

Mechanisms of In-Betweenness: Through Visual Experiences of Glass

MIN JEONG SONG

A thesis submitted in partial fulfilment
of the requirements
of the Royal College of Art
for the degree of Doctor of Philosophy

February 2014

Copyright Statement

This text represents the submission for the degree of Doctor of Philosophy at the Royal College of Art. This copy has been supplied for the purpose of research for private study, on the understanding that it is copyright material, and that no quotation from the thesis may be published without proper acknowledgment.

Abstract

This practice-led project explores the idea of in-betweenness through the physical and metaphorical aspects of glass. The starting point of the research is that glass, as an artistic medium, when examined with a focus on materiality and the making process on both physical and metaphoric levels, can be compared to the idea of cultural in-betweenness. My aim is to provide metaphoric and theoretical analogies that contribute to an understanding of in-betweenness.

To examine the mechanisms of in-betweenness, this research integrates literature review with studio practice and object analysis to interpret the material and process of making objects in both literal and metaphorical dimensions. Historical glass artefacts are analysed to explore the idea of a trans-culture embedded in glass exchange between East Asia and Western Europe during the early modern period (roughly sixteenth to nineteenth centuries) and in practice today. Building on the pre-existing scholarly analysis of objects from disciplines including anthropology, art history and archaeology, I experimented with glass and creative process in the studio to provide a fresh analysis based on the materiality of glass and the making process.

Findings achieved through the conceptual and practical research reveal parallels between the idea of cultural in-betweenness and the materiality of glass. The analogies drawn from my studio practice and theoretical research for understanding the mechanisms of in-betweenness include:

- In-betweenness is a fluid concept that is in a transitional state: the state of 'becoming'.
- In-betweenness is a gradual yet disruptive action that breaks the order of things.

- In-betweenness is a process of partial or selective abstraction to the extent where the awareness of origin remains whilst ambiguity is also present.
- In-betweenness can be achieved through a mixture of control and chance. It is deliberate creation with an element of chance while some amount of control is maintained.

Table of Contents

Copyright Statement	2
Abstract	3
List of Illustrations	7
Acknowledgements	9
Author's Declaration.....	10
Introduction.....	11
I. In-Betweenness	
1.1 Introduction	20
1.2 Culture of In-Betweenness and the Third Space	20
1.3 In-Between Styles.....	30
1.4 Culture of Glass.....	34
1.5 Studio Practice	41
1.6 Conclusion.....	50
II. Glass, Cultural Material and Metaphor	
2.1 A Selective History of Glass in East Asia	52
2.1.1 Introduction.....	52
2.1.2 Interpretive Rationale	53
2.1.3 Glass in Early Modern China.....	60
2.1.4 Glass in Early Modern Japan: Edo Kiriko and Satsuma Kiriko.....	67
2.1.5 Studio Practice	73
2.2 In-Betweenness explored through Blue-and-White Porcelain.....	78
2.2.1 Introduction.....	78
2.2.2 Blue-and-White in Glassware	82
2.2.3 Studio Practice	85
2.3 Trans-Culture and Trans-Material	89
2.4 Glass as a Cultural Medium: Contemporary Glass in East Asia	96
2.5 Conclusion.....	107
III. Mechanisms of In-Betweenness	
3.1 Introduction	109
3.2 Form and Surface.....	116
3.3 Materiality	127
3.4 Glass and Ornament	129
3.5 Workmanship	131
3.5.1 Post Minimalism and Process Art.....	132
3.6 Conclusion	138

Conclusion	141
Bibliography	149
Appendix	165

List of Illustrations

Figure 1. Harvey Littleton, <i>Vase</i> , 1965, Corning Museum of Glass	39
Figure 2. Marvin Lipofsky, <i>RIT Group 1996-97</i> , Toledo Museum of Art	39
Figure 3. Erwin Eisch, <i>Telefon</i> , 1971, Corning Museum of Glass	39
Figure 4. <i>Reticello Plate</i> , Venice, 1600-1699, Corning Museum of Glass	45
Figure 5. Min Jeong Song, <i>Patterns and Memories Reflected on Glass</i> , 2010	47
Figure 6. <i>Portland Vase</i> , Italy, AD 5-25, British Museum	60
Figure 7. <i>Vase</i> , China, 1736-1795, V&A Museum	60
Figure 8. <i>Snuff Bottle and Stopper</i> , China, 1730-1820, Corning Museum of Glass	60
Figure 9. <i>Two Kuyueh Hsuan-type Enameled Vases</i> , 1736-1795, China, Corning Museum of Glass	62
Figure 10. <i>Tea Cup and Saucer</i> , Venice, 1725-1775, Corning Museum of Glass	62
Figure 11. <i>Chinese Cameo Vase</i> , England, 1890, Corning Museum of Glass	64
Figure 12. <i>Chinese Gilt Bowl</i> , China, 1736-1796, Corning Museum of Glass	66
Figure 13. <i>Sandwich Gold-Glass Bowl</i> , Southern Italy, 270-200BC, British Museum.....	66
Figure 14. <i>Three Goblets</i> , Japan and Netherlands, 18 th -19 th centuries, Suntory Museum of Art	68
Figure 15. <i>Strawberry Diamond Cut Glass Pattern</i> , Ireland, 1820-30, National Museum of Dublin	69
Figure 16. <i>Three Satsuma Glass Objects</i> , Japan, 19 th century, Suntory Museum of Glass	70
Figure 17. a) Émile Gallé, <i>Milky Glass</i> , France, 1905 b) <i>Snuff Bottle</i> , China, 18 th -19 th century	71
Figure 18. Daum, <i>Small Vase with Orchid</i> , France, 1910, Corning Museum of Glass	71
Figure 19. <i>Sketches of Cut Glass of Japan</i> , 1921	76
Figure 20. Min Jeong Song, <i>Cut Glass Pattern</i> , 2012.....	77
Figure 21. Min Jeong Song, <i>Cut Glass Pattern Application</i> , 2012.	77
Figure 22. <i>An Opaque White Glass Jar of Bulbous</i> , China, 18 th -19 th century.....	81
Figure 23. <i>A Rare Glass Opium Lamp</i> , China, 19 th century.....	81
Figure 24. <i>Satsuma Kiriko Cut Glass</i> , Japan, 19 th century, Corning Museum of Glass.....	81
Figure 25. <i>Teacup and Saucer</i> , Switzerland, 18 th century, Corning Museum of Glass.....	83
Figure 26. <i>A Small Blue Overlay White Glass</i> , China, 19 th century, Corning Museum of Glass.....	84
Figure 27. Min Jeong Song, <i>Patterns and Memories Reflected on Glass Series</i> , 2011	86
Figure 28. <i>Korean Lattice Motif</i>	88
Figure 29. Min Jeong Song, <i>Korean Lattice Motif Series I</i> , 2011	88
Figure 30. <i>Korean Lattice Motif</i>	88
Figure 31. Min Jeong Song, <i>Korean Lattice Motif Series II</i> , 2011	88
Figure 32. <i>Small Goblet</i> , England, 1800-1825, Corning Museum of Glass.....	89
Figure 33. Do Ho Suh, <i>Seoul Home</i> , 2012, Installation at Leeum Samsung Museum of Art	92
Figure 34. MeeKyoung Shin, <i>Translation Series</i> , 2011	94
Figure 35. MeeKyoung Shin, <i>Kuoros Series</i> , 2011, Installation view at Haunch of Venison	94
Figure 36. Kyohei Fujita, <i>Red and White Plum Blossoms</i> , 1991, Museum of Arts and Design	98
Figure 37. Kyohei Fujita, <i>Venice</i> , 1995.....	98
Figure 38. Yoichi Ohira, <i>Nostalgia</i> , Italy, 2001, Corning Museum of Glass.....	98
Figure 39. Jin Hongo, <i>Fragments</i> , 2008, <i>New Glass Review</i> 30, no.33	100
Figure 40. Harumi Yukutake, <i>Restructure</i> , 2006 (www.yukuyake.net).....	100
Figure 41. Joon Yong Kim, <i>Green Valley</i> , 2010.....	102
Figure 42. Jiyong Lee, <i>Green Seed Segmentation</i> , 2009.....	102
Figure 43. Zhuang Xiaowei, <i>Chase Wind II</i> , 2010.....	102
Figure 44. Guan Donghai, <i>Biao from Citygate Series</i> , 2009, Koru Contemporary Art	102
Figure 45. Lu Chi, <i>Characters and Roads</i> , 2009	102
Figure 46. Sunny Wang, <i>Ru</i> , 2008, Koru Contemporary Art.....	106

Figure 47. Ki-ra Kim, <i>Bamboo House 1</i> , 2009, Koru Contemporary Art	106
Figure 48. Etsuko Nishi, <i>Cattleya</i> , 2007, Koru Contemporary Art	106
Figure 49. Patterns on Pueblo Pottery.....	114
Figure 50. a) Freehand Form b) Form Imposed by Fabric	114
Figure 51. <i>Fret Motifs from The Grammar of Ornament</i>	115
Figure 52. Alan Bennett, <i>The Klein Bottle</i> , 1995, Science Museum.....	117
Figure 53. Min Jeong Song, <i>The Klein Bottle Studies</i> , 2011.....	117
Figure 54. Diagram for Objective and Subjective Surfaces.....	119
Figure 55. Min Jeong Song, <i>Cut Glass Motif III</i> , 2011.....	120
Figure 56. Min Jeong Song, <i>Appropriation</i> , 2011.....	120
Figure 57. Jasper Johns, <i>Study for Skin I</i> , 1962, Museum of Modern Art New York	122
Figure 58. A Still from Gerhard Richter's Making of Squeegee Painting, 2007	123
Figure 59. Illustration of Layers in Glass.....	124
Figure 60. Patterns of Glass.....	130
Figure 61. Min Jeong Song, <i>In-Betweenness I</i> , 2012.....	136

Table 1. A Comparison Between Hybridity and In-Betweenness	23
--	----

Acknowledgements

I would like to express my sincere gratitude and thanks to everyone who has helped me make this thesis happen.

I am very grateful to my supervisors Alison Britton and Dr. Sarah Teasley for their expert guidance, valuable criticism, and kind encouragement.

My special thanks go to the staff and students of the Ceramics and Glass Department at the Royal College of Art, especially to Martin Smith, Felicity Aylieff, Dr. Steve Brown, Simon Moore and Annie Cattrell, Sandra Reynard and the technicians Anthony Harris, Liam Reeves, Stefan Stefanou, Kelly Allsopp, James Devereux and Jo Hayes-Ward.

I also thank Dr. Christine Guth, Dr. Glenn Adamson and Dr. Florian Knothe for their constructive advice at various stages of the research.

I wish to express my gratitude to the staff of the studio of the Corning Museum of Glass and the Rakow Research Library for their help and advice. I also would like to thank Cathy Johns of the RCA Library and Timothy Scott for proofreading this thesis.

Finally, my very special thanks go to my family and friends for their love, trust and encouragement.

Author's Declaration

During the period of registered study in which this thesis was prepared the author has not been registered for any other academic award or qualification.

The material included in this thesis has not been submitted wholly or in part for any academic award of qualification other than that for which it is now submitted.

Min Jeong Song
February 2014

Introduction

The artistic concept of medium, in other words *material*, is a commonly used word in art. The word 'medium', originally meaning 'middle', derived from the Latin, *medius*¹ (Van Der Meulen, 2009, p.11). Given the word's origin, might an artistic medium intrinsically allude to the notion of being in a liminal state? In this research, I first investigate the role of material in bridging the concept and the finished object from literal to metaphorical levels. This is then further discussed within the framework of the inter-relationship of 'concept-material-maker'. I argue that the relationship becomes embodied more evidently through some aspects of the making process.

The starting point of this research is that glass as an artistic medium, when examined with a focus on materiality and the making process at both physical and metaphoric levels, can be compared to the idea of in-betweenness, with particular reference to the framework of culture. Ultimately, this project aims to offer theoretical and metaphoric analogies for the notion of cultural in-betweenness. This is undertaken through a critical approach to medium and process-based art and its potential application in wider contexts.

The research first asks whether the physical and metaphorical characteristics of glass can be used as an analytic to explore the idea of in-betweenness in general. Through theoretical and practical research, I analyse glass objects manufactured when cultural exchange between East Asia and Western Europe was distinctively vibrant in the early modern era, roughly in the sixteenth to nineteenth centuries. Through object analysis and studio practice, the importance of understanding of process in the examination of cultural in-betweenness is addressed. Finally, this

¹ Van Der Meulen(2009) has compiled the extended meaning of medium from philosophical to art historical perspectives.

² See Kepes(1944), Rowe and Slutzky(1993), and Vidler(1994).

question is further investigated by exploring certain aspects of ornament and glass such as form/surface, materiality and workmanship.

At the outset, it is necessary to address the physical aspects of glass that distinguish glass from other materials. (Bachelard,1971; Ingold,2007) When considering the characteristics of glass individually, the most conspicuous visual characteristic of glass is transparency. However, other materials such as resin or plastic can easily mimic this transparent appearance. Another notable feature is that glass can change its state from liquid to solid. Materials such as wax and plaster can also change state from liquid to solid, which allows the maker a limited handling time. The ductility of molten glass is often compared with the property of clay. However, when the three characteristics are considered simultaneously, glass becomes a unique medium that cannot be replaced with others.

Apart from its physical properties of glass, glass also possesses symbolic and metaphoric associations with the technological development of the material throughout history. How the introduction of transparent walls in buildings transformed our way of life in the form of 'glass culture' and visual perception has been much discussed by scholars.² As Paul Scheerbart puts in *Glass Architecture*(1972):

We live for the most part in closed rooms. These form the environment from which our culture grows. Our culture is to a certain extent the product of our architecture. If we want our culture to rise to a higher level, we are obliged, for better or for worse, to change our architecture. And this only becomes possible if we take away the closed character from the rooms in which we live. We can only do that by introducing glass architecture, which lets in the light of the sun, the moon, and the stars, not merely through a few windows, but through every possible wall, which will be made entirely of glass - of coloured glass. The new environment, which we thus create, must bring us a new culture. (ibid, p.41)

² See Kepes(1944), Rowe and Slutzky(1993), and Vidler(1994).

Rather than investigating the materiality of glass in an architectural context, I intend to restrict my focus mainly to the value of the material as a poetic and metaphoric medium in the framework of art and craft, paying particular attention to glass objects and glass making processes. The historical records of how the inherent properties of glass have been 'selectively' valued and used by the artisans in different ways in East Asia and Western Europe, how glass has been used to substitute other materials for either economical or aesthetic purposes between the sixteenth and nineteenth centuries, give us convincing evidence that the value of the material is perceived differently in diverse cultures. The issue is also visible in contemporary glass practice, especially outside the glass community of North America and European countries. It is partially because the idea of the use of glass in the studio has been introduced relatively recently; while the technological and aesthetic influences from European and American glass have become significant, the makers in East Asia have been freed from the influence of tradition in glass.³ A historical survey on glass⁴ allowed me to explore the way in which glass as a material and as objects can embody the idea of certain cultural values, which lead to the embodiment of an in-between culture through the cross-cultural exchange of objects and technology.

The idea of undertaking practice-led research⁵ based on the idea of 'medium-specificity'⁶, naturally alludes to issues in the realm of craft. Due to the wide range of

³ It is further discussed in Chapter 2 with case studies.

⁴ I have limited the scope of literature review in the history of glass to certain periods and regions where the idea of trans-culture is clearly or particularly apparent. The historical review covers glass exchanges between European and East Asian countries since the sixteenth century.

⁵ The idea of 'practice-led' research has been interpreted from my perspective as: the studio practice is not just a mere retrospective visual illustration and documentation of how the maker has responded to the research question. Instead, I aimed to provide insights and tacit knowledge to analyse historical objects in inventive ways, building upon the pre-existing knowledge of art historians and archaeologists through experiments with a material and the making of an object. Then, with the new analysis, my studio practice continued until I reached a conclusion. Although named as a 'conclusion', I envisage further studies derived from the 'transitional and tentative' findings.

implications that craft embodies and to limit the scope of this research, identifying appropriate research methods has become an important issue. The verification of appropriate research methods to meet research aims and objectives is one of the most recurring aspects in the discussion of practice-led research in art and design⁷. Christopher Frayling in *Research in Art and Design* (1993, p.5), categorised research in art and design into three parts: research *into* art and design, research *through* art and design, and research *for* art and design. He sees that research 'into' and 'through' is relatively straightforward, but research 'for' art and design raises controversial issues. Frayling explains the aspects of research for art and design:

Research where the end product is an artefact - where the thinking is, so to speak, *embodied in the artefact*, where the goal is not primarily communicable knowledge in the sense of verbal communication, but in the sense of visual or iconic or imagistic communication. (ibid, p.5)

Regarding the question of whether artefacts in general can embody a tacit knowledge and can be explicitly disseminated, Michael Biggs argues that the transmission of knowledge from the researcher to the reader cannot be an uncontrolled process, so that the sole dependence on objects in disseminating knowledge is not proper. (Biggs, 2003, pp.3-4)

I would place my practice-led research 'in-between' research *through* and *for* art and design, to borrow Frayling's categorisation.(1993, p.5) Through material research

⁶ The concept put forward by Clement Greenberg in *Modernist Painting*(1960) in which he argued the essence of painting lies in its flatness, because of, as he puts it, "The limitations that constitute the medium of painting—the flat surface, the shape of the support, the properties of the pigment..".

For more information on the idea of medium-specificity, See Fariello & Owen(2005) Halsall(2007), and Van der Meulen (2009).

⁷ A production of knowledge through making an art object is one of the most primary and controversial modes of research methods in art. It posits the question of whether an art object produced in the research can embody knowledge and serve as a valid form of knowledge. Cross(1982), Scrivener(2002), Biggs(2003), Mäkelä & Routarinne(2006) and Bolt(2007).

and action research within various contextual frameworks, I visually and verbally provide some communicable knowledge, but to some extent, some findings remain implicit. In partial agreement with Biggs and Scrivener's assertion, whilst acknowledging the specific pitfalls of practice-led research, however, I would argue about the necessity and value of conducting material and process-based research. Inherently, material is always transitional both literally and metaphorically. As material changes its physical properties, meaning and value from a raw state to object status, and also depends on external factors such as social, economical and cultural factors by means of exchanges of objects and techniques, one cannot pin down true material meaning. In particular, if the material is able to retain some kind of visual record of the transformation process, it can convey certain information which cannot be verbalised. Maria Anna Fariello in *Reading the Language of Objects*,(2005) suggests,

...the language of object is discernible and, although subtle, can be *read* to discover meaning inherent in creative objects...the meaning of an object may be interpolated by reading it as a document, a metaphor, or as an object of ritual. As a document, the object is a physical record of the process that produced it.(2005, p.149)

I find a similar effect in objects made of glass. Glass is capable of recording its memory in the material: any actions done when glass is molten become petrified and leave traces, as it loses fluidity when the material cools down and hardens. So one might ask, how can the visual information achieved through material and process be conveyed as a form of knowledge?

The extent to which the tacit knowledge from the making process is embodied through 'material thinking'⁸ also affects the validity of findings from practice.

⁸ A term posited by Paul Carter in *Material Thinking*, as he put it:

Material thinking is a record of 'creative research'- a phrase that ought to be an acknowledged tautology. If research implies finding something that was not there before, it ought to be obvious that it involves imagination. If it is claimed that what is found was always there (and merely lost), still act of creative remembering occurs. As a method of materialising ideas, research is unavoidably creative. (Carter, 2004, p.7)

Addressing what can be achieved and what cannot be validated should be considered as a significant task in research. From the outset, then, I tentatively acknowledged that the findings from my studio practice cannot be treated as knowledge independently.

The idea of 'visual analogy' posed by Barbara Maria Stafford(1999) has become the central research method throughout this research process.

Analogy, born of the human desire to achieve union with that which one does not possess, is also a passionate process marked by fluid oscillations. Perceiving the lack of something - whether physical, emotional, spiritual, or intellectual- inspires us to search for an approximating resemblance to fill its space. (Stafford, 1999, p.2)

I suggest that the impossibility of making tacit knowledge explicit can be enhanced by analogical thinking to some extent, as visual information can sometimes convey more ideas than words.

In this research, it is not just the tacit knowledge derived from the making process, but also the idea of cultural in-betweenness that is problematic when a logical explanation is required. T.S.Eliot's states, "We are therefore pressed to maintain the ideal of a world culture, while admitting it is something we cannot imagine. We can only conceive it as the logical term of the relations between cultures." (Eliot, 1949, p.62). The cultural theorist Homi Bhabha agrees with Eliot's statement, which he recognises as arguing the impossibility of logical demonstration of the idea of 'partial culture', as a kind of the contaminated yet connective tissue between cultures. (Bhabha, 1993, pp.167-8) I too would agree that either through words or images, one will never be able to clearly explain what causes cultural in-betweenness. However, I suggest, one can either sense or understand an approximate

Carter's theory is much discussed within the field of artistic research. For instance, SMT(Studies in Material Thinking) in volume 1(2), 2008 is devoted to the issues posited by Carter. <https://www.materialthinking.org/>

resemblance by means of visual analogy.

A connection between the idea of cultural hybridity, the concept posed by Homi Bhabha in the postcolonial context, and the physical attributes of glass have been central in this research. The ambivalence and unfixed identity⁹ resembles the ambivalent nature of glass, capable of changing from liquid to solid state, transparent to opaque. Especially when glass is molten, the fluidity of glass embodies form in flux and incorporates ductility, which I employ as a metaphor in studio practice. In addition, glass as an artistic medium transfers technical knowledge and aesthetic ideas across cultures. The result of this cultural exchange is the formation of hybrid objects which I attempt to analyse with selective historical artefacts in Chapter Two.

The structure of this dissertation consists of studio practice and textual analysis of my work contextualised in the history of glass and compared to relevant research in disciplines such as archaeology, art history, anthropology and cultural studies. The scope and direction of the literature review has been drawn from findings about the materials and process in my studio practice.

This dissertation agrees with Glenn Adamson's idea that 'Craft only exists in motion'(2007, pp.3-4), that it is right to see craft as a process and as an approach to certain ideas rather than as a category, or marginal element in the finished object. A critical interrogation of a material should be done through making, not just optically perceiving it. Barbara Bolt(2007) suggests that the relationship between materials and the practices of the maker should be emphasised more.

...words may allow us to articulate and communicate the realisations that happen through material thinking, but as a mode of thought, material thinking involves a particular responsiveness to or conjunction with the intelligence o

⁹ See Chapter 1.

materials and processes in practice. Material thinking is the logic of practice.
(2007,p.30)

This dissertation is organised into three chapters. Instead of dividing the contents in terms of theoretical/practical, or into a chronological categorisation, it is structured around different approaches to the idea of in-betweenness. The findings and reflections from my studio practice have been juxtaposed with the relevant theoretical research. It is intended to reflect the researcher's attempt to effectively interweave practice and theory, aiming beyond a mere retrospective documentation of what has been done in the studio. Whilst the first chapter discusses the notion of in-betweenness from an ideological point of view, then, Chapters Two and Three approach the idea with object and process-based analysis by discussing specific examples of artefacts and artworks.

Chapter One introduces the definition of key terms such as in-betweenness, hybridity in the context of art history and visual culture in order to address my argument that glass can convey the idea of cultural in-betweenness. Firstly, the task of re-defining the terms has been done by providing an overview of the common usage of the term in other disciplines. Then, I propose an analogy drawn from the comparison between the progression of idea of culture from being fixed to the ambivalent concept suggested by Homi Bhabha and the materiality of glass. This argument is developed through discussing how the perception and meaning of the material has changed from the nineteenth century to the present. In parallel with the theoretical explanation, my studio experiment provides an example of how the maker's implicit experience of the fluidity of molten glass during the making process could be used to understand the perception of in-between culture.

Drawing on the discussion in the previous chapter, Chapter Two justifies my argument that glass is a means of embodying the idea of cultural in-betweenness by interpreting historical artefacts. In particular, I look at glass artefacts from East Asia

in comparison to the glass in Western Europe during the sixteenth to nineteenth centuries. The exchange of objects and technology between East Asia and Western Europe resulted in the production of distinctively hybrid objects, and I analyse the peculiarity of hybrid objects in glass with the investigation into the idea of trans-culture and trans-material. Drawing on the capability of glass to mimic other materials, I suggest that this notion of cross-referencing materials is a tool that reflects the idea of trans-culture with a discussion about glass objects and contemporary art works. Throughout the chapter, my studio practice is juxtaposed with the analysis of historical artefacts.

Chapter Three focuses on the proposition that processual and relational properties of a material are conducive to visual hybridity. The formal aspects of an ornament and its associated making processes and techniques, are examined in terms of form/surface relationship, materiality and workmanship based on research into the potential factors that transform the original design of an ornament into derivative variations. The role of material and process in the construction of meaning is addressed in comparison with Process Art. In my studio practice, I embody the idea of in-betweenness by experimenting with glassblowing and casting processes which question the conventional relationships of surface/depth, control/accident.

I have attempted to make the crossover between a theoretical and practical examination into the idea of in-betweenness fluid, so the reader can recognise the value of studio practice as a means to inform and distribute knowledge. Despite the division of the chapters, several bodies of work that are repeatedly referred to in various contexts serve as bridges to connect a wide range of related themes in this research. The conclusion addresses a summary of research outcomes, original contributions and further research areas.

Chapter I. An introduction to In-Betweenness

1.1 Introduction

Every object used by human beings goes through various stages of life; as a raw material, being made into an object, presented, displaced, collected, used, viewed and disposed. By viewing the phases, one can witness the changes in physical properties (form, colour, texture) and symbolic properties (socio-political, and market values and function, meaning). During its lifespan, a material becomes part of culture by means of objects, environment and symbols. This research employs glass as the main material, and investigates how glass as an artistic medium participates in cultural domains. In particular, it explores how glass can convey the idea of 'in-between cultures'.

To confine the wide range of issues, this research is primarily concerned with the materiality of glass and its implications, and the practice has been explored within the studio-based environment. With both the contextualisation and my studio work, new forms of knowledge and perspectives on the notion of in-betweenness have emerged. I will begin with an overview of idealistic approaches to the definitions, and raise my arguments that draw upon the notion of materiality in the realm of art.

1.2 Culture of In-Betweenness and the Third Space

Before expanding my argument, definitions of key terms are discussed to define and limit the scope of the study. In this practice-led research, I approach the idea of in-betweenness with 'object-based' and 'process-driven' methods¹⁰. Understanding of related key terms such as culture and hybridity has been firstly contextualised

¹⁰ My research methodology is discussed in the introduction. For more detailed literature, see Cross(1982), Scrivener(2002), Makela and Routarinne(2006), Bolt(2007), and Biggs(n.d).

through a literature review of associated fields: art history, anthropology, archaeology, and cultural studies.

In-betweenness is a compound term, in-between + ness. At the most literal level, 'in-between' designates spatial and temporal realms. It implies the continuity of things that cannot be separated or cut off cleanly. The idea of boundary describes the notion of in-betweenness through physical dimensions. To expand its application, in-betweenness denotes a thing, state or condition situated between polar binaries. It is used inclusively as 'both A and B', or exclusively 'neither A nor B'. Thus, the implication of the idea of in-betweenness is limitless. The commonly addressed subjects pertaining to in-betweenness are those such as: threshold (liminal space, for instance, geographical divisions in relation to national and regional aspects), transition (temporal, for instance, adolescence and pregnancy), and translation(linguistic), hybridity(cultural, diaspora and transnational values).¹¹ All of these designate similar and related ideas in different and specific contexts. However, there seems to have been no coherently developed theory with the direct use of the term 'in-betweenness' except for Homi Bhabha's mention of the term 'in-between' space to describe the idea of a Third Space¹², which designates a transcultural contact zone and hybridity.

... 'in-between' spaces provide the terrain for elaborating strategies of selfhood - singular or communal - that initiate new signs of identity, and innovative sites of collaboration, and contestation , in the act of defining the idea of society itself. (Bhabha, 1994, p.2)

In an attempt to investigate the notion of in-between cultures, the ambiguity and instability of the definition of the word demanded a substitute word and a limitation of context of the research from the outset. While acknowledging various implications,

¹¹ Although excluded in the discussion of this study due to the research scope, I suggest, relevant theories by thinkers who address the notion of in-betweenness through different terms and contexts include: liminality by Turner (1964), purity/pollution by Douglas(1966), linguistic hybridity by Bakhtin(1981) and bricolage by Lévi-Strauss(1966)

¹² In the Third Space, according to Bhabha, 'meaning and symbols of culture have no primordial unity or fixity,... even the same signs can be appropriated different cultures'.(Bhabha , 1994, pp. 54-55)

the term 'in-betweenness' is employed in this project to avoid a direct reference to specific pre-existing theories and disciplines, so the reader could analogically and flexibly relate things to wider contexts.¹³ Considering the mutual association with the ideas or things that are either a mixture of multiple entities or things that cannot fall into one category of a classification system, hybridity and in-betweenness are sometimes used interchangeably; however further clarification is required for more accurate usage in this study.¹⁴

The definition of hybridity¹⁵ is slippery due to its flexible adaptability in a number of fields. Originally it derived from the Latin word, *hibrida* meaning the offspring of a tame sow and a wild boar. (Kraidy,2005,p.1) Its meaning became popularised in biology to denote an offspring of the cross-breeding of two species towards the end of the eighteenth century. This association with transformation in the biological context¹⁶ has attracted attempts to analogically connect the idea of transformation

¹³ Barbara Maria Stafford in *Visual Analogy*(1999) states that "The hallmark of contemporary experience is an absence of in-betweenness." (1999, p.10) Although the idea of in-betweenness is not the main focus of Stafford's theory in analogical thinking which means 'finding similarity-in-difference'(ibid, p.9), this idea of visual analogy has provided an insight to initiate my research methods.

¹⁴ A number of scholars use the term hybridity without re-defining the term within the given context, and replace it with other terms such as bricolage or transculture, especially when discussing the area of cultural studies. Due to the breadth of the use of the term, when referring or citing external sources, I have used hybridity and in-betweenness as synonyms unless there needs a specification.

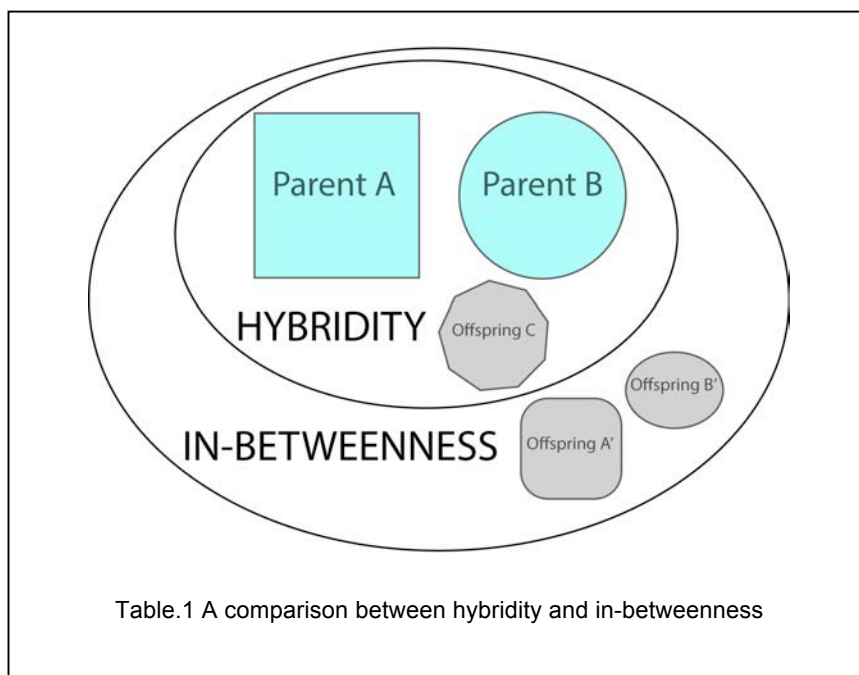
¹⁵ While hybridity refers to the outcome or characteristic, hybridisation implies and highlights the process of blurring boundaries. The mechanisms that are used in the process of hybridisation are found in the process of choosing 'in-between' ways of thinking rather than thinking in binaries. This idea is analogically linked with the fluidity of glass in this research which will be examined in detail in Chapter 1.4.

¹⁶ Brian Stross focused on the link between biological and cultural hybridity by examining issues associated with six different conceptual foci shared by both the categories of biological and cultural hybridity:

1. focus on the hybrid itself, 2. focus on the parents of the hybrid and their qualities, 3. focus on relations of hybrid and parents and of their respective qualities, 4. focus on the relations of hybrid and the environment in which the hybrid is created and develops, 5. focus on the hybridization process and mechanism by which hybrids are brought about, and 6. focus on cycle of hybridity from hybrid to pure form, to parenting a new hybrid(1999, p. 256)

Rather than focusing only on the hybrid itself, Stross attributed an equal importance to the hybridisation and mechanism by which hybrids are brought about. This emphasis on the process suppresses the fallacy of binary systems in which the 'ambiguous or interstitial spaces' between the opposed categories (Ashcroft, Griffiths and Tiffin, 1998, p.23) are allowed.

with the fluidity of cultural hybridity. It may have been due to the change in perspectives on culture from a fixed concept to a fluid identity.



In-betweenness as an umbrella term encompasses and acknowledges the reference to a general idea of hybridity at its centre, but also points out other specific attributes. Articulating in terms of the use of prefixes, hybridity focuses on the notion of ‘trans’ which refers to a ‘single mix’ in which boundaries are blurred and fluid. On the contrary, in-betweenness additionally possesses the idea of ‘inter-’ or ‘multi-’ that denotes reciprocal relationships, relativity and the co-existence of multiple entities.¹⁷ In addition, the adjective ‘in-between’ implies ambiguity in terms of sense of direction, process and status. If hybridity is described as an offspring C that comes from parents A and B, in-betweenness’s potential offspring can be described as A’ and B’ or C. Not only does it produce a new entity, but it also questions the relationship between parents and offspring that is traceable and legible to some extent. In-betweenness conveys a better sense of openness and flexibility, and features more uncertainty, fluidity, temporal and spatial restlessness than hybridity. (Table 1.) These characteristics can be observed in my practice and analysis of the

¹⁷ Yunkyung Cho examined the implications of ‘trans-’ in comparison to ‘multi-’ and ‘inter’ in order to investigate the idea of trans-culture.(2010, pp.5-27)

glassmaking process and historical artefacts. Thus, the literal and metaphorical relationship between glass and in-betweenness is one of the main issues in this study.

‘Culture’ is another important concept to be examined from the outset. Given culture’s discursive scope of applications, identifying specific contexts to employ the term in more effective ways is necessary. The two main points that have been considered are how the idea of culture can be expanded beyond geographical association with national and ethnic boundaries, and how the materiality of glass can be used to understand the sense of being in-between cultures.

A literature review of theories of culture in anthropology was useful for grounding the subsequent investigation of how the notion of culture can be embodied through artefacts. The results provided an understanding of how theories of culture reflect the phenomena and values of a period, and an insight into potential implication of culture in other disciplines. In the nineteenth century, Edward Tylor defined culture as: “Culture or Civilisation, taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society”. (1871, p.1)¹⁸ This idea has become more complex and extended into various arenas. According to Raymond Williams, “Culture is one of the two or three most complicated words in the English language”. Williams pointed out the incompatibility of the implications of the term in various disciplines and systems of thought. (Williams, 1983, p.87)

The popularisation of the term has progressed immensely, but the idea of culture requires clarification in every case due to the great diversity in scope, or it may turn

¹⁸ Tylor’s definition in *Primitive Culture*(1871) is considered to be significant because it was the first attempt to scientifically approach the idea of culture as an independent subject of study (Vermeersch, 1965, pp.164-165.)

into an empty signifier. James Clifford commented on Tylor's definition as 'a rather vague complex whole' (1988, p.230). Despite recurring attempts to view culture in a more specific context, culture is still employed in an intertwined manner. Thus, drawing on the pre-existing debates around the notion of culture, this research proposes a model to rethink the idea of culture with material and object based approaches.

The extended idea of the conception of culture can be found in Alfred L. Kroeber and Clyde Kluckhohn's work, *Culture* (1952), in which they compiled and analysed more than 150 definitions and the evolution of the concept of culture from various disciplines. They categorised various definitions into six: structure, function, process, refinement, power/ideology and group membership (1952, Loc 181). Drawing on Kroeber and Kluckhohn's work, anthropologist Susan Wright summarised them as two ideas of culture: 'old' and 'new'. According to Wright, the old idea of culture is characterised as being bounded with a set of pre-conceived checklists, fixed, and unchanging aspects, whereas the new idea is viewed as an active process of meaning making (Wright, 1998, pp.8-10).

The implication of the notion of fixity is based a spatial framework; to be specific, the issue of discontinuity of space between states and nations. The problem with this view is that it denies the existence of hybrid cultures that are located on the borderlines between nations.

Representations of space in the social sciences are remarkably dependent on images of break, rupture, and disjunction. The distinctiveness of societies, nations, and cultures is based upon a seemingly unproblematic division of space, on the fact that they occupy "naturally" discontinuous spaces. (Gupta and Ferguson, 1992, p.6)

Gupta and Ferguson argue that while culture was traditionally associated with fixed and bounded regions or territories, it is now much more useful to think of culture in

terms of spaces of mixture, borderland, and even mobility. The association between culture and space leads to the task of defining identities in relation to spatial proximity. In the past, establishing a sense of 'self and the other' was related to the sense of 'here and there'. However, this association with the fixed boundary of space became replaced by the idea of 'trans-'. The dichotomous equation 'the other = not self', 'there= not here' are not easily applicable.

A similar conception of culture can be traced back in the discussion of postcolonial issues. Edward Said's *Orientalism* (1978) now-famously analysed European Orientalist scholarship as providing a means to justify European colonial rule in the Middle East in the nineteenth century by establishing Europe and the Middle East as separate cultures. Said argued that Orientalism was a way of defining Europe's self-image by making 'the Orient' as 'the Other', or everything non-western. Said indicated how this distinction between 'Orient' and 'Occident' subsequently served as the starting point for the development of ideas in media ranging from novels to socio-political accounts. (1978, pp.2-3) Of course, as we will see below, this binary opposition has been challenged extensively within a variety of fields from the perspective that culture is not a fixed entity, but continuously changes and responds to other cultures.

