), and the Fulbright Fellowship to Denmark. Most recently, his work was shortlisted as a finalist for the 2008 Bombay Sapphire Prize. Currently, Sarmiento is an instructor at the University of Sunderland in England as a part of his Research Councils UK Academic Fellowship in Glass for 2006-2011. His work is included in the collections of the Glasmuseet Ebeltoft (Denmark), the Museum of American Glass (Millville, NJ), and the Rhode Island School of Design Artist Book Collection (Providence, RI).

To view artwork online or download artist statements and CVs, please visit www.bullseyegallery.com. To request additional information or high-resolution images, please contact Patrick Leonard: patrickleonard@bullseyeglass.com; 503-227-0222. To schedule an interview, please contact Jamie Truppi: jamietruppi@bullseyeglass.com; 503-227-0222.

About the gallery: Bullseye Gallery works with a select group of international artists with the aim of furthering exceptional design in glass through innovation in material and method. The gallery is part of Bullseye Glass Company, a maker of colored glass for art and architecture since 1974.



Jeffrey Sarmiento, *Tower Block I,* 2008
enameled and cast glass, 9.875 x 34.5 x 1.25 inches installed
Photo: David Williams

Appendix 3: Published Paper: Museum Ethnographers Group

The following paper was published as:

Sarmiento, Jeffrey 2012. 'Ode on a Maori Paddle: Ethno/Graphic Glass Art Practice'.

Journal of Museum Ethnography*, no. 24 (2011) pp. 58-73.*

ODE ON A MAORI PADDLE: ETHNO/GRAPHIC GLASS ART PRACTICE

JEFFREY SARMIENTO

Introduction

The artist Mark Dion believes that 'once a museum is opened, it should remain unchanged…stuck in its own time' (see Kwon and Dion 1997: 17). The process of ethnographic collection could be seen as an act of freezing. Artefacts are encased in museums with descriptive texts that offer evidence of the diversity of cultures beyond local boundaries. At the same time, once they are removed from their places of origin the objects begin their own existence. They bear marks from exchanges, from travels to new homes, from the ownership of private collectors, and from cataloguing and handling by museum workers.

This paper analyses a body of artworks that address the historical and contemporary aspects of a collection of ethnographic objects. In the project I report on here, artefacts housed in Sunderland Museum have been remade as sculptures, but these are not simply replicas. Bone and wood are replaced with fused glass, the layers of which reveal a new context in which these foreign objects have come to belong. The 'ossified' glass artworks serve as metaphors for the encapsulation of a complex narrative of foreignness and belonging in Sunderland.

In particular, *Ossify* (2009), a glass sculpture, was commissioned from me by Sunderland Museum and Winter Gardens for its permanent collection. The artwork was created for inclusion in *Collected Fragments* (2009–2010), an international group exhibition focused on artists working creatively with taxonomy and collection.

My aims in this paper are to describe the development of my 'ethno/graphic' method, to provide an example of an artistic interpretation of museum ethnography, and to make explicit a technique that embeds graphic images in glass. The 'Ossify' project applied the method to a collection of ethnographic objects in the Sunderland Museum, revealed Sunderland's connections to selected artefacts by describing how the objects have been handled, and showed how these connections may be visualized in a body of original glass artworks.

Ethno/Graphic Glass: A New Approach to Glass Art Practice

Splitting the word 'ethnographic' into its two parts indicates the two strands that run through my artworks: a conceptual focus on ethnicity, and a practical focus on the incorporation of the graphic image in glass sculpture. For the past ten years my art practice has been focused on the expression of ethnic identity. In earlier works, I juxtaposed family snapshots with documentary photographs as a way of challenging definitions of my Filipino American heritage. One such 'resolution' may be seen in *Triple Self Portrait* (2007), a work that combines images of my grandfather, my father, and myself into a single face (Figure 1). The glass surface upon which the photographs are printed is cut, rearranged, and fused together to manipulate ways of seeing. During several years of living and research in Denmark as a Fulbright Fellow, I began to see ethnicity not just as something inherited, but rather as something I could construct, develop, and even invent. Navigating my way through a culture required more than literal maps; I needed to learn aspects of language, social structure, history, and custom in order to integrate and function.

With cultural history and identity as part of their content, the resulting artworks surpassed simple autobiographical interpretation. An exhibition of the works in Seattle, Washington in 2005 prompted one art critic to write, 'Is Jeffrey Sarmiento the first post-colonial glass artist? It's possible. With his Filipino heritage, he is dealing with marauding and invading cultures encountering indigenous peoples, even within Europe' (Kangas 2005: 61). My involvement in an art project in the Baltic states (see Jahn 2008) and my relocation to north-east England have inspired bodies of work that follow the same pattern: foreigner enters a society, attempts to communicate and integrate, gathers information and uses it to produce (visual) statements describing his cultural experience. This art practice bears a rough resemblance to ethnography in its use of post-colonial ethnic autobiography, as suggested by Michael M. J. Fischer: 'Cultural criticism that operates dialectically among possible cultural and ethnic identifications is one important direction in which the cultural ferment about ethnography seems to lead' (Fischer 1986: 233).

What separates my creative work from ethnography is the form of the output, in which making things is a response. The 'graphic' strand comprises the physical making of my work, in which navigation through a culture is visualized in texts, patterns, and images. These graphics are transferred to glass surfaces through printing techniques, then layered and embedded within glass sculpture. Utilizing the unique properties of glass, such as transparency and optics, the artworks provide new ways of seeing the graphic image. The resulting artworks are, literally and metaphorically, fusions of form and content.

