

BACK-STORY IN CONTEMPORARY
SCULPTURAL PRACTICE:
FROM MATERIALS TO
INCORPORATION

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Abstract

This 'by practice' research project explored the function of back-story in contemporary sculptural art. It was driven by an ongoing artistic practice and resulted in a series of new artworks accompanied by an analytical commentary. Gérard Genette's concept of *analepsis* within narrative literature was taken as an initial theoretical framework to test to what extent it might be applied to sculpture. Analysis of selected works by Joseph Beuys, Felix Gonzalez-Torres and Doris Salcedo, artists who used back-story in the context of trauma, led to modifications of the theory to account for the relationship between artwork and its back-story, notably its expression in materials.

The use of narrative in sculptural art to provide a storied reading acts in combination with the work's *biography*, although the work remains non-narrative in form, even lacking a 'main' narrative. The study discusses the ways the selected artists disclosed their 'authored' back-story, through title, *paratext*, public biography and reiteration of themes within an *oeuvre*. Back-story invoked what Genette called *retroception* – compelling the viewer to look again from a different perspective. Here, the autonomy of the artwork from its back-story is upheld. However, I posit that reading the art work in conjunction with its back-story alters the viewers' experience by offering a storied entry into the work, situating the viewer at the 'right' distance in terms of emotional connection, and extending the reading time allowing more complex meanings to emerge.

Investigation through making was prioritised, conducted through a process of 'improvisation' that explored various storied connections within original glass sculptures. As a result of reflecting on the results of a traditional glass inclusion process in my work, a new approach surfaced which I call *incorporation*: the partial embedding of a material within another as it solidifies. This process is seen to embody the concept of *retroception* and signal the connection to back-story.

The research contributes to knowledge by providing a framework for an understanding of back-story in contemporary sculptural practice; demonstrating how *incorporation* can evoke and embody back-story; and, creating a body of original work that provides material for further investigation of back-story.

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Dedication

To the beloved memory of my parents

Celia Esther de Agreda Tejada Manubens Calvet de Barbarini (RIP 1980)

Osmar Juan Barbarini (RIP 2015)

and

to my husband Mark Hopkins, who has accompanied me throughout this shared endeavour with his infinite love and loyalty, as a faithful friend, guide and confidant who always believed in me. I will be forever grateful to him.

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1. Introduction

1.1 The beginning

BBC News reported on 10 August 2011 riots in Manchester and Salford:

Police have said they were overwhelmed by "unprecedented levels of violence and criminality" that erupted on the streets of Manchester...glass from shop windows and bus shelters littered the streets...Councillor Pat Karney, of Manchester City Council, said the violence marked "one of the worst days that Manchester has ever seen"¹.

Manchester (09/08/2011) was an artwork made from glass swept up after the riots in Manchester on the night of 9 August 2011. The broken glass, mixed with dirt from the streets, was assembled in moulds and kiln fired to produce a series of sculptures. This was one of my first works concerned with back-story, produced during Master's level studies, and with the riots unambiguously forming the back-story.



[Fig 1.1] **Ana Rosa Hopkins** (2011) *Manchester (09/08/2011)*. Glass, street debris, ionised water. Installation size variable. Harris Museum Permanent Collection.

The glass was material evidence of the event and we might consider that the memory of the unrest was somehow immanent in the glass – but how could this back-story be communicated to the viewer? Without revealing the story, the bowls and plates could be read as art glass objects and the weightier significance of the material's history would pass unnoticed. Although we

easily understand the association between shattered glass and rioting², how do we understand the glass when it is fused back together to form something new?

¹ BBC News Manchester (2011) *Police 'overwhelmed' by riots in Manchester and Salford*. 10 August. BBC News. [Online] [Accessed on 15 August 2011] <http://www.bbc.co.uk/news/uk-england-manchester-14467588>

² *Kristallnacht* (The night of broken glass), specifically associates broken glass with the violent attacks on the Jews in 1938.

We are familiar with how back-story in cinema and fictional literature reveals something that happened earlier in the story, but as a visual, rather than a narrative art form, how can contemporary sculpture use back-story? Can the artwork disclose its back-story or does it need to be revealed through explanatory text? What effect does knowledge of the work's back-story have on its reading? Is back-story an integral part of the artwork or something supplementary which surrounds it? Does it aggregate meaning as the work is circulated and interrogated over time? Indeed, should it be revealed at all or should the work be left to 'speak for itself'? These are some of the questions that were addressed during this practical and theoretical enquiry that led to a clearer understanding of the characteristics of back-story in contemporary sculpture, and how it can be evoked.

1.2 Methods

As a PhD by practice, the focus of my research was on the creation of works of art. It was through making, and self-reflection on the process and results, that the enquiry developed. The methodology can be described by what the anthropologist Tim Ingold calls the 'art of inquiry'³ (thinking through making), where the thinking does not take place at the beginning with the idea or form projected onto the material, but where ideas and knowledge grow together during the making process.

I began by proposing questions about the nature of back-story in contemporary sculpture and how materials can evoke it, but the practical enquiry was one of improvisation rather than a series of structured experiments.⁴ I was not trying to test a hypothesis or solve a problem, but to find things out during the making, working with the materials to see what they could do; through engagement, observation and reflection to experience their potential. This was an ongoing process where each work produced informed the subsequent improvisations.

The principal of improvisation may seem a rather unfocused approach but one can make an analogy with theatrical improvisation which has a set of ground rules applicable to art practice. The principal rules of improvisation are to listen and agree with what your partner has proposed, and to take the proposal further by saying "Yes, and...". This approach is similar to what Ingold calls 'correspondence' where the maker and materials respond to each other, and are intertwined in their actions 'like melodies in a counterpoint'⁵. Ingold also sees the importance of the sentient quality of the exchange, expressed through the gestures of the making process, the physical aspect of improvisation, which was particularly pertinent in my practice when working with hot glass that embodies such gestures to some extent. This method of improvisation often led to unexpected and unpredictable results, some of which seemed to be unsuccessful, but in improvisation, there are no mistakes, only opportunities

³ Ingold, T. (2013) *Making*. London: Routledge, pp. 6-8. Ingold refers to this as a practice of thinking through making.

⁴ Ingold also proposes that 'the creativity of thinking through making lies in the improvisation rather than in innovation...in the improvisational processes' *Thinking through Making*. October 31. Institute of Northern Culture. [Online] [Accessed on 20 May 2016] <https://www.youtube.com/watch?v=Ygne72-4zyo>

⁵ Ingold, T. (2013) *Making*. London: Routledge, pp. 105-108.

which may take us in a new direction. In this method, the quality of reflection is equally important as the engagement in making.

My practice was also akin to the work of an alchemist, applying an existing conception towards the combination of diverse materials and getting to know how they reacted with each other through practical experience. Working with glass in new ways and incorporating a mixture of other materials in the glass-making process sometimes led to technical challenges and questions of safe working practices. These were addressed through an extensive risk assessment for the use of inclusions in glass fusion which is attached as Appendix II.

The practical enquiry was supported by a theoretical study which informed my practical work. Using Gérard Genette's literary analysis of *analepsis* (back-story) as a starting point, his model was probed through the analysis of work by selected sculptural artists. The scope of this analysis was limited to three artists whose work has generated extensive discussion around the influence of their back-stories on the reception of their work; specifically, the work of Joseph Beuys, Felix Gonzalez-Torres and Doris Salcedo. The selected artists were also those to whom I felt a connection through related themes and intensities, in particular, the theme of trauma. This study led to a deeper understanding of how back-story functions in contemporary sculptural practice, specifically its expression in materials. Finally, this knowledge was applied to an analytical commentary of selected artworks made during the course of this research.

2. Back-story

2.1 An introduction to back-story

The term back-story is most commonly understood in reference to a narrative technique found in cinema, television and literary fiction, but also used in real-life stories (as in journalism) to give background to an incident being reported. It refers to events that took place chronologically earlier in the main narrative.

In literature and film-media, the back-story is commonly revealed during the course of the narrative to give the audience a greater understanding of the situation at a given moment especially by clarifying the motivation of a character. Back-story is a narrative technique which is now thoroughly embedded in literature.⁶

In film-media, the back-story is disclosed through the screenwriting device of 'exposition'. The medium of cinema allows for this exposition to take a number of different forms. It is most commonly revealed through flashback, but also dialogue when characters recall their past, mise-en-scène (a prop can give information about a character's past), short text that discloses prior background, and voice-over narration exposing facts.⁷ The back-story can be revealed for dramatic effect relying on the skill of the author or screenwriter to manage its exposition. It can heighten dramatic impact and give the reader/viewer a sense of participating in the development of the narrative and characters.

⁶ Contemporary fiction has also made back-story a literary pursuit in itself, a notable example being Jean Rhys' *Wide Sargasso Sea* (1966), written as the prior history that explains "the madwoman in the attic" from Charlotte Brontë's *Jane Eyre*.

⁷ As in literature, film-media has further exploited the back-story by developing exposition from an original film to create the prequel – *Star Wars Prequel Trilogy* being the most cited.

2.2 Back-story applied in contemporary sculptural art

Back-story in the fine art field has not been clearly defined. However, literary theory offers some suggestions that can form a basis for our study. French structuralist Gérard Genette was one of the first literary theorists to undertake a systematic analysis of the basic concepts of narrative in his *Discours du récit*.⁸ Taking Proust's *À la recherche du temps perdu* as a case study, he provided a thoroughgoing analysis of the temporal structure of the back-story.

Firstly, Genette distinguishes between story (*histoire*) the narrative content and telling (*récit*) the written or spoken account of such events. The story is understood as unfolding chronologically, but the telling can take various orders. The story and its telling comprise the process of narration. Discordance in the temporal order of events between story and telling, which Genette called *anachrony*, gives rise to anticipations and retrospections, known as *prolepsis* and *analepsis*. *Analepsis*, for us, equates to back-story, and I will use this term in discussing literary theory and its application to fine art. Genette described *analepsis* as 'any evocation...of an event that took place earlier than the point in the story where we are'⁹. He identified two categories: *external* and *internal*. An *external* *analepsis* refers to an event that took place before the start of the main narrative, whereas an *internal* *analepsis* refers to an event that takes place after the start of the narrative. By virtue of lying outside the time frame of the main narrative, an *external* *analepsis* 'fills-out' the narrative by 'enlightening the reader on one or another antecedent'¹⁰. An *internal* *analepsis*, however, 'fills-in' a gap or returns to a section of narrative, and hence can interfere with the main narrative.

Genette distinguishes several types of internal and external *analepses* that are useful to this study. I will adopt his terminology because it is succinct; the Classical roots of the terms are simplified by the understanding that *diegesis* refers to narrative, and *ellipsis* to a gap in the narrative.

⁸ The usual English translation is *Narrative Discourse*.

⁹ Genette, G. (1980) *Narrative Discourse*. Ithaca, New York: Cornell University Press. p. 40.

¹⁰ Genette ref. 9, p. 50.

An *internal* analepsis can be

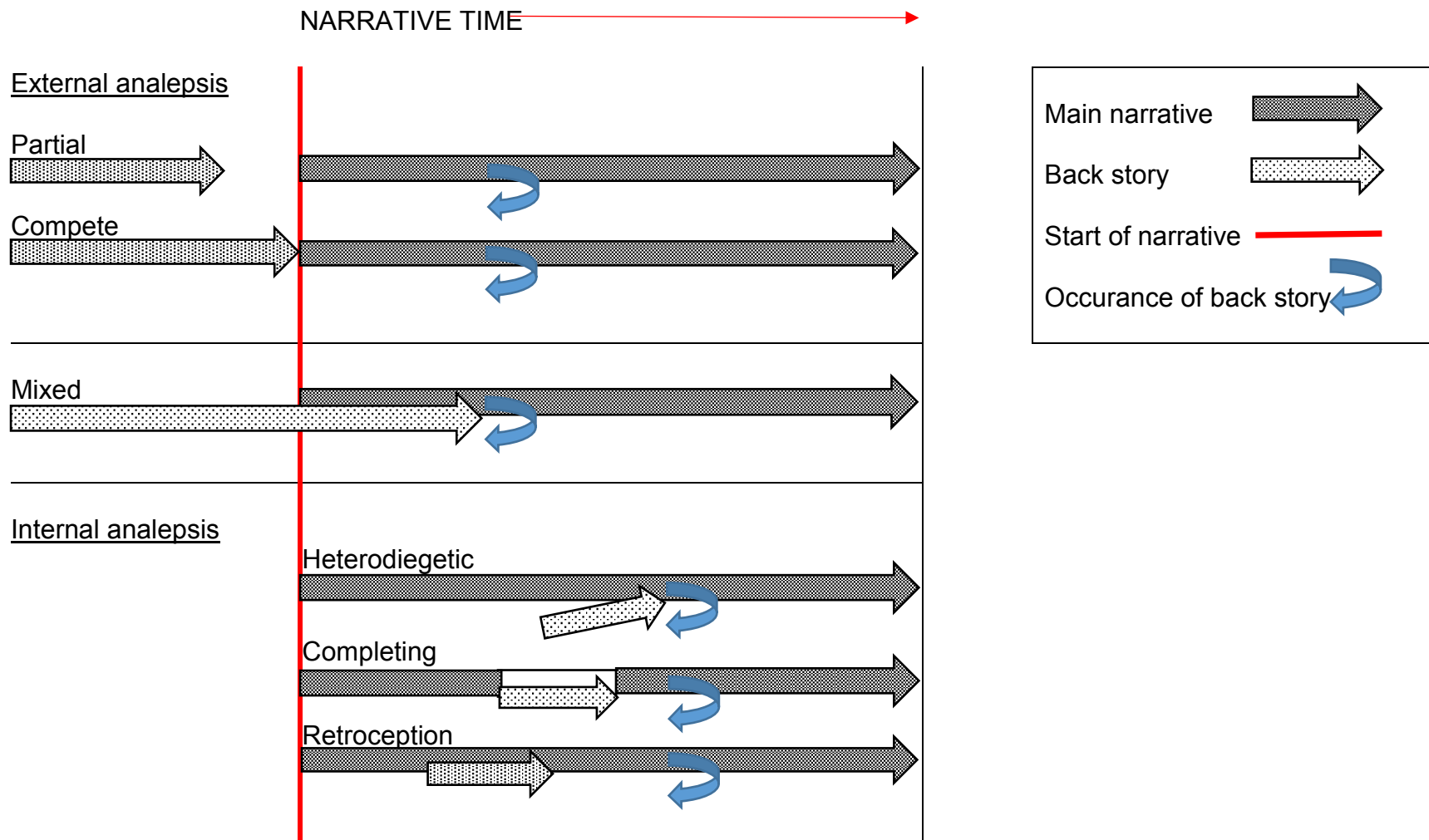
- a. Heterodiegetic – the back-story provides a separate narrative from the main narrative, as when giving the background of a new character or one who has been absent for some time;
- b. Completing (homodiegetic) – the back-story here fills in a gap in the same narrative or introduces information about a situation initially sidestepped; and,
- c. Retroception (homodiegetic) – recalls an episode from the narrative's own past but seen from a different perspective that changes the meaning of its first occurrence.