In the introduction to *Location of Culture*, prominent post-colonial theorist Homi Bhabha remarks: 'It is the trope of our times to locate the question of culture in the realm of the *beyond*.'(1994, p.1) The idea of 'beyond' not only refers to geographical aspects of culture, but also it implies a fluidity of culture which is not limited to one category. Bhabha criticises Said's analysis of Orientalism for having a 'polarity or division' at the very centre of Orientalism. (ibid, p.102) Another problem in Said's analysis, pointed out by Bhabha, is the concept of 'fixity' in the ideological construction of otherness through stereotypes which are fixated forms of representation. (ibid, pp. 94-107) In response to the notion of binarism and fixity in the analysis of Orientalism, Bhabha introduces the idea of ambivalence to explain

the complex relationship between coloniser and the colonised, referring to the mutual influence and transformation in the construction of a shared culture.

The idea of hybridity is addressed through the concept of the Third Space of Enunciation by Bhabha. This is a space of in-betweenness, which implies an interstitial passage between fixed identifications (ibid, p.5) or an ambivalent and contradictory contact zone where two different cultures meet.

It is that Third Space, though unrepresentable in itself, which constitutes the discursive conditions of enunciation that ensure that the meaning and symbols of culture have no primordial unity or fixity; that even the same signs can be appropriated, translated, rehistoricised and read anew. (ibid, p.55)

This idea of non-fixity of culture is further discussed through the concept of 'ambivalence' by Bhabha. The original meaning of the term was first developed in psychoanalysis to describe a continual fluctuation between wanting one thing and wanting its opposite. It also refers to a simultaneous attraction toward and repulsion from an object, person or action. (Young, 1995, p. 161, cited in Ashcroft, Griffiths, and Tiffin, 1998, p.13) Bhabha adapted this idea into post-colonial discourse, and described the relationship between the coloniser and the colonised through the idea of mimicry: 'almost the same, but not quite'.¹⁹

One of the few examples from visual art Bhabha introduces to support his arguments is Renée Green's architectural site-specific work, *Sites of Genealogy*. Green made a metaphor of the stairwell as a liminal space where the process of symbolic interaction between social and racial differences takes place (Bhabha, 1994, p.5). In Bhabha's words:

This interstitial passage between fixed identifications opens up the possibility

¹⁹ As Bhabha puts it, colonial mimicry is 'the desire for a reformed, recognisable Other, as a *subject of a difference that is almost the same, but not quite*'.(ibid, p.122) The basis of mimicry is 'the repetition of partial presence'(p.126), so that the difference does not become erased completely. (ibid, pp.121-131)

of a cultural hybridity that entertains difference without an assumed or imposed hierarchy. (ibid, p.5)

Bhabha seems to select the sense of interstitial space and its metaphor, which reminds us that geographic association is one of the most important accounts in the discussion of in-between culture. The strength of a site-specific installation or performance work is that the viewer can experience the space and moment of transition with or without the physical and legible embodiment of transformation.²⁰

Drawing on the analogy between culture and space above, I have questioned how object-based analyses of cultures might differ and shifted my focus to the relationship between culture and artefact. In this regard, I would argue that the evidence of trans-culture is embodied through the artefacts produced and traced in multiple cultures. Baldwin, Faulkner, Hecht & Lindsley recently updated the work of Kroeber and Kluckhohn with an additional 150 definitions and reorganised the categories with an additional category 'product'. (2007, Loc 915-971) This addition of a new category implies and highlights the importance of 'cultural products' that record and embody certain attributes of culture which can include non-physical language and customs to artefacts. Anthropologist James Clifford has also theorised about the 'art-culture system' with an emphasis on the idea of authentic and exotic artefacts. Clifford stated that the Western culture of collecting is based on the idea of imposing a western value system onto non-western cultural artefacts. (1988, p. 215) He asserted that the idea of collecting art objects is based on representing cultures in selective and strategic ways (ibid, p.231). Clifford's argument implies two

²⁰ Today's site-oriented practices inherit the task of demarcating the relational specificity that can hold in tension the distant poles of spatial experiences described by Bhabha. This means addressing the differences of adjacencies and distances between one thing, one person, one place, one thought, one fragment next to another, rather than invoking equivalencies via one thing after another. (Kwon, 1997, p.110)

See Bhabha(1993), Bhabha(1996), Kwon (1997), Perloff(1999), and Pisters(2009) for further information.

important issues: that the meaning of cultural artefacts is relative to contexts, and artefacts can be the means to appropriating otherness.

When considering art objects as kinds of cultural artefacts, the question of how art embodies elements of culture has been a much debated issue among artists, art historians and curators. As culture is formed based on collective identities, it becomes constructed in relation to entities within the group as well as with external groups. According to Clifford Geertz, the idea of art can be described as a 'cultural system':

...to study an art form is to explore a sensibility, that such a sensibility is essentially a collective formation, and that the foundations of such a formation are as wide as social existence... works of art are elaborate mechanisms for defining social relationships, sustaining social rules, and strengthening social values. (Geertz,1983, p.99)

The problem with Geertz's view of art and culture is its risk of categorising art objects within the frame of culture as defined by geographic and ethnic groupings. Furthermore this approach can result in considering cultural artefacts only as an 'outcome' rather than seeking meanings from process. The difficulty of understanding and interpreting culture in relation to artefacts was also posited by E.M Fleming in 1974. Fleming proposed a model for understanding artefacts²¹ as an attempt to provide a framework for artefact study. Despite the progress in the analytic system of physical aspects of museum objects, he argues that the conceptual level of scholarly research lacks a theoretical model of cultural analysis and interpretation, although there exists an implicit understanding of the relationship between artefact and culture (Fleming, 1974, p.154) The proposed model consists of five basic properties of artefact (history, material, construction, design, and function) which is examined through four operations (identification, evaluation, cultural

²¹ The model was oriented to early American decorative arts, but Fleming saw this being equally applicable in other areas. The word artefact was originally defined as "a product of human workmanship" by the author drawing on the definition from Webster's New Collegiate Dictionary 1959, and here I adopted his term mainly to refer to an art object.

analysis, interpretation) in consecutive order, each being dependent upon the preceding one. (ibid, pp.154-5)

1.3 In-between Styles

Drawing on the study of artefacts, I further examine the formal properties of an art object and its cultural association through the language of 'style' in the realm of visual art. It is beyond the scope of this study to review all the debates in the theories of style or examine particular examples of artefacts. Rather, my purpose in addressing certain points of the theories of style is to develop my argument that how we understand culture is affiliated with how we perceive style as visual information.

The idea of style has been defined in various contexts and disciplines. Style was first used as a rhetorical and moral category in Greek and Latin origins, and gradually, it has become the term to refer to a mainly aesthetic category. (Lang, 1982, p. 407) People commonly use the notion of style in a casual manner to describe 'looking like' a certain style. This immediacy of recognition²² relies on the viewer's pre-conceived knowledge, and it involves an activity of bridging the unfamiliar to the familiar by analogy. However, the conception of style carries more implications than mere visual perception of an object. It offers information with which the viewer can construct meanings.

Nelson Goodman, philosopher and critic in contemporary aesthetics, remarks:

...knowledge of the origin of a work, even if obtained by chemical analysis or other purely scientific means, informs the way the work is to be looked at or listened to, or read, providing a basis for the discovery of nonobvious ways the work differs from and resembles other works. Indeed the perceptual discovery of a style must usually start from prior identification of works

²² Lang sees that treating style as the immediacy of recognition and of understanding in a similar way to what a look on the face may convey. He suggests that this line of thought is the projection of the question of what style is in different contexts. (Lang, 1978, p.716)

representing an artist or school. Thus attributions however effected contribute to the understanding of works as art. (1975, P.38)

While addressing the importance of examining a work of art based on formal attributes, Goodman argues that the binary opposition of form and content in discussing style can be misleading.

In agreement with Goodman's point, I posit an additional argument that the interpretation of material-based or process-based art works, such as glass sculptures that do not fit into conventional categories as functional and decorative objects, raise the same contention. This idea has become more problematic when interpreting an artwork where form and content are abstract, such as works categorised into Conceptualism, Minimalism and Abstract Expressionism in the 1960s²³. In her response to the issue in *On Style*(1965), critic Susan Sontag argues that due to the antithesis of style (form) and content, and the hierarchy of content over form, "...the notion of a style-less, transparent art is one of the most tenacious fantasies of modern culture." (Sontag, 1965, p.17) Sontag explains that the actual meaning of 'style-less' does not denote an absence of style, but rather belongs to 'different, more or less complex stylistic traditions and conventions'. (Ibid, p.18) In that sense, even the very impersonal, detached, and non-referential nature of Minimalist artworks can be considered as a style. Building on Sontag's statement, the idea of style-less-ness has been rethought in terms of in-betweenness in this research. When two or more styles mix, rather than completely losing the original characteristics, they form a third identity by partially sharing the pre-existing entities. In this line of thought, style plays a role as a means to detect similarities, differences, and changes in the process of encountering the other. This idea is further discussed in my studio practice in Chapter 1.5.

²³ This will be further discussed in Chapter 3, where I address issues of Process Art, which emerged in response to Minimalism.

Another similarity between the idea of culture and style, I suggest, is the notion of transformation and relativity. One can explore this issue further in the discussion of style between scholars such as Meyer Schapiro and Berel Lang. The questions of whether style is a fixed concept, and whether style is a mere formal property of an object which is separated from content are prominent shared concerns. According to art historian Meyer Schapiro(1953) style designates the constant form, elements, qualities by means of a personal expression, or mutual entities observed in a group. Regarding the conflict between individual and group identities, he mentioned the fixed and restrained aspects of style:

...the style is above all, a system of forms with a quality and a meaningful expression through which the personality of the artist and the broad outlook of a group are visible. It is also a vehicle of expression within the group, communicating and fixing certain values of religious, social, and moral life through the emotional suggestiveness of forms. It is, besides, a common ground against which innovations and individuality of particular works may be measured...(Schapiro, 1953, p. 51)

Philosopher Berel Lang(1982) stands in opposition to Schapiro's argument on style. He treats style as a 'relative concept' which is apt to change depending on context. When regarding style as a collective identity rather than an individual one, Lang's stance on the relativity of style becomes valid:

...Style thus exists only as the member of a pair...Thus, only where there are two styles is there one; this is a condition both for the detection of style and for its existence...Like myth, a style becomes evident only when it is "broken" or superseded, viewed from the outside and by contrast...(Lang, 1982, p.409)

The problem with simply applying the sources mentioned in this study, Schapiro(1953), Sontag(1964 & 1965) and Lang(1982) is that they respond to earlier debates on style in the 1950s through 1980s. With a few exceptions mentioned above, style has been largely omitted from art criticism since the 1950s. According to George Kubler, 'Style is a word of which the everyday use has deteriorated in our time to the level of banality. It is now a word to avoid, along with déclassé words, words without nuance.' (1979, p.163) Susan Sontag finds the reason for the

disappearance of style in the 'putative opposition between form and content'. (Sontag, 1965, p.20) Critics cannot be informed by formal properties of art to interpret a work of art and thus, discussions based on stylistic categories have lost their credibility.

In response to the disappearance of style in the interpretation of an artwork, I suggest that style needs to be employed in the discussion of the process of making rather than classifying the finished artwork. This is because the construction of meaning derives from the transitive mode, rather than from the outcome. This line of thought welcomes things that cannot be categorised into any styles. The ambiguity of style accounts for the understanding of in-betweenness. Berel Lang suggests a conceptual model, 'style as an instrument', which refers to the function of stylistic analysis. He sees style as a mediating link between the appearance of style and the analysis of it. This differs from the mere act of classification, associating objects with certain categories by naming. The purpose of stylistic analysis, he acknowledges, is the use of stylistic categories in understanding the distinction between an object and its means, and articulating 'how' the object carries a stylistic character. (1978, pp.717-719)

The embodiment of process in style inevitably involves a consideration into 'how'. In this regard, Kendall L. Walton gives fresh impetus to the debate about style. Walton in *Style and the Products and Processes of Art* begins his argument with the important question: 'Are styles attributes of objects, of actions?' Walton argues that the notion of 'styles of action' should be considered in order to understand an art object. (1979, p.73)²⁴ The argument is based on the idea of correlation between how the object appears and how it has been made through the act of creating it. This view blurs the antithesis of form and content.

²⁴ Walton points out that Gombrich's view on style as a similar approach. Style is any distinctive, and therefore recognisable, way in which an act is performed or an artifact made or ought to be performed and made. (Gombrich, 1968, p.150)

Drawing on the notion of style as an attribute of action, I would argue that before discussing the making process, an understanding of material should be undertaken in attributing a style to objects. The material is a means to visualise and record the maker's actions that are hidden from the viewer. Thus the way that the material reveals the interaction between the maker and the material should be taken into consideration in any analysis of style. The examination into material includes not only the physical attributes but also its metaphorical aspects, which blur the boundary between what we see and what we believe.

Among various artistic media, I find glass to be an effective material to explore this issue in both physical and metaphorical dimensions. As discussed above, the concept of culture, in-betweenness and style all share a common ground in terms of having elements of relativity and fluidity. In the following section, the materiality of glass is viewed in cultural contexts. My argument develops through an investigation into the making process and an examination of objects in glass that are considered as 'in-between styles'.

1.4 Culture of Glass

Looking into the idea of culture from various perspectives, this research proposes a critical model for the study of in-between cultures through the investigation of the materiality of glass. The first task is to investigate how culture relates to glass, and how the culture of glass emerges. At the outset, the pre-existing literature of theories on glass and glass culture are reviewed here.

The theorisation of glass as a cultural material centres around the mid nineteenth century²⁵ when mass production of glass increased the material's availability. The

²⁵ Before the twentieth century, there were two remarkable developments in world history that were shaped by glass. Building upon the development of the lens, from the thirteenth century onwards, the invention of scientific instruments such as the microscope and telescope from the late sixteenth to the end of the eighteenth century

Crystal Palace, made from 300,000 panes of glass and supporting metal structures, was built for the Great Exhibition in London in 1851. It was noted as a symbol of the successful outcome of the Industrial Revolution, and was acclaimed as the first successful example of glass architecture. (Armstrong, 2008) The Crystal Palace had a wide range of implications in terms of raising awareness and comments around the new modes of production and consumption, new ways of collecting and looking (Olalquiaga, 1998, pp.30-45). It was the beginning of a change generated by new uses of glass that was about to take effect in the built environment of the modern era.

The link between transparency and glass has now been established in the discourse relating to modernity in architecture. Based on the phenomenology of spatial perception by means of transparent and reflective qualities, glass has created a new culture in which the traditional antitheses such as interior/exterior and private/public have become blurred. Walter Benjamin quoted Siegfried Gideon's observation on the glass architecture of Le Corbusier :

The houses of Le Corbusier define themselves neither by space nor by forms: the air passes right through them! The air becomes a constitutive factor! For this, one should count neither on space nor forms, but uniquely on relation and interpenetration! There is only a single, indivisible space. The separations between interior and exterior fall. (Gideon, 1928, p.85, cited in Benjamin, 1999, pp. 423-424)

Benjamin also argued that 'objects made of glass have no "aura" '. (1933, p.734) In the context, he meant that glass lacks spatial and temporal presence due to its transparency, and also that glass is a mass-produced material that possesses authenticity when specifically referring to glass architecture. The idea of authenticity in relation to the development of technological reproducibility and art is further discussed in Benjamin's seminal essay, *The Work of Art in the Age of Reproduction* (1936).

extended human vision. Not only were people able to see new things that had been invisible to them in the past, they also started relying on vision to acquire new reliable knowledge. For more information on the nineteenth and the twentieth century optical experience, see Jonathan Crary's *The Techniques of the Observer* (1992) and Martin Jay's *Downcast Eyes* (1994).

Whereas Benjamin speaks of the late nineteenth to early twentieth glass culture as the product of industrialisation, Isobel Armstrong in *Victorian Glassworlds* (2008), takes this line of thought into a cultural dimension by introducing the idea of a new glass consciousness and a language of transparency. Armstrong not only underlines the transformative character of glass, in terms of the transformation of a material from raw state to artefact, but also contextualises it in a metaphoric dimension, in her terms 'the poetics of transparency'. (Armstrong, 2008, p.1) Armstrong covers a discursive range of issues of glass including Victorian literature, cultural study of factory glass, windows and mirrors, tours of factories and object-based analysis of optical toys and philosophical instruments, but discussions on art glass objects are excluded. The exclusion of art glass objects in the discussion of glass as a cultural medium continued throughout the twentieth century.

Indeed, the theorisation of glass has developed largely through the association of glass and transparency in the architectural context. Colin Rowe and Robert Slutzky (1963) identified two types of transparencies, the literal and the phenomenal in their study of glass in modern architecture. As another form of appropriation of Rowe and Slutzky's theory, the categorisation of transparency has been influential in addressing these areas of interest in my thesis.

To briefly summarise the categorisation of transparency, literal transparency is solely based on the inherent characteristics of the material, glass, which refers to the notion of seeing through a transparent surface. In contrast, the phenomenal one is an 'implication of transparency' which Rowe explains by referring to Gyorgy Kepes's text in *Language of Vision*(1944). Rowe states that phenomenal transparency is more than an involvement of physical transparency, but it is ambiguous . (Rowe, 1963, p. 161)

If one sees two or more figures overlapping one another, and each of them claims for itself the common overlapped part, then one is confronted with a contradiction of spatial dimensions. To resolve this contradiction one must

assume the presence of a new optical quality. The figures are endowed with transparency; that is they are able to interpenetrate without an optical destruction of each other. Transparency however implies more than an optical characteristic, it implies a broader spatial order. Transparency means a simultaneous perception of different spatial locations. Space not only recedes but fluctuates in a continuous activity. The position of the transparent figures has equivocal meaning as one sees each figure now as the closer, now as the further one. (Kepes, 1944, cited in Rowe, 1963, p.77)

The notion of both literal and phenomenal transparency suggests the formation of superimposed imagery and spaces in layers which constitute an ambiguous state. When applying this notion to the language of glass more specifically, it inserts complexities into spatial relations, as transparency is merely one of many characteristics of the material. What needs to be examined through the transparency of glass is the ability of glass to evoke an 'imagination of transparency' in people: technically, one is never able to perceive real transparency. This analogical link between the physical characteristics of glass and metaphor provides a thread to rethink glass in wider contexts.

The important characteristic which is overlooked in the discourse relating to glass is its transformative quality: fluidity. Glass is a product of alchemy and man's utilization of nature, found in nature and created through human intervention. For centuries, glass has been the most artificial material contrivance that humankind has managed to create in the laboratory. It is uncategorisable because of its range of qualities. It changes its nature from liquid to solid, fragile to sturdy, transparent/translucent to opaque. As Luca Massimo Barbero says, 'Clever interpreter and supreme actor, glass represents everything well, never transforming itself, never losing its main quality, but attaining new forms.' (2008, p.14)

When glass is molten and fluid, the transparent space that the material occupies is in flux, in relation to elements such as form and external spaces. Armstrong, in her study of glass in the nineteenth century in Britain, moves away from the idea of

transparency and extends the list of glass metaphors. She argues that the fairytale *Cinderella* implies 'the transgression of typological boundaries' that disturbs categorical relations. She interprets Cinderella's magical transformation as mediated by glass (glass slippers, magical metamorphosis and transformation). (Armstrong, 2008, pp.206-7) As the birth of glass is linked to the notion of alchemy, transforming something humble into something valuable, it seems natural that glass is the medium that transforms itself and other things by means of crossing boundaries. For me, the idea of fluid glass is the significant conceptual framework to understand the in-betweenness of culture. I focus on the making of glass objects to convey the process of transformation in the context of studio-based glass.

It seems feasible to state that the theorisation of glass as a metaphoric medium has been developed by practitioners in areas of both fine and applied art from the mid-twentieth century up to present. Since the 1960s, when the American studio glass²⁶ movement was initiated by Harvey Littleton(Figure 1.), glass artists started working in their own studios (Price, 2006, pp.82-83.) Before Littleton, there were other European artists who were working with glass in the studio environment.²⁷ When Littleton visited Jean Sala's workshop in France in 1958, he became convinced that glass could be produced on a small scale outside the factory. Littleton later met with Erwin Eisch (Figure 3.)²⁸ in Germany in 1962, and visited small glass factories in Murano where he observed factory organisation and glassblowing techniques. (Lynn, 2004, pp. 30-53)

²⁶ Studio glass mainly refers to hot-work, in particular, free-formed work until the late 1970s. (Lynn, 2004, p.14)

²⁷ Unlike American factory glass, the European craft tradition was integrated into industry and artists working in factories produced unique art glass objects.

²⁸ Erwin Eisch's work is often characterised as coloured opaque glass that denied the transparent quality of glass. Eisch's work shows a strong expressionistic quality that is considered as 'individualistic, humanistic, and iconoclastic'. (<http://www.cmog.org/article/masters-studio-glass-erwin-eisch>)

These European influences led Littleton to experiment with melting glass in a modified ceramic kiln, but the quality of the facility was not adequate enough to produce works due to lack of knowledge and skills. Glass artists of the 1960s and 1970s were from other disciplines because glass training did not exist outside the industry; mainly potters such as Harvey Littleton, while some were metal workers, painters and designers. (Klein and Lloyd,1984, p.265) This was enhanced by the two technological innovations by Dominick Labino, a former research vice president of Johns-Manville Fibre Glass Corporation. Labino developed a new formula for glass that could be melted at a lower temperature than the industrial one, and a small furnace that was suitable for the studio environment. (ibid, p.263)



Figure 1. Harvey Littleton, *Vase*, 1965, Corning Museum of Glass © Harvey K. Littleton

Figure 2. Marvin Lipofsky, *RIT Group 1996-97*, Toledo Museum of Art

Figure 3. Erwin Eisch, *Telefon*, 1971, Corning Museum of Glass © Erwin Eisch

This allowed makers to extend conventional ways of creating into free-formed sculptural areas, and glass objects began to be accepted in some fine art museums over succeeding years, (Lynn, 2005, pp.9-31.). In parallel, fine artists²⁹ began to introduce glass as a means of expressive or symbolic gestures. These phenomena made the public aware of glass as an artistic means, not just a material employed for architectural or functional purposes. The eagerness to experiment with materials and

²⁹ Lynn's selection of artists in the discussion include Marcel Duchamp, Meret Oppenheim, Lucas Samaras, Robert Rauschenberg, Robert Smithson, Larry Bell, James Turrell, etc. (Lynn, 2005, p.27)

process was also reflected in the parallel movement in ceramics initiated by Peter Voulkos³⁰, and the emergence of Process Art in the 1960s.³¹

There was no manifesto in the formation of the American studio movement, but one shared interest among the artists was experimentation with the material and the integration of making process, the maker and the material. (Lynn,2004, p.15) For instance, Marvin Lipofsky's work (Figure 2.) exploits the full spontaneity of hot glass processes embodied in the abstract and bubbly forms diffused with colour. Littleton emphasises the importance of the relationship between the material and the action of making, through which form is 'discovered', rather than planned by the maker. He states that the experience of the maker during the making process should be legible to the knowledgeable viewer. (Littleton, 1971, p.14)

In glassblowing, if the necessary risk is taken, the outcome must always be in doubt. Artistic creation must occur in crisis, it cannot be planned or divided up; a blistered, mottled, collapsed, unidentifiable handblown glass object may be more valuable than a crystal swan... (ibid, p.17)

The technological and theoretical polarisation of the discourse of glass has been ubiquitous since the emergence of American studio glass movement. Critical analysis from a scholarly perspective about studio glass art has been thin in comparison to other artistic disciplines.³² In addition, making has been valued over theorisation among practitioners. However, it is possible to draw a metaphorical interpretation of glass by examining the implicit characteristics of glass embodied through either techniques or artefacts. In particular, inter-cultural developments in the techniques and styles of glass address the fact that cultures select and focus on different attributes of glass, combined with appropriated techniques. For example,

³⁰ Peter Voulkos initiated the group called 'abstract expressionist ceramics', and the artists made process and material driven sculptures. See Adamson (2007, pp.39-67) and Frayling (2011, pp.109-124)

³¹ See Chapter 3.5.1 for more details.

³² Lynn(2004, pp. 2-6.) provided an useful overview of the discourse of studio glass. Up to date, there exist only one academic journal (Glass Art Society Journal published by Glass Art Society) and a few periodicals specialised in studio glass (Neues Glass , Glass Quarterly, etc.)

the historical Chinese preference for translucency-opacity, relatively thick and bold shapes, and distinctive carving methods, are evidence of an appropriation of European style. In Chapter II, through case studies with selected glass objects from China, Japan, and Western European countries, the idea of cultural in-betweenness is discussed.

1.5 Studio Practice

In my studio practice, the idea of in-betweenness is investigated through an examination of 'stylistic categories' of art objects and their relationship with the viewer's perceptions of culture. The body of work entitled *Patterns and Memories Reflected on Glass*, is my attempt to define the role of cultural signifiers and symmetry in the perception of in-betweenness of cultural identity from a practitioner's point of view. Rather than interpreting an object based on the subject matter, my approach has begun from a posited antithesis of formal elements such as form/surface, representational/abstract images, and part/whole. These formal aspects of the work are articulated mainly through the transformative process of the material and object in the making process. In-betweenness is analogically compared with eclectic, ambiguous and ambivalent categorisations of style in both theoretical and practical research.

The making process does not end with the object's completion, but further affects the viewer's perception of the object. M. Anna Fariello argues that "The value inherent in an object is also the value inherent in its making". (2005, p.149) Through the physicality of a chosen material, the object records the process that produced it. Consequently, I propose that the action performed by the maker, whether by means of artistic expression or manufacturing process, embodies the maker's intention and meaning. The link between the making process and the appearance of the object may not be always legible, varying in degrees, but it still provides the viewer with enough visual information to construct subjective meanings.

My rationale on employing decorative patterns³³ derives from both formal and conceptual considerations. The distinction between form and content discussed in historic art debates, has been employed here to address the diffusion of the difference between the two in relation to the formal properties, surface and depth. As the making process involves working with layers of glass, the distinction between surface and depth weakens physically and the optical effects of glass partially confuse the borderlines. The metaphoric juxtaposition of 'surface/depth' and 'form/content' reinforces my view that an interpretation or appreciation of an artwork should involve both form and content which cannot be separated.

Decorative patterns with recognisable East Asian cultural signifiers attribute certain stylistic associations to the object from the outset. In addition, the symmetrical structure of the patterns provides the sense of order, so when there are any changes in the pattern and form, it can be instantly detected. The only pre-determined factor in the process is to change the form to distort the pattern as the pattern and the form move simultaneously, and observe the process of transformation.

The initial question of this particular practice was how the change from symmetrical to asymmetrical form influences the perception of cultural signifiers and styles. The notable significance of symmetry suggested by art historians and philosophers is its implication of the idea of fixity, stillness, control and order. On the contrary, asymmetry implies motion, flux, accident, and disorder. (McManus, 2005, p.160) As validated by scholars from various disciplines³⁴, there is no doubt that symmetry is one of the 'universal properties of form'. (Washburn, 1999, p.548) In questioning what constitutes symmetry, anthropologist Franz Boas analyses formal elements in primitive art, and states that there is a kind of symmetry that results from the process of manufacture. For instance, he mentions the coiled pottery and basketry that are

³³ In Chapter 3, there is a more in-depth discussion of arguments around ornamental pattern.

³⁴ See Washburn and Crowe (1988) and Washburn(1999). Washburn and Crowe reviewed psychoanalytic theories on the perception of symmetry.

produced by regular turning of the material. (1955, p.34) As Boas points out, this symmetry-manufacturing process relationship may not be an adequate means to explain the general principle of symmetry, because there are many other ways of producing symmetry without employing specific implements and processes. However, when considering symmetry as both a physical and metaphoric measure, I suggest that an investigation into the notion of symmetry can be a valuable means to explore the perception of cultural styles.

The idea of symmetry can be explained in various contexts from mathematical to metaphorical dimensions. Mathematician Hermann Weyl viewed symmetry in two senses: one was to denote things that are well-proportioned and well-balanced, whereas the other focused on the balance between the whole and the parts (to the concordance of several parts by which they integrate into a whole.) (Weyl, 1952, p.3) By intentionally breaking symmetry in a structured pattern, in my work, the relationship between parts and a whole becomes loose. Simultaneously, the cultural signifiers used in the pattern transform from representational to abstract images.

The affinity between symmetry and culture has been investigated by archaeologist Dorothy Washburn.

There are two ways to ascertain whether symmetry is a culturally meaningful property. One is to study its role in perception and how it is utilized in form recognition. The other is to study its occurrence in cultural contexts - do certain symmetry classes consistently appear in patterns? (Washburn and Crowe, 1988, p.15)

Washburn argues that metaphor lies not in the abstract shapes but in the way the shapes are constructed. (Washburn, 1999, p.553) Washburn's approach is useful here not only in the use of symmetry as the main analytic measure, but also the way she examines the element of design in relation to the material used. Drawing on Washburn's theory of the relationship between symmetry and culture, I have

attempted to link the materiality, technique and process of glass with the sense of symmetry.

As a considerable number of historical East Asian artworks illustrate, asymmetrical compositions used in art, design and architecture in the region are evident. Amongst art historians who write on asymmetry as a defining characteristic of historical East Asian Art, E.H Gombrich in *Sense of Order* (1979) discusses symmetry and asymmetry as formal elements of art, and relates elements of symmetry to certain cultures. For instance, he makes the rather hasty assessment: “The West generally preferred symmetry, the Far East more subtle forms of balance”. (2006 [1979], p.146) Gombrich’s statement is easily countered by examples of European art historical styles such as Rococo and Baroque that emphasised asymmetrical compositions. In art made today, the idea of symmetry does not seem to predominantly affect the perception of an artwork’s cultural identity. In sum, the binary opposition of symmetry and asymmetry cannot be the ideal approach to question whether symmetry plays an important role in classifying cultural styles. Rather than separating symmetry and asymmetry, my studio practice demonstrates ‘the process’ of deconstructing symmetry into asymmetry. This process is visualised through a material, molten glass, and the final outcome illustrates the moment of transformation through the documentation of accumulated movements.

Molten glass is a moving entity: fluid, flexible, and easily transformable. This characteristic of the material allows the maker to be conscious of constant movement and transformation throughout the making process. One of the most commonly used techniques, glassblowing, has been employed for this body of work because the process involves the practitioner in a constant revolving movement to prevent the mass of molten glass from falling off the blowing iron. This revolving movement naturally leads to the formation of glass objects that are round and symmetrical. The awareness of the nature of the material and the process and how they contribute to certain formal styles allows the maker to predict the consequences

of certain actions in the making process. For instance, glassblowers know that making a perfect rectilinear shape is nearly impossible in the studio environment as hot glass tend to round up around corners regardless of the technical excellence of the maker.

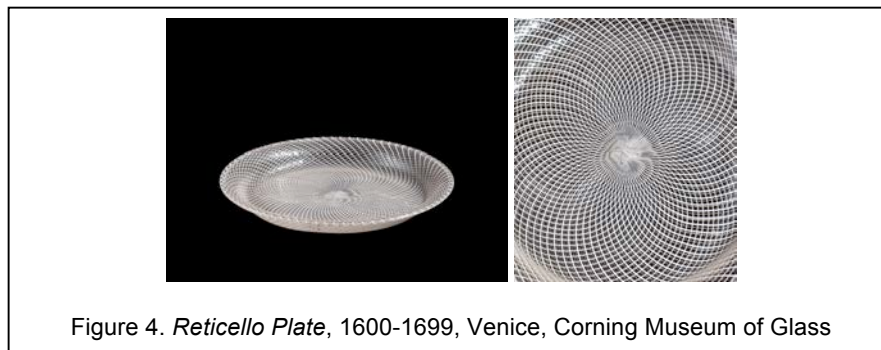


Figure 4. *Reticello Plate*, 1600-1699, Venice, Corning Museum of Glass

Based on the characteristics of the glassblowing process, a task was set to examine symmetry in patterns: how does symmetry influence the perception of style? Adopting and modifying glassblowing techniques, the first body of work explores the relationship between form and surface pattern, which illustrates the role of symmetry in the formation of ornamental styles. By repeated turning, the mass and heat of glass is distributed evenly; if this fails, one side blows out more than the other. In theory, patterns on the surface of glass should remain symmetrical; however, they tend to twist, due to the friction between the glass tool and the glass. For example, *Reticello* (Figure 4.), a Venetian glassblowing technique, uses this tendency, and maximises the effect of twisting: initial linear rows of glass canes are picked up and become twisted during the blowing process. The linear patterns on the surface visually manifest the motion and the distortion of the glass.

The body of work entitled *Patterns and Memories Reflected on Glass* (Figure 5.) consists of a series of various patterns on blown glass. Drawing on the materiality of glass under standard circumstances, the next task was to identify and design a set of techniques to go with or against the innate characteristics of molten glass and the making process. Pattern structure has been selected as firstly, its association with

symmetry and repetition was taken into consideration as it corresponds with the making process. Secondly, certain patterns consisting of cultural signifiers were used in order to investigate the potential relations between the legibility of cultural signifiers and the recognition of stylistic classification based on culture or ethnicity. Lastly, the idea of culture being fluid metaphorically links with the fluidity of glass. The patterns are chosen directly from copyright-free images of historical East Asian patterns, or partially modified by combining various elements from pre-existing patterns. Regardless of the original source and process used in this experiment, by treating the elements as a living organism in flux the key observation is the 'mutation' of the patterns into something else. Some motifs from the pattern used in this practice have recognizable cultural signifiers with symbolic resonance. The glassblowing process functions as a de-codifier of the symbols, and transforms them into a state of existence between the familiar and the unfamiliar.

Although it is known that the method of transfer-printing on glass in industry was first used during the eighteenth century, print on glass has only been specifically used as an artistic practice³⁵ in the last 30 years. (Petrie, 2006, p.22) The technique has offered significant potential for artists to develop a new visual language. The most obvious difference between print applied to glass and to more conventional media is that the print can physically interact with glass through being heated during the creative process. In other words, the printing pigment may not sit still on the surface, but can transversely cross layers under the surface when the temperature reaches melting point. Furthermore, in the application of print on three-dimensional objects, another difference can be observed. Whereas patterns are normally applied to the surfaces of three-dimensional objects after the completion of the forms in 3D, this experiment takes a different chronological approach: patterns are applied first, and form is manipulated afterwards. In this way, pattern is truly in a dialogue with form, and supports a vast amount of flexibility in terms of shaping forms.

³⁵ Examples can be found in the work of Per B. Sundberg, Kevin Petrie, Jeffrey Sarmiento, Brian Clarke, Helen Maurer, Steve Brown, Kathryn Wightman and Shelley James.



Figure 5. Min Jeong Song, *Patterns and Memories Reflected on Glass*, 2010

The printing process follows normal silkscreening procedures, the only difference being the use of ceramic enamel pigment. Ceramic enamel can withstand the heat from the glass furnace (1050 degrees Celsius) and the glory hole (1200 degrees Celsius) for reheating, and also it fuses completely with the glass surface at this temperature range. When the print is ready, it is applied by the water-slide transferring technique. Cylindrical 'embryo' forms (blank glass bubbles) are made beforehand for print to be applied to their surfaces, and then they are annealed (cooled) down to room temperature. The cylinder is a form which allows minimal distortion in the process of transferring two-dimensional patterns to the surface of three-dimensional objects. In most cases, the chosen patterns are of the 'band' type

(Washburn & Crowe, 1988), as they can be evenly distributed to cover the surface. Once the patterns are applied, they still hold the exact proportions of the original image. The only difference is, however, that the patterns become a continuous loop of infinite images through the meeting of two ends of the two-dimensional pattern, which corresponds with the continuous and uninterrupted movement of the glassblowing process.

In most cases, the glassblower rotates the blowing-pipe constantly to prevent sagging of the molten glass, and to keep it centred. This centrifugal force of the rotation contributes to the successful forming of symmetrical objects. By rotating and shaping the glass evenly, the pattern retains its original proportion, even if it is blown out larger. The practice in this research is to invert the normal technique, so the glass and the pattern blow out asymmetrically, resulting in breaking the original elements of the pattern (mainly its proportion and symmetry).

The primary focus of evaluation in the practice is the transformation of the pattern. Beginning with legible motifs, most of the end results show a partial abstraction of the original pattern. The least blown-out part hints at a trace of a recognisable motif, the rest gradually becoming formless, which is a gesture indicative of cultural symbols. This raises the question of the relationship of cultural signifiers and style: how much abstraction (or appropriation) is needed in order to create an ambiguous style which sits on the boundary of two or more styles? The glassmaking process employed for this body of work can be described as the act of abstraction. The significance of this action is revealed through the relationship between process, material and form. From this point of view the glassmaking process is a means to abstract images. The value in the action of abstraction, in art historian and critic Yve-Alain Bois' view, can be found in the symbolic gesture of declassification. Bois discusses the idea of 'formless' as:

... it (formless) is not only an adjective having a given meaning, but a term that serves to bring things down [déclasser] in the world." it is not so much a

stable motif to which we can refer, a symbolisable theme, a given quality, as it is a term allowing one to operate a declassification, in the double sense of lowering of taxonomic disorder. Nothing in and of itself, the formless has only an operational existence: it is a performative, like obscene words, the violence of which derives less from semantics than from the very act of their delivery. The formless is an operation. (Bois and Krauss, 1997, p.18)

I find a parallel between Bois' idea of declassification with Sontag's idea of stylelessness, which welcomes ambiguity. When considering stylisation as a kind of abstracting process, according to Sontag, stylisation is having a special distance from the subject, which reflects the ambivalence between the original and the abstracted. (1965,p.20) Through the abstraction/stylisation process, the object becomes illegible to the viewer, which makes the reading of the work ambiguous. Hence this technique suggests that material and process are important tools that identify the meaning of an object, and embody the idea of in-betweenness, a state of one thing and another.