In museum ethnography, 'graphic' aspects—including writing, drawing, marking, and printing—contribute to the interpretation of culture. In examining an ethnographic object, the identification of marks might involve looking not only at written words, drawings, or carvings on surfaces, but also at how and where they were made. The marks could be considered as remnants of human interactions with the objects, understood by collectors as material 'witnesses' to 'the truth of an alien society' (Clifford 1988: 66). Factual investigation, creative transformation, and material manipulation together form a strategy for the making of artworks in the context of post-colonial ethnicity. The 'ethno/graphic' method is informed by and can be applied to museum ethnography.

The three stages of the Sunderland Museum project illustrate the ethno/graphic method: (1) *observation* of the ethnography stores, involving the analysis of publicly available documentation about a Sunderland historical figure and his collection; (2) a focus on the Sunderland Museum context and the contemporary handling of the collection, inspiring a *translation* of the study into creative practice; and (3) integrating the graphic image into the glass object in an *encapsulation* of the complex narrative established by the study. Through its display in the museum, the resulting artwork suggests a possible way of seeing the ethnography collection by expressing aspects of ethnicity and integrating the local history of an ethnographic object. The title of this paper is, of course, a play on the title of John Keats' ode, a poem that animates figures in the image programme on a Greek vase. In what follows, fragments of the poem are used to suggest the visualization of narrative used in this study.

Observation

What leaf-fring'd legend haunt about thy shape Of deities or mortals, or of both…

In the observation stage of the ethno/graphic method, I illuminate the ethnic aspects of the cultural context in which I am embedded. My interaction with specific people, places, and things provides a vantage point through which to study culture.

In 2008, Sunderland Museum and Winter Gardens became interested in my artwork and its focus on my experience as a foreigner in north-east England. For the commission, I was offered access to the museum's collections. I chose the artefacts in the ethnography store because I could identify with their histories. The objects are varied in geographic origin, are made of native materials, and have their own aesthetics and functions. At the same time, it is possible to view them as a collection with its own local connection.

Initially, I worked directly with objects in the ethnography stores, creating sketches and notes from what I could observe. The objects are organized mostly by shape and size, with rows of spears, staffs, and paddles tied vertically to wall-mounted racks, and other items in boxes and plastic crates. Tied to most of the objects are tags with museum accession numbers, which again relate neither to geographic provenance nor to the date of accession. Rather the numbers relate only to the order in which the items were catalogued. Several objects offered more clues in the form of old museum labels and other documents.

A handwritten record of a portion of the collection, 'Rough List of Objects from Australia and New Zealand in the Museum', dates to 1909–11. This record helps to identify specific objects from the Edward Backhouse collection currently in the ethnography store. Together, the rough list and the accession records provide information on such aspects as material, object type, cultural and geographic origins, and function. Notably missing are sketches and a numbering system (the numbers in the notes appear to have been added more recently).

It is likely that the majority of the, approximately, 700 objects in the ethnography store once belonged to Edward Backhouse (1808–79), a prominent Sunderland philanthropist and Quaker minister (see Stephen 2004). Written records help to identify the collector, individual objects in his collection, his donation to the Sunderland Museum, and the collection's use within the local museum community. Texts written by and about Backhouse might provide clues to how and why he collected these objects.

Backhouse's writings indicate his devotion to the Quaker religion. In his book *Religious Society of Friends*, published in 1870, Backhouse contrasts the practices of the dominant church with those of the Society of Friends, which believes in the abolition of a formal clergy—along with organized mass and religious holidays, and the inclusion of women in ministry. This perspective was highlighted in Thomas Hodgkin's 'Biographical Preface' to Backhouse's posthumously published *Early Church History*, in which Hodgkin quotes Backhouse as saying that 'I thought [it] might prove useful to some as exhibiting the principles and practice of the Churches, viewed from a Quaker standpoint, and compared as nearly as I could with apostolic precedent' (see Hodgkin 1892: xii). Although he was born into a wealthy banker's family, Backhouse devoted himself to public service and philanthropy. Newspaper records indicate that he led the North of England Temperance League;

he also founded Sunderland's Mission Hall for social outcasts. Hodgkin explains, 'the sorrows and sins of great cities, and especially of the great seaport near to which he himself lived, claimed a very large share of his time and thought, and he spent not only money, but health and energy freely in the endeavour to alleviate and reform them' (ibid.).

Backhouse also travelled in Europe, where he pursued his interests as an amateur painter and naturalist whose 'large collection of shells and butterflies were the most complete in the North of England' (Robinson 1900: 155). It was perhaps his 'zeal for usefulness' (ibid.: 156) that motivated his collecting habits, much of the results of which he donated to the museum. For the opening of the Sunderland Public Library and Museum in 1879, the collections were given 'a thorough refacing, and have been enhanced by gifts from the late Mr Edward Backhouse, Mr F. Corder, and others' (Anonymous 1879). However, the donation of his collection to the Sunderland Museum was not completed until 1907, more than twenty years after his death.

Few conclusions about the objects in the ethnography store can be drawn from the early museum records and Backhouse's own writings. Despite having travelled widely in Europe, he had probably never been to the South Pacific, the presumed origin of many of the ethnographic objects in his collection. His identity as a civic-minded Quaker and philanthropist are confirmed, as is his tendency for collecting (the objects in the ethnography stores forming only a small portion of his total collection), but no record exists of how the objects were kept or displayed whilst they were in his possession.