An *external* analepsis can be:

- a. Partial – the back-story is isolated from the main narrative and does not join it to the first narrative, leaving a temporal gap
- b. Complete – where the back-story joins the beginning of the main narrative; or,
- c. Mixed – reaching from before the main narrative but re-joining it at the point where it stopped to tell the back-story.

The modes of analepsis and the temporal relationship of back-story to narrative can be illustrated more clearly in diagrammatic form.

[Table 1.1] Temporal structure of back-story in narrative



The initial challenge of comparing back-story in sculptural art to back-story in literature lies in the nature of the storied content and the question of how to establish the temporal relationship between story and telling which is the basis for analepsis.

First, we can consider the storied aspect of an artwork. Clearly it is not the intention of all artwork to have a storied content; a minimalist sculpture does not aim to represent an outside reality – ‘What you see is what you see’¹¹; likewise, Duchamp’s readymade were ordinary functional manufactured objects. In either case, a sculpture may be purely figurative or abstract; neither requires a storied reading.



[Fig 2.1] **Carl Andre**, *4th Steel Square*, 2008. Hot rolled steel plates. 1 x 200 x 200 cm. Andrea Rosen Gallery.



[Fig 2.2] **Marcel Duchamp**, *Bottle Rack*, 1914/64. Galvanised iron. 59 x 37 cm. Indiana University Art Museum, Bloomington.



[Fig 2.3] **Tara Donovan**, *Untitled*, 2012. Acrylic and adhesive. 81.9 x 86.4 x 87.6 cm. Pace Gallery

But we can conceive of a storied view which exists in all artwork and we can call this its *biography*. These stories can consist of: (1) the creation of the materials, (2) the life of the materials and their incorporation into objects, (3) the choice and collecting together of the materials by the artist, (4) the process of making the artwork, (5) the life of the artwork after completion. The table below shows how this might look for my work *Manchester (09/08/2011)* referenced in the introduction.

¹¹ Greenberger, A. (2015) *What you see is what you see: Donald Judd and Frank Stella on the end of painting in 1966*. July. Art Media ARTNEWS. [Online] [Accessed on 21 July 2016] <http://www.artnews.com/2015/07/10/what-you-see-is-what-you-see-donald-judd-and-frank-stella-on-the-end-of-painting-in-1966/?singlepage=1>

[Table 1.2] **Storied view of Manchester (09/08/2011)**

(1)	(2)	(3)	(4)	(5)
Glass made from sand, limestone and soda ash.	Float glass process used to form window panes and fitted as shop window. Window broken by rioting.	Artist sees potential in using broken glass for new artwork through its connection to the rioting. Glass swept up from streets after riots	Broken glass used in fusion process to create series of sculptures. Presented together as an installation.	Wins art prize. Presented to the Harris Museum & Art Gallery by the Contemporary Art Society through The Omega Fund, 2015

This storied content often passes unnoticed but can be seen as latent in the artwork. Indicators in the work's treatment and making can evoke the work's biography and suggest to the viewer that it can be read narratively, in the sense that it tells of an event or series of events. However, the work's biography should not be seen as the main narrative of the work. In contrast to literary fiction, an artwork need not have a main narrative; it can give the indication of a storied content, but reading of potential narratives may be contingent on the experience of the viewer.

We equate here the reading of a book with the temporality of seeing a work of art and consider this as a space for narrative perception during which time a storied content can unfold. However, there are a number of distinct differences between these two types of 'reading time'. In literature the author can control the telling of the story, the sequence of reading as the pages of the book are turned, and the point where analepsis is introduced; in a work of art, the storied content is usually offered suggestively, and the sequence of reading undirected. In its non-narrative form, an artwork does not specifically indicate story order¹² but temporal relationships can be implied. These temporal, along with other biographical

¹² There are examples where sequential images may be purposely used, as in a sculptural frieze (Parthenon marbles) or sculptural group (Stations of the Cross) suggesting a logical narrative through spatial composition.

aspects of the work, can trigger the viewer's sense of an analepsis, by evoking an 'event' that stands chronologically prior to the current time frame.

The viewer may perceive temporal properties in the sculptural work in a number of ways. These include:

Materials:

a. Organic and inorganic materials, for example wood or stone, one referencing its former time as a tree, and the other geological time.



[Fig 2.4]
Joseph Beuys
The End of the Twentieth Century, 1982-5
Basalt, clay and felt.
Dimensions variable.
Tate.

Objects:

a. Found or used objects bearing vestiges of their original function and history, and which may be patinated by time or scarred by use.



[Fig 2.5]
Cornelia Parker
Twenty Years of Tarnish (Wedding Presents), 1996,
Two silver-plated goblets, each 13 x 6.5 x 6.5 cm. Private collection

b. Relics or traces with specific historical reference or significance.



[Fig 2.6]
Teresa Margolles
When Most of Us Were Sandinistas, 2004, 105 x 150 cm
Embroidery on fabric previously stained with blood from the body of a woman assassinated in Managua.
Colby College Museum of Art, Waterville, Maine.

c. Objects which suggest the passage of time, such as a light bulb, clock or egg timer.



[Fig 2.7]
Miroslaw Balka
186 x 10 x 10, 2000
Used soap and steel cable.
186 x 10 x 10 cm
Art Basel 2012. DVIR Gallery

Process:

a. Visible signs of process suggesting the time taken as it was 'worked' by the artist, or the action it underwent.



[Fig 2.8]
Gabriel Orozco
Piedra que cede (Yielding Stone), 1992

Plasticine, debris
37 × 39.5 × 41 cm
Walker Arts Centre, Minneapolis

b. Perception of the making time.



[Fig 2.9]
Gabriel Kuri
Donation Box, 2010

Sand, cigarette butts, coins
Dimensions variable
At: Kunstverein Freiburg, Germany

Duration:

a. Ephemerality, metamorphosis or change in the artwork



[Fig 2.10]
Kitty Kraus
Untitled, 2006

Lamp, ice, ink.
Dimensions variable.
At: HOME, Manchester 25 Jun – 11 Sep 2011

b. Physical movement, or the suggestion of movement in the artwork.



[Fig 2.11]
Francisco Tropa
Lantern, 2011¹³
Dimensions variable.
At: Portuguese Pavilion, Venice Biennale. 4 Jun – 27 Nov 2011
Play: <https://www.youtube.com/watch?v=W8hfRE-Nvxk>

c. Sound or moving images as part of the work.



[Fig 2.12]
Katie Paterson
Earth-Moon-Earth (Moonlight Sonata Reflected from the Surface of the Moon), 2007
E.M.E. transmitter/receiver, Disklavier grand piano
At: HOME, Manchester
Play: <http://katiepaterson.org/eme/>

As in literature the temporal aspects of sculpture give the opportunity for both prolepsis (the anticipation of an event) and analepsis: a light bulb will burn out and a natural flower die; a burned-out bulb once provided light and a dead flower

¹³ Medium: Beachwood easel, platform, different parallelepipeds in white limestone that form the pedestal of the image-projection mechanism, brass cube with transformer, ventilator, condenser, halogen light bulb, brass support and glass cup, limestone cylinder, cylindrical glass tank with drip faucet, lens.

once bloomed. Focusing here on analepsis, the following examples serve to demonstrate how the different modes of back-story may function in sculptural artwork.



[Fig 2.13] **Cornelia Parker**, *Thirty Pieces of Silver*, 1988-89. Silver and copper wire. Size variable. Tate Modern.

and included in the work.

Cornelia Parker works primarily with found objects. In *Thirty Pieces of Silver*, 1988-89, silver-plated domestic items crushed by a steamroller are suspended in 30 'pools' floating above the floor. Although physically transformed the objects evoke their accrued histories which could be seen as an example of a complete external analepsis, stories which took place before they were crushed



[Fig 2.14] **Joseph Beuys**, *Sweeping up*, 1972-85. Vitrine with sand, stone, paper, garbage, and broom, with Beuys pamphlets printed on plastic bags. 202 x 233 x 61.5 cm. René Block Collection.

partial external analepsis as the detritus was collected years earlier, leaving a temporal gap between the action and the time the actual artwork was made.

An action which leads to an artwork may also suggest an external analepsis. *Sweeping Up*, 1972-85 by Joseph Beuys is a vitrine containing street detritus swept up from the streets in East Berlin after a left-wing May Day demonstration in 1972. The materials, along with the broom, evoke the time-based action which preceded the creation of the artwork and suggests a



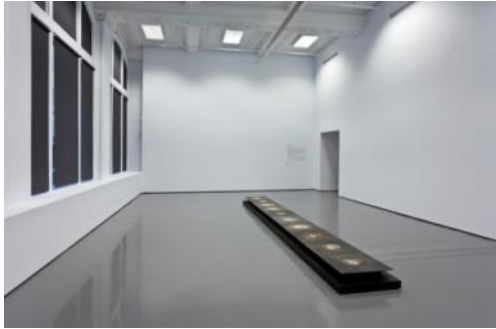
[Fig 2.15] **Joseph Beuys**, *The End of the Twentieth Century*, 1982-5. 90 x 700 x 1200 cm. Tate Modern.

by the visible signs of human intervention. We could consider that the basalt

Beuys' *The End of the Twentieth Century* 1983-85 is an environment with thirty-one huge basalt stones lying down in the space, each one with a conical hole lined with felt and clay and the original conical piece of basalt, returned to the hole. The basalt suggests an expansive temporal dimension stretching back millions of years but touched

suggests a mixed external analepsis, whose story reaches back to the 'old world' and arrives at the present.

The following two examples show how information provided by the artist can reveal the work's back-story, which will be discussed further in the following chapter. In both works, the significance of the materials, not immediately evident, is revealed, modifying the understanding of the work.



[Fig 2.16] **Teresa Margolles**, *Plancha*, 2010. 30 x 600 x 60 cm, DHC/ART Foundation for Contemporary Art.

Plancha 2010 by Teresa Margolles is an installation with a durational aspect consisting of a row of heated metallic plates onto which fall drops of water. As the water drop hits the hot metal it evaporates with a hiss and a wisp of vapour. The work's caption reveals that the water was used to wash the bodies of murder victims which can change the viewer's perception of the

work through a *retroception*; the evaporating drops of water evoke a more disturbing meaning.



[Fig 2.17] **Regina Jose Galindo**, *Looting*, 2010. 136 x 35 x 38 cm. Venice Biennale 2011, Latin American Pavilion.

Looting, 2010 by the Guatemalan artist Regina José Galindo, consists of eight very small sculptures in gold on a bed of sand and displayed in a showcase. In Guatemala, the artist had her old dental fillings removed and filled with the highest quality Guatemalan gold. In Germany she had these removed and presented them as

sculptures. This information is included below the exhibition title giving a back-story that fills in the details of what happened to the gold between Guatemala and Germany and may be seen as a completing internal analepsis.

These examples show that Genette's theory could be applied to sculptural art. However, before we can fully understand how back-story operates in sculpture, a few more theoretical considerations require examination.

2.3 The authored back-story and its presentation through paratext

We have seen how an artwork can have a storied content and suggest back-story through its temporal aspects and biography, but in this thesis my focus is on the study of works where the artist has revealed the work's back-story. This can include information about the materials and making, autobiographical details, or implications in historical and socio-political events. These storied elements are often interrelated although one may be more dominant. We can call this the 'authored' back-story.¹⁴ It can be made known through different means of communication such as interviews, texts provided in the gallery, catalogue entries or audio guides and evoked through indicators in the work.

But back-story is not limited to the one authored by the artist. Critics often seek back-story in the artist's biography. The viewer may read an 'unofficial' back-story triggered by their imagination, or reinterpret the 'authored' back-story and arrive at a personal understanding of what the work means. An authored back-story could be seen as restricting the work's possible interpretations and limiting its poetics. But it is through knowledge of the authored back-story that we can undertake a more thorough assessment and understand the relationship of meaning to materials and techniques.

The artist's use of back-story does not aim to assign an ultimate meaning to the work or a closed reading, and without it, the work may be less comprehensible to the viewer. The philosopher and art critic Arthur Danto commented that with many works of contemporary art we need to know what the artist intended as, often, 'without the explanation, we have no way of knowing what we are looking at'¹⁵. He saw a growing distance between the object and the artist's 'argument', to the extent that 'without the text we would badly misread the object'¹⁶.

By 'text', Danto was referring to gallery wall texts, catalogue entries and audio description available to the viewer alongside the artwork. These accompanying explanations have an analogy with the literary concept of *paratext* propounded by

¹⁴ The artist may also choose to let the work 'speak' without any explanation, seeing the work as autonomous and complete in itself.

¹⁵ Danto, A. C. (2005) *Unnatural Wonders; Essays from the gap between art and life*. New York: Columbia University Press, p. 22.

¹⁶ Danto, ref. 15, p. 22.

Genette.¹⁷ A text rarely appears on its own but is surrounded and extended by prior discourses about the work and additional visual and textual information which accompanies it. He called this *paratext*, which may consist of two types depending on the spatial positioning in relation to the text; the *peritext* – which lies within the space of the book and includes such elements as the title, preface, cover design, typeface, name of author and date of publication; and the *epitext* – which lies outside the book and communicates messages at a distance through narrative and discursive practices such as interviews, conversations and lectures. *Paratext* is not just spatial in its relation to the text, but also temporal and can appear at any time.

In *The Aesthetic Relation*, Genette extended the concept of *paratext* to all the arts, and saw it as providing one of the greatest source of ‘reflections’ during the reception of the work.¹⁸ It is through the *paratext* that the artist can disclose back-story and direct these reflections, both in the *epitext* – the artist may talk about themselves and their work, and the *peritext* – to the extent that the artist is responsible¹⁹ for the displaying of the work and any labelling that accompanies it.²⁰ *Paratext* is the most common way in which an artist can disclose the work’s back-story.

Although Genette characterises the *paratext* as the responsibility and intention of the author, he also refers to *factual paratext*,²¹ information which is not disclosed through specific messaging but simply exists, and which even in its simplest form such as the sex or age of the artist, or the award of the Turner Prize, can influence the way in which the work is read and understood. Factual *paratext* also includes context (such as the political context during which the work was made), and often surrounds the artists’ stories bringing an additional complexity to the understanding of the work.

¹⁷ Genette, G. (1997) *Paratext: Thresholds of interpretation*. Cambridge: Cambridge University Press.

¹⁸ Genette, G. (1999) *The Aesthetic Relation*. Ithaca, New York: Cornell University Press. p. 180.

¹⁹ It is questionable the extent to which the artist can control this.

²⁰ An artwork cannot come into being without accompanying *paratext*. However, *paratext* can exist without the physical object – the title may still exist even though the sculpture is destroyed. In some Fluxus and conceptual art, the *epitext*, in the form of a list of instructions which describes the action or construction process, exists whether or not the art work is produced.

²¹ Genette, ref. 17, p. 7.

Referring back to *Manchester (09/08/2011)* we can understand how *paratext*, if used to reveal a part of the work's biography, can lead to an analepsis redirecting the viewers' reflections on the work by giving the materials a new sense, one of carrying authenticity as participants in an historic event.