The first body of studio work showed me that the familiarity of cultural signifiers and their effect on the recognition of in-between styles, in either perception or psychological dimensions, can mislead the viewer by the stereotypical representation of cultural images. Therefore, I decided to use more geometric and abstract patterns that clearly illustrate formal and structural relationships while retaining associations with East Asian cultures in a relatively indirect and rendered way. These further experiments will be illustrated in relation to historical glass artefacts in the following chapter, where I investigate the formal attributes of East Asian glass in relation to European influences.

1.6 Conclusion

This introductory chapter presented ideological approaches to the ideas of culture and in-betweenness from various perspectives, such as archaeology, anthropology, art history and cultural studies. Drawing on the review of the definitions of key terms, I proposed a model that embodies the idea of cultural in-betweenness through object-based and process-driven methods with an emphasis on the physical and metaphoric attributes of glass.

As the perception of culture has progressively changed from a fixed category based on temporal and spatial boundaries to relative and transformative, accordingly, the idea of style has moved from a fixed system of forms to a relative concept that is dependent on contexts. Based on these parallel changes in the concepts, the relationship between the perception of culture and visual styles has been re-examined.

From a modern culture influenced by the introduction of transparent window glass in architecture in the mid-nineteenth century, to the American studio glass movement which celebrated experiments with the nature of ductile and fluid molten glass, I have drawn an analogy between culture and glass. Building on this review, I discussed the new culture of glass with an emphasis on the fluidity of molten glass.

In my studio practice, I aimed to prove the importance of an understanding of process in examining the idea of in-betweenness. By employing glass and glassblowing not only as a physical act, but also as a metaphoric gesture, this body of work posited the issue of the perception of cultural style. The conventional glassblowing process was modified as a means to distort forms with a use of images with cultural signifiers. Throughout the experiment, I visualised the transitional state

between representational and abstract images which would confuse the viewer's perception of style.

In Chapter 2, the early modern glass artefacts of East Asia are discussed with a focus on the reciprocal influences between East Asia and Western Europe. By addressing certain characteristics of historical objects, I develop my argument about the idea of in-betweenness and how glass embodies transcultural values. This is also compared with a review of contemporary glass of East Asia that examines more current issues.

Chapter II. Glass, Cultural Material and Metaphor

In Chapter One, I examined the relationship between the in-between, culture and the materiality of glass in both physical and metaphorical aspects. I also re-defined the notions of culture and in-betweenness by comparing them to the language of glass with the juxtaposition of historical and studio-based approaches. Building upon that discussion, in this chapter I introduce specific examples of the idea of trans-culture by investigating selected glass objects and contemporary art works. Particular attention has been paid to art objects of East Asia in a reciprocal relationship to West European counterparts. My interpretation of the artefacts is reflected in my studio practice, which in return, has provided insights to address issues in the process of analysis.

2.1 A Selective History of Glass in East Asia

2.1.1 Introduction

Before interpreting a body of selected objects through direct and indirect observations, I offer a brief overview of the history of glass in East Asia with an emphasis on reciprocal cultural exchanges between East Asia and Western Europe.³⁶ Glassmaking is a skill with a fluctuating history in East Asia. It was practised early on in the region's history as early as the fifth century BC in China and the third century BC in Japan. However, its further development was inconsistent and hesitant. It was revived as the increase in exchange with Europe began in the sixteenth century. Cultural and material exchanges between East Asia and Western Europe flourished particularly from the seventeenth to nineteenth centuries, and the artefacts produced during this period embody traces of hybridity in both form and

³⁶ Because my focus is on the transfer of glassblowing(using multiple layers of colour) and surface decoration methods(carving, cutting and engraving), I mainly discuss China and Japan, and their exchanges with Italy, the UK and Ireland. These were the countries that had extensive knowledge and kept close relationships in terms of exchanging the specific aesthetics and techniques above.

decoration. Art historian Dorothy Blair in the preface to *The Art of Glass in Japan*, stated that 'To write an ideal history of glass in Japan one should be a general historian, an art historian, an economic historian, an archaeologist, a glass technician, a chemist, and, not the least, an adept linguist...'. (Blair, 1973, p.10) As her remark suggests, interpreting reference sources with a lack of understanding of the wider contexts is very difficult, and potentially misleading. Nevertheless, the task of investigating East Asian glass history is inevitable in this study in order to provide new perspectives on the interpretation of historical sources. Thus, I use methods from a practitioner's point of view by means of making and analysing in this study. In addition, these new perspectives have triggered analogical thinking and theoretical implications that contribute to an understanding of in-betweenness. Consequently, this chapter does not follow the common chronological or geographical patterns of glass history, but is divided into three sub-chapters based on characteristics of glass in East Asia in relation to the notion of in-betweenness.

2.1.2 Interpretive rationale

Historically, glass as an artistic medium in East Asia has not been significantly considered in either East Asian or Western European scholarship. Although there has been glassmaking in East Asia since the fifth century BC, it was limited only to producing small accessories such as beads until the sixteenth century. (Mizuta, 1993; Macfarlane & Martin, 2002) There is little extant documentation of glass history in East Asia from earliest times to the nineteenth century, and it is even more difficult to find resources published in English. However, with new archaeological discoveries during the last three decades, the awareness of the importance of East Asian glass history has increased. Its value lies in revealing the significance of cultural exchange between East Asia and Western Europe. This notion is further articulated in metaphorical dimensions in this study.

A note on geographical parameters of the study: only the early-modern history of glass in China and Japan has been reviewed in this research. Archaeological evidence, such as a large amount of glass beads from the Iron Age, and Roman glass from the Sil-la period (57 BC - AD 935), has been found in Korea. However, the study of ancient Korean glass has been very scant, and still needs further investigation. Due to the lack of reference sources, Korean glass history is omitted here.

Most scholars who have researched the history of the glass exchange between East Asia and Western Europe have limited the scope to the sixteenth to nineteenth centuries, although the first encounters between East Asian and European glassmaking date back to ancient history. This seems reasonable, as this period holds the most informative trade records, not just for glass but for many other aspects. Therefore, the historical scope covered here is confined in terms of period (seventeenth-nineteenth centuries), geography (East Asia and Western Europe), and technique (blown glass).

William Bowyer Honey remarked on the problem and the difficulties found in the early Chinese glass history.

For the history of Chinese glass some scanty original literary documents have been repeatedly cited from one writer to another... They present the problems usual in Chinese texts on account of ambiguities in the meaning of certain all-important words...(Honey, 1937, p.211)

Available sources on the history of later Chinese glass, from the sixteenth to nineteenth century, are also very limited due to the same reason. Despite the limited availability, some of them were not suitable resources for my research purposes in terms of analytic method (substantially based on archaeological and scientific

approaches analysing chemical compositions of glass artefacts)³⁷ or historical scope (periods before the Qing Dynasty 1644-1911).³⁸

Exhibition catalogues with a brief introductory text about Chinese glass³⁹ were useful in terms of studying artefacts visually, despite the limited textual information. However, most of them neither provided original reference sources nor critical interpretation of the objects. The texts were rather descriptions of formal properties and the techniques employed. An exception was the introductory text to *Clear as Crystal Red as Flame* written by Brown and Rabiner(1990) in which they raised critical issues concerning the extent of European influence on later Chinese glass (Qing Dynasty 1644-1911). Whereas W.B. Honey overstated the western influence, Brown and Rabiner viewed this as only practical knowledge for the foundation of the imperial workshop.⁴⁰ Acknowledging certain direct influences from the west, this research focuses on the inventive ways of making glass of Chinese artisans, rather than considering these features as a mere adoption of techniques and imitation of aesthetic aspects of Western Europe. This is examined in Chapter 2.1.3 through

³⁷ See Brill & Martin (1991).

Although they have not contributed directly to this research, documents from the symposium held at the Corning Museum of Glass in 1984, *Scientific Research in Early Chinese Glass* provided insightful and potential evidence of cultural exchange. Among scholars, the symposium was considered to be a seminal attempt to investigate the significance of Chinese glass as evidence of cultural exchange between China and the outside world through the analysis of chemical composition of glass artefacts. From an archaeological perspective, the task of classifying Asian glass objects is important as it provides information on the distribution (development and adaptation) of glassmaking, and it is evidence of cultural exchanges. (Brill, 1995, pp. 270-271)

³⁸ Archaeological documentation and research of Qing glass is sparser than that of earlier periods. (Brown and Rabiner, 1990, p.18) According to Brill (1995), scientific research on the ancient glass of Asia began around the early 1970s, thus the literature on Chinese glass in Western languages was scarce. Brill was writing in 1995, however the assessment remains true today.

Due to the lack of archaeological investigation of Qing glass, scholars have constructed a general knowledge of its development; they relied on the reign marks and knowledge of other decorative arts during the same period. In particular, the literature on ceramics was mainly used to compare form and surface decoration. (Brown and Rabiner, 1990, pp. 18-19)

³⁹ See Phoenix Art Museum (1987), Brown & Rabiner(1990), *Asiantiques* (1997) , and Begg and Cone(2002).

⁴⁰ See Schäfer(2011) for further information on the Qing Imperial workshop.

looking at visual examples demonstrating how Chinese artisans incorporated European knowledge into techniques that were originally used for other forms of art.

Emily Byrne Curtis has published material on Chinese glass and the exchange of glass artefacts between China and Italy. Her research mainly focuses on the technological aspects of the exchange between the two countries, with a focus on glass and enamels in a variety of contexts. Curtis' work has laid the foundations for the identification of my research areas, although her writing is relatively limited in the analysis of individual artefacts. Xue Lu⁴¹ is a recent PhD graduate from the University of Wolverhampton, whose work is based on the development of glass in China in relation to its direct contact with early modern European techniques. Unlike earlier scholars publishing in the West, Lu is a Chinese practitioner in glass, and her fluency in Chinese enriches and expands the scope of Chinese glass history, providing valuable perspectives. In addition, Lu has examined traditional Chinese glassmaking techniques by re-enacting and making objects that enrich her interpretation methods.

There have been few internationally recognised scholars who specialise in Japanese glass history: Dorothy Blair, in the United States, and Yoshio Tsuchiya, in Japan, are notable in this context. In 1973, Blair, from the Corning Museum of Glass, published a volume on glass history in Japan. The contents are chronologically and geographically divided, offering a comprehensive overview with visual illustrations. However, her analysis of historical artefacts is limited to a description of their physical appearance, which has not been helpful in reconstructing the detailed making process and associated historical contexts. Japanese art historian Yoshio Tsuchiya has published books in both Japanese and English⁴² that illustrate the

⁴¹ Xue Lu published her practice-based PhD thesis on Chinese glass in 2009. The import of glass into East Asia, among other goods during the 16th century, implies much more than trading new products and technology at a literal level. It had become for them the symbol of Western civilisation, prompting popular demand for glassware. From luxurious imported goods to domestically-manufactured ware, glass had become distributed in East Asia.

⁴² See Tsuchiya(1988 & 1999).

history, with particular attention paid to nineteenth-century Satsuma-Kiriko glass. Along with the collection and exhibition catalogues from the Suntory Museum of Art⁴³ in Japan, Tsuchiya's analysis has contributed to the development of research in this field. However, research on the subject is still at an early stage. Unlike Curtis' and Lu's studies of the history of glass in China, neither Blair's nor Tsuchiya's views provide an understanding of the cultural exchanges associated with glass in detail.⁴⁴ Due to a lack of documents specialising in Japanese glass, various indirect sources have been explored in order to deduce and contextualise the history, with a particular attention to the relationship between artistic medium and cultural reference.⁴⁵

East Asian influences on European art and culture from the sixteenth to nineteenth centuries is often called as Chinoiserie⁴⁶ (mid-17th to mid-19th century) and Japonisme⁴⁷ (1860s-1920s). It is beyond the scope of this research to investigate the idea of cultural in-betweenness in relation to chinoiserie and japonisme in detail.

⁴³ See Takatsugu(1972) and Suntory Museum of Art (1980 & 2010).

⁴⁴ Most of the reference sources in the research are published works in English translated from Chinese or Japanese documents. Other minor references are originally written in Korean and Japanese, translated by the researcher with the help of native speakers. I am indebted to the earlier research by other scholars for helping me understand the foundation of broader histories and other scholars' approaches in analysing visual examples of glass.

⁴⁵ The relationship between cultural and material exchange between Europe and Japan which is bound with certain nationalistic characteristics is discussed in Moeran(1990) and Kikuchi(2004)

According to Brian Moeran(1990, p.213), until recently ceramics had become deeply affiliated with the idea of tradition in Japan in reaction to the western perception of ceramics as a non-art form. The distinctive Japanese tradition was embodied through a specific material: ceramics. For the period after the war in Japan, bamboo was the chosen material for the embodiment of quintessential Japaneseness. (Kikuchi, 2004, Loc 220-225 out of 309 digital pages).

⁴⁶ The dictionary definition of chinoiserie is an ornate style of decoration for furniture, textiles, and ceramics especially in eighteenth century Europe, based on Chinese motifs, articles, and designs in this style. (Webster's New World Dictionary, 2nd ed.)

For more information on this subject, see Honour(1973), Impey(1977), Jarry(1981), Sullivan(1989), Jacobson(1993), Porter(2002), and Dams & Zega(2008).

⁴⁷ The term was first used by the French critic and collector Phillipe Burty in 1872 and defined as 'a new field of study of artistic, historic and ethnographic borrowings from the arts of Japan'(Lambourne,2005, p.6).

For more information on Japonisme, see Weisberg(1975), Wichmann(1981), Chiba(1998), Ono(2003), Mabuchi(2004), and Lambourne(2005).

Rather, very selective examples of chinoiserie and japonisme are considered in relation to the issues on cultural exchange through glass objects and technology: the blue-and-white artistic mode originated from Chinese porcelain and Art Nouveau glass objects that were influenced by Japanese art.

East Asian motifs played an important role in European applied arts. These 'exotic' motifs provoked Europeans' ideas and imagination about this 'unknown' land. In many cases, East Asian culture and art were not studied in depth, but rather the new motifs were copied, translated and re-invented in European style. Whereas the European influence on Chinese and Japanese glass involved technical knowledge as well as aesthetic aspiration to some extent, East Asian influence on the development of European glass was largely limited to the Eastern sense of decorative styles and traditional iconography. Because Europeans did not have access to East Asian glass technology, both deliberate imitation and accidental adaptation inevitably led to modifications caused by different techniques, available technology and aesthetic preferences. (Knothe, 2010, p.216) Accordingly, scholarly investigation into the East Asian influence has primarily concentrated on how the motifs were adopted and reinterpreted into European ones.

It was through other media in the decorative arts, primarily ceramics, jade, ivory and lacquer, and painting and prints in fine art, that directly conveyed and transferred cultural motifs. Ceramics was one of the major inspirations in the development of East Asian and European glass in terms of shape and surface decoration. For instance, export pottery from Japan as well as painting and print contributed to the popularity of japonisme in France in the nineteenth century. The Japanese influence on the development of European glass was very visible during this period, in particular, in French Art Nouveau glass. (Figures. 17 & 18.) However, glass itself did not play a significant role, it was rather the imitation of Japanese motifs applied with European inventions. In terms of surface decoration, the appearance is similar to Chinese cameo glass, although the carving and etching techniques were European

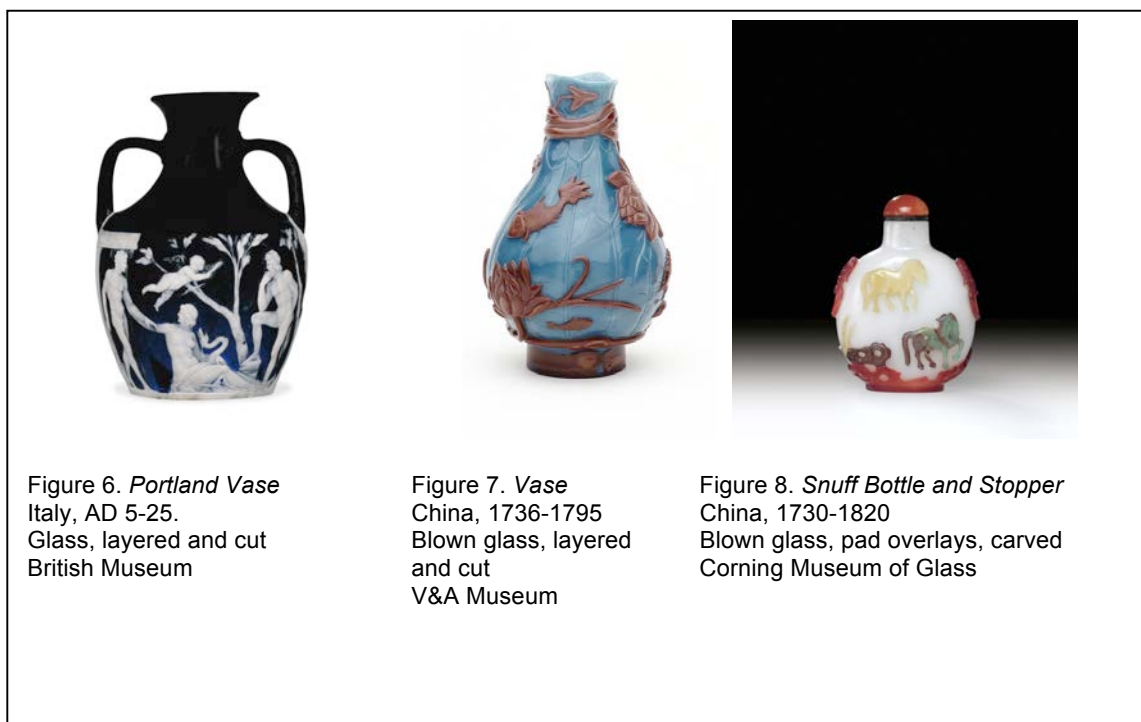
ones. These examples are, I suggest, the embodiment of the idea of in-between cultures through material, and I further examine them with a focus on the combination of local and foreign elements.

The questions around material and cultural in-betweenness posed in this study require an overview of material and cultural flows between the two continents, rather than the precision of specific facts and dates. While the literature review can provide overall context and important information regarding the movement of objects, targeted object-based analysis in museums including the Corning Museum of Glass, the Victoria and Albert Museum and Broadfield House Glass Museum offers further information on process, materials and cultural transfer.

In 2010-11, the exhibition 'East Meets West: Cross-Cultural Influences in Glassmaking in the 18th and 19th Centuries' took place at the Corning Museum of Glass. Rather than highlighting one direction or the other in the cultural flows between the two regions, this exhibition aimed to illustrate reciprocal communication through either direct or indirect contact. Observation of artefacts presented in the exhibition and the permanent collection enabled me to identify some common patterns among them although the selected objects were diverse in terms of themes and appearances. The examples of Chinese and English cameo glass, lattimo (white glass) with East Asian motifs, and Japanese cut glass with British/Irish cut patterns have led me to explore how different cultures adapted new techniques to local aesthetics. This exhibition provided me with a valuable research opportunity, in conjunction with my participation in the artist-in-residence programme at the museum in October 2011. I attempted to study the historical collection, interpret and analyse it, and respond by producing a body of work in the studio. With access to resources in the museum, I had a chance to investigate artefacts by direct observation in a way that information in texts cannot offer. This experience has been reflected in the studio practice associated with the research, which will be described in detail in the following sub-chapters 2.1.5 and 2.2.3.

As a practitioner specialising in glassblowing, I have been able to interpret the visual sources from a maker's standpoint, compare them with the written history, and form my arguments. Paying particular attention to several kinds of surface decoration in East Asian glass, I have produced a body of work that is not a mere reproduction of historical artefacts, but aims to reflect the relationships between surface and depth, glass and other materials, and tradition and innovation. By investigating cameo glass, lattimo glass(white) and cut glass, and drawing on the findings, I have modified a few formal elements or making processes to produce visual transformation and variation in glass objects, which will be discussed further in 2.1.5.

2.1.3 Glass in Early Modern China: a hybrid material without its innate identity



Between the sixteenth and seventeenth centuries, European explorers and missionaries entered China and introduced European art, science, and religion. By the end of the Ming dynasty (1368-1644), China had imported numerous goods and

technologies, along with the service of missionaries in the court. Exotic gifts delivered by them impressed the emperors. In particular, Emperor Kangxi (1661-1722), who appreciated the art of glass, decided to set up imperial glass workshops in the court.⁴⁸ In the beginning, Jesuits from the Netherlands and Italy transmitted glassmaking techniques, and later Chinese artisans gradually developed their own, with local skills. The attributes of glass as transparent and reflective had previously been exploited and used mainly for architectural purposes. With support from the court, glass technology developed fully, and artisans in the glass workshop received the benefits of sharing knowledge, facilities and labour with other workshops. Chinese scholar Lu points out that the hybrid nature of glassmaking in China was not just a combination of western technology and Chinese traditional skills; influences came from other Chinese traditional crafts - jade, ivory, ceramics and bronze were appreciated, as well. This can be observed in the examples of Chinese cameo glass (Figures 7 and 8.)⁴⁹ in which the outer layers of glass were carved away using the techniques used for jade and ivory work. Familiarity with the techniques and work from other workshops discouraged artisans from innovation and experimentation with the unique characteristics of glass. The distinctive characteristics of Chinese glass are, therefore, thick blown forms with opaque colours. Thin, crystal clear glass objects, such as European artefacts made in the Venetian style, are very rarely found, because glass was used mainly as a substitute material to imitate the appearance of other materials. This practice was not exclusive to China.

By the sixteenth century, Venice (Murano island, to be specific) had become the centre of European glassmaking. Venetian glass during the period excelled in transparency and colour and was produced with a variety of decorative techniques. Despite the ban on disseminating Venetian glassmaking techniques outside the island, glassmaking knowledge spread to the world. (Toso, 2000, p.61)

⁴⁸ The imperial workshop was composed of 27 fields, including clock, enamel, jade, wood, lacquer, glass, ceramic, ivory, etc. (Lu, 2009)

⁴⁹ See the Portland Vase (Figure 6.) for comparison. Whereas most European cameo glass objects show similar characteristics as the Portland Vase in terms of soft and low reliefs, Chinese cameo objects feature relatively high-relief images, such as the ones found in Chinese ivory or jade carvings.

‘Skeuomorphism’, a phenomenon or a concept in which certain features of an original object are copied in other materials or by using other techniques, can also be found in Venetian glassworkers’ attempts to imitate the appearance of clear quartz, agate, jasper and porcelain (Figure 10.). While Venetian artisans used knowledge from various experiments, they developed their own styles and ways of making glass from then on, and the excessive use of glass as a substitute material in eighteenth century China triggered a decline in Chinese glass. (Curtis, 2009, p. 15)



Figure 9.
Two Kuyueh Hsuan-type Enamelled Vases
 1736-1795, China
 Blown and enamelled glass
 Corning Museum of Glass



Figure 10.
Tea cup and Saucer
 Venice, 1725-1775
 Blown and gilded
 Corning Museum of Glass

Façon de Venise refers to glass imitating the style of Venetian glass during the sixteenth and seventeenth centuries in places other than Venice itself. (Hess and Wight, 2005, p.32) This trend prevailed in Europe and soon, by either direct or indirect contact, this reached East Asia by the sixteenth and seventeenth centuries. The Chinese adopted these Venetian techniques and combined them with the local skills that had contributed to the rapid development of glassmaking in China. As illustrated in Figure 9., Venetian glassblowing skill was combined with the form and decorative styles of Chinese porcelain wares.

Within the field of the history of glass, more attention has been paid to the way in which glassmaking technology was transmitted from Western Europe to East Asia. However, in fact, as the curator of the exhibition *East Meets West*, Florian Knothe, has argued, glassmaking also contributed to East Asia's cultural exposure to the West. In association with the desire to master Chinese porcelain in the West, experimentation in clay was inseparable from experimentation in glass, not just in material science, but also in stylistic imitation. (Knothe, 2010, p.201) In the search for the appearance of Chinese porcelain, either to substitute expensive imported pottery or to master the secret recipe, many attempts to make opaque white glass had been undertaken in Western Europe. *Lattimo*, the Italian word that refers to opaque milky glass, is noteworthy in several aspects. Invented in Venice in the mid-fifteenth century, its popularity later extended throughout Europe. The plain opaque white glass was ideal for surface decoration with enamel and gold (Figure 10.). The motifs frequently found on this medium are a mixture of Chinese and Venetian, until the Chinese developed their own styles in the nineteenth century.(Clarke,1974, p.22)

European cameo glass (Figure 11.) and Chinese cameo glass (Figures. 7 & 8) are seemingly alike in terms of motifs, layering of colours and carving methods; in particular, European objects with decoration in the Chinese style can be visually indiscernible in certain cases. However, when examined closely the surface effects are different, due to techniques involved in the carving and cutting processes. The use of the acid-etching technique in English cameo and Art Nouveau glass made it possible to achieve finer details with soft textures, whereas Chinese used the same technique that was used for jade carving. (Lu, 2009, p.65)



Figure 11. *Chinese-Style Cameo Vase*
 England, 1890
 Blown, cased and cut glass
 Corning Museum of Glass

Another characteristic I would like to focus on is the technique of layering in cameo glass. As illustrated in Figure 11., despite the presence of recognisable East Asian cultural signifiers and decorative styles in the objects, a subtle and different approach to the making of an object can be found. I suggest that this is where the significance of the making process in the analysis of an object is illustrated. English cameo glass has a clear glass layer sandwiched between red and white layers, whereas most Chinese cameo glass objects do not have in-between clear layers. The clear layer in the middle creates a sense of depth within the surface decoration, even in low relief. In contrast, each layer of the Chinese cameo glass is relatively thick, so the decoration can be achieved in high relief. Whether the absence of an in-between clear layer was due to the technical limitations of the Chinese artisans is not known.

Sandwich gold-glass bowl from the third century BC (Figure 13.), was made with a technically challenging technique involving a design in gold leaf being sandwiched between two layers of clear glass. In order to fit together, the inner and outer parts of clear glass had to be made and fused while it was hot.⁵⁰ The Chinese bowl (Figure

⁵⁰See the British Museum website for more information. Available at: http://www.britishmuseum.org/explore/highlights/highlight_objects/gr/s/sandwich_gold-glass_bowl.aspx

12.) with gold leaf decoration seems to have a visual similarity with the ancient Italian bowl. However, when examined closely it can be observed that the layering method is different. The Chinese object has only one layer of clear glass, in medium thickness, which is gilt inside and outside.⁵¹ Knothe(2011b) suggests that this may have resulted from misunderstanding of the technique used for the gold sandwich glass, so that technically it is almost reversed. However, it does offer a similar effect.

Both the English cameo with a chinoiserie decorative style and the Chinese sandwich gold-glass bowl imply a hybrid practice that intermixes knowledge of local and foreign skills to reproduce and interpret certain qualities of the other's aesthetic. Although they may appear seemingly alike, when examined closely with an attention to how objects were manufactured, we can find subtle differences. Whether it is a conscious variation (a desire to improve upon precedents) or unconscious variation (lack of skill or misunderstanding)⁵², we do not know. But it can be said that these are the causes and means that embody the idea of in-betweenness through making objects, which also needs to be considered when interpreting artefacts.

To sum up, distinctive characteristics of glass in China have been examined by comparing a limited number of artefacts from China and other countries in Western Europe. I have paid attention to the use of layers in glass decoration, in particular multiple layers of colour and cutting techniques in the cameo glass of East Asia and Western Europe. The combination of Western glassmaking techniques with Chinese traditional motifs and ingenuity exemplifies the translation processes involved in appropriating styles and techniques from other cultures, which led to the formation of hybrid styles. Another point addressed is the ability of glass to mimic other materials. In examples of early modern Chinese and European glass artefacts, we can find that the characteristics and value of materials are understood diversely among different

⁵¹ For more detailed analysis by an expert, see Knothe(2013, p.12) and Knothe(2011b).

⁵² This idea of conscious and unconscious variation by Henry Balfour, in *The Evolution of Decorative Art* (1893) is discussed in Chapter 3.1 with an emphasis on the notion of ornament.

cultures. This idea is examined further by means of the notion of trans-material and trans-culture in Chapter 2.3.



Figure 12. *Bowl*
China, 1736-1796
Lead glass, gilt; mould-blown, ground and cut, Corning Museum of Glass



Figure 13. *Sandwich Gold-Glass Bowl*
Southern Italy, 270-200 BC
British Museum

2.1.4 Glass in Early Modern Japan: Edo Kiriko and Satsuma Kiriko

The history of glass in Japan is relatively sparsely documented, particularly in English, while the history of Chinese glass has been of growing interest in recent decades. Significant visual evidence, such as excavated glass beads and discs from the Yayoi period (300 BC to 300 AD) indicate that the Japanese had the skills to manufacture glass from early times. During this period, the use of glass was limited to expensive ornamental accessories or articles associated with Buddhism. Glass production in Japan began in the Nara period (710 BC - 94 AD), with the introduction of glassblowing techniques. Although this increased the production of glass in a variety of forms, glass was made mainly for religious purposes rather than for everyday use as drinking vessels or windows. Glass production eventually began to decline. (Tsuchiya, 1999)

It was during the Edo period (1603-1868) that glassmaking in Japan flourished again. Tokugawa Ieyasu (1543-1616), founder of the Tokugawa (Edo) shogunate, was eager for foreign trade and knowledge, but also hesitant, as he was opposed to the intrusion of Christianity into the country. The Dutch had free access to the harbour in Nagasaki where foreigners could reside and which had become the centre of glass production in Japan. This political decision impacted on the stylistic development of Japanese glass. (Tsuchiya, 1999)

Glass in Japan embodies multifarious foreign influences. Glass was first imported from the Portuguese and the Spanish, and major technical and stylistic sources came from the Dutch and English. Unlike early modern Chinese glass products and skills, mainly imported from Italy, Japanese glass exhibits conspicuous stylistic resemblance to products from the Netherlands, (Figure 14.), England and Ireland (Figure 15.) Japanese artisans produced transparent and thin objects such as goblets influenced by the glassmaking technique of Netherlands. They also

manufactured thick blown forms for surface decoration by engraving and cutting, which bears evident similarities with English and Irish cut glass. In addition, Chinese influence on glassmaking was substantial between the seventeenth and the nineteenth centuries. The glassmaking techniques adopted from China can be divided into two groups: the first were from traditional and local Chinese skills in other craft fields, and the second was the 'mediated' glassmaking technique that Chinese had selectively adopted and modified. Whether the glassblowing technique was transmitted from Europe or China is not clear, as the glass batches used in the Edo period were different from the ones in Europe, but very similar to the ones in China. However, features such as the very thick-walled blown glass of China do not appear in Nagasaki glass, which was primarily thinly blown: this may have been caused by the stylistic influences from Western European glass. Tsuchiya, in *Glass of Japan* (1988), suggests that the reason why only thin glass was made in the early Edo period was due to lack of technical knowledge on the annealing of thick glass, which required a means of cooling glass down gradually. Once this technique was mastered, thick glass products were made in the nineteenth century.



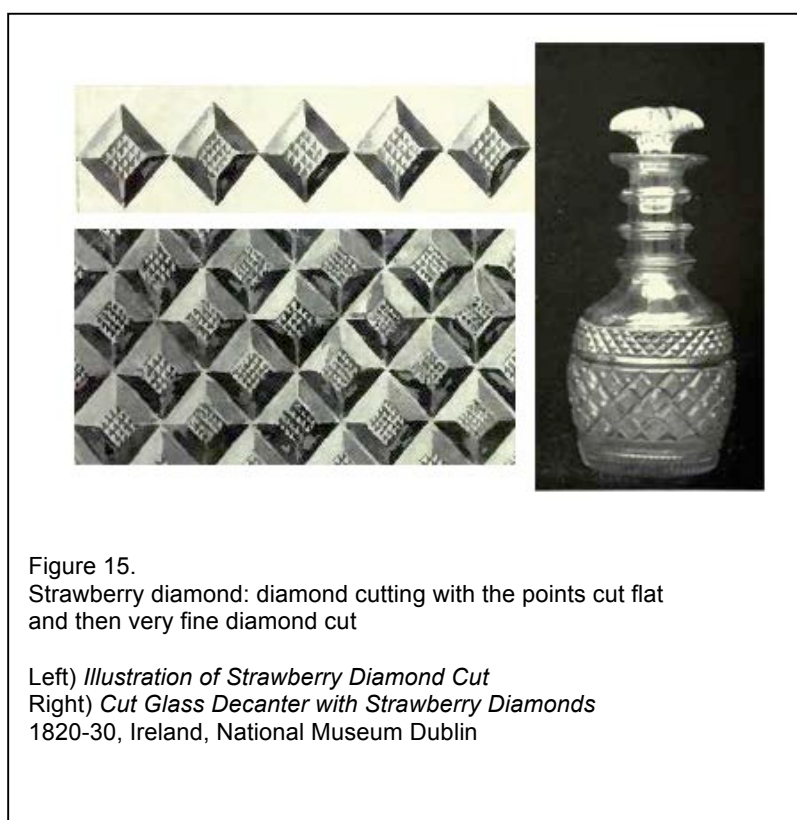
Figure 14.

Left) Goblet with *Floral Pattern*, Japan, 18th century

Middle) Goblet with *Knob-like Stem*, Japan, 1730-1850, Suntory Museum of Art

Right) Goblet with *Diamond-point Stippling*, Netherlands, 18th century, Suntory Museum of Art

Cut glass came into being about the same time as thick glass. Cut glass, known as *Edo Kiriko*,⁵³ began to be produced from about 1834. Direct European influence can be observed not only in forms and colours, but also in patterns. The popular cut-glass patterns in Japan were based on 19th century British⁵⁴ and Irish patterns, such as strawberry diamond and hobnail (lattice pattern with stars). (Figure 15 and 16.)



⁵³ Kiriko cut glass is normally categorised into two chronologically and geographically, Edo Kiriko in Tokyo and Satsuma Kiriko in Kagoshima, and they have noticeable differences in detail or design application, which may have been caused by technical struggles at the beginning, later development or by experimentation. (Tsuchiya, 1999)

⁵⁴ British cut glass in the nineteenth century: 'Regency' was the term specifically referring to the distinctive cut-glass style of the nineteenth century. Regency glass was made in clear lead crystal, and the decoration of the glass was a more dominant feature than the shape of vessels. The decoration was characterised by its mitre cutting in straight lines, and the motifs were formed by parallel cuttings intersecting at ninety or forty-five degrees which resulted in diamond shapes consisting of a series of small pyramids. The most popular was the 'strawberry-diamond' cut, created by spacing of mitre cuts in two directions. This complicated pattern consisted of a series of rectangular surfaces covered by criss-cross of delicate cut lines (Figure 15.) Wakefield (1982 pp.19-45)



The common factor shared by both European glass, influenced by China, and Japanese art in the nineteenth century is that different means were used to achieve similar visual effects to the original. It is difficult to categorise this kind of attempt simply as mere copy or imitation. There seems to exist intentional and unintentional resemblances and differences, which may be too subtle to be immediately visible in some cases.

Japanese cut glass in the nineteenth century clearly shows the interaction between Japanese local and traditional glass and European imported glass. Makers adapted glassware for Japanese use⁵⁵; this appeared particularly in their formal attributes. Kiriko cut glass was inspired by transparent and colourless glass from Western Europe, and the Japanese artisans first imitated this, later experimenting with adopted skills, which resulted in variety of coloured glass (copper ruby, dark blue and black), forms and motifs. (Figure 16.) The glass blanks used for cutting contained a high percentage (24-25%) of lead oxide, similar to crystal glass, which allows for intricate patterns to be cut into the surface that stand out with high

⁵⁵ Sake cups, food containers, sake warmers, lidded teapots and paperweights were manufactured for functional purposes. (Tsuchiya, 1999)

reflectiveness. This kind of wheel-cut glass was the type most prominently developed in Japan, and this tradition continues even today.

Whereas early modern Chinese glass, which focused on imitating traditional objects made of 'precious' materials such as gold, jade and ivory, Japanese artisans freely experimented with adopted foreign skills, modified for Japanese aesthetics and functions. This was possible as there was no distinctive traditional Japanese glass culture before the sixteenth century to refer to.



Figure 17. L) Émile Gallé, *Milky glass with a cornflower*, France, 1905, Private collection

R) *Snuff Bottle*, China, 18th-19th century, Museum fur Angewandte Kunst (Wichmann, 1981 p.303)

Figure 18. Daum, *Small Vase with Orchid*, France, 1910, Corning Museum of Glass

European glass influenced by Japanese art began to appear during the 1860s, roughly thirty years after cut glass' appearance in Japan.⁵⁶ It was not Japanese glass

⁵⁶ This notion has not been researched widely as a part of Japonisme and Art Nouveau studies in comparison to other forms of art produced during the same period. Exceptions include: Wichmann(1981) and Lambourne(2005) on Japonisme; Newark(1989), Garner(1990), Ricke & Schmitt(2004), and Tsuji(2004) on Art Nouveau glass and Émile Gallé.

The scholars listed above pointed out the visual similarities between ukiyo-e prints and surface decorations on glass. This supports the hypothesis that actual Japanese glass was not the direct source of inspiration for

objects that led this phenomenon, but rather Japanese export ceramics, ukiyo-e prints and a partial influence from Chinese exported products⁵⁷ that were the direct factors. European glass in Japanese style embodied the European idea of what Japanese glass should look like.⁵⁸

Art Nouveau glass⁵⁹, produced by a group of artists/designers in the late nineteenth to early twentieth centuries and in particular, the work of the Nancy school founded by Émile Gallé, (1846-1904) shows strong association with Japanese art. For Gallé, East Asian art was one of the main sources of inspiration, and botanical/zoological motifs from the Japanese decorative arts were reinterpreted in a stylised manner. Lambourne points out that Gallé attempted to produce objects that drew inspiration from Japan, but the material he chose was relatively underdeveloped and unfamiliar material in nineteenth century Japan. (Lambourne, 2005, pp.76-80) As Gallé did not have a direct reference to Japanese glass, it seems that he was able to translate Japanese inspiration by means of experimenting with the characteristics of glass in a more inventive way.