Before being allowed to work in the stores, I was briefed by museum staff in proper handling methods (the use of non-marking gloves, careful lifting and moving, and wrapping in acid-free papers and plastics). I found it surprising, then, that some of the more prominent information on the objects had in fact been deliberately inscribed on to them. For example, the 'Rough List' describes, with deletions I include here, a 'Bedpost, made of ~~cut from~~ a Narwhal's Tusk (~~Monodon monoceros~~). The tusk is only found in the male Narwhal, and is nearly always that of the left side of the upper jaw.' What the list omits is easily found upon inspection of the object (see Figure 2): that is, a 'label' carved into the lathe-turned base of the tusk. The text reads: 'Bedposts of James Everett. Obit 1872. Left by him by letter to me: Edward Backhouse.'

The markings confirm that the narwhal bedposts belong to the Edward Backhouse collection. Texts in Backhouse's own hand have been written in ink and varnished over or physically carved into the surfaces of other objects. Additionally, some objects have been marked later with 'Edward Backhouse Collection 1907' or merely 'EBC'. In the absence of a compete inventory, the physical markings could be considered an important part of the written record. This 'writing' establishes geographic and cultural origins, function, and the date and method by which Backhouse acquired the pieces. The origins of unmarked objects in the collection are less definitive. It is the indelible marks on the bedposts and other objects that establish a physical link between Backhouse and his collection, providing clues to his acquisitions and what he knew about them. In most cases, no attempt was made by Backhouse to conceal his writing. On a number of objects he has written directly on to multiple surfaces, most often with the original country or culture as the most prominent feature: 'Australia', 'Greenland', 'Zulu'. This interaction with the objects suggests his interest in how the objects should be understood.

In the process, the marked objects became linked to nineteenth-century Sunderland as the point of cultural exchange, legacy, research, and debate. It is possible to consider the markings as defacings of the objects, which can no longer be restored to their pre-collection appearance. At the same time, it is the markings that provide critical information and the most direct contact with the collector. Backhouse, whose donated collection helped to launch the Sunderland Museum and Winter Gardens, is the main connection to Sunderland, both historically and in the present day.

Translation

What little town by river or sea shore…

Despite their known foreign origins, the artefacts can be used to construct a picture of Sunderland through their connection with Edward Backhouse. Translation elaborates on local connections by establishing not only the historical links but also the relationships that continue to form between Sunderland and the objects. Such a process underlines the malleability of the meaning of things exchanged via colonial exploration. According to Nicholas Thomas (Thomas 1991: 125):

> as socially and culturally salient entities, objects change in defiance of their material stability. The category to which a thing belongs, the emotion and judgment it prompts, and the narrative it recalls…conveys something of our projects in foreign places and our aesthetics—something which effaces the intentions of the thing's producers.

As an artist, I formed my own relationship with the collection through the production of written and drawn 'field notes', informed by my interaction with the objects. Translation is the stage in which a 'transformation' takes place from experience into inspiration, a formulation of an aesthetic response. The compilation of writings, drawings, photographs, and objects brings together a narrative from which to make an interpretation. The properties of glass are considered for the possibility of producing visual metaphor.

The interactions between recent curators and the collection form another key relationship, in which the ethnographic objects continue to be researched, preserved, and displayed. The museum's handwritten accession notes have been replaced by a MODES database. This digital inventory provides physical descriptions and images, as well as information on place of production, field collection, collector, conservation condition, acquisition by museum and previous owners, accession numbers, storage location, and the identity of the recorder of the information. In 2000, Leslie Jessop, then keeper of biology at the museum, made a detailed inventory of the objects in the ethnography store. His notes comprise the source of the majority of the information in the database.

One object that Jessop studied intently was a Maori paddle (Figure 4). The 'Rough List' describes this item as 'Carved Paddle, from the South Sea Islands. Backhouse Collection'. The carving is Maori work and of a probable eighteenth-century date, for its form is similar to some well-documented 'painted paddles' (see Neich 1993: 59–73), though in this case the blade is not painted. However, there is no documentation to allow us to trace its history back further than the Backhouse bequest.

In 2003, Jessop described a similar Maori paddle in the Hancock Museum in nearby Newcastle upon Tyne about which much more is known (see Jessop 2003: 109, 133 pl. 15; see also Jessop and Starkey 1998: 80). The red painted pattern on the blade indicates that this paddle was one of three sketched by Sydney Parkinson during James Cook's first famous Pacific voyage on the *Endeavour*; it is thus known to have been acquired in 1769–70 in New Zealand. Moreover, written records enable us to trace the acquisition of this paddle to the purchase at auction in 1822 of George Allan's collection by the Newcastle Literary & Philosophical Society. The paddle is marked, not only in its painted decoration, but also in associated labels. The letters 'NHS' on the blade refer to the Natural History Society (the letters were possibly added in the 1830s when Allan's collection was divided between the NHS and the Society of Antiquaries). Allan glued a distinctive oval label on to many of the items in his collection, on which he then wrote a description. The label has been removed from this paddle, leaving an oval-shaped stain on the shaft and remnants of text from the ink, which has bled through.