Back-story can serve to 'reposition' the viewer in relationship to the artwork, a concept explored by Genette²² known as 'distancing'. In a position of 'overdistancing' the viewer may only observe the technical details and formal properties of the work; in a position of 'underdistancing' the work may be read too literally without an appreciation of its wider significance. But at the 'right' distance the viewer engages on an emotional level. Knowledge of the work's back-story can place the viewer at the right distance which allows them to see a different aspect of the artwork and bring about a new understanding.

Although the work remains physically unchanged, distancing changes our perception and brings an apparent transformation of the object beyond its physical state. This finds an analogy in what Genette describes as *transcendence*. In *The Work of Art*, he discusses two modes of existence in which artworks participate: *immanence*, which for sculpture is the physical state and *transcendence*, which is a state the work achieves by surpassing its relationship to its immanence.²³ A sculptural work is a single instantiation, a unique object, but it has a multiplicity of expressions taking it beyond its pure immanence. Genette uses the term work of art to refer at times to the artwork and at others, to the work done by the work of art. Immanence is about being and transcendence is about doing – it is an action performed by the object and sets up a 'variable relationship between the object...and the effect it has on its audience [the viewer]'²⁴. Back-story can be seen to excite the material into action and achieve a state of transcendence.

²² Genette, ref. 18, pp. 17-19.

²³ Genette G. (1997) *The Work of Art: Immanence and Transcendence*. Ithaca, New York: Cornell University Press, p. 11.

²⁴ Genette, ref. 23, pp. 256-257.

2.4 Summary

The viewer engages with back-story as they experience the work during the viewing time. Considering the artwork as containing a storied content, back-story in art can be seen to share aspects with analepsis in literature and be located in different temporal relationships with the work. The position, or existence of a main narrative may not be clear, but back-story serves to indicate to the viewer that the work should be read narratively, even to compel such reading.

The artist can disclose back-story through *paratext*, most immediately through *peritext*, such as texts available alongside the exhibit. For an artist with a reputation, discussion of back-story mixed with contextual details and personal and factual data can create a circulation of epitextural information which brings a dynamic discourse around the work and has a strong influence on the reception of the artist's work.

The work's back-story can include social, political or biographical elements or stories of the materials and making process which led to the artwork. It provides information which directs the viewer to see the work through a particular lens, positioning them at the right distance to bring an emotional connection and a deeper appreciation and understanding. It makes a connection between object and what it might signify: a resonance which brings about a transformation of the object, and helps it to transcend its immanence.

3. Case studies of back-story in contemporary sculptural art

The following section presents the work of selected artists whose work can offer an understanding of the nature of back-story in contemporary sculptural art. Each has been selected to explore different techniques used to evoke back-story, but also because of a relationship with my own work and sensibilities. This examination not only looks at the artists' particular back-stories but also the relationships these hold with their choice of materials and processes. Finally, it proposes a difference between back-story in literature and back-story as found in contemporary sculpture.

3.1 Joseph Beuys - Introduction

Beuys' practice and choice of materials is almost exclusively understood with reference to autobiographical experiences that frame the reception of the work. Beuys began to publicly link his life-story and his work in 1964 when he introduced his 'official' biography as a list of work merging key experiences in his life with his production of artistic works and exhibitions, 'Life Course/Work Course',²⁵ which was published in exhibition catalogues and continually updated until 1970. However, during interviews from the late 1960s, Beuys began to introduce a biographical narrative relating the account of his alleged plane crash in the Crimea during the Second World War,²⁶ reiterating the story through 'texts, performances and the sculptural objects that resulted from such performances'²⁷.

Referred to by Peter Nisbet²⁸ as 'The Story', the main details are as follows:

Had it not been for the Tartars I would not be alive today...it was they who discovered me in the snow after the crash...I was still unconscious then and only came round completely after twelve days or so, and by then I was back in a German field hospital. So the memories I have of that time

²⁵ Reproduced in *Strategy: Get Arts* (1970) Exhibition held at Edinburgh College of Art, Edinburgh International Festival, 23 Aug - 12 Sep 1970. [Exhibition catalogue]. It includes only one reference to the war time period. The entry for 1942 includes 'Exhibition while a JU 87 is intercepted, Sebastopol'

²⁶ Nisbet, P. (2001) 'Crash Course'. In Ray, G. (ed.) *Joseph Beuys Mapping the Legacy*. New York: D.A.P/Distributed Art Publishers, pp. 5-17. Nisbet traces the introduction of the narrative and discusses how Life Course/Work Course was retired after Beuys produced it as a multiple for an exhibition organised by the Arts Council of Great Britain in 1970.

²⁷ Williams, R. J. (2000) *After Modern Sculpture, Art in the United States and Europe 1965-70*, Manchester: Manchester University Press, p. 97. Williams goes on to say how this led to the making of a creation myth.

²⁸ Nisbet, ref. 26, p. 7.

are images that penetrated my consciousness...I must have shot through the windscreen...I had bad skull and jaw injuries. Then the tail flipped over and I was completely buried in the snow. That's how the Tartars found me days later. I remember voices saying 'Voda' (Water), then the felt of their tents, and the dense pungent smell of cheese, fat and milk. They covered my body in fat to help it regenerate warmth, and wrapped it in felt as an insulator to keep warmth in.²⁹

In further interviews Beuys spoke in more detail about the injuries he suffered and the visual and olfactory memories which penetrated his consciousness. These memories fed the materials used in his work, vesting them with metaphorical and metaphysical meaning.³⁰

Controversy over Beuys' 'crash story' provoked discussion and debate, expanding the *epitext* surrounding his work. We are not concerned here with the veracity of Beuys' story, but with how it functioned as a back-story to his work and its relationship to his materials and objects used in the work. Back-story, grounded in this mythologized life experience, underscores much of Beuys' work, but I have chosen two sculptural pieces for this study in order to examine the concept in more depth.

²⁹ Nisbet, ref. 26, pp. 6-7.

³⁰ Beuys suffered other traumatic events; he was wounded four times during the war and suffered severe depression during the late 1950s which had a profound effect on him and which may feed into his crash story and the theme of healing a wound.

3.2 Joseph Beuys, *Felt Suit*



[Fig 3.1] **Joseph Beuys**, *Felt Suit*, 1970. Felt, wood hanger. 170 x 60 cm. Tate Collection

*Felt Suit*³¹ was produced as a multiple of one hundred in 1970, modelled on one of Beuys' own suits. It is a two-piece made of coarse grey felt. It has belt loops but no buttons or button holes, the simple tailoring respecting the character of felt.³²

On viewing the suit, it reveals no clear storied content. The title of the work is merely descriptive. It is grey³³ with no embellishment, no immediate identification of an owner or past use, but evokes the male body. We recognise the work as an item of clothing but perceive that the suit is missing the mechanisms to fasten it to the body³⁴ setting it apart from the practical.³⁵ Felt carries inherent associations through its physical properties – notably those of warmth and insulation,³⁶ and invests the suit with a sense of protection, but rather than physical protection, a psychological one. But there is an ambiguity in the associations of felt; felt also isolates and silences, cutting the body off from the world.

At the time of making *Felt Suit*, the position of Beuys' back-story in relation to the work was not straightforward. He only began to introduce elements of the crash story from the late 1960s and it was not until 1979 that the extended story appeared in print in the catalogue for Beuys' Guggenheim retrospective presented by Caroline Tisdall. It is unlikely that viewers would have known the details of his crash at the time the work was made. However, this does not imply that the work had no back-story, although it had not been fully revealed by Beuys. It was during this period that he was consolidating his story which made

³¹ A felt suit first appeared in the 1969 installation *The Pack* at the Neue Galerie in Kassel. In 1970 Beuys wore a felt suit in a performance with the American artist Terry Fox called *Isolation unit, (Action the dead mouse)*, on 24 November 1970.

³² There were no instructions for how it should be presented although it was originally hung using a wooden coat hanger – currently it is more often displayed in a vitrine.

³³ The grey colour of the suit also played a role in the concept of transformation, a grey which he hoped would produce an anti-image, 'to evoke a world which is translucent and clear, maybe even transcendental. A very colourful world'. Tisdall, C. (1987) *Bits and Pieces. A Collection of Work by Joseph Beuys from 1957 to 1985 assembled by him for Caroline Tisdall*. Exhibition held at Richard Demarco Gallery, Edinburgh, 1987 Edinburgh International Festival. [Exhibition Catalogue]. p. 39.

³⁴ Depending on the way it is displayed we may not see that the trousers have no belt loop, but only missing buttons on the jacket.

³⁵ Suggesting that it should be viewed as an artwork

³⁶ Felt was used in a category of work Beuys described as 'warmth sculptures' which convey the concept of not just physical warmth, but as spiritual and evolutionary warmth. Klüser, B., Schellmann, J. (eds) (1980) *Joseph Beuys: Multiples. Catalogue Raisonné Multiples and Prints 1965-80*. 5th ed., New York: New York University Press, n.p.

the connection to his use of the materials felt and fat, which he later said had a 'kind of secret affinity' in his life.³⁷ The story would thus have been connected in his mind to *Felt Suit*. Since the publication of the crash story and its interrogation by interviewers, critics, observers and academics for more than thirty years, viewers are now more likely to come to the work with full access to its back-story. However, the work is not about Beuys' plane crash; the work is not to be read literally but builds upon the psychological and spiritual aspects of the event. It is a sense of healing a wound, both a personal wound and the wound of a society, which the back-story adds to our perception of the work.

In Genette's terms, the crash story narrative evokes a *retroception* and allows the viewer to read *Felt Suit* as a storied object. The details of the story provide key pieces of information that directs us to read the work through a particular filter, giving the material a narrative weight and asking us to reconsider the metaphorical and spiritual dimension of the work and to see it as an agent for healing and transformation. Beuys tells us that the Tartars saved him from freezing to death, and helped heal his wounds by wrapping his body in felt to keep it warm and we could see the work as performing a type of role-play, an acting out his story; not in an attempt to represent the event, but by offering a new perspective translating the personal experience to a public one where individually and as a society we have the opportunity for healing. The diagram on the following page maps the progression from storied content to this new reading.

Beuys used felt in his sculptures from the early 1960s and his crash story could be seen as a post-rationalisation, but we can consider that back-story was latent in the work. His reiteration of the material was a way to reinforce his back-story in the public imagination as gallery goers were reminded of it through repeated encounters of his work with felt. But rather than reopening the wound each time, successive encounters began to translate the therapeutic effect of felt. This reiteration gave viewers an opportunity to experience a further *retroception* as

³⁷ Horsfield, K. (1993) 'Interview with Kate Horsfield'. In Kuoni, C. (ed.) *Energy plan for the Western man Joseph Beuys in America*, New York: Four Walls Eight Windows, pp. 70. [Horsfield interviewed Beuys in 1980]

they recalled previous encounters with his work, deepening their response to the material and reinforcing the Beuysian myth.

[Table 3.1] **Felt Suit: Storied content and back-story**

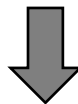
Possible storied perception suggested during reading

(1) Creation of materials	(2) Life of materials and objects	(3) Selection of materials by the artist	(4) Making of the artwork	(5) Life of the artwork after completion
	Felt associated with insulation and isolation	Not normally used for tailoring suggesting suit not to be worn. No fastenings provided. May be seen as metaphor for the body	Title descriptive and not strongly suggestive of storied content. Perceived as felt sculpture.	

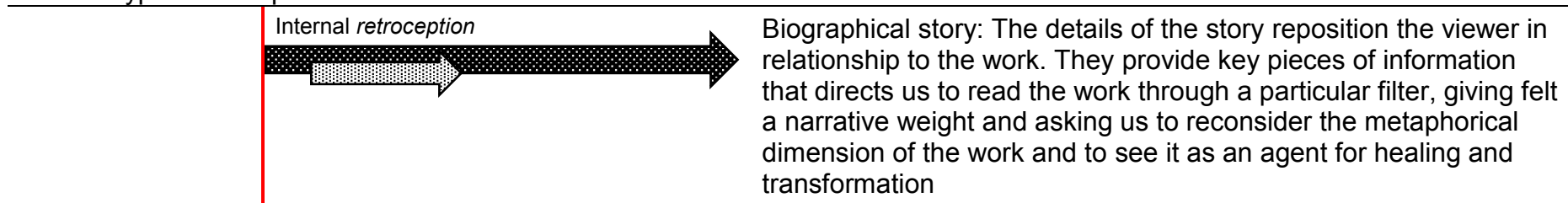


'Authored' back-story (disclosed through published interviews)

"Crash story" - They covered my body in fat to help it regenerate warmth, and wrapped it in felt as an insulator to keep warmth in.



Possible type of analepsis



3.3 Joseph Beuys, *Auschwitz demonstration*



[Fig 3.2] Joseph Beuys, *Auschwitz demonstration*, 1956-64. Hessian State Museum, Darmstadt.

Auschwitz demonstration was first assembled at the *Haus der Deutschen Kunst* in Munich in 1968 and consists of a vitrine containing thirteen objects and artworks³⁸ created between 1956 and 1964.³⁹ Some of the works had been shown before or used in his previous actions. As well as invoking Beuys' personal story of healing, Gene Ray saw a second project, 'evoking and avowing Auschwitz...a project of mourning'⁴⁰, which the art critic Kim Levin called a 'secret narrative...referring to the specifics of the Third Reich'⁴¹.

The word Auschwitz in the title of the work suggests a back-story recalling the holocaust⁴² which in Genette's terms could be seen as a partial analepsis relating to an historical event. The allusion to the camp is further evoked through the nature of the found objects which Beuys meticulously arranges and encloses in a vitrine creating an intimate viewing experience. The vitrine provides an institutional setting, reminiscent of glass display cases seen in a natural history museum, with objects protected and preserved beneath glass; it suggests that the fragile objects have an historical or ethnological importance. Displayed together, the viewer is invited to make connections between them. The work cannot be read at once but requires a sequenced reading as each object is examined individually, encouraging an extended reading time.

The objects have the appearance of traces and remains of a human presence and their relation to the Holocaust can be specific or ambiguous. The aerial photograph torn from a book verifies the existence of the site and its layout and gives a reference to the function of the buildings annotated by Beuys. The sketch of the young emaciated naked girl has an association with photographs of

³⁸ For a full list of contents, along with an extensive study of Beuys' work in relation to the Holocaust, the representational relations embodied by the objects and different strategies for their interpretation see Biro, M. (2003) 'Representation and Event: Anselm Kiefer, Joseph Beuys, and the Memory of the Holocaust'. *Spring. The Yale Journal of Criticism*. 16. (1), pp. 119-124.

³⁹ *Auschwitz Demonstration* is currently installed in the *Landesmuseum* (Hessian State Museum) in Darmstadt integrated into the *Beuys Block*.

⁴⁰ Ray, G. (2005) *Terror and the sublime in art and critical theory*, New York: Palgrave Macmillan, pp. 34-35.

⁴¹ Levin, K (1993), 'Introduction', In Kuoni, C. (compiled by) *Energy plan for the Western man Joseph Beuys in America*. New York: Four Walls Eight Windows, p. 2.