Gallé used the European cameo technique which involved enameling, engraving, wheel-carving and acid-etching by using several layers of coloured or clear glass.

European glassmakers.

⁵⁷ Garner(1990, p.107) suggested that Chinese influences are detected as Art Nouveau glass shows the resemblance to the forms of Chinese snuff bottles and bronze vessels. Gallé's cameo vases were thought to have been directly derived from Chinese cased glass vases. A similar notion is remarked on by Wichmann. In his book (pg.303 Figures 816 and 817.), an image of a Chinese snuff bottle juxtaposed to Gallé's cameo vase is used for comparison. When observing the quality of surface decoration only, it is obvious that the Gallé's vase has a softer edge and less depth between layers. In terms of subject matter, Gallé's floral motif is in Japanese manner whereas the Chinese snuff bottle contains a dragon motif.

⁵⁸ Japonisme was constructed based on what Europeans liked, bought and collected, which was different from what Japanese valued in their culture. It was rather the European's imagined and expected images of Japan. They wouldn't accept learning about authentic Japanese culture and art. For instance, Japanese ink painting (landscape) was not popular yet was valued as one of the best in Japan, but ukiyo-e was highly praised. (Mabuchi, 2004, pp.19-21)

⁵⁹ It is beyond the scope of this research to investigate Art Nouveau glass in detail as glass objects produced during the period vary widely in terms of geography, theme and the making process. Among them, French Art Nouveau glass, to be specific, Emile Gallé's work, which had a close affinity with Japanese art, is selectively discussed here. Books that include information about Art Nouveau glass are Duncan(1994), Escritt(2000) and Ricke & Schmitt (2004).

However, his followers such as the Daum brothers introduced the *pâte de verre*⁶⁰ technique which involved the use of powdered glass melted in a mould to produce delicate form and colour distribution. Although Gallé's body of work and the objects produced by the Daum brothers (Figure 18.) have similar appearances, their technical approaches were different. (Wichmann, 1981, pp. 307-8) From the Japanese graphic source to Gallé's interpretation of the images to his successors' invention, each step introduces modifications at varying levels.

Japanese *kiriko* cut glass and the French Art Nouveau glass convey the idea of mediation and adaptation. They both have clear references to the original source, either an image or an object, but at the same time, hybrid aspects of the objects are also present. The lack of explicit and detailed knowledge of the making processes and technology seems to have led to the invention of alternative means to achieve similar effects.

2.1.5 Studio Practice

Cut glass refers to glass objects that are entirely hand-made, with the technique of removing glass from the surface by grinding it with rotating wheels. (Elville, 1964, p.11) The origin of this technique can be traced to 1500 BC in Egypt, and the products were fashionable in the Mediterranean peninsula from about 60 BC, slowly developing and being exported to Venice and Bohemia by the end of the sixteenth century. By the early eighteenth century, the cutting technique reached the British Isles and became a popular form of glassware.⁶¹ The nineteenth century in Britain was the heyday of cut glass production; however, John Ruskin and other design reformers criticised the cut-glass technique for neglecting what they saw to be the true qualities of glass. For Ruskin the 'perfection' of cut glass meant inadequacy and

⁶⁰ *Pâte de verre* : in French, glass paste. A material produced by grinding glass into a fine powder and then adding a binder to create a paste. The paste is brushed or pressed into a mould, dried, and fused by heating. (Hess and Wight, 2005, p.66)

⁶¹ See the website for more information on cut glass. Available at : <http://cutglass.org/articles/art11.thm>.

dishonesty with the material; he stated that all cut glass is barbarous: ‘...for cutting conceals its ductility, and confuses it with crystal...’ (Ruskin, 1886, p.392 cited in Sparke, 1995, p.32)

Cut glass has become a model for cheap reproduction by means of press-moulded glass, which was developed in America the first half of the 1820s. The press-moulding technique involves a machine process by which molten glass is squeezed between patterned metal moulds; this enabled a cheaper and quicker reproduction of complex cut-glass motifs in quantity.(Whitehouse, 2006, pp.68-69) W.B.Honey was critical of press-moulded glass for its static, rigidly predetermined form, and for ignoring the ‘living plasticity’ of the hot material. (1949, p.136) Since the twentieth century, glass-cutting has held a marginal position in the studio art glass field, as it requires one of the most challenging skills that cannot be learned quickly, and the implied link to mass-produced press-moulded glass fails to attract the maker to use this decorative technique.

Instead of focusing on how cut glass is made with specific skills, I find its distinctiveness interesting in the use of geometric and non-representational pattern generated by using the wheel-cutting process⁶² which limits and allows regular and repeated patterns. Drawing on the aspects of cut glass briefly described above, I have attempted to re-interpret cut-glass objects with particular attention to cut patterns; using Satsuma-Kiriko glass as a reference point, I have investigated cut glass as one of the outcomes from Japan-UK and Irish exchanges in the eighteenth and nineteenth centuries. In addition, its role as a transitional object between tradition and modernity has been another point of interest.

⁶² This process is characterised as grinding glass with a rotating wheel made of stone, wood or copper attached to a lathe. (Hess and Wight, 2005, p.21)

I have confined the scope of this project to processes available within the studio environment; hence literal glass-cutting has not been included in this project. Instead, the static and rigid appearance of cut-glass patterns have been re-interpreted. I have experimented with the mediation process, translating three-dimensional cut patterns to two-dimensional designs, and returning them to the three-dimensional context by embedding them inside glass objects. (Figures 20 & 21.)

This kind of practice can be traced back to the pattern-books produced in the eighteenth to nineteenth centuries in the Western Europe, such as Owen Jones' *The Grammar of Ornament* (1856). The process of flattening three-dimensional (or relief) pattern to a two-dimensional illustration involves translation and often misinterpretation, as the illustration only shows a part of the whole, and does not provide information about proportion, scale, depth and texture. The illustration (Figure 19.) of early twentieth-century Japanese objects exemplifies similar aspects. The description of cut patterns in relief as a flat image has addressed the question of the role of dimensionality in conveying accurate information.

The common patterns found in British and Japanese cut glass are geometric, based on vertical and horizontal crisscrossing actions on the cutting wheel, which produced a variety of glass-specific patterns in relief. (Figures 15 & 16.) The Strawberry Diamond and Hobnail cut patterns, which were popularly used in England and Japan in the nineteenth century, have been re-drawn on the computer without any colouring or shading information, in order to remove the bevelling effect in my studio work. (Figure 20.) The digital drawing has been screenprinted onto transfer paper with ceramic enamels in colour, and applied onto a glass blank. When the glass blank is heated, the pattern begins to fuse with the glass and transform. (Figure 21.) By means of flattening and deforming the patterns, the reference to cut glass is lessened. This also implies a conscious variation that reflects my intention to produce an object that refers to a precedent and build upon it. Also this involves a consideration of the required skills that can be achieved only through very

experienced cutting techniques. This has led me to choose to analyse the difference between glass cutting techniques and digital drawing/printing, and how this interacts with the materiality of glass. I suggest that this kind of analysis and problem-solving tasks, present in the making process, are critical aspects in the embodiment of in-betweenness.



Figure 19-a.

Figure 19-b.

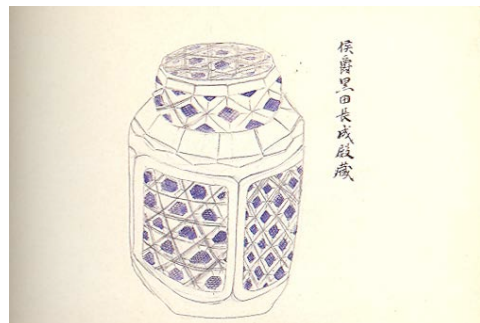


Figure 19 -c.

Figure 19. Sketches of Cut Glass of Japan
Shoko Shuseikan
Japan, 1921.

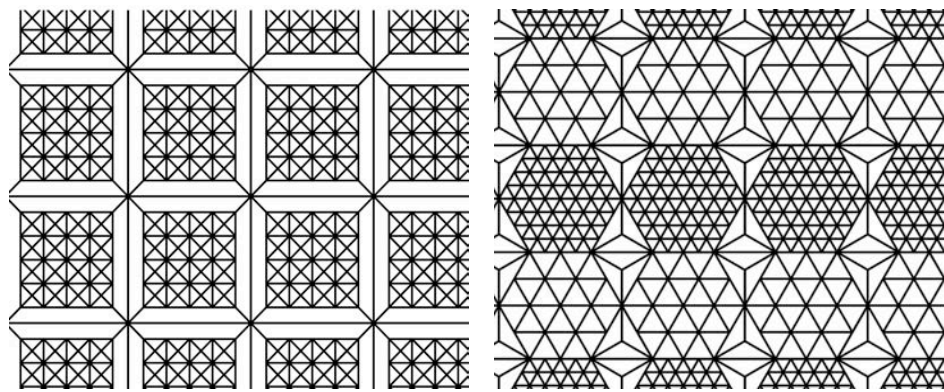


Figure 20. Min Jeong Song, *Cut glass interpretation as part of my studio practice*

This body of work has addressed the mediation of styles and techniques in a modern studio glass context through experimenting with the relationship between 3D and 2D in glass. This approach has been a consistent part of my practice, and more examples of work can be found in the following chapter.



Figure 21. Min Jeong Song, *Cut glass pattern application on hot glass*

2.2 In-betweenness explored through Blue and White Porcelain

The Asia that we see in blue and white porcelain is one carrying vestiges not only of a fluidity of commodities, but also of a dissemination of firing techniques and of a mobility of potters, characteristics held in common by all parts of Asia: a moving aesthetic in which the blue and white are set off against each other. (The National Palace Museum of Taiwan, n.d.)

2.2.1 Introduction

In this section, blue-and-white porcelain is briefly discussed to highlight the significance of material exchange between East Asia and Western Europe, its associated artistic modes and conceptual theories. A detailed investigation into how blue-and-white porcelain has been adapted to various cultures through examples of derivative artefacts lies outside the scope and aims of this research. Rather, the focus is rather on how patterns on the surface of porcelain have been decontextualised and recontextualised in the past. Through this I aim to explore new potential applications in glass in the contemporary context. A 'moving aesthetic', one which refers to the mutual and synthetic merging of social, political, utilitarian and aesthetic currents, is examined by looking first at blue-and-white porcelain before redirecting attention to glass. 'Acculturation', the process of cultural and psychological change triggered by encounters with different cultures, is reciprocal and interactive. Peter Burke terms this process 'translation (of ideas, information, artefacts and practices) which involves decontextualisation followed by recontextualisation.' (Burke, 2009, pp.54-61 & 93-96.)

Blue-and-white porcelain consists of white ceramic decorated with a cobalt blue image, covered by a transparent/translucent glaze, fired at a high temperature. This style dates back to as early as the eighth century in the Middle East, where the arabesque abstraction of Arabic calligraphic design became fashionable as a decorative pattern on the surface of pottery. (Denny,1974) Through trade with the

Middle East in the fourteenth century, the Chinese learned decorative skills, and started producing their own style. The Islamic-based designs, such as calligraphic and floral motifs, were modified for Chinese culture. (Su, 2008) Jingdezhen was the main site for mass-production, and the blue-and-white ware in Chinese style drew universal acclaim in the seventeenth century, especially in Europe. The technical excellence of Chinese porcelain was partly based on the availability of an abundant raw material known as porcelain stone, a decomposed form of granite. Another factor that contributed to its success was the achievement of the very high temperature required for the production of porcelain.

Apart from its technical excellence and superior craftsmanship, the significance of blue-and-white ware resides in the formation of 'Asian' imagery. Despite the various cultures within the geographical confines of Asia, Chinese blue-and-white porcelain most often represents East Asia, as defined by Western museums or collectors. (Su, 2008) Porcelain served as a means to deliver the imagery of Asia, and the forms were determined by functional uses in most cases, more than by taste and fashion. Therefore it seems pertinent to scrutinise the surface ornamentation, rather than the form/body of the porcelain, in order to examine the cultural flow.

Dawn Odell, in *Porcelain, Print Culture and Mercantile Aesthetics*, is critical of most studies of porcelain exported from China to the Netherlands in the seventeenth to eighteenth centuries; these tend to pay attention mainly to the objects that travelled across continents, their associated artistic influences and the technical advancements between them. She suggests that this approach lacks an understanding of the role of the decoration on the porcelain that conveyed the imaginary culture of China to the Netherlands, and emphasises the role of medium in producing meaning.

Chinese porcelain presented Dutch consumers not simply with a new decorative style but more importantly offered the possibility that ceramic surfaces could carry an abundance of information, in different formats, drawn from a variety of printed and painted sources, and conveyed through a diversity of representational tropes... (Odell, 2010, p.149)

The blue decoration is an indicator of reciprocal exchanges. Manufacturers in Jingdezhen were aware of porcelain's capacity to influence, and responded to the tastes and fashions of the global market. Rather than making changes to the porcelain form itself, artisans modified the blue decoration due to the easy adaptability and capacity of the blue decoration to transmit imagery. (Gerritsen, 2011, pp. 25-33) For instance, low-fired earthenware glazed with opaque white tin-glaze was produced in Holland and England in the eighteenth century in attempt to imitate the body of porcelain, and the blue designs that incorporated European motifs with Chinese motifs were applied. (Rawson, 1984, p. 12)⁶³

It is unusual for a specific artistic style and medium to represent a culture both explicitly and broadly in the contemporary world, because of the fluid movement of tangible and intangible elements across borders. Blue-and-white still embraces a historical reference and cultural connotation, and serves a role as a visual language. At the same time, blue-and-white themes have been adopted and employed in a variety of materials throughout the world, and new interpretations seem to emerge from them.

Stemming from the introduction of blue-and-white porcelain above, the main point here is to investigate how blue-and-white was translated into glass, in terms of the cross-referencing of material and surface decoration. To form arguments, selective historical references will be juxtaposed with my studio work in a number of cases.⁶⁴

⁶³ More detailed study of hybrid ornament will be discussed in the following chapter.

⁶⁴ More detailed explanation about white glass and East Asian patterns can be found in these chapters : History of East Asian Glass, and Ornament and Culture.



Figure 22. An opaque white glass jar of bulbous form with a sapphire blue glass overlay, carved in high relief. Late 18th to early 19th century

Figure 23. A part of a rare glass opium lamp, comprising three main parts; the large bell of clear glass with blue overlay, 19th century



Figure 24. Satsuma Kiriko cut glass, Japan, 19th century, Corning Museum of Glass

2.2.2 Blue-and-White in Glassware

The blue-and-white style was translated into glass in the eighteenth to nineteenth centuries in both Europe and East Asia. This movement across media illustrated visual similarities between porcelain and white glass, including surface decoration. In this research more attention is paid to the East Asian appropriation of blue-and-white porcelain because the adaptation and modification of the features of porcelain in glass are more conspicuous, particularly in terms of ornamentation. The most distinctive difference is the use of layers and depth: the white background (a layer of white glass) on the outer surface is removed, so that the blue decoration is in high relief. (Figure 22.) Regarding the content of the decoration, most of the motifs are simplified versions of those painted on porcelain.

The use of clear glass with blue decoration raises the question of whether the glass replaces the white colour of porcelain. (Figure 23.) It was not common to use solely clear glass with blue decoration in China, but a clear layer was sandwiched between coloured layers to create depth when carved for relief. In terms of glass motifs and shapes, the blue-and-clear combination still evokes the blue-and-white mode while highlighting the exclusive characteristic of glass, transparency. Blue-and-clear can also be found in Satsuma-Kiriko (cut) glass in eighteenth and nineteenth century Japan. (Figure 24.) Japanese cut glass was influenced by British and Irish cut glass, and this type of glass has not been found in China during the same period. Also, the use of colour (blue or ruby-red) in cut glass is the trademark of Satsuma Kiriko. Additionally, it should be noted that some Japanese glass objects have forms that were widely used in the West (such as the decanters in Figure 24.) Due to the introduction of clear glass, relief cutting, geometric patterns, and formal references to specific functions, it seems that the Japanese blue cut glass is further from the blue-and-white origins than Chinese blue-and-white glass.

The East Asian examples of blue-and-white translation in glass summarise the criteria for elements that evoke blue-and-white: opaque white-transparency, flat image/relief-cut decoration, regional preference in the forms of functional wares, and universal/local patterns.



Figure 25.
Teacup and Saucer
Blown, presumed to have been produced
in Südel glasshouse in Switzerland
18th century

Most European translations of blue-and-white porcelain in glass portray East Asian motifs which were either painted enamels or embellished by the cameo technique. An exception to this is a teacup and saucer (Figure 25.), presumably made in Switzerland. This is an intriguing translation of blue-and-white porcelain because both its form and surface decoration were created by the glassmaking process only when it was molten. The form resembles tea wares in porcelain, but its colour is translucent white, and the blue decoration is composed of abstract dots. Its translucency is very weak, so the blue decoration on the exterior surface appears through the interior surface. The blue dots are assumed to have been influenced by the marbling technique in glass, which records the fluid movement of molten glass during the making process. Without the presence of an apparent reference to typical blue-and-white porcelain, these objects suggest the cross-referencing of materials.

Based on the balance between the quality of porcelain (opaque white) and glassness (transparency), the techniques involved to produce the object (glassblowing-centrifugal force) and the process-led pattern (a marbling effect which involves the maker's control and chance), I find this work to be the most ideal approximation of the embodiment of in-betweenness through glass.

Adaptation in some characteristics of the traditional blue-and-white porcelain inspires appealing hybrid derivatives. The blue-overlay white glass engraved jar and cover (Figure 26.) from nineteenth-century China is another example of blue-and-white glass that manifests 'glassness' in terms of involving a surface treatment that is specific to glassmaking (blown and engraved). The origin of this kind of decoration can be traced back to its European counterparts, and it had been popular in clear and red glassware in Qing China. In terms of its blue background and white pattern, and the white pattern being located under the blue surface, the whole decorative process is reversed in comparison to the traditional porcelain counterpart.



Figure 26.

A small blue-overlay white glass engraved jar and cover, Qing Dynasty, 19th century.

The globular jar and domed cover are engraved through the transparent blue overlay to the opaque white body with a honeycomb pattern of dots arranged in rows, the cover with knob finial.

2.2.3 Studio Practice

In my studio practice, the following body of work investigates how the blue-and-white visual language can be translated through glass in a way that induces the sense of in-betweenness. The decision-making in the choice of visual elements and the making process has been based on the historical references above, and the findings from the making process and finished objects are connecting threads to the next body of work.

Blue patterns are frequently employed in my studio with or without opaque/translucent white colours. The variations in the surface colour are selected to experiment with the viewer's perception of blue-and-white porcelain references. From opaque white (the closest to the appearance of porcelain) to an ambiguous state of translucent white, and to clear glass, the transition of colour reference is one of the control factors. Apart from the juxtaposition of white and clear glass within one piece, the expansion of the coloured surface of glass causes the thinning of colours, resulting in the appearance of transitional translucent-to-clear areas. The printed image expands with the glass surface, and it becomes partially blurred where the greatest expansion happens. What this blurring implies is the removal of cultural signifiers, when the recognisable figurative motifs such as the dragon and the cloud become abstract images.

This process of thinning colour and decoration is metaphorically juxtaposed with the process of adaptation. When heated, the glass surface and the blue pattern become fused and inseparable. Any change in the form would result in a change in the surface. This is in marked contrast to my historical references to adapted blue decoration without any change in form.



Figure 27. Min Jeong Song, *Patterns and Memories Reflected on Glass Series* , 2011

The *Patterns and Memories Reflected on Glass* series (Figure 27.) illustrates a discernible reference to the imitation of porcelain and blue-and-white decoration. The object, in white opaque glass with blue decoration on the surface, is juxtaposed with an equivalent object in clear glass with the same motif on the surface. The patterns selected for this body of work are extracted from traditional East Asian pattern sources. In this particular work, the pattern contains two symmetrically positioned dragons in a cloud.

The opaque white glass resembles a porcelain body, but its asymmetric form and blurred decoration prompts the evocation of true blue-and-white wares. The transparent surface allows the viewer to simultaneously perceive the object with the background, so that the white background with blue decoration on clear glass merge into the combination of blue-and-white. The disposition of this clear object brings us back to the historical reference, blue-and-clear glasswares, and it seems possible that the blue-and-clear wares may have been placed within white surroundings in real life in the past.

Silkscreened images were chosen over hand-painted ones for this body of work in order to produce identical images in quantity. Hand-printed images will not be exactly identical due to variations in colour and the density of each print, but there is still a large degree of consistency. Referring to the history of blue transfer print on ceramics in the nineteenth century, printed images accelerated the inter-cultural flow in terms of quantity and adaptability. However, the quality of the print becomes blurred and gradually fades through the extended use of engraving plates; the blue tones, because of the expansion of the glass surface, give an impression of the hand-painted Chinese blue-and-white of the past.

Following the dragon-cloud motif series, the next group of patterns is based on geometric patterns in other materials, such as Korean wooden lattice motifs (Figures 28. and 29.). Geometric patterns appear to be more universally accepted, but when examined closely geometric structures too are culture-specific. The removal of cultural signifiers affects the general impression of objects, and ambiguity is introduced. By being distanced from the original materials, such as porcelain and wood, this work questions the adaptability of blue-and-white themes in a wider context.

The cross-referencing of materials and culture are the central elements in evoking in-betweenness in this lattice motif series, which is more evident in the work in solid glass (Figure 31.). Firstly, a stylised wooden lattice motif is designed, screen-printed in blue and white, and then transferred onto the surface of glass. The colours that are introduced detach the pattern from its original source in wood. When encased in clear glass, it appears to float inside the glass, giving an impression of a textile.

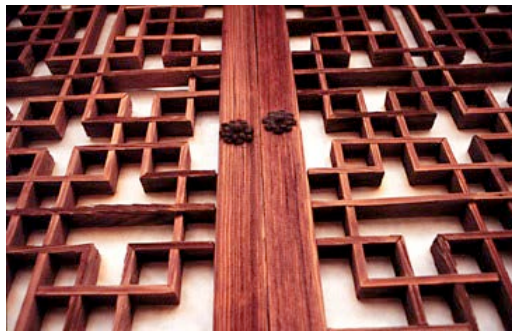


Figure 28. An example of Korean lattice motifs



Figure 29. Min Jeong Song, *Korean Lattice Motif Series I* , 2011

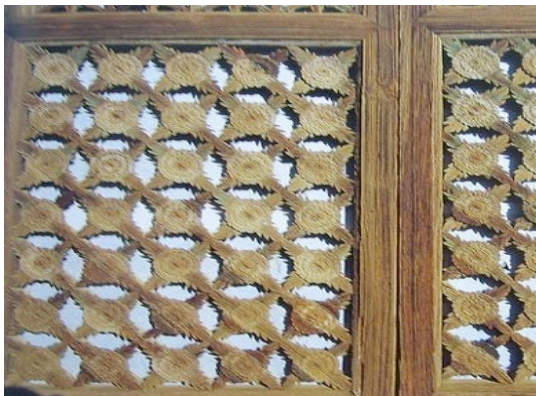


Figure 30. Korean lattice motif reference



Figure 31. Min Jeong Song, *Korean Lattice Motif Series II* , 2011

Additional points to emphasise are the physical and optical distortion of the patterns that happen during the glassmaking process. This triggers ambivalent references

between the traditional blue-and-white artistic mode and Modernist material-based/process-based patterns (such as marble, wood grain, etc.). In terms of form, this body of work in blue and white/clear suggests no visual similarities to the traditional blue and white porcelain or other functional objects.

To summarise, my studio practice involving references to blue-and-white is an attempt to separate factors that generate the associated images and concepts as a whole. By analysing and modifying the individual elements such as material, colour, surface, form and decoration, I have been able to achieve newly-formed hybrid objects. The objects vary in terms of degree or distance from conventional systems of style, from very subtle to extreme. This body of work has raised issues about cross-referential material associated with specific cultures, the evolution of patterns across borders, and process/material-based approaches in the forming of styles. These issues will be elaborated in the following chapter.

2.3 Trans-Culture and Trans-Material



Figure 32.
Small Goblet
England 1800-1825
Blown, opaque white glass
Corning Museum of Glass

The goblet in opaque white glass (Figure 32.) is a metaphorical image that I have chosen for embodying 'trans-culture' and 'trans-material' in this section. The combination of porcelain-like material and goblet-like form resulted in a hybrid object. The idea of culture is complex and abstract; however, it can be embodied through various kinds of visual objects. Based on this rationale, I have attempted to articulate hybrid culture by means of an understanding of the cross-referencing of materials.

Rosemary Hawker (2006) states that the concept and role of the medium in art can be most effectively examined in the differences between media. In Hawker's article, her argument centres on Gerhard Richter's cross-referencing of different media/disciplines, painting and photography. Hawker describes the process thus: '...we can know painting through photography or photography through painting. Their failed translation is no happy accident, but a failure is necessary, and one that constitutes the concept of medium.'(Hawker, 2006, p.277) Against the art critic Clement Greenberg's claim that artworks and cultural forms are not identical but separate entities, my argument is that an artistic medium can be an agency to convey meanings associated with cultures. This approach also challenges the hierarchy of form over medium, and content over form, and it aims to rethink the role of medium, placing it centrally in deriving meanings from an artwork.

In Chapter 2.1.3, the concept of skeuomorphism has been closely examined through the history of glass with an emphasis on its capacity to mimic other materials. While those arguments have been developed around historical and utilitarian artefacts, this section examines the application of the notion of skeuomorphism in broader contemporary contexts, in particular as a means for artistic attempts to embody cross-cultural references.

Cross-referencing of different media in contemporary visual art practice is not a new phenomenon. The choice of a medium that refers to other media becomes the

content of the work. This notion of cross-referencing materials is noticeable in the oeuvre of contemporary Asian artists whose work explores the notion of hybrid cultural identity. In particular, this tendency is often found in artists who are categorised as part of a nomadic diaspora. '*Transexperience*', the concept developed by Chinese artist Chen Zhen (1955-2000), can be summarised as 'identity in flux,' embodied through a mode of thinking and methodology that connects the past with the present across cultures. (Chiu, 2007, pp.329-330) The following are visual examples of the notion of transexperience, articulated through the cross-referencing of media employed by East Asian artists working abroad. It is necessary to clarify that the interpretation of works addressed here can be relatively subjective, although the analysis is based on published reviews about the work, or statements by the artists. This is because I approach the work with the lens of 'transculture', and try to construct meanings with a focus on the inter-relationship between the viewer's and artist's perception of culture, the subject matter of the artwork, and the material employed for the work.

Some artists use cultural signifiers to emphasise the notion of otherness, the exotic. This approach is not confined to East Asia, but can be found in many non-western countries. Much criticism has been voiced regarding this matter, but the highest degree of criticism comes from East Asia. Wenda Gu, a Chinese artist employing Chinese language as a sign and means to convey the idea of identity, argues that the reason is the long tradition of exoticising Chineseness by the West.

Regarding the question of whether using Chinese cultural elements may be criticised as opportunistic exoticising, I think this criticism not only applies to Chinese artists, but it should also be applied to non-Chinese ones, too. There has been a long tradition of Westerners exoticising Chinese culture, and there would be no reason for Chinese artists to exoticise themselves were it not for this historical condition. (Leung and Kaplan, 1999, p.91)

Similar issues can be found in many examples of contemporary Korean art. The works by two contemporary Korean artists, Do Ho Suh and Meekyoung Shin, are

discussed here because they employ certain cultural signifiers to address the issues of identity in flux, and at the same time, the choice of medium is an important part of their work: both artists replicate some recognisable cultural artefacts in different media. Because certain materials are associated with specific national/geographic identities, the difference between the material of the original and the material of the copy is a significant part of the subject matter, instead of a mere means to visualise the content. The biographical information of the artists, living and working abroad, is another point to be considered in the interpretation of their work.



Figure 33. Do Ho Suh
Seoul Home (Home Within Home)
Silk and metal armature
Installation at Leeum Samsung Museum of Art
2012

Do Ho Suh's *Home* series (Figure 33.) is made from semi-transparent fabric (either nylon or silk). Its light and seemingly ephemeral quality seems to have been chosen for convenience in the mobility of the work, which may refer to Suh's nomadic life between Korea and the USA. The characteristics of the fabric are also related to Lippard's definition of the Conceptualist focus on media that are ephemeral, lightweight, unpretentious, and/or 'dematerialised', as the physical properties of art are peripheral. (Lippard, 1997, p.vi) Before Suh began working on the *Home* series, his main motif was clothing, which he defined as the minimum space that one can carry, located between one's body and the external world. This idea of an in-between

private (bodily) and public (worldly) space of clothes was extended and developed into space inside and outside a house. The question of the threshold between private and public space has been expressed through the precise, well-crafted translucent fabric structure of his models of houses. The boundary here is not just a physical meeting point, but rather it implies non-physical and invisible contexts, relating to political, historical and psychological issues.

The use of cultural signifiers by migrant artists can be an aspect of intentional or subconscious decision-making in the process of creating the work. Suh's childhood home in Korea happened to be a traditional Korean house made from wood, rather than a Western-style building in concrete, and the juxtaposition of his childhood home in Korea and the one he lives in elsewhere automatically evokes a 'cultural collision' to a Western audience, although he states he does not intend this to be the main issue in his work. Suh prefers not to use the term 'cultural identity'.⁶⁵ Regardless of Suh's intention, the visual representation of the Korean house functions as a cultural signifier. However, the choice of medium, translucent fabric, is something that deserves more attention than the subject matter. The degree of resemblance of the replicated house to the original house is also important. When the physicality of the home is removed, displaced from its site, the 'dematerialised' semi-transparent structure allows the viewer to superimpose the past and the present, East and West, and presence and non-presence.

⁶⁵ Interview with Space No.517, Dec2010,
http://www.vmspace.com/kor/sub_emagazine_view.asp?category=people&idx=11034&pageNum=1



Figure 34. MeeKyoung Shin
Translation Series
 Soap, pigment, varnish, wooden crate
 2011
 Installation view at Haunch of Venison
 © Meekyoung Shin



Figure 35. MeeKyoung Shin
Kuoros Series
 Soap, pigment, varnish
 2011
 Installation view at Haunch of Venison
 © Meekyoung Shin

London-based Korean artist MeeKyoung Shin's two most remarkable bodies of work are crafted from soap, a unconventional artistic medium. Shin's choice of medium and subject matter effectively elicits an irony that alludes to the misinterpretation of cultural artefacts. The medium serves as 'language' in Shin's work, and through the medium artefacts are 'translated' into something else.

In her first body of work (Figure 34.), Shin reproduced Chinese and Korean pots inspired by Chinese export pottery. The second body of work consists of reproductions of classical Greek sculptures made in the sixth century BC. The use of cultural signifiers (in both form and surface) of Europe and East Asia becomes an effective tool in terms of delivering her message: 'cultural mis-interpretation and mis-translation'. What contributes most to the success of this task is the medium Shin has chosen. Soap is an entirely appropriate medium for expressing ambiguous and abstract ideas that are difficult to convey. It holds a potentially ephemeral quality that sits between existence and non-existence by visually manifesting its transformative quality from solid to liquid. In addition to the choice of medium, the main making process, casting, highlights the characteristics of the material. The casting process,

in terms of creating 'resemblance by contact'⁶⁶, is another transitive measure that conveys the notion of translation in Shin's work. The main medium, soap, is distant from the maker's direct contact, but is in contact with the casting moulds; this fact seemingly alludes to the mechanisation of the making process and the maker's inability to control it, although, in fact, Shin's process relied heavily on human labour. The transformation of soap from liquid to solid during the casting process implies plasticity and adaptability.

The notion of translation from Europe to East Asia, in the opposite direction, is represented through the body of work entitled *Kouros* (Figure 35.), in which classical Greek marble sculptures are reproduced in soap. The smooth surface texture of marble is imitated, but when examined closely the statues in soap have different features, such as modifications of facial and bodily characteristics: the European ones are often replaced with East Asian figures or the artist's own body. The surface of soap can resemble marble, porcelain and glass, which are all classified as smooth or polished materials. Unlike these materials, soap does not refer to any specific cultural origin. It remains in an in-between state that has the potential to translate one into another. To be precise, it superficially copies the original and deceives the viewer. Soap imitates the appearance of other media, such as ceramics, bronze, marble and glass. Cross-referencing of materials symbolises transcultural transformation, which may involve copying on a superficial level without understanding the deeper meaning and context behind the objects.

Both artists discussed above were brought up and trained in East Asia, and further educated abroad. Their awareness of local and global audiences adds another context in terms of the viewer's response to the works. Shin states that the viewer's identity and cultural experience serve as a 'filter'. (IOR Production, 2011) By using some of the most iconic figures/objects of East Asian and European cultures, the

⁶⁶ The idea of 'resemblance by contact' was elaborated by Georges Didi-Huberman in his 1997 exhibition *L'Emprunte* (Centre Georges Pompidou, Paris, 1997). For further information, see Chagnon (2011).

cultural language is very evident; this also features in the work of a number of contemporary artists who question cultural identity. However, the direct use of iconic features may be regarded as a cliché, or kitsch, in contemporary art contexts, and it even questions whether the iconography is still valid in a globalised world. More importantly, this asks us to question whether the visual presentation of traditionally iconic figures is an effective solution for the reclaiming of cultural identities. Jennifer Weisenfeld identifies the cause of this problem as the marking of the binary opposition between the past and the present by a rupture, rather than a continuity. (2007, p. 373) If the rupture Weisenfeld mentions cannot be blurred by use of cultural signifiers, then the right kind of artistic medium and the process involved can speak for the work, and the dependency on the signifiers can be diluted. From this perspective, the choice of medium in Do Ho Suh and Meekyoung Shin's works is very appropriate. The attributes of the chosen media and the fluidity/adaptability of form, supported by being transparent-translucent-opaque and virtually/physically ephemeral, locate the viewer in the Third Space.

2.4 Glass as a Cultural Medium: Contemporary Glass in East Asia

The previous sections raised the question of the suitability of glass as an artistic medium to convey the notion of trans-culture. In Do Ho Suh's work, visual aspects of the material, such as overlapping structures and virtual lightness/fragility due to semi-transparency, remind the viewer of architectural glass structures and suggests that glass, too, might have a cultural agency just as fabric functions in his work. As portrayed in Meekyoung Shin's work, characteristics of soap such as translucency/opaqueness, a smooth/polished surface, fluid and solid states and an ability to mimic other materials, are also features of glass. This implies, to some extent, that glass can also be an effective medium for conveying concepts such as

translation, cross-cultural values, misinterpretation, ambiguity, adaptability and/or visual ephemerality.

The role of glass as an artistic and sculptural medium in the context of contemporary art gained attention from artists and critics alike in the late twentieth century. This was mainly in Europe and North America⁶⁷, and the presence of East Asian glass was minimal. Because glass has been associated with foreign culture in East Asia, it developed differently. The adoption of western technology into local knowledge and aesthetic has generated a distinctive glass culture. I suggest that East Asian contemporary glass needs a re-examination, as it is a valuable source for thinking about cultural in-betweenness. The discussion will unfold through an overview of examples of contemporary glass art in China, Japan and South Korea. Whereas early modern East Asian glass was manufactured for utilitarian purposes, contemporary glass from East Asia has developed its language into the sculptural realm through experiment with materials and the search for meanings. In this section, my discussion develops along the following lines: firstly, the discussion begins with national characteristics, then shifts focus to a collective identity based on the shared concerns of East Asian glass artists. I also look at the evidence of hybrid practice in terms of use of foreign techniques adapted into aspects of national heritage, and how the physical and metaphoric materiality of glass is employed to convey cultural identity for East Asian glass artists.

Studio glass in Japan dates back to the 1920s, but the first art school glassmaking course was founded in 1975 at Tama Art University. (Faulkner, 1995, p.167) Since then Japanese glass art has established a reputation among international glass communities.⁶⁸ Yoriko Mizuta argues that because glass was a 'material which

⁶⁷ See Tacoma Art Museum (1991) and Lynn(2005)

⁶⁸ This is discussed in Rieke(1993), Faulkner(1995), and Lawrence(2008).

For examples of Japanese glass work, Japan Glass Artcrafts Association (2002) and the website, Glass Artists in Japan <http://www.kuripa.co.jp/>

wholly symbolised foreign culture' at the time of its introduction in the late nineteenth century, the history of contemporary glass in Japan has developed in rather a unique way. (Ricke,1993, p.16) In comparison to other craft media, glassmaking in Japan was relatively less constrained by historical precedent, and this attracted artists and craftsmen to work with the material in inventive ways. (Faulkner, 1995, p.167) Helmut Ricke, art historian, argues:

With all respect for the positive values of tradition, its restrictions and limitations are also seen. The foreign material (glass) is thus seen as a chance, as a challenge, to find a new language free of encrusted, transmitted values. (Ricke, 1993, p.37)

As discussed earlier in Chapter 2.1.4, unlike the early modern Chinese glass artefacts, Japanese glass of the same period, appears to embody hybrid styles that are not directly referential to Japanese local and traditional artefacts. Rather, the foreign influence from Western Europe and China is partially legible, and at the same time, references to the Japanese aesthetic are also present.



Figure 36. Kyohei Fujita, *Red & White Plum Blossoms*, 1991, Museum of Arts and Design

Figure 37. Kyohei Fujita, *Venice*, 1995

Figure 38. Yoichi Ohira, *Nostalgia*, 2001, Corning Museum of Glass

By investigating examples of contemporary glass art from Japan⁶⁹, I notice two distinctive approaches to glass. One is concerned with making references to Japanese national heritage. This is achieved through associating glass with other artistic media such as ceramics or lacquerware. Kyohei Fujita⁷⁰'s box series(Figure36.) which refers to Japanese lacquerware is one of the examples. Another less well-known body of work by Fujita(Figure37.) consists of blown glass vases that are inspired by Venetian glassmaking and colours. (Beazley, 2001, pp. 76-79) While colour, pattern and form resemble Venetian glass, the very unusual glass blob decoration with gold leaf application suggests an eclectic quality. Similarly, Yoichi Ohira⁷¹ (Figure 38.), a Japanese glass artist based in Murano, produces forms that are inspired by traditional Japanese applied arts and made with refined Venetian glassmaking techniques.