In search of Backhouse's writing, dye patterns, or other identifying marks, Jessop conducted a thorough visual scan of the Sunderland paddle, using infrared photography, ultraviolet light, and filters of coloured cellophane films. He was eventually able to reveal some deeply faded text on the object. He found no Backhouse writing, nor dye patterned marks, but he did find something else: that is, the words 'Zealand' and 'paddle' repeated in a printed hand along the edge; the word 'Roberts' also appears once, very faintly, on the blade (see Figure 5). Whereas Backhouse's writings provide a narrative for origin, function, and acquisition, the rationale for the markings on this object

is unknown. In discussions I have had with Jessop, he has speculated that the word 'Roberts' might possibly refer to James Roberts (1752–1826), one of Joseph Banks's servants on the *Endeavour* voyage, who might well have written his name and 'Zealand' and 'paddle' repeatedly on the object.

Jessop's search for clues about the origin of the Maori paddle is an example of how complex these objects can be, and how they can continue to have a life beyond their accession. Through the compilation of text and images, we find that the information on this paddle is multilayered. The carved object with decorative *manaia* figures may well have Maori origins in the mid eighteenth century. Edward Backhouse later owned the object and, in contrast to how he treated other significant ethnographic objects in his collection, for some reason elected not to mark this object in his own hand. Finally, since its donation to the Sunderland Museum the paddle has been conserved and analysed by curators such as Jessop, revealing the 'Zealand' and 'paddle' markings made at some point between its journey from the South Seas and its entering into a collection in north-east England.

Encapsulation

Attic shape! Fair attitude! with brede Of marble men and maidens overwrought…

Displayed in the Sunderland Museum and Winter Gardens, the Maori paddle sits in a case with the theme of 'Identity', along with other objects from the ethnography stores. The label placed on its plinth describes in two sentences its origin and design, as well as the invisible 'Zealand' and 'paddle' markings. In this method of display, very little of the object's history can be revealed to the viewer, particularly its Sunderland history and its recent interactions with Les Jessop and myself. What if the object could tell its own story? To turn Keats's 'Ode on a Grecian Urn' inside out, could an object be created that does tell it? An encapsulation of this story in glass might reveal local connections. Whereas an ethnographer generally describes with text, an ethnography-inspired artist can articulate visually the complexity of the object. In the 'graphic' stage of the ethno/graphic method, a sculpture in glass integrates image and text within a three-dimensional form. My observation of the objects and my compilation of texts in order to place the objects in context highlighted the importance of mark-making in the biography of the ethnographic object. The inscriptions on the objects, as well as handwritten lists, database records, and researcher's sketches provide possibilities for identification, evaluation, and valuation. I proposed the making of a glass artwork that might illuminate the integration of cultures, collectors, and museum practice, past and present.

An opportunity arose to create an original artwork that responded to the specific site of the Sunderland Museum, inspired by the museum's historical holdings. Sourced from the written records, image and text printed and cased within fused glass revealed multiple narratives. The ethnographic objects themselves provided another dimension, as a source of form. New sculptures were modelled, cast, and carved to reference the original objects, creating formal links between the objects in the collection and the artistic response. The result of the ethno/graphic method was not just about placing marks on the glass, but about embedding them within the sculpture. A strategy for image printing, fusing, and carving was developed to maximize the precision of the form and the legibility of the images and text.

A unique aspect of the project was the choice of glass to visualize the Sunderland paddle narrative. Glass is made for the studio artist in a variety of colours, but an opal, semi-translucent, white glass best suited the works. With this colour, a connection could be drawn between the glass and the original materials of the ethnographic objects. I thought that the use of opal-white glass, combined with print and fused into layers, might be used to resemble a wood-or bone-like material.

Two approaches to manipulating the printed image within fused glass were tested in preparatory works. The first was a manipulation of printed text, used as a 'graphic grain' within cast glass, cut and carved into form. In *Comb* (see Figure 6), the handwritten notes from the 'Rough List' were copied and screen-printed in brown enamel and fired on to a sheet of opal glass. The sheet was then

hand cut into 15 mm thick strips, turned on edge, and fused into a single block of glass. This embeds the text within the object, making it appear as a linear pattern in the glass. The shape of a wooden comb from the Sunderland ethnography stores was drawn using a computer-aided (CAD) application. Processing this drawing, a water-jet cutter was used to cut the comb's contours out of the glass block. As the digitally driven cutter creates only in two dimensions, the resulting 'comb' is square on the edges, with 15 mm thick tines. To finish the work, I carved and polished the object with an abrasive belt sander. This softened the edges to produce a refined shape more closely resembling the original object. When *Comb* is viewed from an angle, the text is easily legible through the polished glass.

The second approach utilized the printed, fused glass block as a material with a 'carvable' image. To preserve the integrity of the image, a block of printed opal-white glass was stacked. This departed from the first approach in that the sheets of glass within the block were printed with the same, repeated image. Using grinding tools, an object could then be carved out of the block. Because the image is the same throughout the glass, the carving away of the front layer results in revealing the surface below. As the brick-shaped block is given its final form and then polished, the overall image continues to hold together despite the heavy removal of material.

The two approaches were combined in the making of a final work: a carvable image with a graphic grain. The sculpture, *Ossify* (Figure 7), emulates the form of the Sunderland Maori paddle, carved from a material with embedded graphics: a portrait of Backhouse, a drawing of the carved *manaia* pattern on the paddle, and an excerpt from the *Newcastle Courant* about the opening of Sunderland Museum (Anonymous 1879). The text and images were printed as a brown-and-black duotone on opal-white sheets of glass, which were then alternated with sheets of clear glass, stacked, and fused together. The resulting fused block was water-jet cut to produce the paddle's outer contour. Using a water-fed pneumatic grinder with diamond abrasive discs, the glass was carved and polished into a form resembling the original paddle. The alternated clear sheets within the glass block help to accentuate the 'graphic grain' and act as a window through the white glass. As a result, the carved image emerges legibly from a striped clear-and-white polished-glass form.