⁴² Although references to the Holocaust were not acknowledged by Beuys he was aware that his use of certain materials and objects, particular felt, could be seen to represent things from a concentration camp and that they played a part in the reading of the work, but said 'that is what the material itself brings along with it. Especially when it's grey. But those are all admixtures'. Jappe, J. (2001) 'Interview with Beuys about key experiences', In Ray, J. (ed.), *Joseph Beuys Mapping the Legacy*. New York: D.A.P/Distributed Art Publishers, p. 188. [Jappe interviewed Beuys in 1976]

wartime victims which may have been seen by the viewer. The dead mummified rat and blood sausages may evoke the story of starvation and the inhumane environment in which victims were housed. The measuring stick may suggest the technical skills employed in the operation. Other objects are suggestive of items which may have been found at the concentration camp site, perhaps personal possessions. The vials of fat and the blocks of fat on the electric stove may evoke 'not just the body, but the body of the holocaustal sacrifice'⁴³. Placed at the front, the two blocks of fat occupy a prime position in the vitrine and also refer to the crash story. We recall how fat regenerated the warmth of his body, suggesting the symbolic healing energy and redemptive power of the material, a material which he had also used in a number of previous works. Furthermore, the cross and wafer suggest redemption and salvation, especially as the power cord to the hot plate with its blocks of fat circles round them.

Within the narrative reading, the previous role some of the objects had played in Beuys's work might have been recognised by its first viewers evoking a *retroception*. The stove was used in the 1964 Festival of New Art in Aachen when he melted blocks of fat over the heat of the stove.

Although Beuys' objects have no direct historical authenticity or connection with Auschwitz,⁴⁴ they appropriate and convey an aura of history and suffering which can bring a *retroception* as they evoke the different aspects of the story of the concentration camp. We may consider that Beuys is taking on the role of a social pathologist, alluding through the work to the consequences of a diseased society. But his crash story evoked through the blocks of fat situates the viewer in a position to consider a reconciliation with the past history through a healing process. Although related to his personal experience of being wounded, healed, and saved, the mythical status of the story transposes its message of healing to the historical trauma of the holocaust and the potential healing of society following a catastrophe. It encourages the viewer to see what Beuys referred to as the therapeutic function of the work, of 'healing like with like in a homeopathic healing process'⁴⁵, a way forward for Germany to recover from the legacy of the Holocaust.

⁴³ Ray, ref. 40, p. 39.

⁴⁴ I make this assumption as I have found no reference to prove the contrary

⁴⁵ Ray, ref. 40, p. 44.

3.4 Summary

Beuys was aware that his works could only be understood in relationship to his ideas,⁴⁶ and he surrounded his objects with language, or *epitext* - his writing, lectures, interviews, performances, proclamations and teaching. His autobiographical story provided the back-story to his work evoked through, and making sense of, his use of felt and fat. These materials allow the viewer a retrospective reading. But this is not a *retroception* about a main narrative, but rather a *retroception* of the back-story itself. Foremost, the back-story offers the work a storied reading, but one that returns the viewer, not to a main narrative, but rather to the metaphorical and spiritual dimensions of felt and fat, and through the reiteration of these materials to the leitmotif of healing.

⁴⁶ Tisdall, C. (1987) *Bits and Pieces. A Collection of Work by Joseph Beuys from 1957 to 1985 assembled by him for Carolne Tisdall*. Exhibition held at Richard Demarco Gallery, Edinburgh during the Edinburgh International Festival, 1987. [Exhibition Catalogue], p. 38.

3.5 Felix Gonzalez-Torres - introduction

'[My work] is all my personal history, all that stuff...gender and sexual preference...I can't separate my art from my life'⁴⁷.

Felix Gonzalez-Torres was born in 1957 in Guaimaro, Cuba, but moved to the USA where he became a citizen in 1976. In 1983 he met Ross Laycock his life partner. In 1986, the artist's mother died of leukaemia; Laycock died in 1991 from AIDS related complications and later the same year Torres' father died from throat cancer. Gonzalez-Torres was to die from AIDS in 1996 at the age of 38. The depth of his emotional experiences provided the back-story to much of Gonzalez-Torres' work, the autobiographical also addressing wider political and social issues. During interviews, he spoke openly about his personal life and in particular his relationship with Laycock,⁴⁸ and alluded to personal biography in the work. Gonzalez-Torres referred to his work as 'tough art', an artwork which created a play between the 'heavy themes' addressed by the work and its 'light' appearance.⁴⁹ Back-story helps to reveal these heavy themes.

The work aims at a classical sense of beauty which the artist claimed was 'indispensable in order to attract the viewer'⁵⁰. This strategy, along with the participatory nature of much of his work, provoke an extended reading time despite the minimalism of the ready-made approach. A storied content is signalled through parenthetical references in the titles, and embedding biographical or medical facts in the form and materials of the sculpture. This content is not immediately apparent visually.

⁴⁷ Umland, A. (2006) 'Project 34: Felix Gonzales-Torres'. In Ault, J. (ed.) *Felix Gonzalez-Torres*. New York: SteidlDangin, p. 241. [Originally published in 1992]

⁴⁸ For example, Bleckner, R. (1995) *Felix Gonzallez-Torres*. Spring. Bomb 51. [Online] [Accessed on 12 April 2014] <http://bombmagazine.org/article/1847/felix-gonzalez-torres>

⁴⁹ Holloway, K. (2016) *From the Era of AIDS, the "disappearing" but important works of artist Felix Gonzalez-Torres*. 11 March. Alternet. [Online] [Accessed on 15 April 2016] <http://www.alternet.org/books/era-aids-disappearing-important-works-artist-felix-gonzalez-torres>

⁵⁰ Storr, R. (2006) 'Felix Gonzales-Torres: etre un espion'. In Ault, J. (ed.) *Felix Gonzalez-Torres*. New York: SteidlDangin, p. 234. [Storr interviewed Gonzalez-Torres in 1995]

3.6 Felix Gonzalez-Torres, “Untitled” (*Perfect Lovers*)



[Fig 3.3] Felix Gonzalez-Torres, “Untitled” (*Perfect Lovers*), 1987-90. Wall clocks. 34.3 x 68.6 x 3.2cm

This work was made in a limited edition of three with one artist’s proof and consists of two identical battery-operated clocks placed side by side on a pale blue painted wall. Initially the clocks are set with the same time but as the batteries run down the clocks fall out of synchronisation.⁵¹

The commercially-sourced clocks suggest an un-emotive context contradicted by the ‘perfect lovers’ of the title which alludes to a completing internal analepsis – filling in a gap in information – the story of an intimate couple, and at that moment we may understand the touching paired clocks as a multi-layered metaphor. The ticking evokes a heartbeat; the moving hands bring a suggestion of the time they have spent together and anticipate their future, but also of how a relationship can change over time as the clocks fall out of synchronisation. Without the personal back-story, the work would be only a work of conceptual art, a metaphor for

⁵¹ If the batteries become exhausted in the gallery they are replaced and the clocks synchronised again.

relationships; the back-story adds depth pulling the viewer into an emotional engagement with the work.

In an interview with Robert Nickas, Gonzalez-Torres said

Time is something that scares me . . . or used to. This piece I made with the two clocks was the scariest thing I have ever done. I wanted to face it. I wanted those two clocks right in front of me, ticking.⁵²

The piece was made around the time that his partner was dying from AIDS and we understand that the clock, visibly marking the passing of time, was a way to confront the inevitable, the death of his partner – the ticking would eventually stop. Learning of these autobiographical details, we understand that ‘perfect lovers’ makes a reference to the artist, his partner and their life situation. It provokes the viewer to look again at the paired clocks. We may now see that the identical clocks allude to same-sex relationships, as Gonzalez-Torres said ‘just two of the same, same sex, same material, same stuff’⁵³. We understand the notion of loss (reinforced through the black edging to the clocks) in the work, as well as love, and how life energy is slowed when compromised by illness as one clock’s time falls behind the other.

Gonzalez-Torres used pairs in many works to express the sense of love and loss (or impending loss). He represented the couple through pairing, described by art critic Nicolas Bourriaud as a ‘harmonious parity’⁵⁴. Viewers may recognise the reiteration of this bringing a *retroception* as previous encounters are recalled.

⁵² Nickas, R. (2006) ‘Felix Gonzalez-Torres: All the Time in the World’. In Ault, J. (ed.), *Felix Gonzalez-Torres*, New York: Steidl/dangin, p.45. [Nickas interviewed Gonzalez-Torres in 1991]

⁵³ Spector, N. (1995) *Felix Gonzalez-Torres*. New York: Guggenheim Museum Publications, p. 75.

⁵⁴ Bourriaud, N. (2002) *Relational Aesthetics*, Dijon: Les Presses du reel, p. 51.

3.7 Felix Gonzalez-Torres, “Untitled” (Blood)



[Fig 3.4] **Felix Gonzalez-Torres**, “*Untitled*” (*Blood*), 1992. Plastic beads, metal rod. Dimensions variable with installation

‘The body is everywhere present in Gonzalez-Torres’ work, yet it is rarely visible as such’⁵⁵.

‘*Untitled*’ (*Blood*) is one of five works that take the form of beadwork curtains; it consists of strings of red and clear plastic beads hanging from a metal rod. There is a pattern of six strands of red beads separated by one strand of white beads. It presents an ambiguous mise-en-scène. Hung across the ‘doorway’ separating one room from the next, it recalls the boudoir or the nightclub entrance. The

⁵⁵ Spector, ref. 53, p. 140.

work's title and colours suggests blood symbolism and the beads suggest streams of blood cells. By positioning the work across a doorway, Gonzalez-Torres introduces a tactile and sensual element into the viewer's experience as they are obliged to push aside the rows of beads to move into the next room. This interaction may elicit a visceral experience through personal reactions to the blood of the title, but does not suggest a strong storied content.

The back-story to the work is exposed through details of Gonzalez-Torres personal life, which can be seen as a shared biography with his partner Laycock. The work was made in the year following the death of his partner from AIDS but followed on from a series of work (Blood work graphs) he had begun in 1987, the year in which Laycock first tested positive with HIV. On seeing test results from Ross' bloodwork in the form of numbers and codes he said 'It is a total abstraction; but it is the body. It is your life'⁵⁶. It cannot be known how many of the gallery viewers were aware of these details when the work was first shown, but over the last twenty years the information has been widely disclosed through published interviews and by commentators.

These events in the artist's life story give a back-story to the work foregrounding the illness of Laycock and monitoring its progression through blood tests. In Genette's terms, through the back-story information, we experience a *retroception* modifying our understanding of the work. As we reflect on touching and moving through the work, thoughts of contamination are evolved, and the crucial counts of white blood cells that mark the progression from HIV to AIDS. Back-story invites a re-reading of the work from a position of greater intimacy, placing the viewer on a closer emotional level that lends additional depth to the metaphor of the body, a body in illness.

⁵⁶ Spector, ref. 53, p. 167.

3.8 Summary

Gonzalez-Torres uses everyday manufactured objects as surrogates for the body. He employs parenthetical clues that suggest a storied content that is filled in by surrounding the work with personal details through interviews which are widely known and often referenced within the gallery space in exhibitions of the work. This information, alluded to through the title, brings a new significance to the work through an internal analepsis as the viewer reads the work again from a new perspective. But Gonzalez-Torres further involves the viewer as participant: watching the time tick away or moving through the curtain, the back-story becomes part of our own story. It is not merely an emotional empathy for the artist that we feel, but we relate the story to our own lives and those around us. For example, in *Untitled (Perfect Lovers)*, the anticipation of the future when the clocks will stop, signalling the death of the two lovers, signals as well the viewer's own mortality. In the presence of the clocks, the passage of time is marked, a part of our own life, a life that could stop at any moment.

3.9 Doris Salcedo - introduction

I have focused all my work on political violence, on forceful displacement, on war, on all these events but not on the large event. I focus on the small, individual, particular experience of a human being. I'm trying to extract that and put it in the work. The memories of anonymous victims are always being obliterated. I'm trying to rescue that memory, if it could be possible.⁵⁷

Salcedo's work is not based on an autobiographical back-story, but on the experience of others, victims of violent crimes and the bereaved who are left behind. It relates to the particular context of Colombia but the themes of trauma, loss, grief and mourning have universal resonance.

Her work evolves through a collaboration and dialogue⁵⁸ with the victims of violence, the witnesses left behind, who give her the materials to work with – both their testimonies and material evidence – which become a part of the story of each piece. Although Salcedo does not reveal these testimonies, the materials she uses are strongly tied to the personal narratives, working with relics that are 'charged with significance...and meaning acquired in the practice of everyday life... which... bespeak the presence of a human being'⁵⁹.

Her strategy is not one of confrontation or of directly showing the act of violence. Her work maintains a 'political and aesthetic silence'⁶⁰, based on personal narratives and objects that embody the emotional and psychological aspects of the consequences of violent acts. She described her subject as 'the idea of displacement, the idea of absence, of course violence, war, but all these ideas are shown in the quietest way possible'⁶¹.

⁵⁷ Sollins, S. (2013) *Doris Salcedo: Variations on brutality*. Interview by Susan Sollins. April. Art21. [Online] [Accessed on 17 February 2016] <http://www.art21.org/texts/doris-salcedo/interview-doris-salcedo-variations-on-brutality>

⁵⁸ Sollins, ref. 57.

⁵⁹ Basualdo, C. (2005) 'Doris Salcedo, Carlos Basualdo in conversation'. In Phaidon (ed.), *Press Play: Contemporary artists in conversation*, London: Phaidon Press Limited, p. 535. [Basualdo interviewed Salcedo in 1999]

⁶⁰ Widholm, J. R. (2015) *Presenting Absence: the work of Doris Salcedo*. MCACHicago. [Online] [Accessed on 22 February 2016] <http://www3.mcachicago.org/2015/salcedo/texts/presenting-absence/>

⁶¹ Barson, T. (2004) 'Unland: The Place of Testimony'. Spring. *Tate Papers*, no.1. [Online] [Accessed on 28 February 2016] <http://www.tate.org.uk/research/publications/tate-papers/01/unland-the-place-of-testimony>

3.10 Doris Salcedo, *La Casa Viuda I-IV, VI* 1992-95



[Fig 3.5] *La Casa Viuda I* 1992-94, Wood, fabric. 258 x 39 x 60 cm. Worcester Art Museum.



[Fig 3.6] *La Casa Viuda II*, 1993-94 Wood, fabric, metal bone. 259.7 x 79.6 x 60.3 cm. Collection Art Gallery of Ontario.



[Fig 3.7] *La Casa Viuda III* 1994, Wood, fabric. 2 parts, 285.5 x 86.5 x 6, 83.5 x 86.5 x 5 cm. Private collection.



[Fig 3.8] *La Casa Viuda IV* 1994, Wood, fabric, bones. 257.5 x 46.5 x 33 cm. Museum of Modern Art, New York.



[Fig 3.9] *La Casa Viuda VI* 1995, (detail) Wood, metal, bone. (3 parts) 190.5 x 99 x 47 cm. Collection of the Israel Museum, Jerusalem.

La Casa Viuda (The Widowed House)⁶² is a series of sculptures made between 1992 and 1995 which were a result of interviews with particular women who were widowed after acts of violence.