Based on the observation of examples of earlier twentieth century Japanese glass, I find glassblowing techniques which were transferred from Venice; these not only influenced making processes, but also Japanese artists adopted the bright colours and popular glass forms of Europe. This was combined with the artists' interest in Japanese heritage, which resulted in the visual fusion of the two cultures.

In the later twentieth century, influenced by the conceptual approaches to glass in American institutions, a new generation of artists were more concerned with inventing new ways of employing the material in more experimental and conceptual ways. For instance, the works of Jin Hongo(Figure 39.) and Harumi Yukutake(Figure 40.), with the use of glass and mirror, have extended the scope of glass art from

⁶⁹ See Atsushi Takeda's *Contemporary Japanese Glass Art* and Yoriko Mizuta's *Historical Development of Modern Glass in Japan* in Ricke, H. (1993)

⁷⁰ Kyohei Fujita(b.1921) is known as 'the father of Japanese contemporary glass movement' (Faulkner, 1995, p.169.) For more information, see Ricke(1993), Faulkner(1995), and Beazley(2010).

⁷¹ For more information, see Beazley, N. (2001), Friedman(2002), and Mentasti(2010).

craft-based objects to conceptual installation art.⁷² The examples shown here both use silvered glass pieces which are assembled and attached to either object or architecture. In this way, the relationship between light and reflection, the viewer and the perception of the environment becomes more legible and interactive. Questions about our sense of space and visual perception are raised through these works.



Figure 39. Jin Hongo, *Fragments*, 2008
New Glass Review 30, no.33
Corning Museum of Glass

Figure 40. Harumi Yukutake, *Restructure*, 2006
Glass mirror installation in Tokamachi, Niigata Japan
www.yukutake.net

In South Korea, it has been about three decades since art glass developed. It is difficult to trace the origin of Studio glass art in South Korea, but the first academic institution with a glass program dates back to the 1990s⁷³. Unlike Japan and China, Korea does not have definitive records of domestic glassmaking before the twentieth century, and archaeologists believe that glass artefacts excavated in Korea were imported from Rome, the Middle East, Central Asia, and South East Asia rather than being indigenously made objects. (Kim, 2013)

⁷² See Ricke(1993), Faulkner(1995), and Japan Glass Artcrafts Association (2002), for the examples of contemporary Japanese glass. Also, many examples can be found in the international magazines specialising in glass such as *Glass Quarterly* and *New Glass*.

⁷³ According to Kim(2013), there are six academic institutions which have a glass program at present. As most glass programs in South Korea do not run independently, rather as an optional course of the craft (ceramics) department, there has not been systematic support in the development of glass as an academic discipline.

South Korea adopted glassmaking technology from North America and Europe a little earlier than China, and has begun to show a mixture of tastes and trends in recent years. By reviewing works over the last ten years, it seems that preferences in glassmaking techniques are relatively diverse, ranging from glassblowing and kiln-casting to lampworking, and artistic production seems equally balanced between commercial works based on the tradition of vessel-making and a sculptural approach. Because Korea had almost no traditional model of 'Korean glass' before the twentieth century, glassmaking skills have developed mostly through learning from the USA, the UK and Japan.

Due to a small population of glass artists and diversity of preferred techniques, it is difficult to find shared and popular interests or visual coherency in the Korean glass art scene. References to the national heritage of Korea are rather subtle in the works of the first and second generations of Korean glass artists.⁷⁴ For instance, art works by Joon Yong Kim (Figure 41.) and Jiyong Lee (Figure 42.), both educators and artists who have gained international recognition, show subtle approaches to hybrid styles. In an attempt to invent a new hybrid making method and create original work, Kim uses Swedish glassblowing techniques to create forms and then transforms the surface into a translucent and rough quality with engraving and cutting techniques. Due to their irregular yet delicate form and surface quality, they can remind the viewer of Art Nouveau glass inspired by nature, but at the same time, can invoke ancient Korean granite carvings.⁷⁵ In Lee's work, the formal structure is initially inspired by biological cell structures. By cutting, carving and polishing solid glass, Lee introduces translucent colours that are encased inside glass. As seen in both Kim and Lee's work, translucency, the in-between opaque and transparent state,

⁷⁴ By the first and second generations of Korean glass artists, I mean to refer artists who began to work with glass from the 1980s to 2000, and have established their work either internationally by now. These artists include: Sung Hee Ko, Joon Yong Kim, Jung Seok Kim, Jong Phil Pyun, Ki Ra Kim, Sung Won Park, Moon Gun Jung, Jiyong Lee, etc. See Ko(2003) for more information on contemporary glass art of Korea.

⁷⁵ See Kim(2012, pp.133-134) and the exhibition *Trace* in 2013 curated by Jiyong Lee on Contemporary Korean Crafts (<http://www.craftalliance.org/exhibitions/delmar/trace13/trace13.htm>)

seems to be a way of mediating colour intensity and reflectivity which reminds the viewer of the simple and serene qualities found in the early Modern art of Korea.

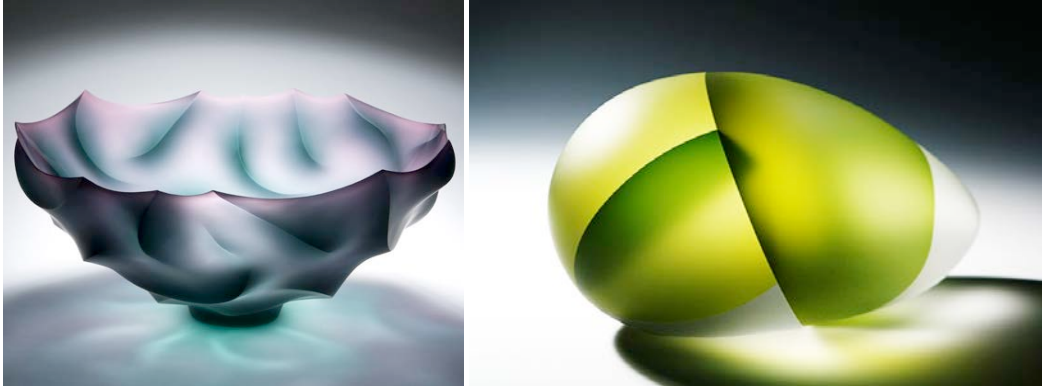


Figure 41. Joon Yong Kim, *Green Valley* , 2010 (Kim, 2012, p.134)

Figure 42. Jiyong Lee, *Green Seed Segmentation*, 2009 (www.jiyongleeglass.com)



Figure 43. Zhuang Xiaowei, *Chase Wind II*, 2010 (<http://www.shanghaiart.com>)

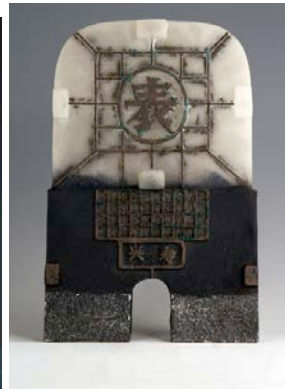


Figure 44. Guan Donghai, *Biao from Citygate Series*, 2009, Koru Contemporary Art Gallery



Figure 45. Lu Chi, *Characters and Roads*, 2009 (Chi, 2009, p.38)

The tension between old and new glass practices is most visible in China. The kiln-casting technique is the preferred option. Two of the most established glass artists in China, Zhuang Xiao Wei(Figure 43.) and Guan Donghai(Figure 44.), produce works mainly through this technique, and young artists who are inspired by them also seem to prefer kiln-formed glass over hot glass. Historians suggest that this should hardly

be surprising because of the long Chinese tradition and proficiency in mould-making/bronze casting.(Franz, 2006, p.59) According to this interpretation, the similar attributes of glass and bronze, transforming from liquid to solid inside the mould, probably led to this preference. Facilities for glassblowing demand more financial support and technological commitment for both set-up and maintenance than facilities for kiln-casting.⁷⁶ Due to a lack of studio-based glassblowing facilities, the characteristics that are often found in kiln-formed works, such as solid, bold, translucent/opaque aspects have inevitably become the main aesthetics of Chinese contemporary glass art. These visual examples support one of my arguments that I have proposed to explore from the outset: some cultural-ethnic aesthetics can emerge through material-process relationships rather than solely depending on subject matter involving cultural signifiers.

However, when observing recent international exhibitions featuring Chinese glass artists, it is noticeable that a considerable proportion of the works refer to Chinese cultural signifiers, mainly Chinese text, or reference Chinese traditional objects or art styles. This is not observed only in the work of the first generations (Figure 43 and 44.); later generations take a similar approach. The imitation of traditional motifs with innovative modern techniques seems to possess significant potential for artistic development, but it would be challenging to reach beyond the replication of traditional motifs in other media.⁷⁷ Of course, we should also take into account overseas curators' taste for 'Chinese-looking' work as well as the fact that artists may themselves wish to express a visually-identifiable 'Chineseness' in work for international audiences. This thesis cannot verifiably assess the intention behind each artists' use of Chinese cultural signifiers in their work, nor can it – or does it attempt to – argue that this work represents the mainstream of Chinese glass production today. Rather, the point is to the question of the potential relationship between glass, glassmaking technique and perception of cultural in-betweenness in glass objects.

⁷⁶ For more details, see Lu(2009)

⁷⁷ See Lu(2008), Garfoot(2008) and Fahrner-Tutsek(2009).

The issues posited above have been re-examined in a recent survey, *3 Nations: Asian Contemporary Glass Art*.⁷⁸ This group exhibition held in Hong Kong in 2009 provided a critical overview of contemporary glass art of China, Japan, Korea and Taiwan. Several exhibitions based on a single nation, or exchange between East Asian and Western countries have been held over the past two decades, but this exhibition was a significant event in terms of introducing East Asian glass art as a group at both regional and international levels, and for having highlighted the shared regional identities embodied through glass art. It is notable that it is an exhibition held in East Asian countries, directed at the local, regional and international audience, and curated by the Korean glass artist, Sung-Won Park. This all suggest that the presented works were introduced not only to survey contemporary trends in the glass art of East Asia, but also to question the perception of East Asian identity is inside and outside the region.

Most of the selected artists⁷⁹ for this exhibition had studied abroad in North America or Europe and then returned to their native countries, to set up a studio or become an educator. As one might expect from a survey show, works in the exhibition addressed a mixture of old and new ideas of East Asian art. The features of direct and indirect orientation towards the idea of the clichéd East Asian identity are mediated and embodied through glass. Although the techniques employed - glassblowing, casting, pate de verre and sand casting – are common in Europe and the US as well, some works show distinctive approaches to subject matter and formal appearance. The works by Guan Donghai (China) and Sunny Wang (Taiwan) use relatively more legible cultural signifiers in their work. Guan Donghai's work (Figure 44.) refers to cultural heritage and the history of China. Without knowledge of the details, the viewer can be drawn to the legible elements of Chinese culture. Figures and texts in Chinese style are hard to miss. The Mirror series makes a reference to traditional bronze mirrors and the City Gate series implies the country's

⁷⁸ See Koru Contemporary Art(2009).

⁷⁹ The artists who participated in the exhibitions include: Guan Donghai from China, Sunny Wang from Taiwan; Kazumi Ikemoto and Etsuko Nishi from Japan ; Ki-ra Kim, Jung-suk Kim, Sung-won Park from Korea

gate and open door policy. Sunny Wang (Figure 46.) conveys Buddhist tradition and philosophy by making references to Chinese aesthetics and media, such as language and calligraphy. The simple forms and colour combinations (clear, white, black, red) and stylised Chinese texts are legible cultural signifiers that can be detected without an effort. The two artists' approaches are, however, different in character from the eighteenth and nineteenth century objects produced in the Imperial Palace. Glass is used not just as a means to reproduce artefacts to replicate other materials, but here is also used as an artistic means to express personal and socio-political comment.

I mention here the work of Lu Chi(Figure 45.), although it was not included in the show, because her understanding of use of cultural signifiers is related to the relationship between the viewer's knowledge of certain culture and the perception of artwork. As Lu explains:

I use glass to express a new generation's urban life style, all while being influenced by my cultural heritage. There is a dichotomy in the way my work is viewed depending on the audience. Chinese people readily recognise the Chinese symbolism inherent in my work, while to westerners, it may appear as general contemporary glass because they are unfamiliar with the symbolism. (Chi, 2009, p.39)

The seemingly semi-abstract form of Chi's work addresses the ambivalence of the perception of culture, based on the degree of legibility and the knowledge of the viewer. As is much discussed in the realm of fine art, some branches of East Asian art are criticised for using the idea of cultural signifiers in order to exoticise themselves for an international audience. There is a possibility that the same criticism may be applied to contemporary glass of East Asia.⁸⁰ I would argue that the process of exoticising one's own culture is an inevitable transitional process at some point in history, in order to gain a better comparative understanding of that culture within the international scene. In this sense, the role of glass in this region is

⁸⁰ Ricke (1993, p.36) raises the question of the role of 'the Japaneseness of contemporary glass art of Japan having undeniable appeal for the Western viewer'. Similarly, Fahrner-Tutsek(2009) discusses the trend of Chinese glass artists making direct references to the Chinese cultural heritage.

significant as it raises the awareness of what their cultural heritage is based on, and how this is to be re-examined in a contemporary context.

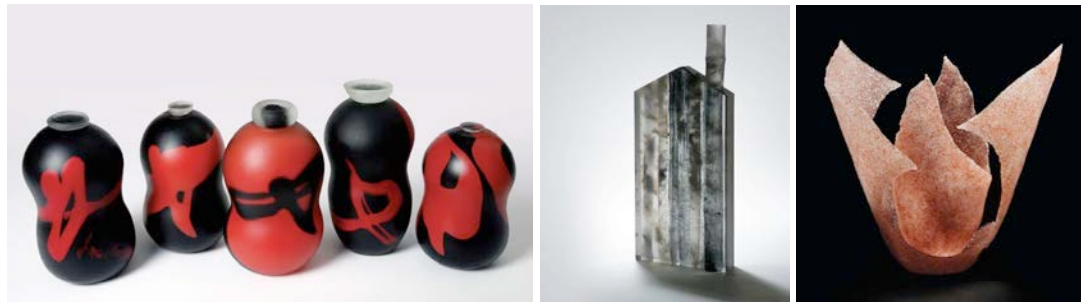


Figure 46. Sunny Wang, *Ru*, 2008, Koru Contemporary Art Gallery

Figure 47. Ki-ra Kim, *Bamboo House 1*, 2009, Koru Contemporary Art Gallery

Figure 48. Etsuko Nishi, *Cattleya*, 2007, Koru Contemporary Art Gallery

Other artists featured in this exhibition show a contemporary art tendency towards abstraction: personal expression, the study of colour, form and space and forms derived from the characteristics of glass both formally and conceptually. Abstraction and cultural specificity do meet. An indirect reference to regional identity reminds the viewer of the sense of space and void commonly addressed in East Asian ink paintings in Ki-ra Kim's work (Figure 47.). Etsuko Nishi⁸¹'s abstract sculpture (Figure 48.) is more directed to experimentation with forms and colour in glass. Nishi's focus is on the idea of multiple layering in relation to the whole form, and the use of colour. She is inspired by the delicacy of the Roman cage cup⁸², and *pâte de verre* invented by the nineteenth century French artist Albert Dammouse. These approaches engage deeply with the idea of 'material as content', and employ glass as a means to think through and generate metaphors from both the making process and the outcome.

⁸¹ Etsuko Nishi's artist statement can be viewed at the website of the organisation, Glass Artists in Japan http://www.kuripa.co.jp/cgi-bin/ag/ag_personal.cgi?lang=en&id=148

⁸² An ancient Roman (third to fourth century AD) vessel decorated by undercutting and grinding a single thick-walled blank so that the surface decoration stands free of the body of the glass, supported by struts. The vessel appears, therefore, to be enclosed in an openwork cage. (Corning Museum of Glass. Glass Dictionary available at <http://www.cmog.org/glass-dictionary/cage-cup>)

As observed through these examples of contemporary glassworks in East Asia, modern studio based glassmaking techniques have been adopted from the West, and then were gradually adapted to their local cultures and the specific styles of individual artists. In terms of applications of the techniques and subject matter, it is difficult to pin down current major trends. I find the notion of in-betweenness is well represented among East Asian glass artists, and they employ glass not just as a means for crafting works, but contemplate what the exclusiveness of the material can be on physical and metaphorical levels. With the 'new' material and making process in their hands, their culture is re-viewed and re-interpreted through the glass lens.

2.5 Conclusion

This chapter examined the embodiment of cultural in-betweenness in glass artefacts. The glass objects produced as a result of reciprocal cultural and material exchange between East Asia and Western Europe in the early modern period show conspicuous transcultural appearances. Based on observation, and through historical survey, object analysis and studio work, I examined the role of glass in conveying cultural values.

Whereas porcelain was the material that conveyed imagery of East Asia and aesthetics in early modern Europe, glass was a sign of the exotic to early modern East Asia. These different cultural values attached to materials led to the development of glass as an artistic medium in a distinctive way. Glass objects produced during the early modern era embody trans-material and trans-cultural aspects which can be studied in various ways: form (function, thickness), surface decoration (motif, texture and relief), translucency/transparency and colour, etc.

Rather than comparing formal differences between the historical artefacts in pre-existing literature, I categorised study areas firstly by nationalities (China and Japan), and then investigated further with a focus on the making process and techniques used for production. Through object analysis, I developed an understanding of how hybrid objects were produced, whether consciously (limited technology and knowledge, functional purposes, a desire to improve upon precedent) or unconscious attempts (misunderstanding of manufacturing methods and lack of skill). In an attempt to re-enact the process of producing a hybrid object, I produced a body of work that was made by modifying conventional glassmaking techniques and translating surface patterns from 3D into 2D. Drawing on my research findings, I concluded that different cultural values are placed on materials and expressed through the production of a variety of objects.

Finally, my arguments were developed through a historical survey of early modern East Asian glass, which was compared with contemporary East Asian (fine) art and glass art, to identify shared concerns across different disciplines and media. The challenges posed by the use of cultural signifiers in referring to East Asian cultural heritage and identity were discussed. Drawing on examples of artwork, I proposed that the choice of artistic medium and process should reflect and support the subject matter, and that glass is a suitable means to express values of cultural in-betweenness.

Chapter III. Mechanisms of In-Betweenness

3.1 Introduction

In the previous chapter, I investigated the idea of cultural in-betweenness through a stylistic analysis of historical and contemporary examples of glass objects that have hybrid characteristics. In this chapter, I further examine the notion of in-betweenness by revisiting theories and debates about ornament and producing a body of work that questions the formal properties of ornaments that lead to the emergence of visual in-betweenness. Rather than proposing a generic model of a mechanism of in-betweenness that embodies the idea of cultural in-betweenness, my aim is to draw analogies that can be used for an understanding of the idea of trans-culture.

The word 'ornament' derives from the Latin *ornare*, 'to adorn'; *ornamentum* in Latin denotes equipment, or decoration. Thus the term is intimately associated with the notion of embellishment for visual pleasure, or functional disguise in terms of hiding flaws and improving practicality.⁸³ Ornament holds a distinctive position in the field of visual art, as it communicates primarily through form, whereas in interpreting other artistic disciplines the subject matter is generally considered to be a more crucial element. (Trilling, 2001, p.6) The nature and role of ornament in the past, as both signifier and sign in social, cultural, symbolic or religious contexts, rather than historical, personally expressive modes of art, may be less effective now that ornaments have lost their ability to convey symbolic meaning and content. According to Adolf Loos, 'Modern ornament has no parents and no offspring, no past and no future'. (2010[1908], p.99)

⁸³ In this research, ornament will be used as an umbrella term that embraces either two- or three-dimensional collective structures made with patterns. Pattern refers to a system of visual units or motifs that are repetitively arranged in a systematic order.

This research proposes that formal aspects of ornament, and its associated making processes and techniques, are conducive to visual in-betweenness when an ornament is embodied by means of certain materials, technique and form. My arguments are formed and analysed through examining debates about the notion of ornament by building on the discussion from Chapter Two, on the antithetical ideas embodied in glass objects in the early modern period, such as truth to material/skeuomorphism (or stylisation), local tradition/outside influence, etc. In particular, aspects of theories current between the mid-nineteenth to early twentieth century (Semper(1860), Balfour(1893), Haddon(1895), Riegl(1897-1898),and Loos(1908)) are examined to develop my arguments. I suggest that the significance of the period not only lies in its position as the transition period from handmade production to industry-based mass production, but also in the links between material and ornament which was much debated and practiced.

I further extend the notion of ornament into material-process-based art across diverse disciplines, rather than confining it within the realm of craft. I look at these ideas through the conceptual framework of surface-form relationship, materiality and workmanship. These issues are compared with ornament in glass art, Post-Minimalism, Process Art from the mid-twentieth century onwards that employs the idea of process and material at its centre, but it is not my intention in this section to provide a specialist's insight into every theory discussed here. Ultimately, these issues are further investigated in my studio practice by a critical examination of some of the conventional connotations of ornament, such as its status as a superfluous entity and as a subordinate element to form: this is accompanied by practical experiments with glass.

Ornament is transferred across periods and cultures by means of illustrative, iconographic images and tangible objects. Before the advent of accessible photographic techniques, images of ornament were produced by direct observation

of objects, resulting in drawings presented in the form of books. Pattern books were published in Europe from the fifteenth to nineteenth centuries, the theoretical articulation of ornament as a part of aesthetic and architectural discourse emerging in earnest after the Great Exhibition of 1851 in London. Concerned about what they perceived as the lack of a culturally integrated and stylistically coherent style of British design in the exhibition, the British government, along with designers, began to reform artistic education, publishing pattern books to improve stylistic integrity in the use of ornament and design.⁸⁴

The most influential of these, Owen Jones' *The Grammar of Ornament* (1856) offered images of designs categorised geographically and chronologically⁸⁵, with accompanying essays, attempting to codify the styles of ornament in existence throughout the world. It is known that Jones collected nearly half of his visual sources by drawing from museum collections and first-hand observation. The book comprises one hundred plates in the 1856 edition, varying from chromolithographed ornaments and black and white illustrations, some merely diagrammatic, to descriptions of relief work with details. (Jespersen, 2008, p.146)

The illustrations in the pattern book made changes to formal elements, such as the flattening of three-dimensional ornaments to two-dimensional drawings, or the adjustment or removal of information on colour. In addition, symbolic signifiers were often shown in isolation, without acknowledging their original purposes. According to James Trilling, this virtual collection of international patterns had the potential for

⁸⁴ Another point raised by scholars is the purpose of the pattern book as an 'orientalist instrument of imperial ideology'. As Stacey Sloboda states:

'...it(*The Grammar of Ornament*) offers up the ornament of historically and culturally distant cultures as objects of emulation at the same time that it seeks conceptual and categorical mastery over those cultures....'(2008, p.223)

⁸⁵ Jones categorised ornament on the basis of visual affinities by using an analogical approach to botanical science. In the pattern book, the thirty-seven propositions of the general principles in the arrangement of form, and colour in architecture and the decorative arts demonstrate an analogical approach to plant structure in botanical science. (Schaffer, 2003, p.30)

misinterpretation, as they were 'excerpted and decontextualised'. (2001, p.60) Without information on the materials and associated techniques involved in the making of ornament in the original sources, the misinterpretation of patterns must have been a natural consequence.

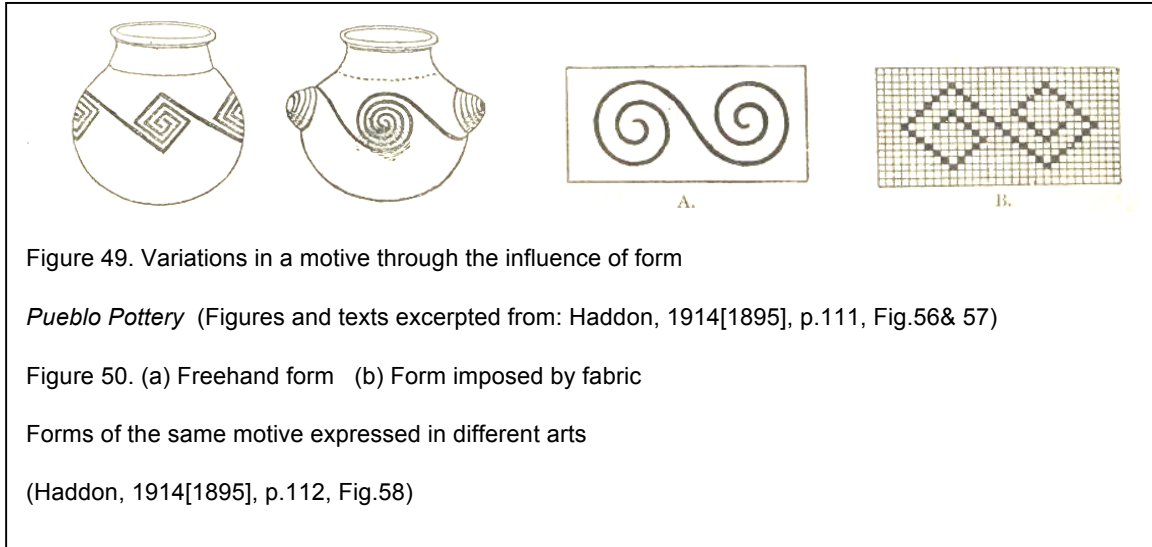
In the case of ornament communicated and transferred by means of the removal of an object geographically, an understanding of the original source is more effective than drawn images. In the context of the presence of the material and ornament within the whole object, the viewer understands the relationship between the parts and the whole, in other words ornament and form. However, in the process of imitating or reproducing the object, the difference in skill levels can limit the degree of similarity between the original and the copy. In response to the idea of 'excerpted and decontextualised' patterns, my studio work (Figure 20 and 21.) is an attempt to translate early modern Irish and Japanese cut glass patterns (Figure 15 and 24.) which show the transformation of the original pattern through different materials and methods. The finished object shows that without a reference to the original, through material transformation, the legibility of pattern has diminished.

Gottfried Semper in *The Technical and Tectonic Arts or Practical Aesthetics*(1860) raised the issue about the importance of material and process in the analysis of ornament. Semper addresses the idea of 'style as dependent on (raw) material' and 'style as conditioned by the treatment (making technique)'. (2004 [1860], pp.170-171.) He argues that a stylistic correctness is a natural and logical consequence of the raw material. (ibid, p.171) Although Semper's view on this idea that a work of art can be defined by the combination of material, process and function, most visible in the areas of textiles, he also discusses how the materiality of glass is embodied through glass-specific processes. By categorising glass into three states: a very hard body, a fluid substance and a soft substance, Semper explains available making techniques and a stylistic character for each category. While defining the most prominent characteristic of soft (hot) glass as ductility (ibid,p.596), the related making

process he addresses is:

The rotational process in pottery favors circular decoration and the division of the vessel's surface into parallel horizontal zones. By contrast, the *blowing process* (which always directs the air pressure principally along the axis of the pipe and extends the glass bubble in this direction) and the *stretching process* (which is such a major factor in glassmaking) work against this partitioning. They favor the division of vessel walls into compartments, stripes, grooves, and the like, developing from top to bottom and converging concentrically at the base. Another very useful aid to glassmaker is the spiral twisting of these motifs as a way to enrich the decoration... (ibid, p.605)

My studio experiments regarding the nature of glass patterns derived from the glassblowing process can be found in my body of work, the *Patterns and Memories Reflected on Glass series* in Chapter One, and this idea of ornament dependent on materiality and process is discussed further in Chapter 3.4, in which I introduce other examples of glass-specific ornament. (Figure 60.) I investigate this issue again here with a focus on the making process in Chapter 3.5. by comparing it to some fine art practices. This approach, truth to material, can be seen in many practitioners' work regardless of discipline and media. It is a way of problem-solving and accommodating technical restraints and possibilities as Semper suggested, and at the same time, I argue, for some practitioners, it is a way of making a symbolic action in dialogue with the material.



Henry Balfour, in *The Evolution of Decorative Art* (1893), attempted to explain the transformation of ornament by means of mediation in the making process and the maker's skill. He adapted the notion of evolution to 'successive copying', meaning copying from the initial first-hand copy. He also suggested that successive copying is the predominant factor in creating variations in established designs, regardless of the unconscious or conscious decisions of the maker. Balfour defined the three stages involved in evolution of decorative art: in the first stage, the people from the least developed culture copy images from nature. This is taken to the second stage, where the desire to reproduce aesthetically pleasing effects from the first stage arises. The final stage is divided into 'conscious variation' and 'unconscious variation'. While the former is based on the impetus to vary or improve upon precedents, the latter is derived from a lack of skill; accurate copying is impossible with unskilled hands and indifferent tools. (Balfour, 1893, pp.17-23)

Alfred Haddon, in *Evolution in Art* (1914[1895]), described the elements that contribute to the modification of ornament in terms of material, form and technique. Haddon's argument shares to some extent the ideas in Gottfried Semper's material-focused approach. As Haddon's examples of the surface decoration of ancient Pueblo pots (Figure 49.) show, the rectilinear lines of 'meander' patterns are modified into a spiral meander in order to adapt to the raised round spots. Another

image (Figure 50.), demonstrates the material constraints of ornament. Unlike freehand drawn pattern (Figure 50-a.), the pattern on woven fabric is rendered as stepped or broken lines, due to both the material and the technique involved in the making process.

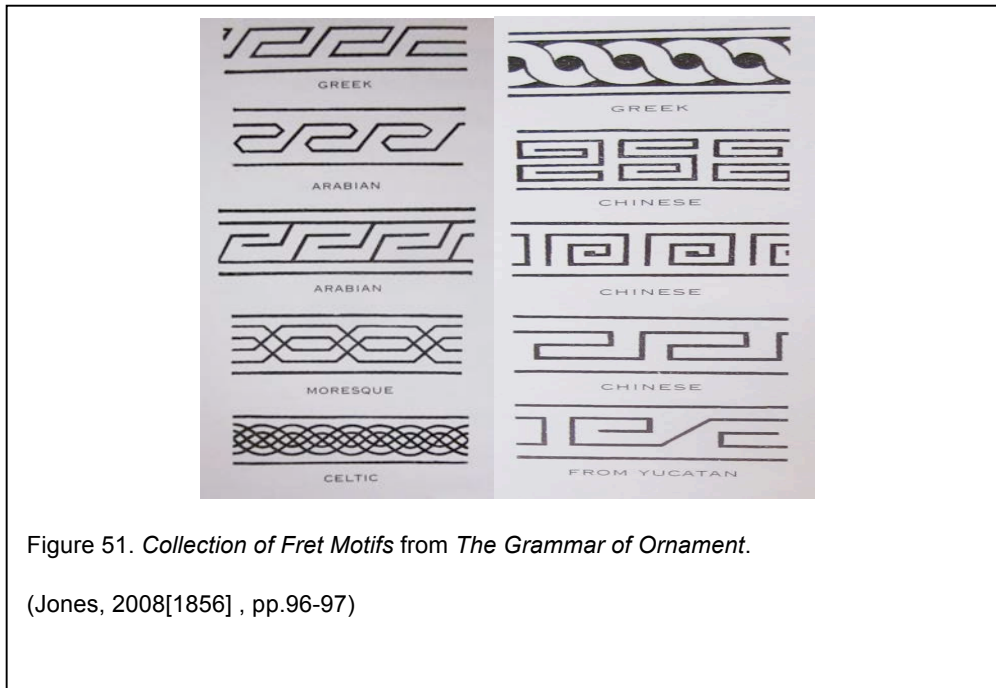


Figure 51. Collection of Fret Motifs from *The Grammar of Ornament*.

(Jones, 2008[1856] , pp.96-97)

Drawing on Balfour and Haddon’s theories, the collection of fret (or meander) motifs⁸⁶ illustrated by Owen Jones (Figure 51.) can be approached in terms of successive development and mediation from Greek to other cultures. Whether the fret motifs come from the abstraction of a representational image or a mere interplay of lines is unclear. However, the illustration implies visual affinities across time periods and cultures. The differences among fret motifs vary from very subtle transformation in the degree of complexity to a distinctive change from linear to curved lines. In comparison with Haddon’s analysis of variations in similar geometric motifs (Figure 49 & 50.), probable causes for this transformation, such as material, technique and form, can be inferred.

⁸⁶ A fret or meander motif is used as a decorative border, comprising simple geometric shapes that are identical, continuous (in most cases) and repetitive, to suggestively construct infinity.

The historical contexts discussed above have been helpful in establishing a rationale for defining research areas in the field of ornament. The three main characteristics of ornament selected for the development of my arguments are as follows: form/surface, materiality and workmanship. These categories are drawn from Semper's material-oriented approach and Balfour and Haddon's study on ornament; this research extends these ideas and re-applies them in contemporary practice. Although the three categories selected may appear to be solely based on the material aspects of ornament, my studio practice and analysis extends into phenomenological aspects, such as the visual perceptions of both the viewer and the maker.

3.2 Form and Surface

The Klein bottle (Figure 52.), first illustrated in 1882 by German mathematician Felix Klein, has a surface with no edges, and no outside or inside. It is a two-dimensional manifold, which can only exist in theory. Although according to strict and practical theory it cannot be embodied in three dimensions (the surface has to pass through itself, without holes), glassblowers have succeeded in making a three-dimensional representation of the true Klein bottle. The transparency of glass enables the optical creation of virtual space, and this advantage provides the potential for an ambiguous state for objects, by blurring the boundaries between inside and outside. In an attempt to create an object that has no distinction between surface and form, inside and outside, I have designed an object entitled *The Klein Bottle Studies*. (Figure 53.) Not only is the form composed of one fluid and continuous surface, but the pattern follows the form continuously. This experiment allowed me to investigate issues relating to the antithesis of form and surface, and the hierarchy of form over surface in the discourse of ornament.

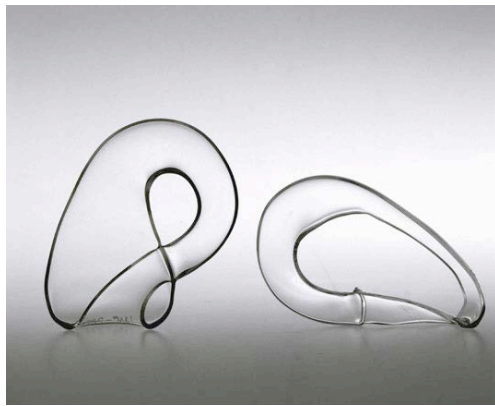


Figure 52.

Top) Alan Bennett, *The Klein bottle in glass(3D representation)*, 1995

Science Museum (<http://www.sciencemuseum.org.uk/images/1067/10328258.aspx>)

Figure 53.

Bottom) Min Jeong Song, *The Klein Bottle Studies*, 2011

The conventional idea of surface is associated with skin, an intermediary, being in-between outside and inside.⁸⁷ (Stroll, 1988, pp.3-11) The difficulty of separating surface from form either virtually or physically raises questions: whether surface is in fact an abstract concept or a physical part of form. If it is physical, how do we set the criteria to judge the identification of surface? I hypothesised that surface is either a spatial entity or a mental representation of boundary, neither fixed nor permanent, by

⁸⁷ See also, Leddy(1995), Hay(2010), and Adamson & Kelly(2013) for more theories on the implication of surface.

which I mean, the idea of surface changes in relation to how we define and perceive surface. Thus, it seems to be possible to use surface as a metaphor to embody the idea of in-betweenness.

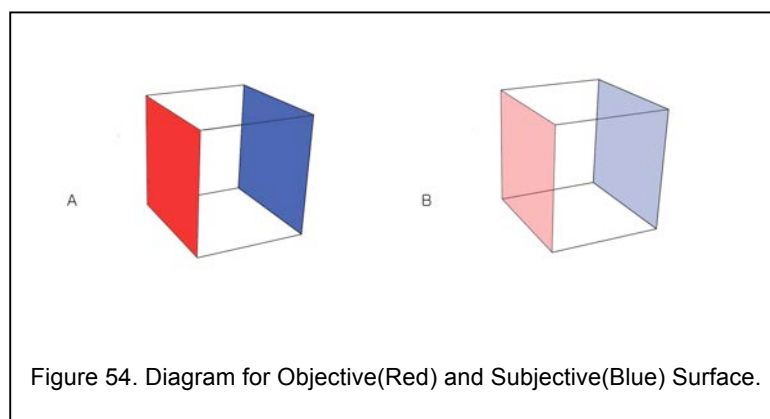
In order to examine this idea, I have identified the notion of 'layer' as the main vehicle to articulate the relationship between form and surface in this project. When considering a layer as a basic unit of form, the surface can be described as the outermost surface, depth as a group of inner layers, and form is the combination of both inner and outer layers. This premise is discussed in terms of material applications, and the ambiguous boundary between form and surface is re-thought through studio experiments with glass.

John Ruskin challenged the traditional hierarchy of surface and form by stating the importance of surface in the context of architecture. In Ruskin's theories⁸⁸, surface is considered to be the crucial factor in both physical and metaphorical dimensions. He was influenced by Thomas Carlyle's philosophical analogy between dress and the soul, which proposed that the human soul can only be truly expressed through clothing. Drawing on Carlyle's theory, Ruskin considered architecture to be a reflection of the human figure. Putting an emphasis on surface ornament, his architectural theory was based on the primacy of the wall. Ruskin suggested that the structure and the surface are inseparable. Ruskin's use of metaphor, drawn from the literal and interpretational play between architectural and tailoring terms⁸⁹, (Charterjee, 2009, pp.68-97) has served as a useful model for this research, and this way of thinking has been applied to the lexicon of glass, relating in particular to the notion of material metaphor and the making process of glass.

⁸⁸ Regarding Ruskin's theories on surface see, *The Seven Lamps of Architecture*(1849) and *Stones of Venice*(1851-53).

⁸⁹ Ruskin was influenced by Thomas Carlyle's philosophical analogy between dress and soul, in which the human soul can be expressed only through clothing.