The final inscription on *Ossify* consists of sandblasted marks, permanently etched on to the surface. On the back of the sculpture, the marks that Jessop revealed have been subtly placed on the blade of the paddle as they appeared in Jessop's notes. Placed among these marks is one in my own hand: 'Sarmiento'. Mark-making is incorporated into the development and fabrication of this body of work. The search for marks, particularly permanent inscriptions, inspired the possibility that the history of the object is more complex than is initially visible. The artworks made in response utilize drawing, photography, and text, embedded into layers of glass through print. The contents of *Ossify* give the work a Sunderland-specific context.

Conclusions

From the perspective of its connections to Edward Backhouse and north-east England, it is possible to consider this artwork—a visualization of a Maori paddle—as a 'biography' in the sense that Igor Kopytoff proposes: 'a culturally informed economic biography of an object would look at it as a culturally constructed identity, endowed with culturally specific meanings, and classified and reclassified into culturally constituted categories' (Kopytoff 1986: 68). Simultaneously, a biography of the artwork is already under way. For the *Collected Fragments* exhibition, *Ossify* was displayed in a case with descriptive signage. Its inspiration and fabrication have been thoroughly documented. The maker, location, and collector are known. An inscription process, its acquisition into the museum collection, has already taken place. The work has functioned as a visual art object in an exhibition. But what will be its career? The reconsideration of the status and future of colonial-era collections in the United Kingdom is a major topic of debate in museum ethnography. *Ossify* was made with an awareness of the critical questions about origins, acquisition, care, and use of ethnographic objects in the Sunderland Museum. Nick Stanley points out that the lack of complete information about museum objects makes it necessary that interpretation goes beyond simple observation; because of this, 'competing readings' for ethnographic objects make their collection and display more complex (Stanley 1989: 108).

This complexity is reflected not only in the artwork but also in the venue in which it was shown. *Collected Fragments* was displayed in a city museum, as opposed to a contemporary art space. The

site provides a context—objects, displays, objectives, and audience—in which artworks can operate. In postmodern art practice, the museum has been used as a site for cultural critique, though the institution itself has commissioned much of it. According to Hal Foster 'artists play with museology first to expose and then to reframe the institutional codings of art and artifacts—how objects are translated into historical evidence and/or cultural exempla, invested with value, and cathected by viewers' (Foster 1996: 191–6).

My project with Sunderland Museum is informed by the collection-oriented artworks of Mark Dion and Edmund de Waal. Dion thinks of the museum as a 'time capsule', but also acknowledges the importance of work with artefacts going on behind the displays. He suggests that institutions should 'open up the laboratories and storerooms to reveal art and science as the dynamic processes that they are' (see Kwon and Dion 1997: 19). He mimics archaeology through 'digs' in specific historical and cultural contexts, displaying contemporary ephemera in modern versions of cabinets of curiosities. According to Colin Renfrew (1999: 15), in his work Dion 'is establishing, as excavating artists do, a direct personal link with the past'. It is the act of display that makes his work art, though—as Renfrew also points out—today archaeologists too 'go beyond these processes of recovery, processing and display' (ibid.).

Making things, rather than collecting and arranging them, is another approach to constructing a narrative. In *Arcanum*, his exhibition at the National Museum & Gallery in Cardiff in 2005, Edmund de Waal curated eighteenth-century porcelain alongside his own handmade pots, exposing an alternative history of ceramic craft production. James Putnam comments: 'Interweaving artefacts from the past with those of the present provides an essential link between the hand of the maker and the museum object, but also represents a fascinating subversion of the museum's conventional dependence on linear time' (Putnam 2005: 19). In *Ossify* the glass functions in the museum as a medium for presentation, albeit as a narrative-embedded artwork rather than in the form of a display-case; making is thus a key element in the ethno/graphic method, which offers possibilities for a hybrid approach to material-based art practice.

From my perspective as the artist, *Ossify* and its development within Sunderland Museum serve as a visualization of my attempt to cultivate a sense of a foreigner belonging to the community and culture of north-east England. The work may perhaps be seen to serve the mission statement of the institution: 'Our mission is to help people determine their place in the world and define their identities, so enhancing their self-respect and their respect for others'.[1]

Acknowledgments

This is a revised version of a paper given at 'Making Things', the annual conference of the Museum Ethnographers Group, hosted by and held at the Museum of English Rural Life, University of Reading, 12–13 April 2010. It is informed by the unpublished research of Leslie Jessop, who generously shared his findings with me. Artworks from the project reported on here were exhibited in *Collected Fragments,* held at the Sunderland Museum and Winter Gardens from 24 October 2009 to 3 January 2010. I am grateful to Shauna Gregg, Keeper of Fine and Decorative Arts, and her colleagues at Sunderland Museum and Winter Gardens, to the Art and Design Research Beacon at the University of Sunderland, and to Research Councils UK for its support of the project.

Note

1. See 'Tyne & Wear Museums Mission Statement' on the website of Tyne & Wear Museums. online at <http://www.twmuseums.org.uk/about/ourmission/>.