Colombia is a country full of widows. There was one widow...who told me how difficult it was to continue living with objects that are reminders of her husband. Every morning you open the closet and the clothing is still there. Every day you sit at the dining table and the empty chair is there, screaming the absence of that person.⁶³

The structures of the sculptures include found doors, 'autopsied' pieces of domestic furniture, items of clothing and bones, objects that convey a storied aspect. The title of the series suggests the back-story and frames the way we read the work. Widowhood begins with the death of a spouse, but concerns the life of the person left behind to cope with the memories and loss. 'Widowed' is used in the title as an adjective alluding to the condition of the house deprived of its master, in a state of half-emptiness. The title suggests a partial analepsis, a work that fills-out details of a state that existed at an undetermined time before the artist began to work with the materials.

The used furniture in the series evokes a domesticity, a metaphor for the home and comfort, but cut and disjointed, it suggests a disrupted domesticity. There is a sense of absence and abandonment suggested by the empty chairs and cabinet and the lack of glass in the door panels. All these elements evoke a sense of stillness and loss that Salcedo calls 'silence'. The tall door is an element found in each work which suggests a threshold, but placed against the wall or fixed by another object offers no way through, in or out, arrested in potential. The door possibly references a coffin lid. In *La Casa Viuda I* the panels of the door form an inverted cross evoking martyrdom or loss of faith. We may also see the work as anthropomorphic structures representing the body, or a metaphor for a life that has been violated and reconstructed, but never the same.

⁶² This is the best approximation in English. The meaning is definitely not: The Widow's House.

⁶³ Aukeman, A. (1994) *Doris Salcedo: Privileged Position*. March. ARTNews 93, p. 157.

Into these structures Salcedo introduces material traces⁶⁴ evoking the lives of the inhabitants of the widowed house. As Salcedo commented, 'when a beloved person disappears, everything becomes impregnated with the person's presence'⁶⁵. In *La Casa Viuda I*, lacy fabric stretched and glued to the chair, hanging loose at the back, brings to mind the widow's wedding dress. In *La Casa Viuda II*, a zipper and row of buttons are imbedded into the cracks of the wood; bones are also inlaid. We see them in their new context integrated into the artwork but recognise them as traces which evoke the remains of a life, the life of the deceased or the one left behind. A trace of clothing captures the presence of the owner and holds within it the memory of their life, albeit, fading or metamorphosed through Salcedo's working processes. Bone acts as a metonym for the body, and also for the remains of departed life.

Surrounding the works, a wealth of paratextual information has accumulated both factual context and the artist's methods and intentions told through published or recorded interviews, cited in exhibition catalogues and discussed by commentators.

The *paratext* brings a *retroception* which gives additional depth to the meaning of the work. We understand why the house has been widowed. The information becomes like an autopsy report which helps us to understand deaths through acts of political violence and to reconsider the disfigured lives of the victims left behind. We become aware that the material traces may be from the victims, like forensic evidence collected from the scene of the event, and understand their particular significance which leads to a stronger emotional connection. The viewer becomes a witness to the aftermath. Through *paratext* we understand that the work relates to a particular life, but without the specificity of a biography. This enables the work to transfer the story from an individual to a collective experience transposed to metaphor rather than remaining on the level of the individual story.

⁶⁴ Trace in this context refers to personal belongings or objects which have been in contact with an individual and are 'charged' with those personal associations.

⁶⁵ Basualdo, ref. 59, p. 533.

3.11 Doris Salcedo, *Untitled*, 1998



[Fig 3.10] **Doris Salcedo**, *Untitled*, 1998. Wood, concrete, glass, cloth, metal. 183.5 x 99.5 x 33 cm. Collection of Lisa and John Miller, fractional and promised gift to the San Francisco Museum of Modern Art (SFMOMA).

For almost twenty years, starting in 1989, Salcedo made a series of untitled sculptures consisting of domestic furniture, such as wooden chests-of-drawers, wardrobes, and chairs, filled with concrete. They are sometimes cut, juxtaposed, joined, upended or embedded in one another, and like *La Casa Viuda*, the series may contain items of clothing. These works are generally displayed in groups. Each piece is untitled but has its own distinctive personality based on specific histories known to the artist.

Salcedo chooses to leave these works untitled. Untitled works can signify that the artist has not found a suitable title to accompany the work or wishes the work to remain as open as possible to interpretation. But in Salcedo's work 'Untitled' takes on a new meaning, alluding to something which has been neglected: a nameless and faceless body brought into the gallery so as not to be forgotten

Untitled, 1995 consist of a display cabinet filled with concrete. The introduction of concrete places the furniture beyond use, seeming to silence the work and gives it a physical and emotional weight. The solidity of the sculpture draws our attention to the surface which becomes like a human skin. In some of the glazed panels we see the remains of items of family clothing embedded in the concrete. The juxtaposition of materials, the contrast of the soft fabric and cold grey concrete, is disturbing and unnerving.

As in *La Casa Viuda*, the relics evoke a storied reading but one that is further dramatised by their setting in concrete. Salcedo exploits the physical and metaphorical properties of the concrete for an emotional response. Concrete suggests the weight of sorrow, the length of endurance of the loss and the greyness of the passing days. Rituals of entombment where concrete protects against disinterring are invoked but also the more sinister interring of bodies in concrete as an aftermath of violence. We can consider the partial enveloping of objects in concrete as a type of sculptural inclusion. This can be understood as a process of preservation. The relics framed by the panels are foregrounded and the memories they contain are made concrete.

But Salcedo's own account of the process, her statement and fragments of witnesses' stories which are widely accessible through the work's *paratext* provide a back-story to the work, allowing the viewer a *retroception*. We

understand that we are a witness to the lives of people affected by political violence, and their personal items bring an authenticity and personal connection to the work. We reconsider the life of the victim with this new perspective. The inclusion of the relics in concrete physically entombs or metaphorically embodies the victim's lives in the work, and we can understand the concrete as preserving and keeping the victim's memory alive. *La Casa Viuda* suggests an upturned, disrupted life but the 'concrete inclusions' in the untitled works bring to mind the muffling or silencing of the victim's life, adding an extra layer of emotional weight. By bringing these objects into the gallery Salcedo asks us to remember these lives, the lives that have been lost and the disfigured lives of the ones left behind.

3.12 Summary

Salcedo works with domestic material as relics to create sculptural series. The biographical dimension of relics evokes a storied aspect to the work. Through *paratext* we are told that the sculptures are as result of intensive research and interviews with victims of political violence, that each work results from an individual story, and that some of the material incorporated in the work was given by the victims. This brings about a *retroception*; we revisit the work knowing that these materials were 'touched' by the victims and we are brought closer to their suffering, positioned in a deeper emotional engagement with the work.

3.13 Findings from study of works

The study of these selected works aimed to explore to what extent Genette's literary theory of back-story can be applied to contemporary sculptural practice. It was possible to identify various ways in which artists reveal back-story, as well as the back-story's relationship to the artist's choice of materials, and to the intended reading of the work. In addition, the work's autonomy from the back-story is posited. These findings have led to a reappraisal of Genette's theory, especially concerning the main narrative.

3.13.1 Revealing the back-story

Generally more than one way of revealing back-story can be found in any particular work:

- Title - whether considered as *peritext*, or integral to the artwork.
- *Paratext* – an evolving accumulation of information about the art-works, usually fed by the artist, but having a life of its own and not under control.
- Public biography – life-stories which the artist has made public
- Reiteration – the sustained treatment of materials and themes that sets the scene for the reception of new works, which we could call *oeuvre*.

All three artists examined made use of title to initiate a storied view, although in the case of Salcedo's *Untitled*, this is at its most subtle and only understood on reflection. Paratextual information was the primary vehicle for back-story; it has become the norm for such information to be made available in the gallery, and for artists to participate in extended interviews that are often published. Beuys pioneered the public biography, attempting a synthesis between art and life that necessitated an amount of mythologizing. By contrast, for Gonzalez-Torres, the public biography lends authenticity, marking the artist as a true voice of experience. Salcedo, similarly, has become an authentic voice but for those who she studies. Her own biography is revealed only as one dedicated to her work. All three artists make use of reiteration which prepares the viewer; there will always be a first view, but after that most viewers come with expectations and experiences when they seek out works by these artists. The back-story draws in the viewer.

3.13.2 Materials and back-story

While the artists examined are related in their methods of revealing back-story, they can be distinguished most clearly in their treatment of materials. Beuys' signature materials, felt and fat are organic materials; Gonzalez-Torres repurposed common manufactured objects, while Salcedo used domestic furniture and relics from the lives of those treated by her work. None of the artists work with the "noble" materials that were the original domain for sculpture.

Beuys often used objects from past actions and others taken from his studio that evoke vignettes of his inner and outer life. But back-story in his work is most clearly manifested through the use of fat and felt. His crash story vested these with metaphorical and metaphysical qualities. Knowledge of the crash story and the reiterative use of the material brings to the viewer a *retroception* that inculcates a message of healing.

In contrast, Gonzalez-Torres' factory-made objects are intended to invoke no past history. The disguise of everyday objects allows the taboo content of the work to be approached without repulsion or distress and even further, to be enhanced through the interactive nature of the work.

Salcedo's relics have a direct historical connection to her witnesses' stories: found objects with a specific content. As we understand the significance of Salcedo's relics, they change our viewing perspective. The relic is specific to a life. We become a witness and with that, perhaps feel a responsibility.

The materials work with the back-story to place the viewer at the appropriate distance to appreciate the work. The storied view is familiar and comforting and allows the viewer to become more intimate, especially when dealing with subjects of a distressing content. This positioning is an important function of back-story.

3.13.3 Reading time

Art work takes varying amounts of time to read. While a Warhol, for instance, may be grasped quickly, the works we are concerned with required an extended reading time. Back-story and reading time have a symbiotic relationship. An extended reading time creates a space for reflection and allows the process of *retroception* time to take place. Knowledge of the back-story encourages

extended viewing by engaging the viewer in a narrative. Salcedo described this as a space where the viewer comes into a 'communion with the victim's experience'⁶⁶. The three artists provide much to prolong the experience once fully engaged. The intricate working of Salcedo's surfaces, Beuys' object-rich vitrines, and Gonzalez-Torres's interactive work require time from the viewer. However, it is knowledge of back-story that can form a strong initial "hook" for the viewer.

3.13.4 Autonomy

Back-story in contemporary sculptural practice does not attempt to define a particular reading of the work but provides information which can redirect the viewer's perspective. Salcedo said she 'exposed' her work, as an autonomous object, giving the viewer the opportunity 'to feel, to remember, or to comprehend...dependent on their internal code'⁶⁷ and did not try to control the viewer's experience. Similarly, Beuys wanted his viewer to be 'touched', be 'moved subconsciously'⁶⁸; an object is 'not there to be simply understood...it's more a sense of indication or suggestions'⁶⁹. Gonzalez-Torres maintained that in his work 'things are suggested or alluded to discreetly...because "meaning" is always shifting in time and place'⁷⁰. The back-story is not a crutch that the artwork leans on, but rather an offer of a helping hand for the viewer. The work remains independent of its back-story.

Unlike traditional forms of narrative art, contemporary sculptural art does not try to tell the story of an event, but may suggest different storied readings contingent on the viewers' position. Hence, the work does not support a main (or primary) narrative.⁷¹ Without a clear main narrative, Genette's model would seem to break down. However, Genette's conceptualisation is still useful to understanding how the back-story works in sculptural art. Even in non-narrative art, there will always

⁶⁶ Basualdo, ref. 59, p. 534.

⁶⁷ Basualdo, C., Huyssen, A., Princenthal, N. (2000) *Doris Salcedo*. London: Phaidon Press, p. 142.

⁶⁸ Sharp, W. (1993) 'Interview with Willoughby Sharp.' In Kuoni, C. (ed.) *Energy plan for the Western man Joseph Beuys in America*, New York: Four Walls Eight Windows, p.85. [Sharp interviewed Beuys in 1969]

⁶⁹ Klüser, B., Schellmann, J. (eds) (1980) *Joseph Beuys: Multiples. Catalogue Raisonné Multiples and Prints 1965-80*. 5th ed., New York: New York University Press. np.

⁷⁰ Nickas, ref. 52, p. 40.

⁷¹ Beyond the storied content perceived, the work's *paratext* can reveal factual information such as the socio-political context in which the work was made, which may affect the reading and understanding of the work, but if it is not evoked through the work it should be considered as background, not the work's back-story.

be a story of the art work itself, the biography of the work from its creation to its life independent of the artist. Back-story often feeds off one portion of this biography, usually the gathering or structuring of the materials. Hence, back-story is internal to the story of the artwork. And we have seen how sculptural back-story fits with Genette's concept of *retroception*. The viewer sees the material assemblage of the artwork from the perspective of personal experiences first, but the back-story leads to a new perspective that changes the initial meaning. Although in the initial analysis, I suggested that there may be occurrences of different modes of back-stories, for a robust inclusive model for back-story, I propose that back-story in the contemporary sculptural art reviewed here is internal and works with a single narrative (homodiegetic).

4. Inclusion and materials

4.1 Inclusion and incorporation

In Chapter 3 we saw how Salcedo entrapped objects in concrete. This way of working became a central occupation in my enquiry as my practice explored the concept of *inclusion* and its relationship to back-story. In later works, I shifted to what I call *incorporation* because inclusion was too limiting in its technical implications and sense of confinement or shutting up.

In geology, the study of inclusions is used for relative dating of samples. The principal followed is that foreign material must be older than the rock it is included in. This applies more broadly to inclusion in artwork where the act of inclusion establishes a collision between the present and the past, and a means of evoking back-story. When reading the work, the inclusion can be seen as older than the material used to entrap it.



[Fig 4.1] **Armand Arman**, *Trash Mash no. 1, 1971*. Mixed media, polyester, Plexiglas. 45.72 x 45.72 x 25.4 cm

The concept of inclusion is not new. The inclusion of objects in a solidifying material was most notably explored by Arman from the 1960s. He embedded “accumulations” in both concrete and polyester resin. The concrete inclusions were often on a public scale but included small items like telephones. The transparent resin inclusions ranged from rubbish to musical instruments, syringes and household taps. Unlike glass, synthetic polyester carried cultural associations of tourist objects and cheap novelties.

Without the action of heat, the process does not have the transformative qualities of working with glass, offering up a view of the materials, rather than resituating the viewer in relation to the enclosed objects.

In Salcedo’s work, inclusion gives an additional emotional dimension to the relics employed; concrete evokes a burial. The process has associative and metaphorical value; the entrapping can be seen as an enactment of the violence. The concrete perhaps tries to fix what Salcedo saw as ‘something which is

actually in the process of vanishing'⁷²; the relics are partially hidden and yet a salient feature of the work. Similarly, I use glass to entrap, to bond things together, but in contrast to Salcedo's concrete, the transparency of glass does not hide the materials, although it may have an anamorphic effect and distort them. Inclusion in glass does not evoke the deadening qualities of concrete but does suggest a silencing. For me, this silencing is like a cloistering which places the object in a state of seclusion.