Alois Riegl elaborated on the notion of form and surface in relation to ornament. He defined form and surface in very specific ways. The use of the word 'form' denoted specifically the three-dimensionality of a given object, and 'surface' was divided into two categories, 'surface' and 'subjective surface'. As the human eye cannot see through solid and opaque objects, the viewer is only able to see only one side of an object at a time. The objective surface, as defined by Riegl, is the side that is placed nearer to, and within the direct sight of, the viewer. In contrast, the subjective surface is hidden from the viewer's sight, and tends to be illusive. In addition to the classification of surface, in Riegl's view motifs in visual art are categorised into organic and inorganic forms. Inorganic forms are symmetrical, crystalline and static, whereas organic forms are characterised as rounded, random, and mobile. (Riegl, 2004[1897-1898], pp.189-190)



Riegl's classification of surfaces and motifs raises interesting questions when this way of thinking is applied to objects made of certain materials. A transparent body such as glass blurs the distinction between the objective and subjective surface, because the viewer is able to see both sides of the object simultaneously. Referring to the diagram above (Figure 54.), for both viewer A and B the objective surface is red and the subjective surface is blue. Viewer A is only able to see the red surface, whereas viewer B is able to see the blue surface through the red surface simultaneously, as the cube is transparent. In addition, the transparent surface makes it possible for the viewer to see the space in between the surfaces at the same time.

The series of work with a cut-glass motif (Figure 55.) is made of solid glass, and incorporates a pattern. Each of the six sides of the glass block provides a viewpoint, and the spectator is able to view all the planes simultaneously, including the space in between the surfaces and exterior space. The optical lens effect of the solid glass adds to the illusive notion of surface and highlights traces of transformation of the pattern during the making process. Employing these characteristics of solid glass, this work explores ways of transforming patterns. The form and surface of the object directs ways of seeing, and deceives the viewer by distorting the sense of space between surface and depth. This superimposition of surface and depth is one of the elements explored through the use of glass and pattern.

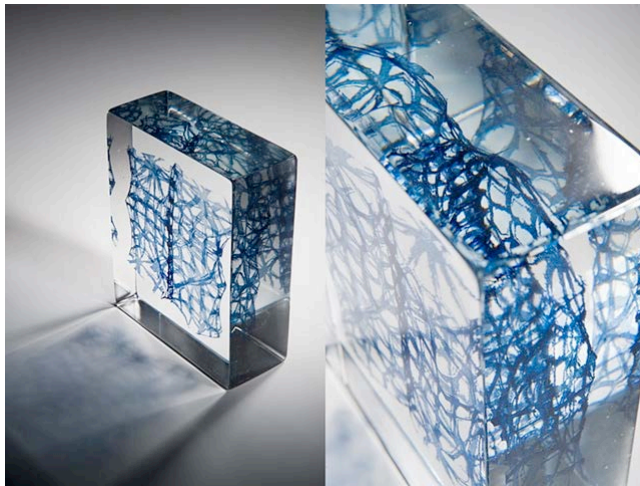


Figure 55. Min Jeong Song, *Cut Glass Motif III*, 2011



Figure 56. Min Jeong Song, *Appropriation*, 2011

In the case of transparent and organic forms, the boundaries between surfaces are ambiguous, as surfaces flow continuously from one plane to another. The work entitled *Appropriation* (Figure 56.) comprises two solid glass objects that are positioned to virtually overlap each other. The general characteristics of solid glass are present, and the curved form of the objects complicates the objective/subjective surface relationship. Each object is made of one continuous surface, and shows no sign of the boundary between surface and depth. The patterns are embedded inside the objects, and seemingly float inside the space. Depending on the viewer's perspective, the patterns inside advance and recede back and forth and inside/outside while virtually transforming themselves. When these two objects are viewed from certain angles they apparently overlap, with an intriguing illusory superimposition of patterns. Each pattern is magnified by the solid glass within each object, and also between the two.

Before elaborating further on the notion of form and surface in ornament, some examples from a range of art disciplines will be examined, as they share similar concerns with the making of form and surface. In *Study for Skin I* (Figure 57.) the American artist Jasper Johns experimented with the crossover between two and three dimensions through the use of various materials, embodying the issue of the delimitation and mechanism of surface in both literal and metaphorical ways. The interplay between the thinness and thickness of the material, and positive and negative figures is commonly found in the making of ornament.

Sculpting processes can be broadly divided into two - additive and subtractive. In the subtractive process, the maker begins with a mass of material and removes unnecessary parts to make the shape, the finished object having a smaller mass/volume. Conversely, the additive process refers to a modelling method of creating a form by adding material. These processes can be rephrased with reference to layers. In the additive process, layers of mass are added while the inner layers are concealed. In the opposite process, the outer layers are removed to reveal

the inner form using the subtractive method. When the definition of the additive and subtractive processes is further extended into two-dimensionality, even disciplines such as painting and printmaking can be interpreted as kinds of additive processes. In this sense, painting and printmaking are both the accumulation of layers of pigment on a surface.



Figure 57. *Study for Skin I.*

Jasper Johns, 1962
Charcoal on drafting paper

Make a plaster negative of a whole head.

Make a thin rubber positive of this.

Cut this so it can be (stretched) laid on a board fairly flatly.

Have it cast in bronze and title it skin.

-from Jasper Johns's notebook entry 1960

Jasper Johns: writings, sketchbook notes, interviews, compiled by Christel Hoolevoet, New York:
The Museum of Modern Art



Figure 58. A still from Gerhard Richter's making of squeegee painting , 2007

Directed by Corinna Belz, www.gerhardrichterpainting.com

The German artist Gerhard Richter's practice encompasses diverse artistic disciplines, but some of his continuous and reiterated concerns have been closely related to the notion of surface. Richter's cross-disciplinary experiments with painting and photography interrogate the relationship between form and surface. Photography flattens actual three-dimensional scenes down to a single layer of image. Painting, in a sense, does the same task of flattening images. In fact, however, it comprises multiple layers of paint. This notion of layers is well represented in Richter's body of work, which is made through the innovative use of a printing tool, the squeegee (Figure 58.). When the squeegee is dragged across the painting, it removes paint while spreading it over the surface. The process partially hides, and simultaneously reveals, the layer that lies underneath the outer surface.⁹⁰

Certain craft techniques are bound up with overlaying activities in the process of making form and surface. The scholar Christine Guth explains layering as a means of conveying socio-cultural and political communication in Japan. Considered as 'superfluity', layering implies more time, labour and value, hence it has often been used historically to map social distinctions in Japan. Lacquer transforms from liquid

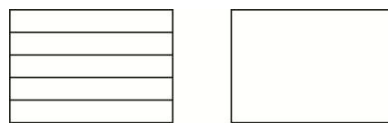
⁹⁰ See Godfrey, Sertota, Brill & Morineau(2011).

to make a hard and glossy surface, which is applied in many layers. This layering method creates thickness and texture on the surface, which alludes to the materialisation of time and craftsmanship. (Guth, 2013, p.43) Another interesting point that Guth makes about lacquer is the notion of ‘age and wear’, the process of dematerialisation. Due to the nature of utilitarian objects, lacquerware ages and becomes worn down by its cumulative use over time, which reveals the concealed inner layer. This deterioration reveals the layering, and makes the user conscious of surface and depth. (ibid, pp.39-55)

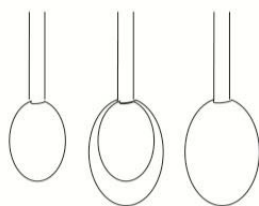
Figure 59.



When heated at above melting temperature,
the surface layer gradually smears into the inner layers.



(Casting/Fusing) When layers of glass are stacked
and fully fused, they turn into one seamless layer.



(Blowing) When a layer of hot glass gathered
on the top of the initial layer, they turn into one seamless layer.

The characteristics of glass and its associated making process can also be elucidated through the concept of layering explained above. A layer of glass

connects the ambiguous boundaries between form and surface, in other words the interior and exterior spaces. The premise that glass is made of numerous clear layers is effective in embodying the imaginary layer between surface and depth, where surface ends and depth begins.

Generally, glassmaking involves both additive and subtractive processes. Most cold-working processes, such as cutting, engraving, sandblasting and acid-etching, are subtractive processes. Hot-glass processes are mainly additive: the process is carried out by gathering additional molten glass to increase the mass, or by partially adding a smaller amount of glass onto the initial body. When compared with other media, materials such as clay, plaster, lacquer and metal are similar, as they can change from a liquid to a solid state. However, glass has distinctive features in the making process: transparency and heat.

Glass forms can be constructed by superimposing layers, but when the accumulated layers are fused by heat, the visible divisions between the layers disappear. Unlike an opaque medium, layers made of glass merge into a single layer while retaining transparency. Due to the transparency of glass, the boundary between surface and depth becomes blurred. As illustrated above (Figure 59.), when glass is molten the division between layers gradually breaks down, and eventually, when fully fused above certain temperatures, the surface starts to melt down and smear into the inner layer, or mixes with other, random layers.

A type of glass known as 'Cameo glass'⁹¹ (Figures 6-8 & 11.) demonstrates the combination of additive and subtractive processes within one piece. The additive process is used when multiple layers of clear/opaque/coloured glass are overlaid

⁹¹ See chapter 2.1.3 for more information on cameo glass.

while the glass is hot. When the glass cools down, the maker removes the outer layers in the subtractive process, i.e. engraving or acid etching, to produce a design in relief that stands out from the background (the primary layer).

My studio practice mostly focuses on the use of the additive process. Using either kiln-firing or glassblowing, layers of glass fused by heat, constitute the object. To briefly explain the process, firstly a clear glass blank is made (either hollow or solid). When it is annealed (slowly cooled down to room temperature), a sheet of ceramic transfer (a pattern) is applied. The blank with the transfer on the surface is slowly heated up to 500 degrees Celsius, picked up on a blow pipe, and reheated to a higher temperature until it becomes molten. At this stage, the glass is capable of receiving another layer of clear glass. When the gathering of fresh glass is done, it is reheated again to become fully fused. Through this process, the pattern becomes encapsulated inside the glass. This process is not very different from the conventional glassblowing technique, in which a clear coat of glass is usually added. This is either to prevent chemical change in the coloured glass due to changes in the condition of the flame (the balance between gas and air), or to increase the volume of the object without using a large amount of expensive coloured glass. However, my process differs from the conventional method in that the surface decoration is applied during the making process, not when the form-making is finished. In this way, the pattern is not located on the surface and it transforms within the changing form.

The transformation of pattern in these glass forms alludes to the idea of mediation of ornament discussed earlier through the theories of Belfour and Haddon. It illustrates a change from a recognisable motif with a rigid structure to abstract lines and disordered images. Some parts of the glass contain the pattern's recognisable decorative quality, while other parts reveal abstract lines. Based on observation, I concluded that stylistic in-betweenness is analogous to the relationship between surface, form, and ornament. These three elements should not be examined separately, but considered as composite, related matters.

3.3 Materiality

The value of material-based work resides partly in the notion of materiality. Regardless of the discipline, the artistic medium not only affects the viewer's sensual perception, but sometimes it also alludes to the conceptual recognition of the object. To some extent, the choice of artistic medium defines and limits the available ways of making, the forms of the finished object and its associated meanings. The maker may not always intend the final result in an ornamental work, but what can be drawn from observation of the process, from raw material to finished object, is the 'idea of transformation'. Archaeologist Tim Ingold raises the interesting point that the properties of material are 'processual and relational', not fixed attributes of matter. (2007, p.14) As a material changes its state from 'raw' to 'processed', materiality becomes charged with new poetic and expressive meanings.

It is critical to question and define the general meaning of the materiality of things, because 'material' and 'materiality' are terms that contain ambivalent issues. The two words are very closely related: materiality is a word derived from material. In order to elucidate materiality, an understanding of material is important, and vice versa. However, they often carry contradictory meanings. 'Materiality' implies a non-physical idea, a state or quality of being physical, while 'material' designates physical matter. Anthropologist Daniel Miller, in his introduction to *Materiality* (2005) emphasises the colloquial and philosophical applications of material and materiality: the former conveys the notion of artefacts, and the latter refers to the ephemeral, the imaginary, and the biological. (Miller, 2005, p.4) When observing specific materials, abstract ideas about materiality become tangible and legible, which is the point this study raises consistently, from studio practice to theorisation.

Taking glass as an example, one of the characteristics of glass, transparency, is charged with philosophical and aesthetic implications due to the ambivalence

between material and materiality. The 'idea' of the invisible presence of glass evokes various conceptual issues, due to the relationship between 'tangibility of glass' and the 'immateriality of glass'. Mark A. Cheetham describes the relationship between the idea of transparency and transparent material as 'materialised imitations of transparency' (Cheetham, 2010, p.251). Abstract characteristics of material are embodied through a physical medium, and when the embodiment is successful, the material gains another kind of materiality.

The relationship between material and ornament is visible throughout history. It is interesting to note here that even modernism, which is characterised by an absence of ornament, does, in fact, portray a variety of material-based patterns. The process was one of 'finding' inherent characteristics, rather than 'creating' new ones. Adolf Loos, in *Ornament and Crime* (1908), famously may have advocated the abolition of ornament, but he also introduced the idea of the material-based ornament⁹² such as those in stone and wood, which required little control by the maker (Trilling, 2001, p. 186-7). For instance, the process of discovering patterns in marble is described by Alison Leitch thus:

One of the fundamental phenomenological features of marble (perhaps stone in general) is that it is 'outside' of what is 'inside'. The particular colours and patterns of marble are not always immediately apparent when the stone is cut in its raw state from the mountain... sculptors are (equally) agitated by the discovery of unanticipated patterns, veins or colour that emerge through the sculpting process. (Leitch, 2010, p.72)

Similarly, glass has inherent attributes that can be found and manipulated; some of the characteristics contribute to the formation of distinctive material-based styles that cannot be imitated in other materials. In the following section, examples of the visual links between specific glassmaking techniques and the materiality of glass are reviewed.

⁹² By means of the practice of covering a brick wall with sheet marble, Adolf Loos created buildings that simultaneously represented both their fundamental structure and their substance. (Frampton, 1995, p.16)

3.4 Glass and Ornament

The most notable trait of glass, 'transparency', and the hidden quality behind the making process, 'fluidity', are the two characteristics of glass that are explored in my studio practice in order to articulate the materiality of ornament. The former relates to an inherent characteristic of glass, and the latter is a conditional state of glass, which can be detected when glass is molten. When glass became available for architecture, window glass was used to define and divide space in place of opaque walls. Artists and craftspeople who specialise in glass, and who are able to manipulate the formal aspects of glass, have developed a wider range of approaches to extend the notion of transparency. In general, surface decoration is achieved either through enamel painting or decal transfers on the surface of blown forms. The decorative image on one side overlaps with the one on the opposite side, and also with the surrounding environment. The decorative image is constantly in flux, depending on the viewer's position. The material provides a ground for the decoration, but does not interfere with it. The glass virtually disappears, while allowing the decoration seemingly to float in the air.

Using this point as a reference, in my studio practice I have developed a body of work made of solid glass with pattern inclusions. Pattern structures always consist of figure-ground relationships: motifs of a pattern serve as 'figure' and the surface of a material becomes 'ground'. When a pattern layer is embedded inside clear glass, the presence of the glass surface that serves as ground for the pattern becomes invisible. As a result, the pattern appears to be floating inside the glass like an open, lace-like structure. Through this optical effect the virtual transformation of pattern is achieved, and the predominance of form over ornament is reversed. (Figure 55 & 56.)



Figure 60.

Left) Reticello is made by arranging glass canes in a crisscross pattern to form a web or lattice. (Whitehouse, 2006, p.83)

Middle) Combing- decoration on glass of which characteristics are wavy and feathery pattern of two or more colours. Combed decoration is made by applying thin trails of contrasting coloured glass which are dragged at right angles with a pointed/hooked tool. (Hess & Wight, 2005, p.17)

Right) Marbled glass- glass decorated with streaks of two or more colours of which end result shows resemblance with marble stones. This swirling effect is made by stirring coloured glass in the pot only briefly without blending colours into one. (Hess& Wight, 2005, p.53)

Distinctive ornamental styles in glass are characterised by both the fluid nature of molten glass and the making process, that mainly involves centrifugal force and gravity within a short working time. In contrast to the straight and angular lines of geometric patterns, glass patterns tend to appear curvy, twisted, or even random, depending on the degree of distortion. Reticello, combing and marbling are three of the numerous patterns formed by the glassblowing technique that accentuate the distinctive ductile attributes of molten glass. Semper also remarked on the limitations and characteristics of glassblowing process and design.

Blowing and centrifugal force are, so to speak, internal formative means, which are insufficient to complete the glass design without the modeler's hand. Yet softened glass cannot be touched, and therefore the modeler's hand can contact it only indirectly, using tools. For this reason modeling in glass is very limited but at the same time it has its own highly characteristic style. (Semper, 2004[1860], p. 607)

Based on the knowledge about styles that are formed through conventional glassblowing skills, one can determine how much control the maker exercised to create a glass object, which could be useful visual evidence in the analysis of the

object. The characteristics of glass change both in appearance and state (solid/liquid). The potential for transformation is intimately connected with the making process. Changes in thickness, colour and transparency, texture and form can add or remove 'glassiness'. This notion of transformation will be developed further in the following section on workmanship.

3.5 Workmanship

In this research, 'workmanship' is used in its widest sense, regardless of artistic genres, and the 'making process' examined here is an essential feature that causes variation, which leads to an alteration in style. According to David Pye, the difference between craftsmanship and workmanship can be established based on an end result that is either predetermined or undetermined by the maker. Workmanship does not just designate the level of skill of the maker, it also concerns the maker's tacit knowledge and the judgement applied during the making process. (Pye, 1995[1968], p.20)

A making process involves a set of controlled and uncontrolled elements. The level of skill of the maker, the technique and certain limitations arising from the nature of the chosen material affect crafted objects in numerous ways. According to Glenn Adamson, 'Craft's great strength, as well as its fatal weakness, is that it cannot play a theme without variation'. (Adamson, 2010, p.252). The idea of variation is employed as a tool to embody the transformation of material and form in both literal and metaphorical dimensions in this research. It is contextualised through the theories relating to the evolution of ornament discussed in the introduction to this chapter.

An examination of Process Art from the late 1960s to the 1970s helps to lay a theoretical ground, which will be followed by a comparison of contemporary art practices across both fine art and craft. The material and processes used in Process Art are very different from those commonly used in the field of craft. In most cases, the artists in this category used industrial materials which were minimally manipulated and arranged by the artist, and the materials took on their own undetermined form. For Process artists, expert craftsmanship was not essential in order to achieve the end result. Conversely, conventional craft processes involve intimate 'hands-on' relationships between the maker and the material, and the finished form is pre-determined.

3.5.1 Post-Minimalism and Process Art

Process Art as a practice can be positioned within the scope of Post-minimalism in the late 1960s. Situated between Minimalism and Conceptualism, Post-minimalism includes a wide range of tendencies, including body art, performance art, site-specific art and some aspects of Conceptual art; these often have opposing characteristics within the group. The traits of Minimalism were critical reference points for Post-minimalist art practices, hence the name. Process Art involved a strategy that was either against, or an extension of, Minimalism's impersonal style.

Cornelia Butler describes Process Art thus:

Process art is often linguistically delineated by what it isn't or that which it is against: not painting, not sculpture, anti-form, anti-illusion, anti-vertical, anti-object, anti-art. Style is equated with a particular material and set of transitive, often italicised, verbs rather than a set of pictorial or formal decisions.... (1999, P.84)

The most conspicuous difference between Minimalist and Process artists is the 'visibility of process' in the finished work. Whereas Minimalists distanced themselves and the viewer from the fabrication process, Process artists allowed it to be clearly visible to the viewer: the process was inseparable from the form and content of the work. Minimalists avoided the artist's involvement in the making process, and its evidence in the finished work, by choosing industrial materials and fabrication methods. Conversely, Process Art emphasised the artist's involvement in the process and the sense of hand-made-ness, which often involved elements of chance and randomness. The materials used were often not traditional art materials, but industrial ones. Robert Morris' felt pieces and Eva Hesse's fibreglass works are good examples of the use of the transformative qualities of materials. By arranging the materials in certain ways, such as stacking and hanging, gravity and time solidified the form of the materials as an end result.

Process continues to be visibly present in the finished work. Sometimes the materials continue to be altered, for example, by the force of gravity or deterioration; in other cases, traces of the making process are somehow 'recorded' in the finished work. Robert Pingus-Witten describes the combined authorship of the work by the maker and the spectator, '... the virtual content of the art became that of the spectator's intellectual re-creation of the actions used by the artist to realize the work in the first place...' (1997, p.16)

As much as practice in Process Art was important, the theorisation of Process Art from a maker's perspective was common among artists in the 1960s and 1970s, and this activity has continued to be influential in contemporary art. Leading figures in the movement, such as Robert Morris and Eva Hesse, were proactive in the theorisation of their own work and that of their peers. Richard Serra used 'words' as one of peripheral tools to develop ideas around making. This kind of practice, which is incorporated with language, can be seen as comparable to John Ruskin's use of

language in making an analogy between textiles and the architectural surface.⁹³

In *Anti-Form* (1968), Morris took works by nineteenth-century sculptors Auguste Rodin and Medardo Rosso as an example of a tradition that was followed by Abstract Expressionists such as Jackson Pollock and Morris Louis. He traced the appearance of process in the end result of the art work through the traces and marks of the artists in the making process. Morris also emphasised the role of chance in the making process, in particular the effect of gravitational force.

The focus on matter and gravity as part of the process results in forms which were not anticipated. Considerations of ordering are necessarily casual and imprecise and unemphasised. Random piling, loose stacking, and hanging give passing form to the material. Chance is accepted and indeterminacy is implied since replacing will result in another configuration. Disengagement with preconceived enduring forms and orders for things is a positive assertion. It is part of the work's refusal to continue aestheticizing form by dealing with it as a prescribed end.

The literal use of words in Richard Serra's work, in particular transitive verbs, implies actions that would be performed in the making process. The action of compiling words for Serra was, like drawing, another kind of process. Language is applied literally to the system of his working process, and becomes visible throughout his oeuvre.

In 1967 and 1968, I wrote down a verb list as a way of applying various activities to unspecified materials. To roll, to fold, to bend, to shorten, to shave, to tear, to chip, to split, to cut, to sever... The language structured my activities in relation to materials which had the same function as transitive verbs. (Serra, 1980, p.70)

⁹³ See chapter 3.2 for details.

The use of lead in Serra's early work is an example of the application of the 'action verbs'. Lead shares similar characteristics to glass in terms of its capability to transform from liquid to solid, soft to hard. He used the molten state of lead to record his actions and the making process, such as splashing and dropping, and the end result was the solidified trace of his actions.

The choice of materials for Process artists was associated with a sense of ephemerality and decay, which helped to make visible the passage of time. Hence, most Process Art remained as documentation, as it was based on the spontaneous action of making, or the fragility of the material. In order to effectively render the process visible, the chosen material was often simple, flexible, affordable, and industrial. Artistic intervention with the material was minimal, similar to a Minimalist approach, but Process artists allowed the element of chance to intervene so that the work could take its own form through the inherent characteristics of the materials and the force of gravity.

Another characteristic of Process Art was its ability to transform material from liquid to a solid state. In Hesse's use of latex and Serra's use of lead, for instance, the chosen material changed in state from liquid to solid, and at the same time was transformed during the transitional state by gravity. This demonstrates the intimate link between material and process. The material records the process, and the process gives a form to the material. A maker with a good understanding of material and process is able to make a decision on the balance between controlled and uncontrollable factors, which leads to the variation of pre-determined form. Properties of materials can be 'selectively' expressed by the maker, and this chiefly affects surface finish and decoration. David Pye, in *The Nature and Art of Workmanship*, points out that in some processes which employ heat, the properties of the material change in the maker's hand with extreme rapidity as it cools. As a result, certain properties which are only visible in the process are lost in the finished work. Pye also remarks on the difference between properties and qualities:

properties are the objective and measurable innate characteristics of materials, whereas qualities are subjective, based on the ideas of the maker or the viewer. (1995[1968]), p. 87-88)



Figure 61. Min Jeong Song, *In-betweenness I*, 2012

Pye's thoughts on workmanship intersect with this thesis' conclusions derived through practice. According to Pye's definition, the maker uses the properties of materials to selectively express the 'qualities' of materials. This can be seen in the body of work entitled *In-betweenness I* (Figure 61.) In order to express certain qualities of materials, an adaptation of conventional processes is necessary. The chosen process is appropriated to meet the needs of the maker for both practical and aesthetic purposes. In this body of work, blowing and casting processes have been combined to experiment with control and chance. Gravity and heat are the two main factors involving chance, while the casting mould and printed patterns are the control factors.

Any tangible materials are affected by the force of gravity. In some cases transformation by gravity is very slow and almost unnoticeable, whereas some materials are instantly altered. When transitive materials such as plaster and clay are liquid the maker has to be responsive to the force of gravity, and the time allowed for manipulation is very limited. When in the molten state, glass has similar characteristics, but the high temperature required for its fluidity makes it potentially

even more uncontrollable. In particular, when glass is fired in a kiln it can be managed to some extent by adjusting temperature and time, but once the controlled environment is set gravity is the element of chance that determines the finished form. Unlike the glassblowing process, the maker is physically distant from the transformation process taking place in the kiln, which makes it relatively unpredictable. The molten glass becomes static when it cools down, and it reveals traces of the force of gravity, especially when the glass used is coloured, or has inclusions. Coloured glass tends to show variations in density, and inclusions are positioned differently after firing.

In *In-Betweenness I* (Figure 61.), the combination of blowing and casting processes offers an interplay between control and chance. Cylindrical glass blanks with identical patterns (ceramic transfer) are cast in identical triangular moulds. During kiln firing, each glass blank melts and slumps inside the mould, and produces variations of pattern due to gravity and other variable factors, such as differences in the melting temperature between clear and white glass, the placement of each mould inside the kiln, and other unpredictable elements. Material, time and gravity shape the form, and the pattern inside the glass records the process through the degree of distortion of the initial pattern.

Once the casting process is finished, the cast pieces are heated again through glassblowing. The original shape from the casting mould deforms again with the introduction of heat. Each piece is heated and manipulated in varying degrees, so each one is different in form, and diverse distortions of the patterns occur inside.

Ornament communicates with us as a visual language on many levels. I examined ornament not as an entity for decoration and visual pleasure, but as a metaphorical agency to embody the idea of transformation, from pictorial images to relief or three-dimensional embodiment through material, and vice versa. I also explored mediation

by means of difference in form and technique between cultures, periods, and makers.

In my studio practice, I have emphasised the making process to produce a body of work in which the finished work reflects the transformative process of the material and pattern. As the form and pattern flow together when the glass is molten, changes in form affect the pattern, which becomes embodied through distortion. Through these studio experiments, the three elements postulated for mediation in ornament - form, material and workmanship - have been questioned and verified.

3.6 Conclusion

Drawing on the visual examples of transcultural glass objects from Chapter Two, in this chapter I examined further implications of ornament, primarily through the theoretical examination of the characteristics of material (with a focus on glass) and the making process on more generic levels; I also produced a body of work in the studio to explore the theoretical issues further. This investigation was not confined solely within the area of decorative art and craft, but instead contextualised broader visual arts.

Whereas the historical implications of ornament were concerned with iconographic and symbolic signs associated with specific cultures, the contemporary understanding of ornament has become rather an entity that can convey visual information, primarily through forms and regardless of context. I first examined the implications of ornament based on the nineteenth century theories, which laid a ground for me to identify the essential elements for producing ornament: form/surface, materiality and workmanship. Although my discussion was based on the formal properties of ornament, I aimed to explore beyond literal and physical

aspects, ultimately to draw analogies between visual in-betweenness and cultural in-betweenness.

I re-examined the conventional implications of surface, or specifically, the antithetical relationship between form and surface. Firstly, I redefined form as an entity constructed from many layers of surface. Based on the rationale, I arrived at the idea that a glass object is a body that is made of many transparent layers. The transparency of glass defies the distinction between form and surface, as the viewer can see the inside through the exterior surface in glass objects. Drawing on my studio experiment, I defined surface as either a spatial entity or a mental representation of a boundary, both relational and transformative.

The properties of material are processual and relational, which implies changes in the meaning throughout the phase from raw material to the finished object. I focused on the most well-conceived materiality of glass as 'transparency and fluidity' among many other versatile attributes. Firstly, I reviewed historical glass patterns that are true to the materiality of glass, and I made a body of work with minimal involvement of the maker (by using gravity and high temperature to make glass molten in the kiln) to reveal the inherent attributes of glass.

Based on the true materiality of glass, I further investigated glass transformed through making processes that involved the maker's control and chance. A making process includes a set of controlled and uncontrolled elements that can create variations. I employed the idea of variation as a tool to embody the transformation of material and form in both literal and metaphorical dimensions. By comparing this practice to the examples from Process Art of the 1960s, I examined the notion of control and chance through the combination of blowing and casting processes. My studio work was an attempt to metaphorically apply the idea of chance and control to glassmaking. Through the analysis of the outcome in relation to the materiality and

process involved in the production, I was able to conclude that in-betweenness is produced through the balance between control and chance.

Conclusion

Summary of Research

In this research I investigated the notion of in-betweenness in relation to the idea of trans-culture. Based on the materiality of glass as a material and artefact, I attempted to infer a mechanism that produces objects and ideas that are situated in-between cultures. As stated in the introduction, from the outset I acknowledged the impossibility of logically demonstrating the idea of cultural in-betweenness. Thus I developed a structure to approach the issue from literal to metaphorical levels in order to answer the research question through analogical thinking.

In Chapter One, as an introductory chapter, the key term of this research, in-betweenness was re-examined in relation to the more commonly used word, hybridity. I attempted to explain the reason why in-betweenness is a more suitable word in the discussion of the idea of trans-culture. Based on the dictionary definition of the word and its association with a biological context, hybridity implies a single fusion of different entities, whereas in-betweenness can embrace the multi-existence and also the co-existence of things.

I began by examining the idea of culture from various perspectives, then introduced the concept of cultural hybridity as posited by Homi Bhabha. In agreement with Bhabha's assertion that culture is a non-fixed concept, I posed the question of whether cultural values in flux can be embodied through art, in particular, through artefacts. Through the discussion of how to interpret an artefact, the notion of style in terms of perceiving objects based on formal properties was investigated. Through this research, I hypothesised that art objects should be analysed by the act of creating in order to examine hybrid objects.

I researched the development of glass as an architectural and artistic medium from the nineteenth century up to the present, by comparing the changes in the cultural value of glass in terms of periods, geography and modes of production. The literature review of the history of pre-modern to modern glass revealed that material meaning is not fixed but relative, and needs contextual analysis to convey accurate knowledge. Paying particular attention to the American studio glass movement from the 1960s, I examined how an unconventional making process affects the finished outcome and the metaphoric potential derived from material experimentation.

Drawing on the findings from the literature review and historical survey, I explored the idea of in-betweenness by examining 'stylistic categories' of art objects and their relationship with the viewer's perceptions of culture. By modifying a conventional glassblowing process, and using it as a means to distort forms that incorporates imagery with cultural signifiers, I experimented with the transitional state between representational and abstract images. This body of studio practice gave an insight to approach the idea of in-betweenness as a fluid and transitional entity.

Chapter Two introduced the role of material at cultural and metaphorical levels with a particular focus on historical glass artefacts of East Asia and Western Europe between the sixteenth and nineteenth centuries. The selective examples of glass artefacts were compared with other current artworks that deal with the idea of in-between culture through the specific use of material.

The discussion focused on the idea of trans-material meaning, referring to the mode in which a substitute material is employed to mimic another material. For instance, by studying white glass artefacts which were invented due to the early European's desire to replicate East Asian porcelain, I discussed the role of glass in conveying cultural values and embodiment of cultural in-betweenness. Drawing upon modern Japanese cut glass, experiments with geometric and abstract pattern, and digital

image application methods, I attempted to adapt the original reference, and produced partially abstract images or objects. Other examples from contemporary art today were examined to support my view that artistic materials and making processes have the potential to convey cultural values, even without legible cultural images and subject matter. In addition, I briefly examined the contemporary glass art of East Asia to highlight how the regional and local identities are expressed by means of glass as an artistic material. This was also viewed in conjunction with European and North American technological and aesthetic influence on contemporary East Asian glass.

Chapter Three approached the idea of in-betweenness through examining the formal properties of material and the making processes. I used ornament for its implication to formal properties rather than contents; its association with certain visual cultures; its close affiliation with certain materials. These properties of ornament were used based on the framework of surface, materiality and workmanship. Ultimately, I aimed to explore beyond the literal and physical aspects of ornament to draw analogies between visual in-betweenness and cultural in-betweenness.

Experiments with the two and three dimensionality of ornament addressed the idea of mediation and translation in the process of interpreting and reproducing artefacts. Due to the physical properties of glass being transparent and fluid, the conventional idea of form and surface often cannot be applied to glass as the transparent surface obscures the boundary between surface and depth. By investigating one glassblowing method and superimposing layers of molten glass to build up a form, I used studio practice to suggest a model of producing objects that are made with material and process-driven methods.

As with Process Art in the 1960s, the idea of control and chance was investigated through textual and practical research. The fluidity of molten glass and gravity

allowed me to produce a body of work dependent upon the balance between control and chance. Through these methods, the notion of variation, retaining a common element whilst varying in degrees, was visualised.

The combination of processual and relational characteristics of material embodied through the making process being positioned between control and chance is the generic model for the mechanisms of visual in-betweenness that I achieved through theoretical and practical investigations. I concluded with the proposal that this physical model is an effective analogy to understand the notion of cultural in-betweenness.

Research Outcomes and Contribution to New Knowledge

By investigating physical and metaphorical aspects of glass through historical survey, object analysis, literature review and studio practice, this research aimed to understand the idea of in-betweenness through the framework of material culture. I hypothesised that analogies drawn from the object and process-based studies on the materiality of glass, from literal to metaphorical levels, can be a means to understand the idea of cultural in-betweenness.

As a result of my research, I have made new connections between glass and its metaphors by building on the notion of literal and phenomenal transparency elaborated by Rowe and Slutzky and a new glass culture led by the popularisation of window-glass in the nineteenth century, as argued by Isobel Armstrong. I located new perspectives by analysing glass objects and the relevant making processes. The investigation into making processes has revealed relatively overlooked and un-discussed attributes of glass: that it is both fluid and transformative. This has been achieved partly through investigating the physical attributes of glass in the studio, and partly through an interpretation of historical glass artefacts in the contexts of technical and stylistic development. Through these methods, I was able to approach

the idea of in-betweenness through an analogy between the materiality of glass and cultural in-betweenness. The findings are summarised as:

- In-betweenness is a fluid concept that is in a transitional state: the state of 'becoming'.
- In-betweenness is a gradual yet disruptive action that breaks the order of things.
- In-betweenness is a process of partial or selective abstraction to the extent where the awareness of origin remains whilst ambiguity is co-present.
- In-betweenness can be achieved through a mixture of control and chance. It is deliberate chance making whilst some amount of control is maintained.

Apart from the theoretical investigation, the glassmaking and printing methods employed in this research offered a re-interpretation of traditional processes which suggested the artistic and creative application of available methods. In terms of technical originality, I was less concerned with inventing new glassmaking or printmaking processes but with applying pre-existing techniques in innovative ways. Formal discrepancies conventionally considered as 'failure' were interpreted as 'variation'. In glassmaking, the traditional way of glassblowing (working with centrifugal force and gravity) was modified, so that the pieces produced were asymmetrical and uneven, which led to controlled and accidental distortions in form and pattern. A glassblower's goal under normal conditions is to keep the surface decoration intact, with a minimal amount of distortion during the making process. However, in my practice the ceramic transfer fused with the glass was intentionally distorted in order to transform it from representational to abstract. Through these appropriated techniques, the body of work produced as a part of this project is original in terms of general appearance, style and technique. Although not intended to be a solely technique-oriented research, it is hoped that the experiments with various glassmaking and printing techniques will be of interest to other practitioners.

Specific Challenges and Further Research Areas

From the outset, I defined the specific challenges of practice-led research, the impossibility of logically demonstrating the embodied knowledge in art objects and the tacit knowledge in the making process. The challenges stretched the research in positive ways.

The primary research method employed in response to such challenges involved the concentration on the process rather than the finished outcome. Both knowledge specific to the objects and knowledge generated in the process were necessary in supporting my argument. I aimed to utilise the making process to the maximum in order to avoid attempts to superficially illustrate theories and meet the anticipated and potential outcomes. Thus, the inevitable co-existence of control and chance in making objects has been highlighted and used as a means to infer the nature of in-betweenness, as being transitional and transformative.

The outcomes of this study point to several applications for future research. Although this study has attempted an initial contribution to the literature concerning the materiality of glass and its metaphorical role, more research is needed in both the textual and practical fields. In order to cover complex ideas from diverse disciplines, for instance, the idea of culture from comparative social, anthropological and post-colonial perspectives, the scope of the research inevitably doubled and widened. Areas such as the literature review of theories about the materiality of glass, the history of glass in East Asia up to the present in relation to the global history of glass, the idea of craft and workmanship in relation to the formation of in-betweenness, etc., have been only briefly surveyed and could be elaborated in more depth and in detail. For example, I have only scratched the surface of the history of glass in East Asia,

but the attempt to interpret historical objects in formal, cultural and metaphorical dimensions has provided an analogical understanding of in-betweenness.⁹⁴

In addition to historical aspects, contemporary glass art from East Asia has recently attracted much attention from artists, scholars and critics because glass communities there are growing fast and developing new strands of work. I consider this a valuable source for understanding the association between art and culture in a wider context, and aim to explore this further. My understanding of the culture of my native country, Korea, could have inherently provided me with the most accurate references, but I have addressed very few aspects of it, choosing rather to focus on China and Japan, for which more sources were available. However, contemporary glass culture in Korea has been expanding quickly over the last three decades. Its development through the adaptation of Western studio glass models of the mid-twentieth century to the present, and its positive and negative influences, could lead to more critical perspectives on the new in-betweenness in glass in Korea. Through my continuing research and practice, I would like to take part in this critical assessment.