References

Anonymous 1879. 'The New Museum and Free Library at Sunderland', *The Newcastle Courant*, no. 10,688 (Friday 7 November), p. 8, col. E.

Backhouse, Edward 1870. *The Religious Society of Friends: Doctrines and Practices in Which They Agree with Their Fellow-Christians and Others in Which They Differ*, Sunderland.

Clifford, James 1988. *The Predicament of Culture: Twentieth Century Ethnography, Literature, and Art*, Cambridge, Mass.: Harvard University Press.

Fischer, Michael M. J. 1986. 'Ethnicity and the Post-Modern Arts of Memory', in James Clifford and George E. Marcus (eds), *Writing Culture: The Poetics and Politics of Ethnography* (Experiments in Contemporary Anthropology: School of American Research Advanced Seminar), Berkeley etc.: University of California Press, pp. 194–233.

Foster, Hal 1996. *The Return of the Real: The Avante-Garde at the End of the Century* (October Books), Cambridge, Mass., and London: MIT Press.

Hodgkin, Thomas 1892. 'Biographical Preface', in Edward Backhouse, *Early Church History to the Death of Constantine* (4th edn, ed. Charles Tylor), London: Headley Brothers, pp. ix–xiv. Jahn, Jeff 2008. 'Jeffrey Sarmiento at Bullseye', *PORT* [blog], at <http://www.portlandart.net/archives/2008/08/jeffrey_sarmien.html>.

Jessop, Leslie 2003. 'The Exotic Artefacts from George Allan's Museum and Other 18th Century Ethnographic Collections Surviving in the Hancock Museum, Newcastle upon Tyne', *Transactions of the Natural History Society of Northumbria*, Vol. 63, no. 3 (June), pp. 89–166.

Jessop, Leslie, and Janet Starkey 1998. *No Contemptible Workmanship: Material Culture of the Pacific Region Represented in the Hancock Museum, Newcastle upon Tyne*, Newcastle upon Tyne: Tyne & Wear Museums.

Kangas, Matthew 2005. 'In a Manner of Speaking [review of the exhibition of the same name held at Solomon Fine Art, Seattle, Washington, in 2005]', *Glass Quarterly*, no. 100 (Fall), pp. **00–00**.

Kopytoff, Igor 1986. 'The Cultural Biography of Things: Commoditization as Process', in Arjun Appadurai (ed.), *The Social Life of Things: Commodities in Cultural Perspective*, Cambridge: Cambridge University Press, pp. 64–91.

Kwon, Miwon, and Mark Dion 1997. 'Interview: Miwon Kwon in Conversation with Mark Dion', in *Mark Dion*, London: Phaidon Press, pp. 6–33. Neich, Roger 1993. *Painted Histories: Early Maori Figurative Painting*, Auckland: Auckland University Press. Putnam, James 2005. 'Applying Art to the Museum', in *Arcanum: Mapping 18th-Century Porcelain—Edmund de Waal*, Cardiff: National Museums and Galleries of Wales, pp. 16–19.

Renfrew, Colin 1999. 'It May Be Art But Is It Archaeology? Science as Art and Art as Science', in Alex Coles and Mark Dion (eds), *Mark Dion: Archaeology*, London: Black Dog, pp. 12–23.

Robinson, John 1900. 'Sunderland Worthies, No. 6: Edward Backhouse', *The Library Circular: A Quarterly Guide and Catalogue for Readers at Sunderland Public Library*, no. 8 (15 October), pp. 153–8.

Stanley, Nicholas 1989. 'The Unstable Object: Reviewing the Status of Ethnographic Artefacts', *Journal of Design History*, Vol. 2, nos 2/3, pp. 107–22. Stephen, Leslie (revd K. D. Reynolds) 2004. 'Edward Backhouse (1808–1879)', in *Avranches–Barnewall*, Volume 3 of H. C. G. Matthew and Brian Harrison (eds), *Oxford Dictionary of National Biography from the Earliest Times to 2000*, Oxford: Oxford University Press, pp. 105–6.

Thomas, Nicholas 1991. *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific*, Cambridge, Mass., and London: Harvard University Press.

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Appendix 4: Liverpool Map Fabrication Notes

The following diagrams and firing cycles were used in the firing, fusing, and casting of Liverpool Map.

Appendix 4.1 Layer concept for *Liverpool Map*

Section One: Historical

Layer 1: Natural site (2000 BC; marshland) (400 AD Mersey estuary)

Layer 2: Seven Streets (royal charter 1207 - 1561 Seven Streets)

Layer 3: Transport connections; local and national

Layer 4: Growing international trade - slavery routes - US connection

Section Two: Shifting Boundaries

Layer 5: Dispersal of city dwellers outwards - slums - suburbs

Layer 6: Current City Centre and boundaries - Icons of the city

Layer 7: Daily Post Survey map areas

Layer 8: Redmond Map

Section Three: People's City

Layer 9: Liverpool; the New York of Europe (pre 1945)

Layer 10: Liverpool; a changing city (post war)

Layer 11: Learning

Layer 12: Community Layer

Section Four: Culture

Layer 13: Sports

Layer 14: Music

Layer 15: Media

Layer 16: Arts

Layer 17 is top clear layer and contains no information.

Appendix 4.2 Labelled diagram of *Liverpool Map*

This diagram identifies the images and text contained in Liverpool Map.