In glass-working tradition, inclusions are used in the process called fusing. The inclusions are most often placed between two sheets of glass that are fused together in the kiln to create decorative effects. I experimented with fusion while pushing the boundaries of what is normally associated with glass making, using bones and other remains to create relief sculptures. I saw this as a "vitrine-ification", in the sense that the glass enclosed the object as in a viewing chamber.⁷³ The suffix "-ification" signifies the process of 'becoming' which alludes to the idea of transformation evident in the work as the glass, and the included materials, were often transmuted.

Although these fused works followed the traditional process of glass inclusion, I also used hot glass to enshroud materials that remained incompletely enclosed and retained their material identity. Therefore, I called this hot glass process *incorporation*; two things are united in one body. This is not incorporation in the sense of blending but more like the linguistic sense in which verb and object become one while clearly showing their origins.⁷⁴ Incorporation can be seen as an enactment of back-story because it embodies the concept of *retroception*.

4.2 Materials

I am not a glass-maker but a sculptor using glass, often lead crystal, as a medium in my work. My intention has not been to produce "glass work", or to display craftsmanship or mastery of technical skills in the tradition of studio glass. In alchemical terms, glass is my *materia prima*, the primitive base in state of

⁷² Basualdo, ref. 59, p. 538.

⁷³ And in the wider meaning of embedding materials in liquid glass as it hardens.

⁷⁴ For example, the word 'babysit'

chaos. Glass, with its qualities of transparency and liquidity, brings a combination of material and immaterial qualities to my work.

In modern times, glass is an everyday material and besides its use for domestic and decorative items, we mostly encounter it as something we look through, look at, or look into and it invites these actions. Glass reveals, displays, protects, magnifies or reflects and in much of my work can be seen to mediate between the viewer and the objects it incorporates, giving it an active role in evoking back-story.

Glass conveys clear vision. Ruland in his *Lexicon of Alchemy*, first published in 1612, mentions fifty descriptions for *materia prima*; number 33 is 'Marble, Crystal, Glass - which is all clear and intelligible'⁷⁵. In everyday speech, we use the expression "crystal clear". Baudrillard describes it as a material which 'eliminates all confusion' and sees it as pure and objective, and 'symbolically at zero level on the scale of materials'⁷⁶, but when fused, blown or melted and combined with other materials, it takes on a new character.

My work combines glass with *objets trouvés*, metals (referencing the alchemic planetary metals), and organic materials associated with life. The element of 'fire' in the working process brings about a physical change in the included materials and the glass. This transmutation aims to produce a material which in alchemic terms, is of 'greater' value than its constituent elements. In terms of back-story, this greater value can be seen as the materials' capacity to evoke something beyond their original immanence. In the work, the usual smooth surface of the glass is often erupted, cracked and disfigured; no longer pure, but contaminated. The inclusions may burn off leaving only a bubble of gas or its incinerated remains and this can influence strongly how the materials evoke back-story; the blackening of incinerated materials can evoke death, but also allude to a resurrection, as the phoenix rising from the ashes. It is these qualities of glass that make it an appropriate vehicle for back-story in my work.

⁷⁵ Glenn, J. (no date) *Ruland - On the Prima Materia*. The Alchemy Website, [Online] [Accessed on 25 June 2016] http://www.levity.com/alchemy/ruland_e.html

⁷⁶ Baudrillard, J. (1996) *The System of Objects*. London: Verso, p. 42.

5. Commentary on art work selected as doctoral research

5.1 Public biography

The works exhibited for examination are connected with an autobiographic back-story presented in the following text as a ‘public biography’.

Legend says that Don Sancho emerged victorious in the famous Battle of Clavijo, in 844, in spite of losing his spear in combat and having to rally his troops using a yew branch [*tejada*]⁷⁷. This battle and others made him a hero of the Reconquest⁷⁸... [In] recognition of his and his thirteen sons’ unswerving loyalty and valour, King Ramiro granted him the privilege that protects the ancestral rights of his House, the only Lordship remaining from [medieval times in present-day Spain].⁷⁹

Descendant of the legendary hero Don Sancho, I, Doña Ana Rosa Del Valle Barbarini y de Agreda de Tejada y Hopkins, *Señora Divesera Hijadalgo*, was received into “The most Noble and Illustrious House and Ancient lineage of Tejada” entitling me to the favours and privileges conceded by the noble Kings of Leon, Castile and Spain from King Ramiro I of Leon onwards, ratified by all royal successors since King Enrique IV of Castille in 1460 and confirmed by H. M. Juan Carlos I in 1981. This royal lineage contrasts with a humbler life story.

I was born in Cordoba, Argentina, a descendent of immigrants who fled Europe in the late 1930s precipitated by Mussolini’s dictatorship and the rise of Fascism during the Spanish Civil War. My mother’s family (de Agreda) were from the Spanish region of Castile and León, and my father’s (Barbarini), from Italy. I was an identical twin but my sister died when I was six months old. The only memory I have of her is a white small coffin resting in the maternal mausoleum. I was educated in a European tradition at a Catholic boarding school and had a privileged, but strict upbringing.

I spent my childhood holidays travelling and at grandparents’ summer houses. My maternal grandparents had backgrounds in geology and medicine; my grandfather

⁷⁷ The English translation of *Tejo* is yew. *El de Tajada* translates as ‘the one with the yew branch’.

⁷⁸ The Reconquest refers to a period of over 700 years when the Christian Iberian kingdoms opposed the Muslim kingdoms in the Iberian peninsula ending with the surrender of the Emirate of Granada in 1492.

⁷⁹ Author unknown. (no date) *Heredad de Tejada*. [Online] [Accessed 12 June 2016]
<http://www.heredadtejada.com/en/>

owned quarries for the extraction of marble, lime and feldspar (the latter a raw material used in glassmaking). The sites were covered in a blanket of white. The different rock formations fascinated me, and my grandfather encouraged my geological interests teaching me to recognise and name the various ores. My widowed paternal grandmother owned a farm and worked close to the land. She spoke only Italian. I remember how she looked after me when I was ill using a range of natural homemade remedies learned through her Italian heritage.

I grew up during successive military dictatorships, the civil uprising in Cordoba, the *Córdoba*, in 1969, and witnessed the 'disappearance' of family and friends during the 'Dirty War' when the country was governed by a military junta following the coup in 1976. One of my four aunts was married to a Colonel in the *Argentinian Airforce*, who was kidnapped by the guerrilla organization, the People's Revolutionary Army, (ERP). After ten months of captivity he was killed by a bullet to the head in 1974. I will never forget the funeral cries and the black mourning clothes.

On completing my secondary education, I began studying at Figueroa Alhcorta Art School , a risky choice during the political turmoil. Stigmatised by the family as the 'black sheep', my father said I was pursuing the career of vagabonds and libertines; he felt deceived and ashamed, said I had no future, and 'disowned' me. Fortunately, my mother was an art-lover and continued to provide support.

My glorious princess years came to an abrupt end when my mother unexpectedly died from pylorus cancer, only seventeen days after she was admitted to hospital. I was a teenager. She was my compass. Life became unbearable. I entered into a severe depression, unable to face or accept her loss. My life was in ashes; I was alone. I lost everything and it changed my life forever. I broke with all that I had believed in. I opened the golden cage and left Argentina leaving everything behind me.

After many years I finally made a reconciliation with my father who admitted his mistakes in the past and asked me to forgive him. We became very close again and spent times together in England and *Argentina* but he subsequently suffered a series of heart attacks, contracted Alzheimer's disease and died two years later in 2015. Once again the unbearable feeling of loss, orphanhood, ashes.

5.2 Development

5.2.1 Riot glass

Manchester (09/08/2011) described in the introduction to the thesis, was exhibited a number of times giving me a greater understanding of the relationship between the work and the disclosure of back-story and how it can develop during the life of a work, not always controlled by the artist. When first shown, the work's title, pointing to a specific date and place, allowed viewers to consider a storied aspect and evoked back-story. It was circuitous and required the viewer to participate in discovering the historical significance of the date.

In 2012, the words 'Riot Glass Installation' were added to the exhibition label below the title⁸⁰, and over the next three years, online references gave further details of the work's back-story: '...collection of bowls made from broken glass collected following the riots in August last year'⁸¹, and, 'Like a souvenir it retains the memory of what happened here'⁸². Commentators also began to interpret the work: 'Hopkins emphasises that materials can be reused but they maintain an element of their past; her work reflects Beuys' ideas about 'Social Sculpture' and, for me, Pierre Nora's notion of 'lieux de mémoire' (where objects can, metaphorically speaking, 'hold' memories). Hopkins reminds the viewer that beauty can be found in chaos'⁸³.

In 2015 the work was purchased by the Contemporary Art Society (CAS) through the OMEGA fund and presented to the Harris Museum & Art Gallery, Preston. It is now exhibited with an accompanying text:

Artist in Focus. Manchester Riots. This piece is made from broken shop windows, collected by Ana during the riots in Manchester in 2011. Ana's artistic process preserves an object's past while creating a new chapter in

⁸⁰ The work won the neo:artprize 2012 and was exhibited in Gallery 22, Bolton, UK. 14 June – 28 July 2012.

⁸¹ Manchester Metropolitan University (2012) "*Riot glasss*" bowls win art prize. 27 July. Manchester Metropolitan University. [Online] [Accesses on 5 August 2012]. <https://www.mmu.ac.uk/news/news-items/1617/>

⁸² neo:artists. (2012) neo:artprize2012 Finalist.[Online] [Accessed on 20 November 2012]. http://www.neoartists.co.uk/artprize_detail.asp?complimageID=29

⁸³ Slater, A. (2012), *neo:artprize reviewed by Dr Alison Slater*. 27 June. Neo blog. [Online] [Accessed on 15 July 2012] <http://www.neoartists.co.uk/blog/?p=2892>

its life. For this reason, the glass has never been cleaned, so you can still see the original dust, sand and paint spots collected on the day.

Paratext developed around the work, giving further access to the work's back-story, provoking the viewer to consider the glass objects from the back-story perspective. This story shows how a work's back-story can develop independent of the work and can aggregate meaning. However, it should be understood, not as supplementary, but as becoming an integral part of the work's biography.

5.2.2 Vanitas

I began working with found mirrors at an early stage of my research. I was attracted to the symbolism associated with mirrors, the rituals and superstitions: confusion of illusion and reality, and the power to trap the soul of a recently departed person. And again, the concept of embodied memory.



[Fig 5.1] *Mr and Mrs Smith*, 2012
Antique mirror glass.
45.5 x 37.5 x 0.6 cm (each),

The process used two mirrors placed back to back in the kiln which underwent a light tack fusion which allowed them to be separated after cooling, facilitated by applying petroleum jelly around the edges of the work before firing. The silvering and other mirror backing materials appear as inclusions that produce varied

colour effects due to the heating process. This series of works used found mirrors, often paired, to evoke the history imbued and remembered in the reflective skin as a back-story to the work suggested by the title text. The first pair was given to me by a married couple, reflected in the title, but subsequent work was entitled: *Untitled (Vanitas Series)*. The history of the mirrors recalled the memory of those who had looked into them but the series name iterated an existing cultural metaphor rather than evoking a new reading. Viewers often perceived these works as painting on glass, and without providing further information such as the provenance of the mirrors or details of the making process, they were limited in their ability to evoke back-story or reposition the viewer with regards to existing metaphors.



[Fig 5.2] *Untitled (Vanity Series)*, 2012. Antique mirror glass, various cosmetics and health products. 32.8 x 55.5 x 0.6 cm

I pursued the process of inclusion by introducing residues of everyday substances between the mirrors such as vitamin C, Paracetamol, lipstick and anti-depressants – substances that were part of my daily routine at the time. I varied the temperature of the kiln and the substances were burned off to differing degrees. I often included a generic list of the ingredients to each

work's caption, using the title and *peritext* to evoke a retrospection asking the viewer to reconsider the marks on the glass, not as gestural marks left by the artist's hand, but as material traces. The back-story of the work was related to the nature of the substances included in the mirrors and their direct connection to the body. Here, back-story built on the existing cultural understanding of the mirror, but extended this. From a metaphor for vanity, the mirrors suggested not the outward surface of the body but the cosmetic and pharmaceutical props that support that surface and a reflection of an inner emotional life and identity, recalling the mirror's ambiguous nature as a symbol for both *veritas* and *vanitas*.

5.2.3 Other inclusions



[Fig 5.3] *Untitled*, 2014. Crystal glass, sheep bones and teeth, lead, calcium. 20 x 20 x 0.8 cm

I further developed glass inclusion work by introducing different found objects such as feathers, cigarettes, and other organic materials often mixed with metal elements, between two sheets of clear plate glass. The materials were often incinerated or charred and their reaction with the glass led to eruptions and other dramatic effects on the surface of the glass. In terms of suggesting a storied content, there were sometimes no distinguishable remains within the glass.



[Fig 5.4] *Untitled*, 2015. Crystal glass, bird, butterfly, blood, garnet. 55 x 40 x 1cm.

I pushed these experiments to include ever larger objects which were unconventional for glass inclusion work, such as the bones of animals where the remains could be perceived in the finished works.

The inclusion works were limited in their ability to suggest a storied content or evoke back-story. The making and material (which had symbolic meaning for me) were part of the work's biography but the link to back-story was perhaps too contrived. At times, back-story seemed imposed on the work and often did not contribute to the visual power of the work, for all its aesthetic beauty.

Further images of relevant works made during the research period are presented in Appendix I.

5.3 Introduction to the thesis work

In 1727 the Catalonian glass maker, Ventura Sit was given a permit by King Phillip V to produce flat glass on the site of the Royal Palace of La Granja de San Ildefonso which had begun construction in 1721. From 1736 the factory received royal protection and produced glass to support the construction and decoration of the Royal residencies, producing mirrors and flat glass for windows, and decorative and household items to emulate the luxury of palaces of the European Court.⁸⁴

The works selected to represent the culmination of this research were all made during residencies⁸⁵ carried out at the Royal Glass Factory of La Granja in Spain. This location became an integral part of the back-story of the work, and found an additional resonance with my public biography, including that my mother was born in the region. All works were made from glass and lead crystal incorporating objects found in the factory grounds.⁸⁶



[Fig 5.5] Exhibition *peritext* displayed in Grosvenor Gallery

A thesis exhibition that took place in the Grosvenor Gallery, Manchester Metropolitan University from 7–22 July 2016, brought the works together in one space where a short exhibition text (Fig 5.5) explaining this background served as *peritext* suggesting a back-story which gave the work a particular significance. The *peritext*, if taken into consideration by the viewer, would allow a deeper significance to emerge from the materials.

⁸⁴ Source: Fundación Centro Nacional del Vidrio. (1991) *Royal Glass Factory*. Exhibition held at Galerie Robert Heitz, Strasbourg, 11 February – 10 March 1991. [Exhibition catalogue]

⁸⁵ A list of all residencies undertaken during the research period can be found in Appendix 1.

⁸⁶ With the exception of the rock extracted from the surrounding landscape in *Slow dancing in hot room #4*

These works developed a different approach to back-story than those previously explored, using found materials with a clear provenance and employing different modes of revealing back-story – through title, *paratext*, public biography and reiteration – revealing layers of interlacing information to elicit a more active and deeper engagement with the viewer. Although the following commentary discusses the work in relation to back-story, it is not intended to limit the work's interpretation or poetics.