I intentionally limited my studio practice in several aspects: the scale of work (hand-held), choice of media (glass and print) and techniques (furnace-work and kiln-work). This was to be able to 'directly' experience the transformation of material, observe and control the whole process from beginning to end (with support from the technicians at Royal College of Art), which provided valuable knowledge for my investigation into material- and process-based art. Future collaboration with artisans in specific fields such as engraving, cutting, and industry-based technologies will broaden the range of my experimentation with glass in the future.

⁹⁴ As mentioned in this work, the research area has been under-documented to date, hence the available sources were very limited.

Recognising the constraints and challenges of this research in both conceptual and practical areas, I am aware that this is, as always, a provisional ending of the research. I have gained significant value from determining what has been achieved, what has not, what limitations can be challenged, and what can be extended in future research opportunities. It is my hope that this research will contribute to an understanding of cultural in-betweenness and a re-reading of contemporary discourses on glass culture, and ultimately provide an impetus for future research by myself and others.

Bibliography

Adamson, G. (2007) *Thinking Through Craft*. Oxford: BERG.

Adamson, G. (2010) Analogue Practice. In: Jacob, M.J. & Grabner, M. (eds.) *The Studio Reader: On the Space of Artists*. Chicago & London: University of Chicago Press. pp.251-258.

Adamson, G., Riello, G. and Teasley, S. (eds.) (2011) *Global Design History*. London and New York: Routledge.

Adamson, G. & Kelly, V.(eds.)(2013) *Surface Tensions*. Manchester: Manchester University Press.

Armstrong, I. (2008) *Victorian Glassworlds: Glass Culture and the Imagination 1830-1880*. Oxford: Oxford University Press.

Ashcroft, B., Griffiths, G., and Tiffin, H. (1998) *Key Concepts in Post-Colonial Studies*. London and New York: Routledge.

Asiantiques (1997) *Treasures of Chinese Glass Workshops*. Winter Park: Asiantiques.

Bachelard, G.(1971) *The Poetics of Reverie*. Boston: Beacon Press.

Bakhtin, M. (1981) *The Dialogic Imagination: Four Essays by M.M. Bakhtin*. Austin: University of Texas Press.

Baldwin, J.R., Faulkner, S.L., Hecht, M.L., and Lindsley, S.L. (eds.) (2007) *Redefining Culture: Perspectives Across the Disciplines*. [Kindle DX version] Mahwah: Lawrence Erlbaum Associates. Available from <http://www.amazon.co.uk>. [Accessed 26 April 2013]

Balfour, H. (1893) *The Evolution of Decorative Art*. New York: Macmillan and Co.

Barbero, L.M. (2008) *Yalos: Why Glass?*. Milano: Charta Books Ltd.

Barrett, E. & Bolt, B.(eds.)(2007) *Practice As Research: Approaches To Creative Arts Enquiry*. London and New York: I.B.Tauris.

Baxandall, M. (1982) *The Limewood Sculptors of Renaissance Germany*. New Haven: Yale University Press.

Beazley, N. (2001) *Artists in Glass: Late Twentieth Century Masters in Glass*. London: Dan Klein.

Benjamin, W. (1933) Experience and Poverty. In: Jennigs, M., Eiland, H. and Smith, G. (eds.) (1999) *Walter Benjamin: Selected Writings Vol.2 1927-1934*. Cambridge: The Belknap Press. pp.731-736.

- Becker, H.S. (1978) Arts and Crafts. *American Journal of Sociology*, 83(4), pp.862-889.
- Begg, P. O.A.M, & Cone, M. (2002) *Radiant Reflections in Chinese Glass*. Berwood: The Ceramics and Glass Circle of Australia Inc.
- Benjamin, W. (1936) The Work of Art in the Age of Mechanical Reproduction. In: Arendt, H. (ed.) (2007) *Illuminations*. New York: Schocken Books.
- Benjamin, W. (1999[1940]) *The Arcades Project*. Translated from the German by H. Eiland & K.McLaughlin. Cambridge: Harvard University Press.
- Bhabha, H.K.(1993) Culture's in Between. *Artforum International*, 32(1). pp.167-168&211.
- Bhabha, H.K. (1994) *The Location of Culture*. New York: Routledge.
- Bhabha, H.K. (1996). Aura and agora: On Negotiating Rapture and Speaking Between. In: Francis, R., Bhabha, H.K. & Bois, Y.A.(eds.)(1996) *Negotiating Rapture: The Power of Art to Transform Lives*. Chicago: Museum of Contemporary Art, Chicago. pp.8-17.
- Biggs, M.A. (2003) The Role of the Artefact in Art and Design Research. In: *Practice as Research in Performance*, 11th Sept to 14th Sept 2013. Available from: <http://core.kmi.open.ac.uk/download/pdf/1636626.pdf>. [Accessed: 22 Feb 2012]
- Blair, D. (1948) An Exhibition of East Asiatic Glass. *Artibus Asiae*, 11(3), pp.195-205.
- Blair, D. (1973) *A History of Glass in Japan*. New York: Kodansha International Ltd.
- Boas, F. (1955[1927]) *Primitive Art*. New York: Dover Publications, Inc.
- Boda, Y. (1991) An Account of Qing Dynasty Glassmaking. In: Brill, R.H. & Martin J.H. (eds.) (1991) *Scientific Research in Early Chinese Glass*. Corning: The Corning Museum of Glass. pp.131-150.
- Bois, Y. and Krauss, R.E. (eds.) (1997) *Formless: A User's Guide*. New York: Zone Books.
- Bolt, B. (2007) The Magic is in Handling. In: Barrett, E. and Bolt, B.(eds.) *Practice as Research: Approaches to Creative Arts Enquiry*. London: I.B. Tauris.
- Braghin, C. (ed.)(2002) *Chinese Glass: Archaeological Studies on the Uses and Social Context of Glass Artefacts from the Warring States to the Northern Song Period*. Fienze: Leo S. Illichiki Editore MMII.
- Brett, D. (2005) *Rethinking Decoration: Pleasure and Ideology in the Visual Arts*. New York: Cambridge University Press.
- Brill, R.H. & Martin, J.H. (eds.) (1991) *Scientific Research in Early Chinese Glass*. Corning: The Corning Museum of Glass.

- Brill, R. H. (1995) Scientific Research in Early Asian Glass. In: *Proceedings of XVII International Congress on Glass*. Beijing: Chinese Ceramic Society, vol.1, pp. 270-279. [Online] Available from: <http://d3seu6qyu1a8jw.cloudfront.net/sites/default/files/collections/FB/FB60BC87-E3E0-45C9-B363-6A2B5BF87F55.pdf>. [Accessed 16 Feb 2012]
- Brown, C. & Rabiner, D. (1990) *Clear as Crystal, Red as Flame: Later Chinese Glass*. New York: China Institute in America.
- Burke, P. (2009) *Cultural Hybridity*. Cambridge: Polity.
- Butler, C. (1999) *AfterImage: Drawing through Process*. Cambridge and London: The MIT Press.
- Busch, A. (1983) A Branch of Lilacs- a Blue Stripe. In: American Craft Museum(1983) *Pattern: An Exhibition of the Decorated Surface*. New York: American Craft Museum.
- Busch, K. (2009) Artistic Research and the Poetics of Knowledge. *Art and Research: A Journal of Ideas, Contexts and Methods*, 2(2), Spring 2009. [Online] Available from: <http://www.artandresearch.org.uk/v2n2/busch.html>. [Accessed: 24 June 2012]
- Carter, P. (2004) *Material Thinking: The Theory and Practice of Creative Research*. Melbourne: Melbourne University Publishing.
- Cavanaugh A. & Yonan, M.E. (eds.) (2010) *The Cultural Aesthetics of Eighteenth-Century Porcelain*. Farnham: Ashgate Publishing Ltd.
- Cazeaux, C. (2008) Inherently Interdisciplinary: Four Perspectives on Practice-Based Research. *Journal of Visual Arts Practice*, 7(2), pp. 107-131.
- Chagnon, K. (2011) Handling the Technical and Theoretical Paradoxes of Moulding. *Esse*, 74, pp.18-25.
- Chatterjee, A. (2009) Tectonic into Textile: John Ruskin and His Obsession with the Architectural Surface. *Textile*, Vol.7, Issue 1, pp. 68-97.
- Cheetham, M.A. (2010) The Crystal Interface in Contemporary Art: Metaphors of the Organic and Inorganic. *Leonardo*, 43(3), pp. 250-256.
- Chi, L. (2009) The Global, General, and Specific Character of Chinese Glass Art. *The Glass Art Society Journal*, 2009, pp.38-40.
- Chiba, Y. (1998) Japonisme: East-West Renaissance in the Late 19th Century. *Mosaic*, 31(2), pp. 1-20.
- Chiu, M. (2007) The Theories of Being Outside: Diaspora and Chinese Artists. In: Chiu, M & Genocchio, B. (eds) (2007) *Contemporary Art in Asia: A Critical Reader*. Cambridge: MIT Press. pp. 327-345.

- Cho, Y.(2010) A Study on the Implications of Prefix “Trans-”: Focusing on Conceptual Consideration for Trans-Humanities. *Trans-Humanities(Ewha Institute for the Humanities)*, 3(3), pp.5-27.
- Clark, J. (2007). Hybridity in Asian Art Now. *Journal of Korean Modern and Contemporary Art History* ,18, pp.192-208.
- Clarke, T.H. (1974) Lattimo- a Group of Venetian Glass Enamelled on an Opaque-White Ground. *Journal of Glass Studies*, 16, pp.22-56.
- Clifford, J. (1988) *The Predicament of Culture: Twentieth Century Ethnography, Literature, and Art*. Cambridge: Harvard University Press.
- Clunas, C. (1991) The Chinese View. In: The South Bank Centre(1991) *Exotic Europeans*. London: The South Bank Centre. pp. 70-74.
- Coutts, H. (2007) *Émile Gallé and the Origins of Art Nouveau*. Durnham: The Bowes Museum.
- Crary, J. (1992) *The Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Cambridge: MIT Press.
- Curtis, E.B. (ed.) (2005) *Pure Brightness Shines Everywhere: The Glass of China*. Aldershot: Ashgate Publishing Limited.
- Curtis, E.B. (2009) *Glass Exchange Between Europe and China 1550-1800*. Farnham: Ashgate Publishing Limited.
- Dams, B & Zega, A. (2008) *Chinoiserie*. New York: Rizzoli.
- Denny, W.B. (1974) Blue-and-White Islamic Pottery on Chinese Themes. *Boston Museum Bulletin*, 72(368), pp.76-99.
- Douglas, M.(1966) *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. London: Routledge.
- Droth. M. (2009) *Taking Shape: Finding Sculpture in the Decorative Arts*. Henry Moore Institute.
- Duncan, A. (1994) *Art Nouveau*. London: Thames and Hudson.
- Elliot, T.S. (1949) *Notes Towards the Definition of Culture*. New York: Harcourt, Brace.
- Elville, E.M. (1964) *English and Irish Cut Glass 1750-1950*. 3rd edn. London: Country Life Limited.
- Escritt, S. (2000) *Art Nouveau*. London: Phaidon Press Limited.
- Espir, H. (2005) *European Decoration on Oriental Porcelain, 1700-1830*. London and Lisbon: Jorge Welsh Books.

- Evans, J. (1950) *Style in Ornament*. London: Oxford University Press.
- Fahrner-Tutsek, E. (2009) *Glass. China : Contemporary Glass*. München : Alexander Tutsek-Stiftung.
- Fariello, M.A. & Owen, P.(2005) (eds.) *Objects and Meaning: New Perspectives on Art and Craft*. Lanham: Scarecrow Press, Inc.
- Faulkner, R. (1995) *Japanese Studio Crafts: Tradition and the Avant-Garde*. London: Laurence King Publishing.
- Fiss, K. (2009) Design in a Global Context: Envisioning Postcolonial and Transnational Possibilities. *Design Issues*, 25(3), pp. 3-10.
- Fleming, E.M. (1974) Artifact Study: A Proposed Model. *Winterthur Portfolio*, 9, pp. 153-173.
- Flint, K. (2000) *The Victorians and the Visual Imagination*. Cambridge: University Press.
- Flores C.A.H. (2006) *Owen Jones: Design, Ornament, Architecture, and Theory in an Age in Transition*. New York: Rizzoli International Publications, Inc.
- Frampton, K. (1995) *Studies in Tectonic Culture: the Poetics of Construction in Nineteenth and Twentieth Century Architecture*. Cambridge: MIT Press.
- Frank, I. (ed.) (2000) *The Theory of Decorative art – An Anthology of European and American Writings 1750-1940*. New Haven: Yale University Press.
- Franz, S.K. (2006) Glass Tiger. *Glass Quarterly*, Spring 2006, 102, pp. 56-61.
- Frayling, C. (1993) Research in Art and Design. *Royal College of Art Research Papers*. 1(1), pp.1-5.
- Frayling, C. (2011) *On Craftsmanship: Toward a New Bauhaus*. London: Oberon Books.
- Friedman, B. (2002) *Yoichi Ohira: a Phenomenon in Glass*. New York: Rizzoli.
- Gamboni, D. (1999) Fabrication of Accidents: Fatura and Chance in Nineteenth-Century Art. *Anthropology and Aesthetics*, 36, pp. 205-225.
- Gamboni, D. (2005) Stumbling Over/Upon Art. *Cabinet*, 19, pp.58-61.
- Garcia, M. (ed.) (2009) *Patterns of Architecture*. New York: John Wiley & Sons.
- Garfoot, S. (2008) *Glass Routes: From Wolverhampton to China*. Wolverhampton: University of Wolverhampton Cadre Publications.
- Garner, P. (1990) *Émile Gallé*. 2nd edn. London: Academy Edition.
- Geertz, C. (1973) *The Interpretation of Cultures*. New York: Basic Books.

Geertz, C. (1983) *Local Knowledge: Further Essays in Interpretive Anthropology*. New York: Basic Books.

Gerritsen, A. (2011) Global Design in Jingdezhen: Local Production and Global Connections. In: Adamson, G., Riello, G. and Teasley, S. (eds.) (2011) *Global Design History*. London & New York: Routledge. pp.25-33.

Gideon, S. (1995 [1928]) *Building in France: Building in Iron*. Translated from the German by J.D. Berry. Santa Monica: The Getty Center for the History of Art and Humanities.

Gleiniger, A and Vrachliotis G. (eds.) (2009) *Pattern: Ornament, Structure, and Behaviour*. Basel: Birkhauser.

Gleiter, J.H.(2009) Ornament: the Battleground of Theory. *Zone*, 8, pp.1-6. [Online] Available from:
http://homepages.unibz.it/en/jgleiter/publications/architecture/Documents/sa_en_Gleiter.Ornament.BattlegroundofTheory.pdf. [Accessed: 10 Mar 2012]

Godfrey, M., Sertota, N., Brill, D. & Morineau, C. (eds.)(2011) *Gerhard Richter: Panorama*. London: Tate Publishing.

Gombrich, E.H. (1968) Style. In: Preziosi, D. (ed.)(1998) *Art of Art History: A Critical Anthology*. Oxford: Oxford University Press.

Gombrich, E.H. (2006[1979]) *Sense of Order: A Study in the Psychology of Decorative art*. 2nd edn. London: Phaidon Press Limited.

Goodman, N. (1975) The Status of Style. In: Goodman, N.(1978) *Ways of Worldmaking*. Indianapolis: Hackett Publishing Company. pp.23-40.

Graves, J (2002) Symbol, Pattern and the Unconscious. In: Schoeser, M. & Boydell, C. (eds.) (2002) *Disentangling Textiles: Techniques for the Study of Designed Objects*. London: Middlesex University Press.

Gray, C. and Malins, J. (2004) *Visualizing Research: A Guide to the Research Process in Art and Design*. Farnham and Burlington: Ashgate Publishing Ltd.

Gray, K. (2005) Everything is Illuminated. *Glass Quarterly*, Fall 2005, 100, pp.42-49.

Greenberg, C. (1960) *Modernist Painting* [Lecture]. Voice of America. Washington, D.C. [Online] Available from: <http://www.sharecom.ca/greenberg/modernism.html>. [Accessed: 10th Sept 2013]

Gupta, A. & Ferguson, J. (1992) Beyond 'Culture': Space, Identity, and the Politics of Difference. *Cultural Anthropology*, 7(1), pp. 6-23.

Guth, C.M.E.(2013) Layering: Materiality, Time and Touch in Japanese Lacquer. In: Adamson, G. and Kelley, V.(eds.) (2013) *Surface Tensions*. Manchester: Manchester University Press. pp.39-55.

Haddon, A.C. (1914[1895]) *Evolution in Art*. London: The Walter Scott Publishing CO., Ltd.

Halsall, F. (2007) No Medium Just a Shell: How Works of Art Configure Their Medium. *Journal of Visual Art Practice*, 6(1), pp.45-59.

Hawker, R. (2006) *Blur: Gerhard Richter and the Photographic in Painting*. PhD Thesis. University of Queensland [Online]. Available from: <http://espace.library.uq.edu.au/view/UQ:158803>. [Accessed: 3 April 2011]

Hay, J.(2010) *Sensuous Surfaces: The Decorative Object in Early Modern China*. Honolulu: University of Hawaii Press.

Hess, C. & Wight, K. (2005) *Looking at Glass: A Guide to Terms, Styles, and Techniques*. Los Angeles: J. Paul Getty Trust.

Holyoak, K.J. and Thagard, P. (1996) *Mental Leaps: Analogy in Creative Thought*. Cambridge and London: The MIT Press.

Honey, W.B. (1937) Early Chinese Glass. *The Burlington Magazine for Connoisseurs* , 71, pp.211-223.

Honey, W.B. (1949) *Many Occasions: Essays Towards the Appreciation of Several Arts*. London: Faber and Faber Limited.

Ikas, K., and Wagner, G. (eds.) (2008) *Communicating in the Third Space*. [Kindle DX version] New York and London: Routledge. Available from: <http://www.amazon.co.uk>. [Accessed 29 March 2013]

Impey, O. (1977) *Chinoiserie: The Impact of Oriental Styles on Western Art and Decoration*. New York: Charles Scribner's Sons.

Ingold, T. (2007) Materials Against Materiality. *Archaeological Dialogues*, 14(1), pp. 1-15.

IOR Production (2011) *Meekyoung Shin 'Translation'*. [Online Video] 10th March 2011. Available from: <http://www.youtube.com/watch?v=IN3VaXwCBSA> [Accessed: 19th Oct 2011].

Iversen, M.(ed.)(2010) *Chance*. Cambridge: MIT press.

Jacobson, D. (1993) *Chinoiserie*. New York: Phaidon.

Japan Glass Artcrafts Association (2002) *Art in Glass: The Creative Work of 95 Japanese Artists*. Tokyo: P.I.E. Books.

Jarry, M. (1981) *Chinoiserie: Chinese Influence on European Decorative Art, 17th and 18th Centuries*. New York: Vendore Press.

Jay, M. (1994) *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*. Berkeley and Los Angeles: University of California Press.

Jespersen, J.K. (2008) Originality and Jones' The Grammar of Ornament of 1856. *Journal of Design History*, 21(2), pp. 143-153.

Jones, O. (2008 [1856]) *The Grammar of Ornament*. London: Herbert Press.

Kapchan, D.A. & Strong, P.T. (1999) Theorizing the Hybrid. *Journal of American Folklore*, 112(445), pp.239-253.

Katins, A. (1998) *The Glass Skin*. Sapporo: Nakanishi Printing Ltd.

Kazmierczak, E. (1994) Philosophy and Aesthetic Preferences: Symmetry Versus Asymmetry. *Semiotics*, pp. 370-380.

Keesing, R.M. (1974) Theories of Culture. *Annual Review of Anthropology*, 3, pp.73-97 [Online]. Available from:

http://kodu.ut.ee/~cect/teoreetilised%20seminarid_2009%20s%C3%BCgis/1_seminar_KULTUUR_29.09.2009/text_1.pd.f [Accessed: 19 Jan 2013]

Kepes, G. (1944) *Language of Vision*. Mineola(NY): Dover Publication.

Kikuchi, Y. (2004) *Japanese Modernisation and Mingei Theory: Cultural Nationalism and Oriental Orientalism*. [Kindle DX version] London and New York: Routledge Curzon. Available from <http://www.amazon.co.uk>. [Accessed 2 April 2013]

Kim, J.Y. (2012) From Hotshop to Coldshop. *The Glass Art Society Journal*, pp.133-134.

Klein, D & Loyd, W. (eds.) (1984) *The History of Glass*. London: Orbis Publishing Ltd.

Klein, D. (1989) *Glass: A Contemporary Art*. London: William Collins Sons & Co., Ltd.

Knothe, F. (2010) East Meets West: Cross-Cultural Influences in Glassmaking in the 18th and 19th Centuries. *Journal of Glass Studies*, 52, pp. 201-216.

Knothe, F. (2011a) The Asian-Style Decoration of Val St. Lambert. *Journal of Glass Studies*, 53, pp.259-261.

Knothe, F. (2011b) Art and Technology Transfer: European Glassmaking in Eighteenth-Century China. In: *The World History Association Conference*, Beijing, China, in July 2011.

Knothe, F. (2013) European Glassmaking in China: Kilian Stumpf's Probable Influence 'Over Liuli'. *Reviews on Glass*, No.2, pp.7-14.

Ko, S. (2003) Some Notes on Contemporary Glass Art of Korea. *Crart*, Aug 2003, pp.40-42.

Koru Contemporary Art (2009) *3 Nations: Asian Contemporary Glass Art*, Hong Kong, 17 July- 16 Oct 2009. Hong Kong: Koru Contemporary Art.

- Kraidy, M.M. (2005) *Hybridity, or the Cultural Logic of Globalization*. Philadelphia: Temple University Press.
- Kris, E. & Kaplan, A. (1953) Aesthetic Ambiguity. In: Kris, E. (ed.) *Psychoanalytic Explorations in Art*. London: George Allen & Unwin.
- Kroeber, A. & Kluckhohn, C. (1952) *Culture: A Critical Review of Concepts and Definitions*. Cambridge: Harvard University Press.
- Kubler, G. (1979) Toward a Reductive Theory of Visual Style. In: Lang, B. (ed.) (1987 [1979]) *The Concept of Style*. Ithaca: Cornell University Press. pp.163-173.
- Kwon, M. (1997) One Place after Another: Notes on Site Specificity. *October*, 80, pp.85-110.
- Lambourne, L. (2005) *Japonisme: Cultural Crossings between Japan and the West*. New York: Phaidon Press Inc.
- Lancaster, C. (1952) Oriental Contributions to Art Nouveau. *The Art Bulletin*, 34(4), pp. 297-310.
- Lang, B. (1978) Style as Instrument, Style as Person. *Critical Inquiry*, 4(4), pp.715-739.
- Lang, B. (1982) Looking for the Styleme. *Critical Inquiry*, 9(2), pp.405-413.
- Lang, B. (ed.) (1987 [1979]) *The Concept of Style*. Ithaca: Cornell University Press.
- Lawrence, L. (2008) Japan's Glass Revolution. *The Wall Street Journal*. [Online]. Available from <http://online.wsj.com/article/SB121456925899110561.html>. [Accessed: 7 April 2012]
- Leddy, T. (1995) Everyday Surface Aesthetic Qualities: "Neat", "Messy", "Clean", "Dirty". *The Journal of Aesthetics and Art Criticism*, 53(3), pp. 259-268.
- Leitch, A. (2010) Materiality of Marble: Explorations in the Artistic Life of Stone. *Thesis Eleven*, 103(1), pp. 65-77.
- Leung, S and Kaplan, J. A. (1999) Pseudo-Languages: A Conversation with Wenda Gu, Xu Bing, and Jonathan Hay. *Art Journal*, 58, pp. 86-99.
- Levi-Strauss, C. (1966 [1962]) *The Savage Mind*. Translated from the French by G. Weidenfield Chicago: University of Chicago Press.
- Lippard, L. (1997) *Six Years: The Dematerialization of the Art Object from 1966 to 1972*. Berkeley and Los Angeles: University of California Press.
- Littleton, H. (1971) *Glassblowing: A Search for Form*. New York: Van Nostrand Reinhold.
- Loos, A. (1908) Ornament and Crime. In: Lees-Maffei, G. & Houze, R. (eds.) (2010) *The Design History Reader*. New York: Berg.

- Lu, X. (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.
- Lynn, M. D. (2004) *American Studio Glass 1960-1990*. New York: Hudson Hills Press.
- Lynn, M.D. (2005) *Sculpture, Glass, and American Museums*. Philadelphia: University of Philadelphia Press.
- Mabuchi, A. (2004) *Japonisme : Représentations et Imaginaires des Européens*. [Translated from the Japanese to Korean by Y. Choi]. Seoul: J&C.
- Macfarlane, A. & Martin, G. (2002) *The Glass Bathyscaphe: How Glass Changed the World*. Croydon(Surrey): Bookmarque Ltd.
- Mäkelä, M. and Routarinne, S. (eds.) (2006) *The Art of Research: Research Practices in Art and Design*. Jyväskylä: The University of Art and Design Helsinki.
- Malone, M. (2009) *Chance Aesthetics*. Chicago: University of Chicago Press.
- McLaren, G. (2002) *Studio Glass 1960-2000*. Buckinghamshire: Shire.
- McManus, C.(2005) Symmetry and Asymmetry in Aesthetics and the Arts. *European Review*, 13, pp.157-180.
- Mentasti, R.B. (2010) Yoichi Ohira: A Portrait. *Neues Glas*, spring 2010, pp.24-31.
- Mercer, K. (ed.)(2006) *Discrepant Abstraction*. Cambridge: MIT Press.
- Mertins, D. (2011) *Modernity Unbound: Other Histories of Architectural Modernity*. London: AA Publications.
- Miller, D. (ed.) (2005) *Materiality*. Durnham: Duke University Press.
- Mizuta, Y.(1993) The Historical Development of Modern Glass in Japan. In: Ricke, H.(ed.) (1993) *Neues Glas in Japan/ New Glass in Japan*. Düsseldorf: Kunstmuseum. pp. 16-24.
- Moeran, B. (1989) Bernard Leach and the Japanese Folk Craft Movement: The Formative Years. *Journal of Design History*, 2(2/3), pp. 139-144.
- Moeran, B. (1990) Japanese Ceramics and the Discourse of Tradition. *Journal of Design History*, 3(4), pp. 213-225.
- Morris, R. (1968) Anti Form. *Artforum*, 6(8), pp.33-35.
- Munro, T. (1970) *Form and Style in the Arts: An Introduction to Aesthetic Morphology*. Cleveland: The Press of Case Western Reserve University.

National Palace Museum of Taiwan (n.d) *A Moving Aesthetic: Asian Blue and White Porcelains*. [Online] Available from:

http://www.npm.gov.tw/exh97/asia/_en/page4.html [Accessed 10 March 2012]

Newark, T. (1989) *Émile Gallé*. London: Quintet Publishing Limited.

Nishi, T. (1983) *Far-reaching Glass Road*. [Videocassette], Southern Cross Associates for Japan-Ireland Economic Association.

North, M. (ed.) (2010) *Artistic and Cultural Exchanges Between Europe and Asia, 1400-1900*. Farnham: Ashgate Publishing Ltd.

Oakes, T.S & Pines, P.L. (eds.) (2008) *The Cultural Geography Reader*. New York: Routledge.

Odell, D. (2010) Porcelain, Print Culture and Mercantile Aesthetics. In: Cavanaugh, A. & Yonan, E.M.(eds.)(2010) *The Cultural Aesthetics of Eighteenth-Century Porcelain*. Farnham: Ashgate Publishing Ltd. pp. 141-158.

Olaquiaga, C.(1998) *The Artificial Kingdom: A Treasury of the Kitsch Experience*. New York: Pantheon Books.

Olaquiaga, C. (2007) Object Lesson: Lost Object. *Cabinet*, 26, pp. 19-21.

Olin, M. (1992) *Forms of Representation in Alois Riegl's Theory of Art*. University Park: The Pennsylvania State University Press.

Ono, A. (2003) *Japonisme in Britain: Whistler, Henry, Hornel and Nineteenth-Century Japan*. London and New York: Routledge.

Papastergiadis, N. (2005) Hybridity and Ambivalence: Places and Flows in Contemporary Art and Culture. *Theory, Culture & Society*, 22(4), pp.39-64.

Parry, B. (1987) Problems in Current Theories of Colonial Discourse. In: Ashcroft, B., Griffiths, G. and Tiffin, H. (eds.)(1987) *Post-Colonial Studies Reader*. London and New York: Routledge. pp.36-44.

Parry, B. (1994) Signs of Our Times: Discussion of Homi Bhabha's the Location of Culture. In: Araeen, R., Cubitt, S. and Sardar, Z. (eds.)(1994) *The Third Text Reader: On Art, Culture and Theory*. New York: Continuum. pp.243-254.

Perloff, M. (1999) Cultural Liminality / Aesthetic Closure?: The "Interstitial Perspective" of Homi Bhabha'. *Literary Imagination*, 1 (1), pp. 109-125.

Petrie, K. (2006) *Glass and Print*. London: A & C Black Publishers Ltd.

Phoenix Art Museum (1987) *Chinese Glass of the Qing Dynasty 1644-1911*. Phoenix: Phoenix Art Museum.

Pingus-Witten R. (1977) *Postminimalism*. New York: Out of London Press, Inc.

Pisters, P. (2009) Homi K. Bhabha. In: Colman, F.(ed.)(2009) *Film, Theory and Philosophy: The Key Thinkers*. Durham: Acumen. pp. 296-307.

Porter, D.L. (2002) Monstrous Beauty: Eighteenth-Century Fashion and the Aesthetics of the Chinese Taste. *Eighteenth-Century Studies*, 35(3), pp. 395-411.

Punter, D. (2007) *Metaphor*. Oxon: Routledge.

Pye, D. (1995[1968]) *The Nature and Art of Workmanship*. Bethel: Cambium Press.

Rawson, J. (1984) *Chinese Ornament: The Lotus and the Dragon*. London: British Museum Publications Ltd.

Ricke, H. (ed.) (1993) *Neues Glas in Japan/ New Glass in Japan*. Düsseldorf: Kunstmuseum.

Ricke, H & Schmitt, E. (2004) *Art Nouveau Glass: The Gerda Koepff Collection*. London: Prestel Verlag.

Riegl, A. (2004[1897-1898]) *Historical Grammar of the Visual Arts*. New York: Zone Books.

Roskill, M. (1969) *Van Gogh, Gauguin and the Impressionist Circle*. London and New York: Thames and Hudson.

Ross, S (2003) Style in Art. In: Levinson, J.(2003) (ed.) *The Oxford Handbook of Aesthetics*. Oxford: Oxford University Press.

Rowe, C. & Slutzky, R. (1993[1963]) *Transparency*. New York: Princeton Architectural Press.

Ruriko, T. & Mariko, I. (eds.) (2009) *A Glittering Interlude: Visions of Satsuma-kiriko*. Tokyo: Suntory Museum of Art.

Ruskin, J. (1849) *The Seven Lamps of Architecture*. London: Smith, Elder & Co,

Ruskin, J. (2007 [1886]) *The Stones of Venice Volume II: The Sea-Stories*. New York: Cosimo Inc.

Rutherford, J. (1990) The Third Space: interview with Homi Bhabha. In: Rutherford, J. (ed.) *Identity: Community, Culture, Difference*. London: Lawrence and Wishart. pp.207-221.

Said, E. (1978) *Orientalism*. New York: Pantheon.

Saito, Y. (1997) The Japanese Aesthetics of Imperfection and Insufficiency. *Journal of Aesthetics & Art Criticism*, 55(4), pp. 377-385.

Schäfer, D.(ed.)(2011) *Cultures of Knowledge: Technology in Chinese History*. Boston: Brill.

Schaffer, D. (2003) *The Order of Ornament, the Structure of Style: Theoretical Foundations of Modern Art and Architecture*. New York: Cambridge University Press.

Schapiro, M. (1953) Style. In: Schapiro, M.(1994) *Theory and Philosophy of Art: Style, Artist, and Society*. New York: George Braziller, Inc.

Scheerbart, P.(1972) *Glass Architecture*. In: Sharp, D.(ed.) *Glass Architecture & Alpine Architecture*. New York: Praeger.

Scrivener, S. (2002) *The Art Object Does Not Embody a Form of Knowledge* [Online]. Available from http://www.herts.ac.uk/__data/assets/pdf_file/0008/12311/WPIAAD_vol2_scrivener.pdf. [Accessed 19th Oct 2013]

Semper, G. (2004[1860]) *Style: Style in the Technical and Tectonic Arts: Or, Practical Aesthetics*. Los Angeles: The Getty Research Institute Program.

Serra, R. and Weyergraf, C. (1980) *Richard Serra: Interviews, etc. 1970-1980*. New York: The Hudson River Museum.

Sewell, Jr., W.H. (1992) A Theory of Structure: Duality, Agency, and Transformation. *American Journal of Sociology*, 98(1), pp.1-29.

Silverman, D.L. (1992) *Art Nouveau in Fin-de-Siecle France: Politics, Psychology, and Style*. Berkeley& Los Angeles: University of California Press.

Slack, R. (1987) *English Pressed Glass 1830-1900*. London: Barrie & Jenkins.

Sloboda, S. (2008) The Grammar of Ornament: Cosmopolitanism and Reform in British Design. *Journal of Design History*, 21(3), pp. 223-236.

Sontag, S.(1964) Against Interpretation. In: Sontag, S.(1967) *Against Interpretation and Other Essays*. London: Lowe& Brydone Ltd. pp. 3-14.

Sontag, S. (1965) On Style. In: Sontag, S.(1967) *Against Interpretation and Other Essays*. London: Lowe& Brydone Ltd. pp.14-36.

Sparke, P. (1995) At the Margins of Modernism: The Cut-Crystal in the Twentieth Century. *Bulletin- John Rylands University Library of Manchester*, 77(1). pp.31-38.

Stafford, B.M. (1999) *Visual Analogy: Consciousness as the Art of Connecting*. Cambridge: The MIT press.

Stockhammer, P.W. (ed.)(2012) *Conceptualizing Cultural Hybridization: A Transdisciplinary Approach*. [Kindle DX version] Heidelberg: Springer. Available from: <http://www.amazon.co.uk>. [Accessed 14 April 2013]

Stroll, A. (1988) *Surfaces*. Minneapolis: Fitzhenry & Whiteside Ltd.

Stross, B. (1999) The Hybrid Metaphor: From Biology to Culture. *The Journal of American Folklore*, 112(445), pp.254-267.

Sturrock, J. (1979) *Structuralism and Since: From Lévi-Strauss to Derrida*. Oxford: Oxford University Press.

Su, J. (2008) Thinking Otherwise: Asia Revisited. *Concentric: Literary and Cultural Studies*, 34(2), pp. 3-12.

- Sullivan, M. (1989) *The Meeting of Eastern and Western Art*. Berkeley and Los Angeles: The University of California Press.
- Suntory Museum of Art(1980) *Giyaman Biidoro: Edo-ki no Garasu*. Tokyo: Suntory Museum of Art.
- Suntory Museum of Art (2010) *Japanese Glass: Stylish Vessels, Playful Shapes*. Tokyo: Suntory Museum of Art.
- Tacoma Art Museum(1991) *Glass: Material in the Service of Meaning*. Seattle: University of Washington Press.
- Takatsugu, K. (1972) *Edo-ki no Garasu*. Toyko: Tokuma Shoten.
- Thomas, V.(2007) Émile Gallé and Nature: Types and Influences in His Glass. *Art on the Line*, 2007/1 (2), pp.1-9.
- Tormey, J.F & Tormey, A. (1983) Art and Ambiguity. *Leonardo*, 16(3), pp.183-187.
- Toso, G. (2000) *Murano: A History of Glass*. Verona: Arsenale Editrice.
- Trilling, J. (2001) *The Language of Ornament*. London: Thames and Hudson.
- Trilling, J. (2003) *Ornament: A Modern Perspective*. London: University of Washington Press.
- Tsuchiya, Y. (1984) Satsuma Kiriko: Japan's First Artistic Cut Glass. *Journal of Glass Studies*, 26, pp.102-110.
- Tsuchiya, Y. (1988) *Glass of Japan*. Kyoto: Shikosha.
- Tsuchiya, Y. (1999) *2000 years of Japanese Glass*. Tokyo: Santori Bijutsukan.
- Tsuji, N.(2004) The Glass Masterpieces of Émile Gallé and Their Affinity with Japanese Art. In: Ricke, H. & Schmitt, E. *Art Nouveau Glass: The Gerda Koepff Collection*. London: Prestel Verlag. pp.52-57.
- Turner, V.W. (1964) Betwixt and Between: The Liminal Period in Rites de Passage. In: Lessa, W.A & Vogt, E.Z. (eds.)(1979) *Reader in Comparative Religion: An Anthropological Approach*. 4th edn. New York: Harper & Row. pp.234-243.
- Tylor, E.B. (1871) *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Art, and Custom*. London: John Murray.
- Van Der Meulen, S. (2009) *The Problem of Media in Contemporary Art Theory 1960-1990*, PhD thesis, Columbia University.
- Vermeersch, E. (1965) Some Remarks on the Analysis of Culture Concept. *Studia Philosophica Gandensia*, 3, pp. 157-209.

Vidler, A. (1994) *The Architectural Uncanny: Essays in the Modern Unhomely*. Cambridge: MIT Press.

Wakefield, H. (1982) *Nineteenth Century British Glass*, 2nd edn. London: Faber and Faber.

Walton, K.L.(1979) Style and the Products and the Processes of Art. In: Lang, B.(ed.)(1987 [1979]) *The Concept of Style*. Ithaca: Cornell University Press. pp.72-103.

Washburn, D.K. and Crowe, D.W. (1988) *Symmetries of Culture: Theory and Practice of Plane Pattern Analysis*. Seattle: University of Washington Press.

Washburn, D.(1999) The Cultural Saliency of Symmetry. *American Anthropologist*, 101(3), pp.547-562.