Boundaries
- The 'Redmond' Boundary
- Daily Post Survey Boundary
- Municipal Boundary

Connections
- The Mersey River
- Local Roads
- Regional Rails
- International Sea and Air

Maritime Links on Liverpool Map

A.	Liverpool, Nova Scotia, Canada
B.	Liverpool, New York, USA
C.	Liverpool, Ohio, USA
D.	Liverpool, Illinois, USA
E.	Liverpool, Pennsylvania, USA
F.	Liverpool, Texas, USA
G.	Belfast
H.	Dublin
I.	Cork
J.	Galway
K.	West Indies
L.	North Africa
M.	Liverpool, NSW, Australia
N.	Penzance, London
O.	Holyhead
P.	Kirkby
Q.	Halton
R.	Isle of Man
S.	Whitehaven
T.	Twinned with Cologne, Germany
U.	Manchester Canal
V.	Ayr
W.	Glasgow
X.	Stromness
Y.	Twinned with Shanghai, China

Appendix 4.3 Layer plan for *Liverpool Map* fabrication

The following table indicates position of layers in each column as it was actually fabricated. Waterjet cut layers, having been pre-fused, are 6mm and represent two layers each.

Waterjet Layer 1: 7 Streets

Puzzled white glass / blue glass, white enamel

Waterjet Layer 2: Expanding streets and cultural boundaries

Puzzled white/blue/yellow/red/clear glass

Waterjet Layer 3: Full Merseyside streets and river

Puzzled white/sea blue/clear glass

Layer	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
1	Blank	Blank	Blank	Blank	Blank	Blank
2	Blank	Blank	Waterjet Layer 1	Blank	Blank	Blank
3	Blank	Blank		Blank	Blank	Blank
4	Railroad	Railroad	Railroad	Railroad	Railroad	Railroad
5	Blank	Blank	Blank	Blank	Blank	Blank
6	Waterjet Layer 2	Waterjet Layer 2	Waterjet Layer 2	Waterjet Layer 2	Waterjet Layer 2	Waterjet Layer 2
7						
8	Community	Community	Community	Community	Community	Community
9	Blank	Blank	City icons	City icons	City icons	Blank
10	Slave ship	Ferry	Boats	Plane	Boat	Blank
11	Water print	Water print	Water print	Water print	Water print	Water print
12	Waterjet Layer 3	Waterjet Layer 3	Waterjet Layer 3	Waterjet Layer 3	Waterjet Layer 3	Waterjet Layer 3
13						
14	People's City	People's City	People's City	People's City	People's City	People's City
15	People's City	People's City	People's City	People's City	People's City	People's City
16	Culture	Culture	Culture	Culture	Culture	Culture
17	Culture	Culture	Culture	Culture	Culture	Culture

Appendix 4.4 Firing schedules

Type 1: Enamel pre-firing

Kiln: NGC Kiln 16

Date: multiple firings, January – May 2010

Mould material: mullite kilnshelf, covered with 3mm fibre paper (prefired with kilnwash)

NOTE: vents open at top for all colours that aren't black

Rate (ºc/hr)	Temp (ºc)	Hold (hr:min)
120	620	10
-off-		

Type 2: Bullseye 6mm fusing (2x 3mm sheets)

Kiln: NGC Kiln 16

Date: multiple firings, January – May 2010

Mould material:

Floor: mullite kilnshelf, levelled with vermiculite risers and steel shims, seams covered with plaster/molochite 50/50 wet mix, covered with 3mm fibre paper (prefired with kilnwash), topped with Bullseye Thinfire paper.

Rate (ºc/hr)	Temp (ºc)	Hold (hr:min)
120	540	30
120	677	45
222	810 (820 for white glass)	10
Full	483	2:30
50	405	-
90	104	-
-off-		

Type 3: Fusion of 'puzzle' waterjet cut parts

Kiln: NGC Kiln 16

Date: multiple firings, January – May 2010

Mould material:

Floor: mullite kilnshelf, levelled with vermiculite risers and steel shims, seams covered with plaster/molochite 50/50 wet mix, covered with 3mm fibre paper (prefired with kilnwash), topped with Bullseye Thinfire paper.
Edges: custom cut mullite kilnshelf, multiple pieces 6 x 20 x 600 mm, prefired with kilnwash to 260ºc.

Rate (ºc/hr)	**Temp (ºc)**	**Hold (hr:min)**
100	540	30
120	677	45
200	820	10
Full	483	2:30
50	405	-
90	104	-
-off-		

Type 4: Full Size Kiln Cast of Liverpool Map Columns
Kiln: NGC MOOG
Date: multiple firings, May – July 2010
Mould material:
Floor: mullite kilnshelf, levelled with soft brick risers and steel shims, seams covered with plaster/molochite 50/50 wet mix, covered with 3mm fibre paper (prefired to 330ºc with kilnwash), topped with Bullseye Thinfire paper.
Edges: custom cut vermiculite board, fabricated into ‘sleds’ with stainless steel screws. Surface facing glass covered with strip of 3mm fibre paper (prefired to 330ºc with kilnwash) and topped with Bullseye Thinfire paper. Sleds weighed down with multiple hard bricks.
NOTE: This firing schedule is written in time and not rate, as MOOG kiln is programmed in this fashion.