[Fig 5.6] *Inclusions: works from the Royal Glass Factory*, Grosvenor Gallery, 2016. Thesis submission first part. Exhibition view

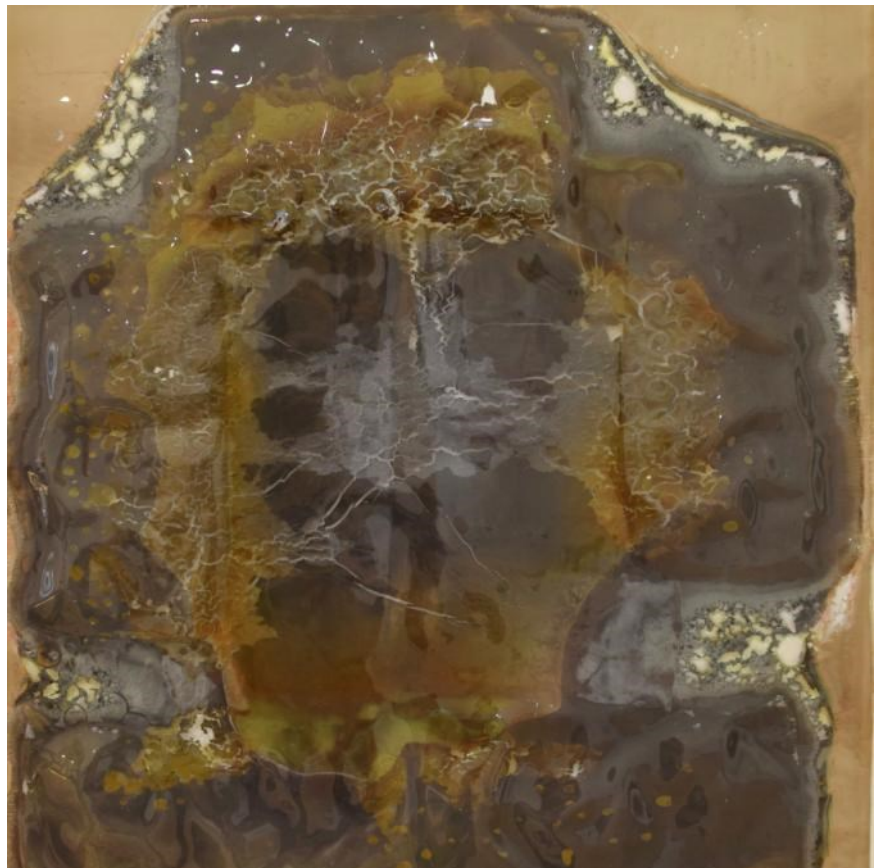
5.4 *Two twins*



[Fig 5.7] *Two twins*, 2014
Mirror glass, gold leaf, silver nitrate, lead, mercury and tin cans. 50 x 50 x 0.5 cm.



[Fig 5.8]
Two twins
(detail)



[Fig 5.9]
Two twins
(detail)

Two twins was the last of the mirror pieces produced during my research. Identical mirrors were placed back to back with gold leaf, silver nitrate, lead, mercury and tin between. Following the same process as the *Vanity* works, each pair was fused in the womb of the kiln but then separated. Unlike my previous mirror work, the title *Two twins*, does not direct the viewer towards the cultural metaphor of mirror gazing but concerns my personal life-story.

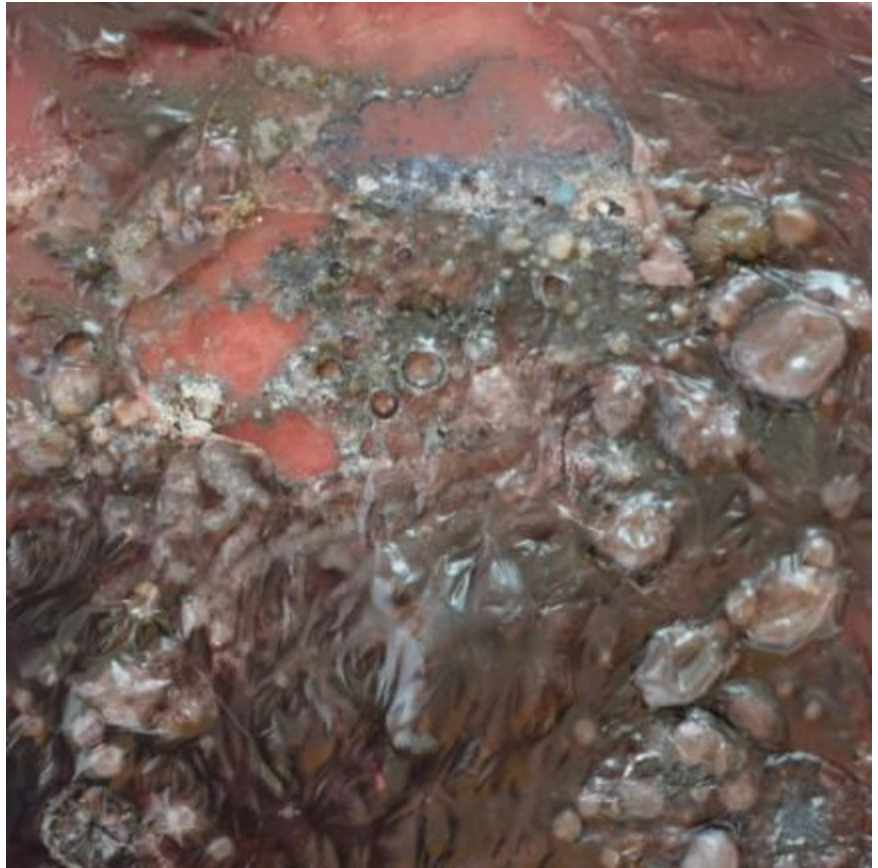
The paired nature of the pieces can be perceived, but the four plaques themselves suggest little storied content. Instead, the back-story is hinted at through the title. The works are not identical but colours and shapes can be seen to be consistent in each pair. We can read that the work began with mirrors which suggest the idea of doubling, but devoid of their ability to reflect our image; they remind us not of our own existence but that of the twinned lives of the title.

My public biography, if known to the viewer, can disclose information that enables revisiting the work with a closer emotional relationship: the story of the death of one twin. The patterns may suggest a magnified biopsy on a microscope slide, an abstraction of bodily tissues. We can recognise the mirror as a tool which can reflect and capture, not just an embodiment of the twinned-ness. The additional inclusions and the reflective mirror backing have been incinerated but rather than blackened ashes evoking death, the remains are pale grey with stronger earthy colours. We may perceive a difference in the reflective quality of the mirrors alluding to life and death, joy and sorrow. Ultimately, through back-story, the work evokes a poetic lament, but one that can be reached more easily when mediated by knowledge of my story.

5.8 Father



[Fig 5.10] **Father**, 2014
Crystal glass, fragments of leather wineskin, dried red wine residue, silver nitrate, silver leaf and mineral ores. 53.5 x 40 x 0.6 cm



[Fig 5.11]
Father (detail)



[Fig 5.12]
Father (detail)

Father was made after my father had been diagnosed with Alzheimer's and was suffering from severe dementia. He died shortly after the work was made. The main inclusion in the work is a dried wineskin which recalled a memory of my father.

The relief work is predominately burgundy in colour with a blistered and creased surface texture. As primarily a two-dimensional work, it is these textures, rather than the sculptural form, which draw in the viewer, but it does not suggest a storied content.

The title gives an indication of a back-story and brings a storied reading. My public biography, if known, discloses the story of my father's illness and his death which can bring another stance to the reading suggesting the metaphor of illness and loss. Back-story provides an emotional content and by making the personal story public, the viewer may experience empathy and a connection with their own experiences of loss. The work's textured skin can evoke a sense of illness, a disease. This surface texture reminded me of brain scan images of those with the illness and recalled how the disease literally eats away the tissue.

Unlike the other inclusion work displayed, fusion has rendered the materials unrecognisable, but rather than charred or incinerated, they are vitrified. Visually, the sense of inclusion is not felt. The materials are "blended" to create one unified glass piece, albeit, one which erupts in protest at this blending. Knowledge of the materials through *peritext* suggests a reading in which the masculine and Dionysian play a part; the blending of the goatskin can suggest the idea of transformation, from the material to the immaterial. For me, this process of vitrification alludes to the irreversible loss of memory experienced by victims of dementia and the work is both a memorial to my father and a metaphor for his suffering.

5.12 Dinner (Friday meal around 10pm, AD 2014)



[Fig 5.13] *Dinner (Friday meal around 10pm, AD 2014)*, 2014
Crystal glass, sardine tin, fish bones, beer cans and bread. 19 x 36 x 1 cm



[Fig 5.14] *Dinner (Friday meal around 10pm, AD 2014)*
(Detail)



[Fig 5.15] *Dinner (Friday meal around 10pm, AD 2014)*
(Detail)

Dinner is a glass inclusion work where the remains of a meal and its packaging were fused between two layers of transparent glass and give the sense of what I have called “vitrine-ification”. Like one of Beuys’ *vitrines*, it brings together a collection of objects and invites the viewer to look through the glass to examine them. The objects – fish bones, a ring-pull tin lid, a drinking can lid – are charred as if rescued from a fire or recovered from an archaeological dig. Their appearance may suggest fossilisation. They can be seen as part of our material culture and evoke a human presence and a storied content. Their inclusion in lead crystal gives the sense of preservation.

The title is descriptive and directly refers to an event. ‘AD 2014’ places the work within a biblical time scale (as opposed to an evolutionary one) suggestive of the dating of historical artefacts. The title alludes to a story, but in this work *peritext* and knowledge of my public biography provide only a tenuous link to the back-story. However, the materials, rather than found objects or discarded waste, can be seen as relating to a personal narrative; to the end of weekly labour at the glass factory, to a simple shared meal. Considered alongside the title, the materials may be seen to allude to the Catholic tradition, to the miracle of the loaf and fishes. Back-story does not invest the materials with meaning through a Beuysian-type ‘action’, and they are not historically charged or emotionally weighted as Salcedo’s relics, but they can be understood as traces of an event and as personally touched.

For me, the work explored a more direct narrative approach which preserved and presented a humble story through the tangible material residue of the event. The act of inclusion preserved the memory and the work served as a marker which located my story within the historical context of the Royal Glass Factory and its traditional output of fine crystal ware. While this work may seem playful now, back-story may operate in the future when a repast of the twenty-first century will be rare to view. The work captured a simple moment of sharing but such can form the most treasured memories; but suppers have malign consequences. Was fate already planning my betrayal: the loss of my father, turmoil and breakdown? This work does not mark a moment of drama, a riot or a demonstration. But who is to say what the next day will bring, which meal will be our last? This storying of this work will grow with age.

5.5 Slow dancing in hot room #1, #2, #3, and #5



[Fig 5.16] *Slow dancing in hot room #1*, 2014
Crystal glass, ceramic furnace bricks, silver nitrate, natural Chrysocolla, cobalt mineral and steel wool compress. 29 x 37 x 16 cm



[Fig 5.17]
***Slow dancing in hot
room # 1*** (detail)



[Fig 5.18]
***Slow dancing in hot
room # 1*** (detail)



[Fig 5.19] *Slow dancing in hot room #2*, 2014
Crystal glass, iron rail track, silver nitrate and steel wool compress. 18 x 47 x 20 cm



[Fig 5.20]
Slow dancing in hot room
2 (detail)



[Fig 5.21] *Slow dancing in hot room #2*
(detail)



[Fig 5.22] *Slow dancing in hot room #3*, 2014
Crystal glass, brick and steel wool compress. 17 x 28 x 7.5 cm



[Fig 5.23]
***Slow dancing in hot
room #3 (detail)***



[Fig 5.24]
***Slow dancing in hot
room #3 (detail)***



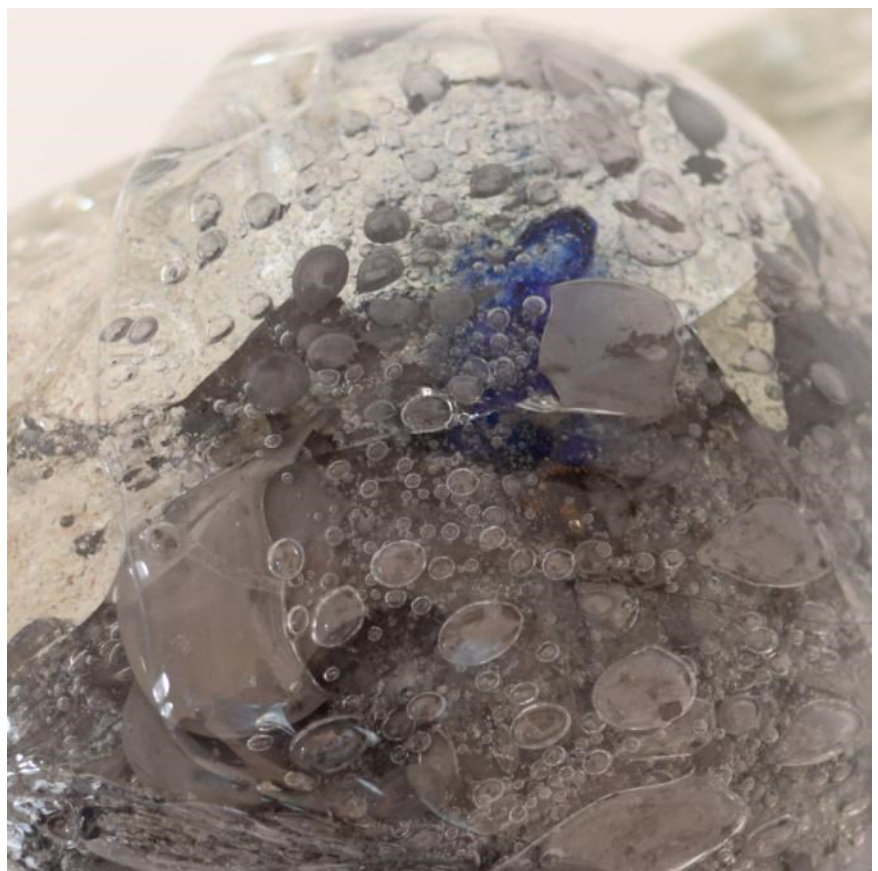
[Fig 5.25] ***Slow dancing in hot room #5***, 2014

Crystal glass, ceramic furnace bricks, silver nitrate, vitamin C, mercury, iron ores and steel wool compress. 27 x 26 x 20 cm

[Fig 5.26]
*Slow dancing in hot
room #5*
(detail)



[Fig 5.27]
*Slow dancing in hot
room #5*
(detail)



The inclusion work in warm glass processes, such as *Two twins*, was characterised by two factors. Firstly, the heat physically metamorphosed the included object and often incinerated it, and secondly, the objects were fully surrounded by glass. The included object might not be recognisable to the viewer, and the work was limited to a relatively flat plane. Working in hot glass allowed inclusions of larger objects while preserving their visual integrity. Hot glass brought a new expressive sculptural quality and enabled me to explore an alternative way of including objects in glass, the process I refer to as 'incorporation'. The title for this series made reference to this new working method, to the period of creation in the work's biography.