Weisberg, G.P. (1975) Aspects of Japonisme. *The Bulletin of the Cleveland Museum of Art*. 62(4), pp.120-130.

Weisenfeld, G. (2007) Reinscribing Tradition in a Transnational Art world. In: Chiu, M. & Genocchio, B. (eds.)(2011) *Contemporary Art in Asia: A Critical Reader*. Cambridge: MIT Press. pp. 371-390.

Westropp, M.S.D. (1920) *Irish glass: An Account of Glass-making in Ireland from the 16th Century to the Present Day*. Plymouth: The Mayflower Press.

Weyl, H. (1952) *Symmetry*. Princeton: Princeton University Press.

Whitehouse, D.(2006) *Glass: A Pocket Dictionary of Terms Commonly used to Describe Glass and Glassmaking*. Corning: Corning Museum of Glass.

Wichmann, S. (1981) *Japonisme*. London: Thames and Hudson.

Wigley, M. (1995) *White Walls, Designer Dresses: The Fashioning of Modern Architecture*. Cambridge: MIT Press.

Williams, R.(1983) *Culture*. Glasgow: Fontana Press.

Williams, R. (1988 [1976]) *A Vocabulary of Culture and Society*. 2nd edn. London: Fontana Press.

Wills, G. (1968) *English and Irish Glass*. London: Guinness Signatures.

Wolfflin, H. (1950) *Principles of Art History: The Problem of the Development of Style in Later Art*. 6th edn. Mineola(NY): Dover publications, Inc.

Wright, S. (1998) The Politicization of 'Culture'. *Anthropology Today*, 14(1), pp. 7-15.

Young, J.O. (2008) *Cultural Appropriation and the Arts*. Oxford: Blackwell Publishing.

Young, R.J.C.(1995) *Colonial Desire: Hybridity in Theory, Culture, and Race*. London and New York: Routledge.

Young, R.J.C. (2012) Cultural Translation as Hybridisation. *Trans-Humanities*(*Ewha Institute for the Humanities*), 5(1), pp.155-175.

Zerwick. C. (1980) *A Short History of Glass*. Corning: The Corning Museum of Glass.

Appendix

: Photos of the final exhibition at the Royal College of Art (June 2012), and selected photos of Min Jeong Song's work produced throughout the research



IN-BETWEENNESS II

2012

furnace-worked solid glass, ceramic transfer

dimensions variable

photo: Ester Segarra





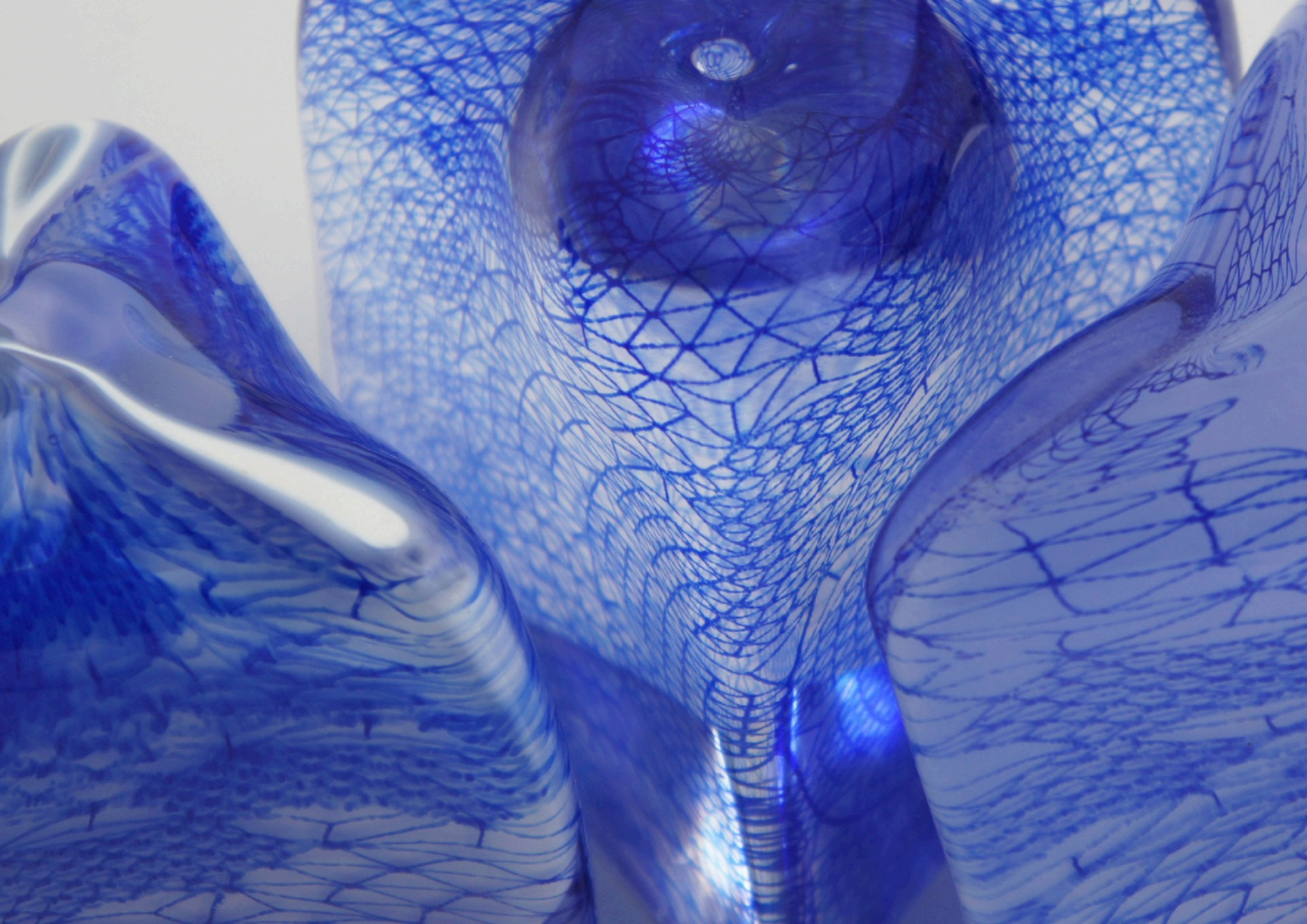




IN-BETWEENNESS I

2012

furnace-worked and cast solid glass, ceramic transfer
dimensions variable





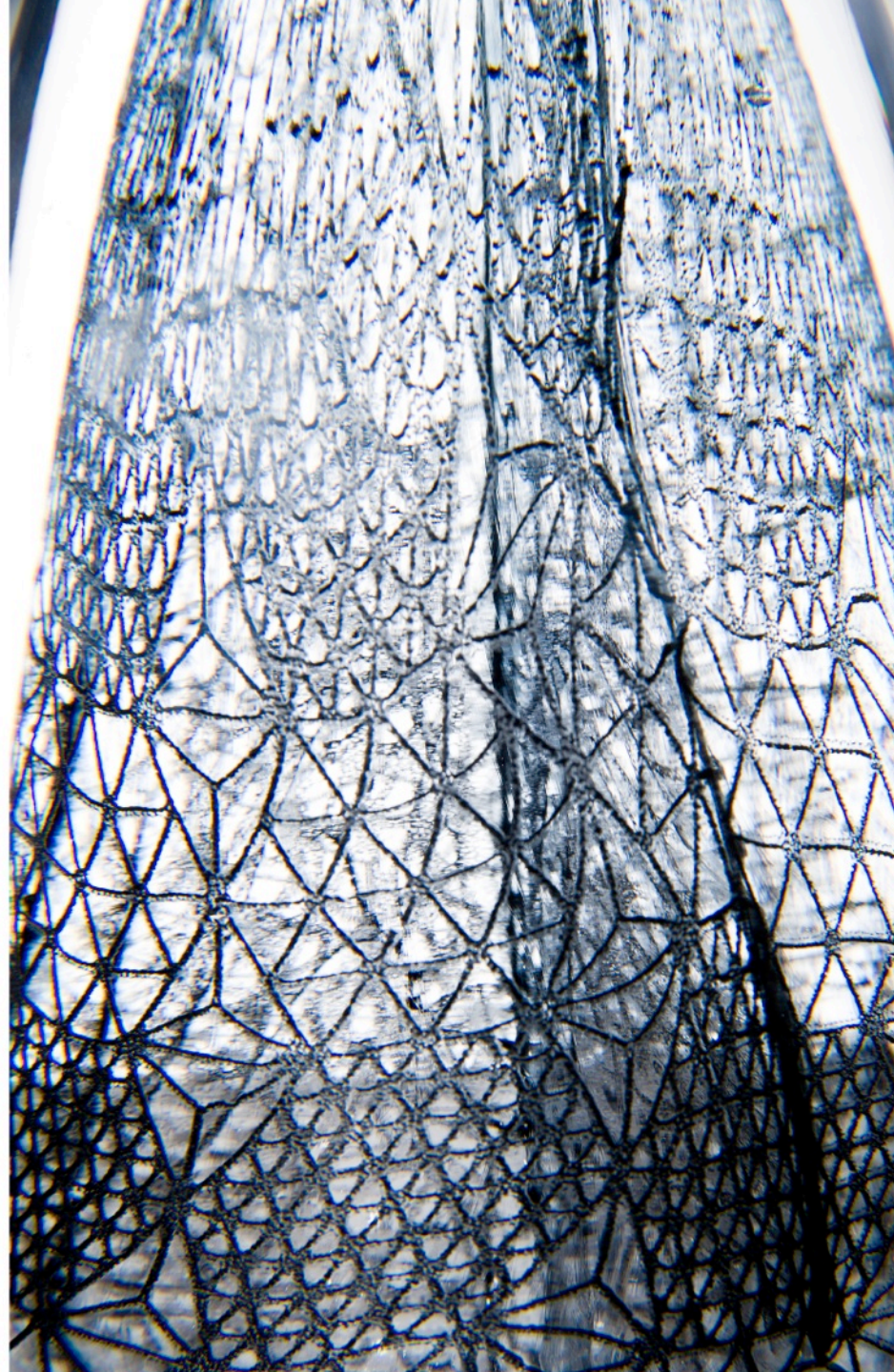
CUT GLASS MOTIF III

2012

furnace-worked glass, ceramic transfer

dimensions variable

photo: Ester Segarra





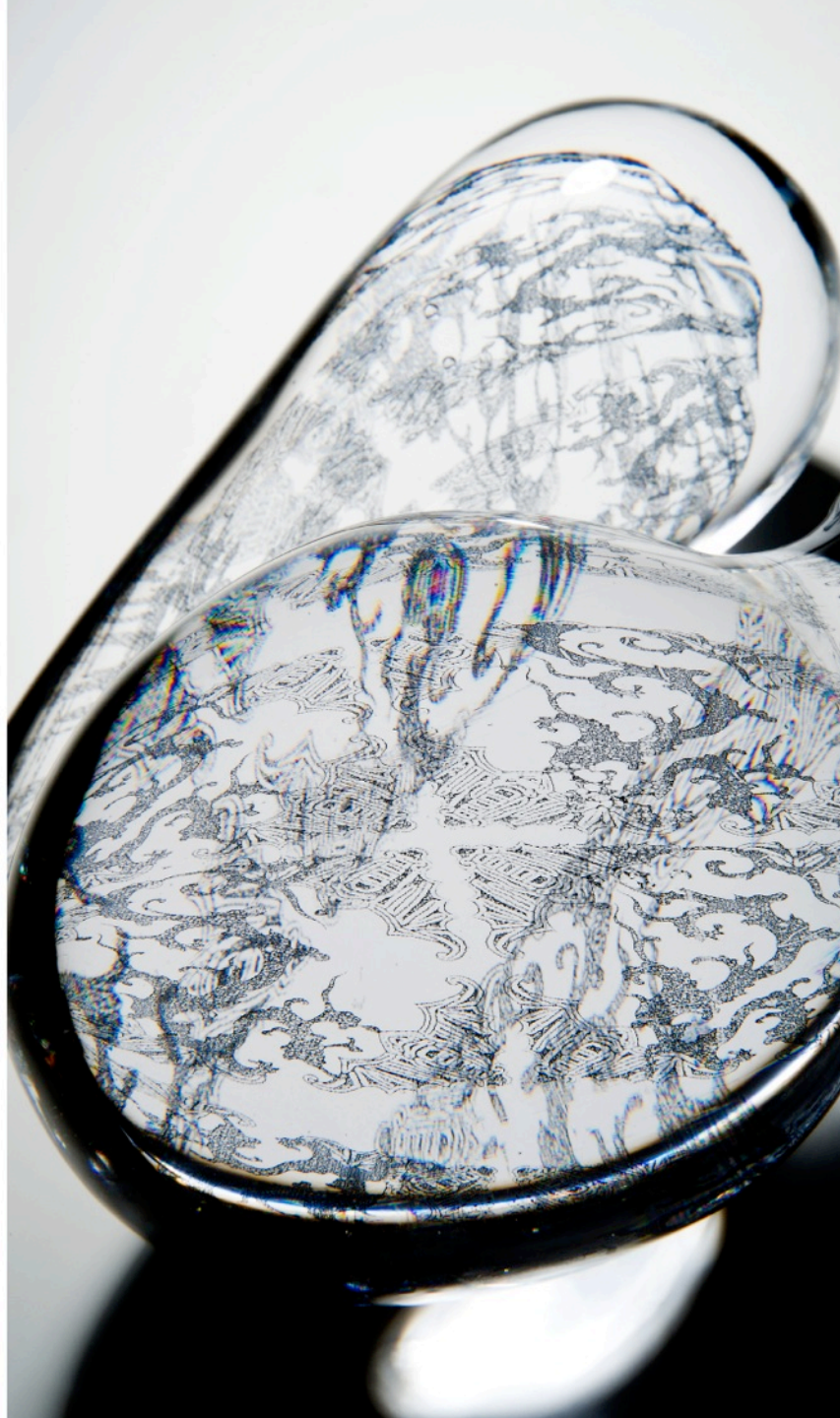
APPROPRIATION

2011

furnace worked solid glass, ceramic transfer

18*10*8cm 16*8cm*7cm

photo: Ester Segarra







MELTING

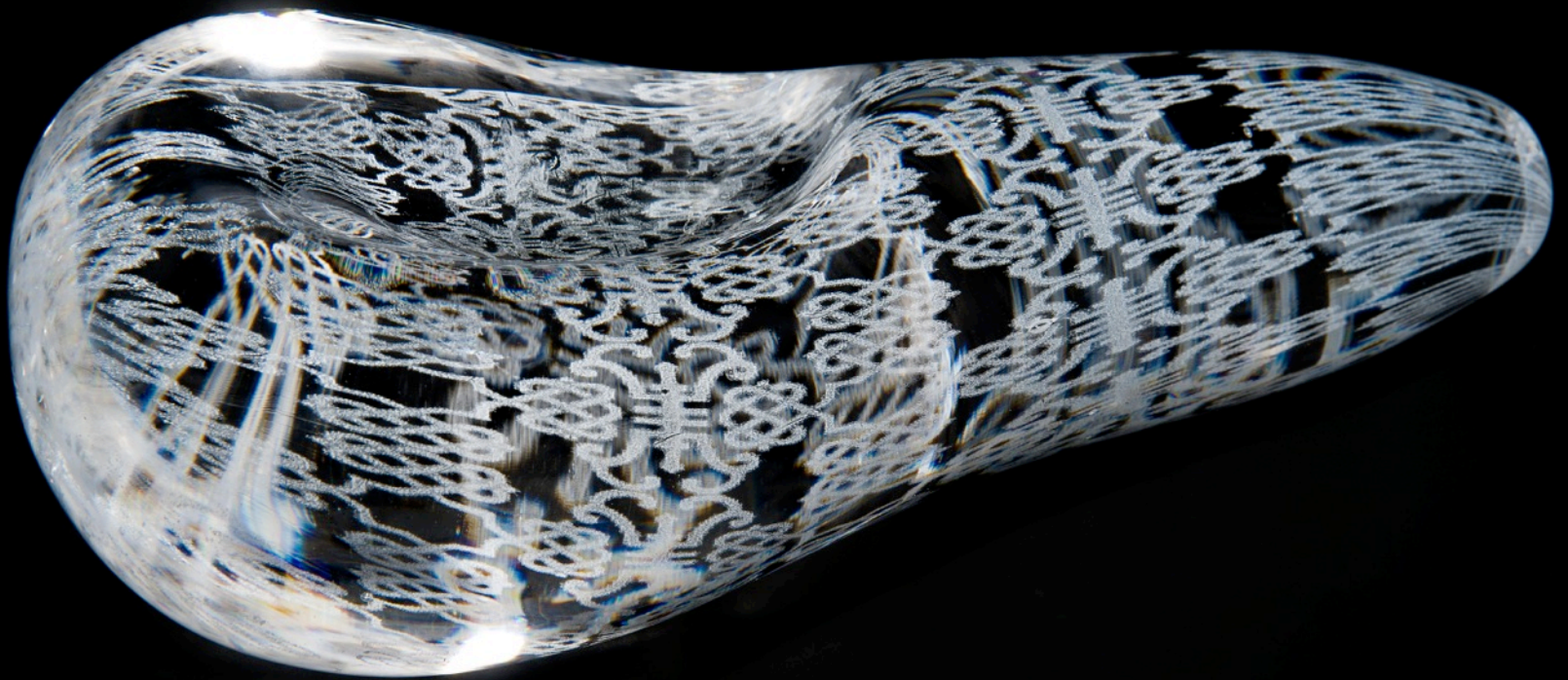
2011

furnace-worked solid glass, ceramic transfer

20*20*18 24*24*8 cm

photo:Ester Segarra





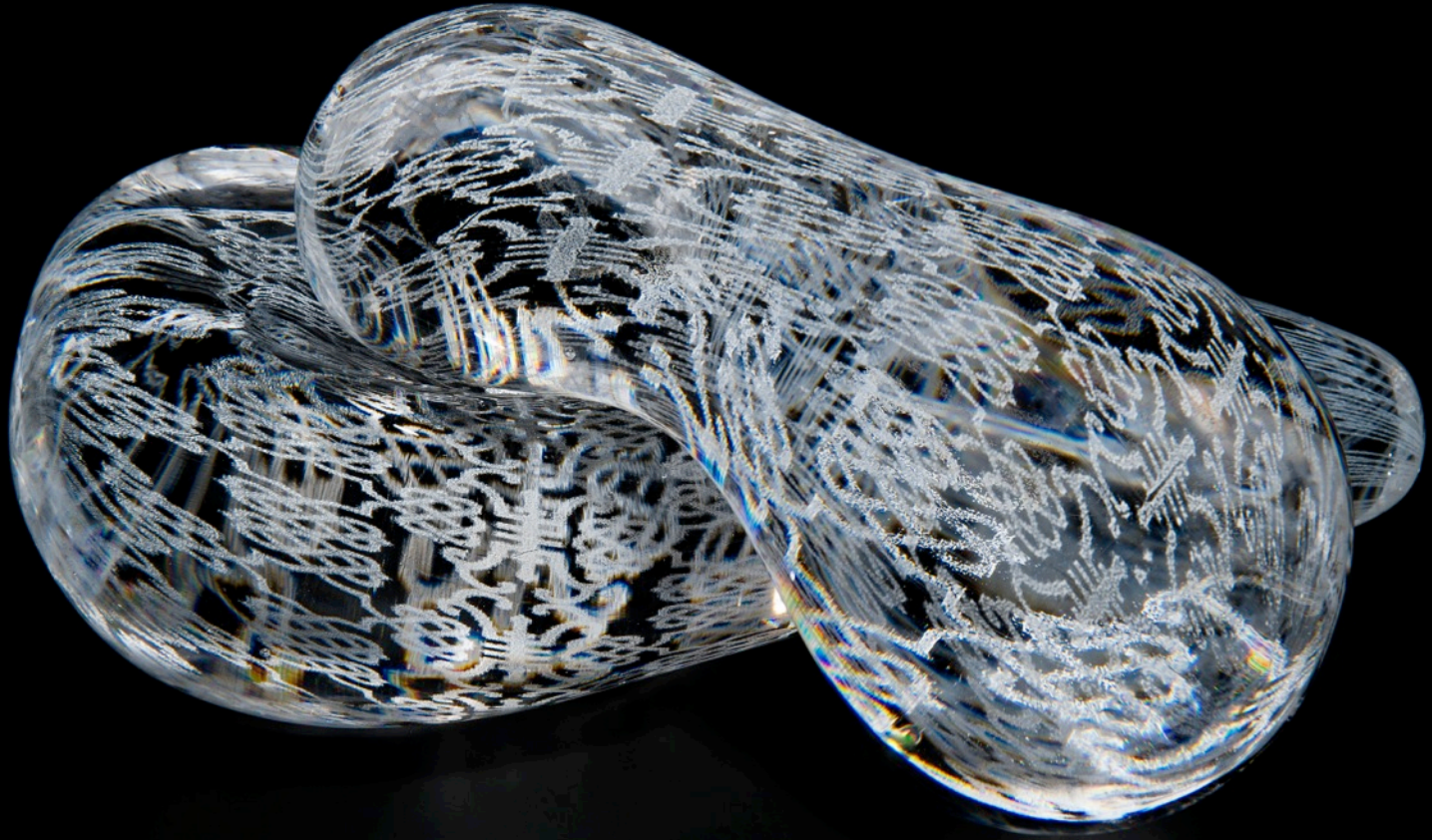
VIRTUAL BLUR

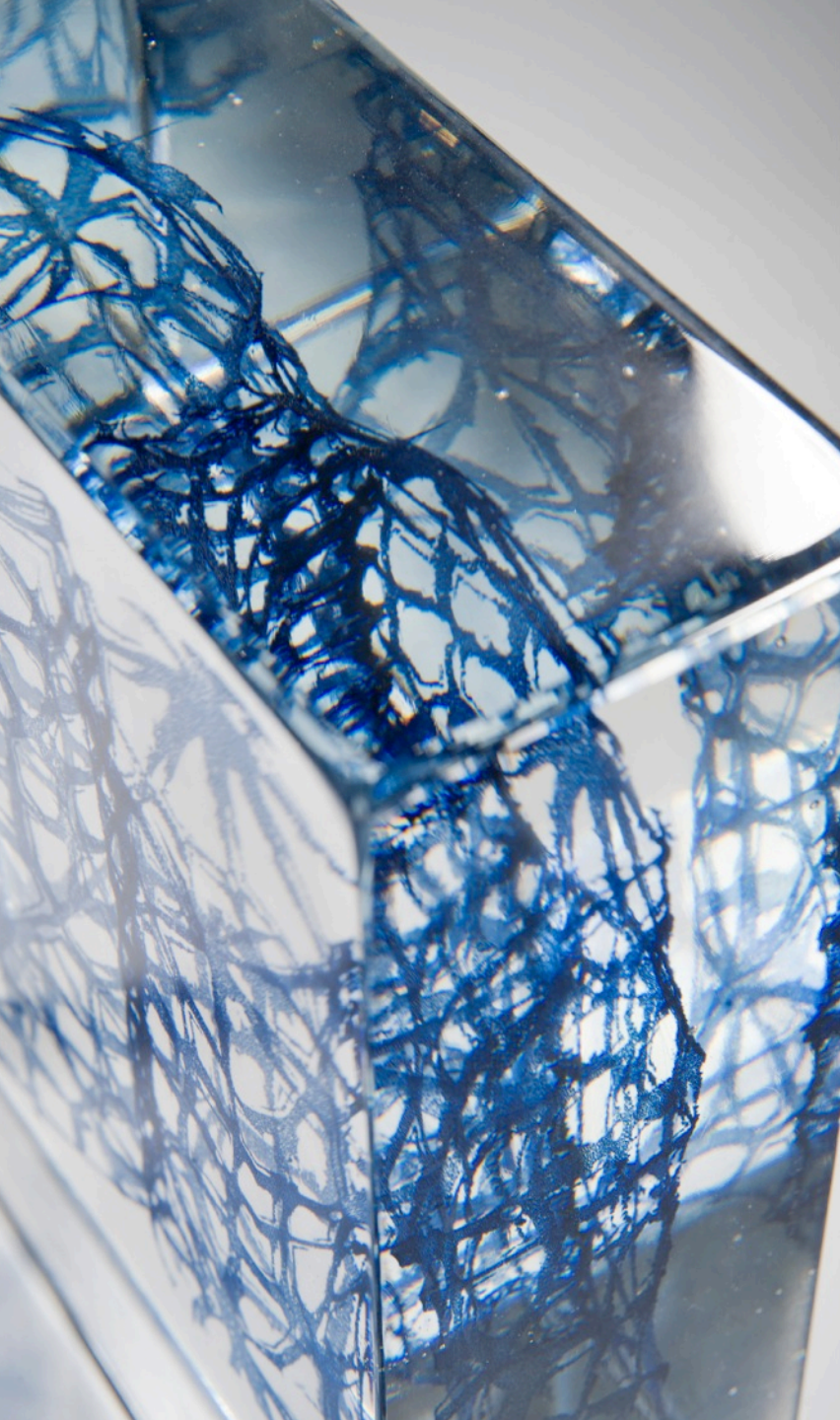
2011

furnace worked solid glass, ceramic transfer

23*13*3.5cm 16.5*8*7cm

photo:Ester Segarra





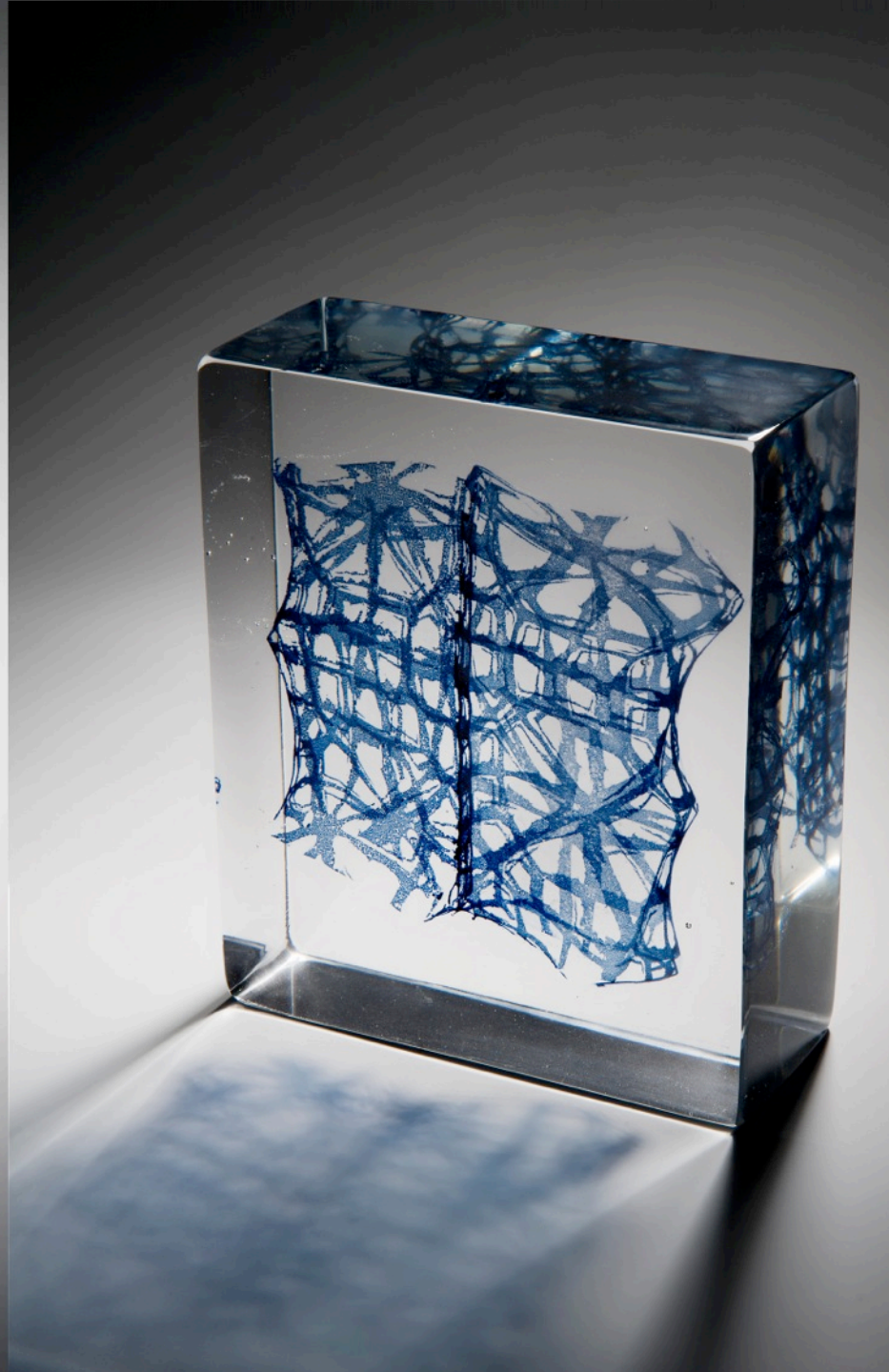
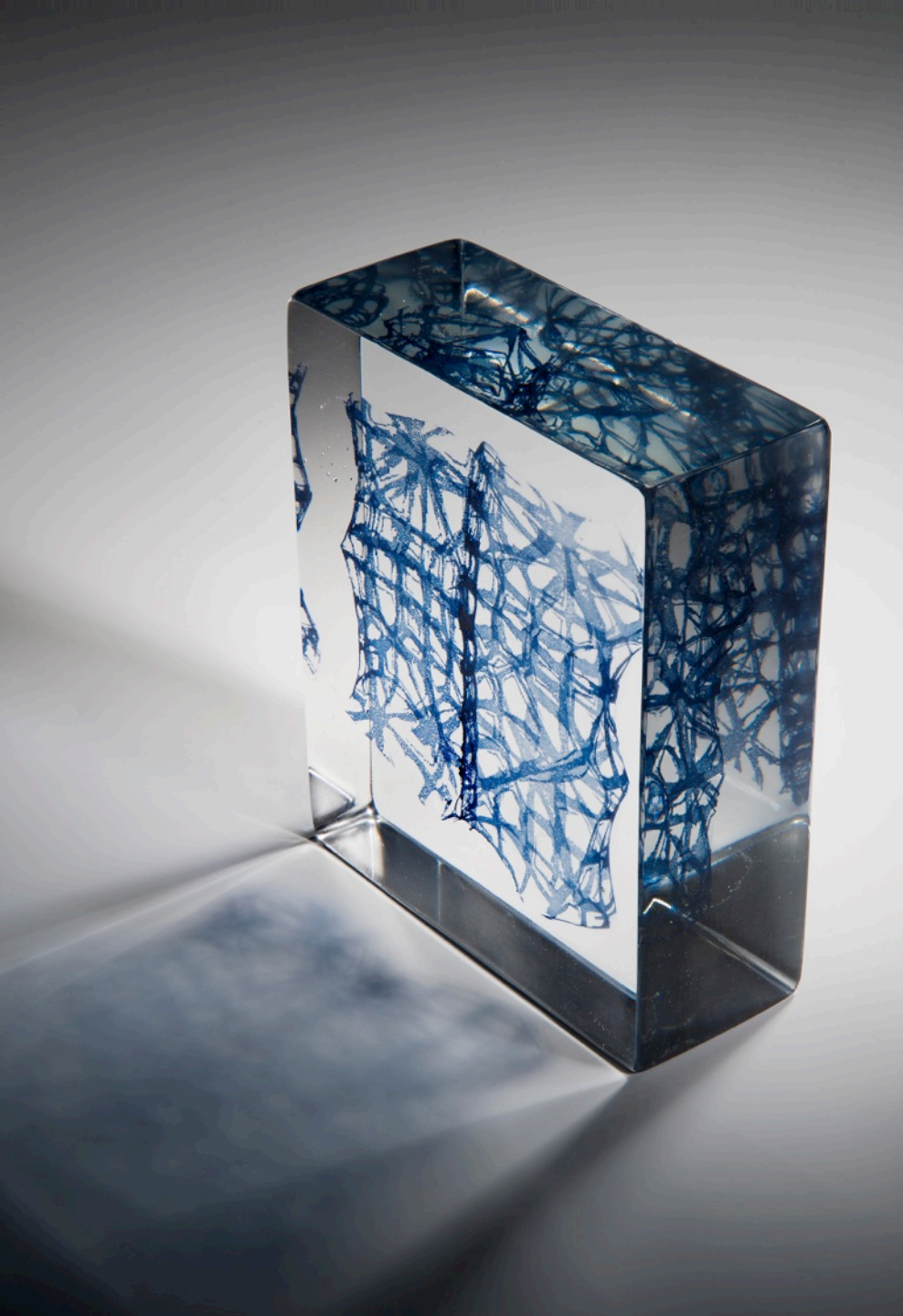
CUT GLASS MOTIF I

2011

furnace worked and cast glass, ceramic transfer

17*19*8cm

photo : Ester Segarra



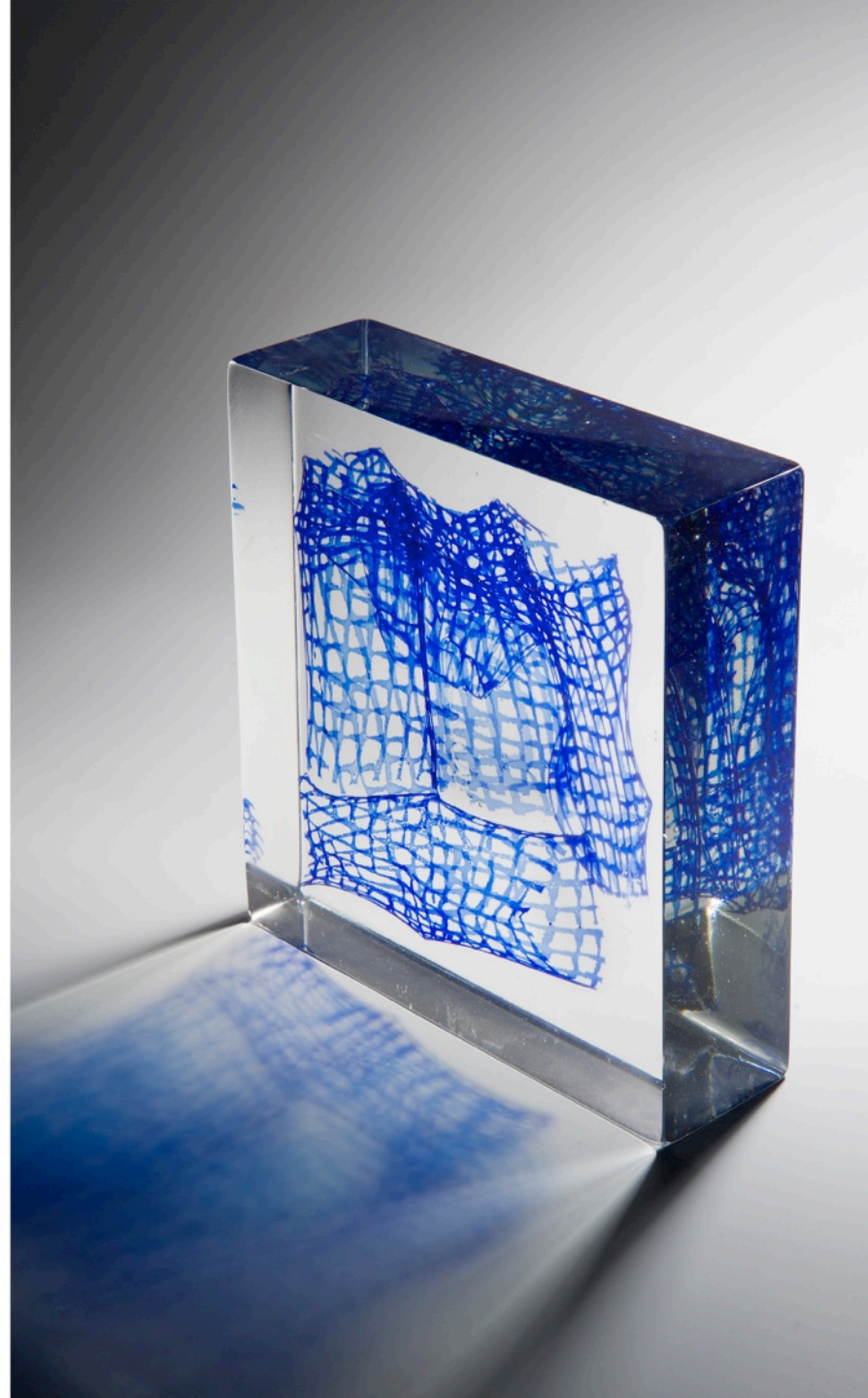
CUT GLASS MOTIF II

2011

furnace worked and cast glass, ceramic transfer

24*24*9.5cm

photo : Ester Segarra







PATTERNS AND MEMORIES REFLECTED ON GLASS

DRAGON MOTIF I

2010

blown glass, ceramic transfer

27*18*16cm 24*16*14cm

photo : Dominic Tschudin



LATTICE MOTIF I
2010
blown glass, ceramic transfer
22*16*14cm 14*12*12cm
photo: Dominic Tschudin

PATTERNS AND MEMORIES REFLECTED ON GLASS
DRAGON MOTIF II

2010

blown glass, ceramic transfer

16*17*8 cm

Photo : Dominic Tschudin







PATTERNS AND MEMORIES REFLECTED ON GLASS

DRAGON MOTIF III

2010

blown glass, ceramic transfer

25*18*17cm 28*28*1cm 18*18*10cm

photo: Dominic Tschudin





LATTICE MOTIF II

2010

blown glass, ceramic transfer

26*19*12 cm

photo : Dominic Tschudin





YING-YANG MOTIF

2010

blown glass, ceramic transfer

14*40*14cm

photo : Dominic Tschudin



ASYMMETRIC COMPOSITION
2011
blown glass, ceramic transfer
18*20*10cm 19*15*8cm
photo: Dominic Tschudin



A STUDY ON THE KLEIN BOTTLE

2011

blown glass, ceramic transfer

18*18*14cm

photo: Dominic Tschudin