Time (hr:min)	**Temp (ºc)**	**Hold (hr:min)**
20	540	1:30
1:30	677	1:30
1:00	830	:15
2:00	483	8:00
14:30	427	-

8:00	327	-
14:00	100	-
-off-		

Special Firing 1: Final 1:1 sample segment of Liverpool Map

Kiln: NGC Kiln 15

Date: 29 December 2009

Mould material:

Floor: mullite kilnshelf, levelled with vermiculite risers and steel shims, covered with 3mm fibre paper (prefired with kilnwash), topped with Bullseye Thinfire paper.

Edges: custom cut mullite kilnshelf, 60 x 20 x 450mm, prefired with kilnwash to 260ºc. Surface facing glass covered with 3mm fibre paper and Bullseye Thinfire Paper. Hard bricks placed to support edges.

Rate (ºc/hr)	**Temp (ºc)**	**Hold (hr:min)**
80	516	-
120	677	1:30
150	830	:15
Full	483	8:00
6	427	-
8	372	-
25	21	-
-off-		

Special Firing 2: Liverpool Map colour sample

Kiln: NGC Kiln 14

Date: 27 January 2010

Mould material:

Floor: mullite kilnshelf, levelled with vermiculite risers and steel shims, covered with 3mm fibre paper (prefired with kilnwash), topped with Bullseye Thinfire paper.

Edges: custom cut mullite kilnshelf, 60 x 20 x 450mm, prefired with kilnwash to 260ºc. Surface facing glass covered with 3mm fibre paper and Bullseye Thinfire Paper. Hard bricks placed to support edges.

Rate (ºc/hr)	**Temp (ºc)**	**Hold (hr:min)**
80	540	:30
120	677	1:30
150	830	:15
Full	483	8:00
6	427	-
8	372	-
25	21	-
-off-		

Appendix 5: Dissemination of Research

The following is a list of artworks exhibited and workshops delivered based on Ethno/graphic approach.

Appendix 5.1 Masterclasses

I have conducted nine masterclass workshops, in six different countries, in which the fusion of print and glass is the focus:

Anla Glas, Denmark (2007, 2008)
Pratt Fine Arts Centre, USA (2008, 2011)
National College of Art, Ireland
Estonian Academy of Art, Estonia
Latvian Academy of Art, Latvia
Creative Glass, Switzerland
Bullseye Glass Resource Centre, USA

Appendix 5.2 Outputs in the public domain

The following artworks, presentations and papers were produced in conjunction with the research.

Appendix 5.2.1 Outputs related to Liverpool Map project

1) *Liverpool Map*
Permanently installed public artwork
Museum of Liverpool, UK

2) Thick with Images
Conference presentation and masterclass
BeCon Conference June 2009
Bullseye Glass Company, Portland, USA

3) Ethno/Graphic Glass: A Blending of approaches in the creation of Liverpool Map
Conference paper presentation
The 6th International Conference on the Arts in Society, May 2011
Berlin, Germany
Publication in *International Journal of the Arts in Society* (forthcoming 2012)

4) Fiona Shaw, *Liverpool in Layers: Mapping a Sense of Place*
Liverpool: Capsica (forthcoming 2012)
New book describing Liverpool cultural history as displayed on *Liverpool Map*

Appendix 5.2.2 Outputs related to Sunderland Museum project

1) *Collected Fragments*
includes *Ossify* and *Comb*, 2009
Group Exhibition and Public Lecture October 2009-January 2010
Sunderland Museum and Winter Gardens, UK
Works commissioned for permanent collection, Sunderland Museum, UK

2) Ode on a Maori Paddle: Ethno/Graphic Glass Art Practice
Conference paper presentation
Museum Ethnographers Group Annual Conference April 2010
Museum of English Rural Life, Reading, UK
Publication in *Journal of Museum Ethnography* 24 (2011)

3) British Glass Biennale
includes *Ossify,* 2009
Group Exhibition August-September 2010
Publication in *British Glass Biennale 2010* catalogue
Ruskin Glass Centre, Stourbridge, UK

4) Ode on a Maori Paddle: Embedded Print in Kilnformed Glass
Conference lecture, and masterclass
Glass Art Society Conference, June 2011
Publication in *Glass Art Society Journal* 2011
Seattle, USA

5) *Craft Meets Technology*
includes *Comb*, 2010
Group exhibition April 2011-July 2011
Kentucky Museum of Art and Craft, Louisville, USA

6) New Glass Review 32
inclusion in juried publication
New York: Corning Museum of Glass, 2011
includes *Comb*, 2010

7) International Glass Prize
includes *Comb*, 2010
Glazenhuis, Lommel, Belgium, 2012

Appendix 5.2.3 Outputs related to Baltic States project

1) Stiklo Sodas
includes *Tower Block*, 2007
Group exhibition, August 2007
Galerija XX
Panevezys, Lithuania

2) *Translations*
Includes *Occupation, Biblioteka,* 2008
Solo exhibition August-September 2008
Bullseye Gallery
Portland, USA
Biblioteka acquired for permanent collection, Speed Museum of Art, Louisville, USA

3) Bullseye at Collect
Includes *Occupation, Great Wall*
Crafts Council Art Fair, Saatchi Gallery, May 2009
London, UK

4) Dual Nature: Contemporary Glass and Jewellery
Includes *Great Wall*, 2009, and *Occupation*, 2008
Group Exhibition and public lecture, May 2011-January 2012
Wing Luke Museum
Seattle, USA

5) *Façade: Through a Glass Darkly/Edifice*
Includes *Hotel (Terra),* 2009*, Art School,* 2011*, Hotel, 2011.*
March – August 2011
National Glass Centre, Sunderland, UK