The works consist of discarded materials sourced from the derelict site of the glass factory that have been coated in layers of crystal glass. This making process required the controlled layering and shaping of the glass as it slowly folded off the pontil rod. A steel wool 'compress' was used on top of the found materials to avoid heat shock and help aid bonding but also to suggest a sense of healing and protection, like Beuys' felt. Other materials were added, particularly silver nitrate, an antiseptic and cure for wounds, reinforcing the notion of healing. The glass obscures incorporated objects but they are left partially exposed, and can be understood to be worn and broken building materials. The glass coating forms a type of shell and in *Slow dancing in a hot room #2*, supports the weight of the iron bar within. The gradual evolution of the work is evident in the folds of the glass.

Back-story is revealed through *peritext*, the exhibition text which gives the general provenance of the incorporated objects, and individual labels which identify more precisely the original function of these objects, bringing a different perspective to the reading of the work. The objects are relics of an industrial culture at the end of a period of decline: kiln bricks, part of a rail for moving goods around the factory. Incorporation freezes the temporal relationship of past to present, a gesture to preserve a fragile history. But like Salcedo's concrete, incorporation also brings stillness and peace to the objects. Perhaps I feel a sense of responsibility, weighted by my own noble decent, to heal these artefacts uprooted from their home, and like Salcedo, to quiet the trauma of their existence.

5.6 Slow dancing in hot room # 4



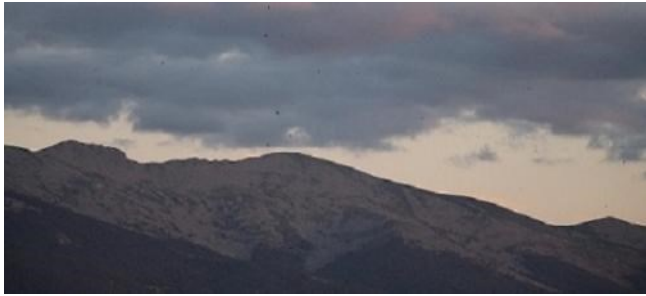
[Fig 5.28] **Slow dancing in hot room #4**, 2014
Crystal glass, rock extracted from *La mujer muerta* (The dead woman), Sierra de Guadarrama, Valsain, La Granja, Spain and steel wool compress.
20 x 17.5 x 14 cm



[Fig 5.29]
***Slow dancing in hot
room #4*** (detail)



[Fig 5.30]
***Slow dancing in hot
room #4*** (detail)



[Fig 5.31] *La Mujer Muerta*, Segovia, Spain

Every day from my window in La Granja I was struck by the outline of the surrounding mountains which resembled a female body. I thought this was just in my imagination, but mentioning it to my colleagues at the glass

factory, they related one of the legends of the mountain known as *La Mujer Muerta* (The Dead Woman):

Hercules, founder of Segovia, sculpted the mountain by express desire of a gentleman...who had fallen in love with a young woman, and whose feelings were reciprocated. Her father, however, did not approve the romance and killed his daughter rather than see her in the arms of the man. Dejected, the lover begged the demigod to sculpt the female form in honour of his beloved.⁸⁷

The work took this story as a starting point, and a piece of local geology. The viewer may recognise in the exposed rock, the face of a woman, and in the enclosing lead crystal, her hair. The resemblance works in the same way as natural geography, dependant on angle of view, the play of light and the susceptibility of the viewer. Although the title of the work categorises it as part of the series of works discussed previously, the originating myth is referenced in the list of materials on the title label: 'Rock extracted from *La Mujer Muerta*.' We are not told the full story of 'the dead woman', but the location evokes the idea of legends that arise everywhere in relation to the "carving" of the landscape.

Although this work is based on a clear storied content, it is not a back-story as such. For me, the work is not an abstract representation of a woman, but an embodiment of love and loss. Shown in the context of the series, it serves an iterative purpose, putting the viewer in mind of the timeless process of moving

⁸⁷ ABC Madrid. (2015) *The mysterious mountain that hides a dead woman on his summit*. Translated from the original Spanish. [Online] [Accessed 20 May 2016] <http://www.abc.es/madrid/20151015/abci-montana-mujer-muerta-leyenda-201510141316.html>

from sculptural shape to the storied imagination, thus creating a context for its fellow pieces.

5.7 Wounded



Fig 5.32] *Wounded*, 2014
Crystal glass and galvanised steel bucket. 38 x 33 x 33 cm



[Fig 5.33]
Wounded (detail)



[Fig 5.34]
Wounded (detail)

The work consists of an empty corroded galvanised steel bucket with a coating of lead crystal around the bottom delicately balanced at an angle. The bucket is a recognisable object with associations of work and labour, but here it has gained a human quality through its scars and ageing. The solidified glass cradles and protects the corroded base but has also placed it in a precarious position. The bucket is damaged and not fit for use; no longer a functioning container, it is itself contained through the act of incorporation. The aged bucket and its re-presentation in a new context allude to a storied content.

The title, *Wounded*, suggests a back-story and asks the viewer to consider the work from a different perspective. Seen as a metaphor for the body, and taken alongside my public biography, another level of understanding may be reached. The work does not attempt to evoke a particular episode from my past but has an emotive power which can allude to a state of being, an inner emotional state, which may resonate with the viewer. The object acts as a surrogate for the physical and psychological condition of the body. Like Salcedo's concrete, glass is used in this work to add an emotional content, suggesting a protective comforting embrace, but also a precarious and fragile state of being.

In comparison to other works in the exhibition, here, the gesture of incorporation is minimal, the found object remains exposed rather than encased, allowing the galvanisation (a form of inclusion⁸⁸) to give play. The simplicity of the gesture brings clarity to the work which enables the title to reposition the viewer in relationship to the work. The tenderness of the glass crystal caressing the harsh galvanic surface reveals the potential of the medium for expressing skin and softness. My public biography may not yet be established enough to allow an autobiographical reading, but the work can be understood independently through metaphor, with back-story acting as an aid or enrichment.

⁸⁸ Galvanising of steel is a coating which protects it from corrosion by providing a sacrificial surface to be consumed in place of the metal it covers.

5.9 Mother



[Fig 5.35] *Mother*, 2014
Crystal glass, limonite, steel wool compress, silver nitrate and spring water from the gardens of the Royal Palace.
19 x 100 x 100 cm (approx.)



[Fig 5.36] *Mother*
(detail)



[Fig 5.37] *Mother*
(detail)

Mother combines the concept of incorporation with blown glass sculptures. It consists of four glass containers partially filled with water radiating out from a rock of limonite (iron ore) coated with glass crystal. The glass containers have a biomorphic quality and the addition of water reinforces the idea of a living organism.

Like *Father*, the title gives access to a storied reading and may open up the work to be understood as a metaphor for motherhood. The *peritext* and public biography bring additional information disclosing the story of my mother who died from stomach cancer. This allows the viewer to see the work differently as they relate to the emotional content of the story. The deformed glass containers suggest the disease of the stomach, and like *Father*, the work may be understood as a metaphor for illness. But the other materials further evoke the back-story. The origin of the water is given on the title block, water from the Royal Palace fountain, which links the work to a specific location and makes a connection to my mother's ancestry. The limonite iron ore rock was selected as a metaphor for my mother's force of energy and strength but also for its provenance, referencing her genealogy through the geology of the rock. Of course, these connections may not be recognised without a 'boilerplate' back-story like Beuys' which provides a direct link to specific materials; their power to evoke remains contingent on the viewer. But as we have seen, back-story is something that can accrue. Like Beuys' *Felt Suit*, it does not have to be fully expressed at the start.

The work took me in a new direction, incorporating found materials with blown glass in an assembled form. These blown glass containers had a more representational quality but in combination with the found object the work initiated an alternative approach to materials.

5.10 The womb



[Fig 5.38] *The Womb*, 2014-15

Crystal glass, metal chandelier fitting for the Royal Summer Palace, galvanised wire mesh. Fractured in 2015 in the Spode factory, Stoke-on-Trent, England by a ping pong ball. 36 x 27 x 27 cm

[Fig 5.39]
The Womb
(detail)



[Fig 5.40]
The Womb
(detail)



The word “hysteria” is derived from the Greek word *hysteria*, “womb.” Greco-Roman medical writers believed that hysteria was caused by violent movements of the womb and that it was, therefore, peculiar to women.⁸⁹

This piece further explored the combination of found object with blown glass. The metal fitting from an old chandelier was used as the mould into which a glass container was blown while manipulating a wire mesh to restrict the blown shape. It was an improvisation where the form grew from the process and it evoked Hippocrates’ account of the wandering womb.⁹⁰ The work was accidentally broken by a ping-pong ball during its exhibition in Stoke-on-Trent. In the ‘Yes, and ...’ spirit of improvisation, the ball remains extant.

The title is straightforward; the work can be understood as a metaphor for the female body evoked by the sensual form of the glass container. The story of the ping-pong ball is made evident through *peritext* on the work’s label. It is part of the work’s biography, emphasising the work’s fragility. The broken container can suggest a fragile body, constrained and shaped by the consequences of life.

The accidental juxtaposition is enigmatic. A story, independent of back-story, is now intimately connected with the work and more evident than the back-story. Nevertheless, making this work reinforced my understanding that personal biography informs much of my work indirectly, and forms the true back-story. Although not based on a particular account, like those of Salcedo’s witnesses, the improvisational approach and use of incorporation led to a sculptural form which embodied my confrontations with mental health and womanhood. The title frames the reading of the work; the *peritext* reinforces the improvisational nature of the work; back-story can be revealed through public biography, all providing an undercurrent of information which the viewer can absorb to revisit the work. Like the work of Gonzalez-Torres, here the story allows for a more universal reading that the viewer can relate to their own life experiences.

⁸⁹ University of Virginia (2007) *Ancient Gynaecology*, [Online] [Accessed on 14 March 2016] <http://exhibits.hsl.virginia.edu/antiqua/gynecology/>

⁹⁰ I became aware of Hippocrates’ view through my interest in the work of the French neurologist Jean-Martin Charcot and his study of hysteria.

5.11 When you feel a need to look closer



[Fig 5.41] *When you feel a need to look closer*, 2014
Crystal glass, antique wooden mould, wood. 103 x 95 x 56 cm



[Fig 5.42]
*When you feel a need to
look closer*
(detail)



[Fig 5.43]
*When you feel a need to
look closer*
(detail)

Like *The womb*, this work consists of a blown glass container and found objects, but does not have the same sense of incorporation; the container 'sits on' the mould. The lower part of the work is an old wooden glass-making mould supported by blocks of wood found at the Royal Glass Factory. The blown glass is in the form of a transparent torso (modelled after my own body, although this fact is not revealed on exhibition). These are assembled in a traditional statuesque manner. The transparent glass holds within it a heart and, at the base, the shapes of abdominal viscera.

The title is like a fragment of a proverb. It addresses the viewer directly, suggesting the transparent glass is a lens through which we may examine the work in more detail which can modify our perception of it. It implicates the viewer into the story-making process. Through *peritext* the viewer is told the origin of the found materials and their prior purpose in glassmaking, and may speculate on the relation between torso and base. While the back-story of my public biography can interweave the connections with my Spanish heritage, also iterated in nearby works in the exhibition, the literal representation of heart and torso invite the viewer to conjugate their own stories with that of my public biography, a personal landscape that can place the viewer at the 'right' distance.

The work is a self-portrait. The age of the wooden base alludes to the passing of time, the accumulation of history, and my ancestry. The assemblage brings together my past and present. The wooden glass blowing mould is a symbol of creation and rebirth. The transparent glass torso portrays a fragile identity subject to emotional depths: passions, gut feelings.

6. Conclusions

Back-story is a narrative device well-known in literature and film-media, but this research has explored how back-story can operate in non-narrative contemporary sculptural practice. The research has been conducted by practice, that is through the creation of art work as part of my professional studio practice. This thesis consists of an exhibition of selected works created during the period of study, and a written thesis that explains the theoretical context and provides an analytical commentary on those works.

6.1 Research by Practice

Artistic investigation is not a narrowly directed study that looks exclusively at a single problem. It can entail exploration of many concurrent issues and pursue various side-tracks; there can be many distractions. As a professional artist there can be other commitments and demands which require prioritisation. On setting out to address back-story in a clear-cut way I took the theme of mirrors with their rich symbolism, mythical and cultural associations; the conflicts of illusion and reality, beauty and death, reflection and self-reflection, and the idea that an antique mirror has “witnessed” a multiplicity of past events and has seen life at its most vulnerable and unaware. However, artistically, the ‘Vanitas’ work seemed to be weighted towards ideas of alchemy and transformation, while back-story was reduced to a metaphor. The work was a success, but as an exploration of back-story it was wanting. Nonetheless, ‘Vanitas’ was the overture to subsequent work, and most notably prepared the ground for a more in-depth probing of the technique of inclusion.

Research by practice is not a direct route to an answer achieved through structured and rigid application, but rather it is guided by intuition, imagination and inspiration, opportunity and chance. Offers of residencies throughout the research gave me the opportunity to gain new knowledge and expertise but required negotiation to find a way in which they could fulfil both research pursuits and the requirements and expectations of the host institution. These residencies were central to the development of both my research and professional practice and brought a new stimulus through an engagement with different cultures and people; but they also presented challenges. In Germany and Portugal, glass-

making facilities were not available so I began to explore working with 'cold' glass and found objects. In terms of my research, themes of back-story were addressed but without the plastic quality of glass, the work moved away from 'inclusion' towards glass 'additions' and did not exploit the full potential of glass as an artistic medium that I sought.

It was good fortune that led to my first residency at the Royal Glass Factory at La Granja. The location, the royal connection, even the state of dereliction in parts of the factory evoked aspects of my personal biography that allowed me to explore back-story in a more fully involved way, emotionally and intellectually. This was not something that could have been planned from the start of the research; it was something that I needed a readiness for. In this sense, degree-oriented research by practice is a risky business. One can set a process in motion, but one cannot predict the outcomes. Setting a research topic that is focused, but that allows room for changes in direction, in conceptualisation, even in working practice is a crucial element in such an undertaking.

6.2 Back-story, autonomy and retroception

Contemporary sculpture is not narrative art. As a non-narrative art form, one initial challenge of the research was to understand the storied content of contemporary sculpture, with which back-story could be linked. Genette's model of back-story, conceptualised as analepsis, provided a starting point for analysis. An initial look seemed to uncover similar modes of external and internal back-story as those which Genette proposed as operative in literature. But I was interested in a particular type of artistic exploration that had begun with a lengthy study of the work and legacy of Joseph Beuys. Those artists that attracted me dealt with trauma in their work; back-story was a means of visiting the trauma and of psychic healing, for both the artist and the viewer. The analysis of selected artists' work found that they differed most in their choice of materials, and the materials seemed to be a key to the storied content.

It was found that for these artists, it was not possible to clearly identify types of back-story based on their precise temporal relationship between story and telling as described in Genette's model. Most notably, the works analysed did not evoke a 'main narrative' but rather offered a range of narrative possibilities contingent

on the viewer. The surprising finding was that the storied content was the back-story; there appeared to be no main story to which the back-story referred, as in the literary model.

Every artwork has features of a biography. Contemporary sculpture can be understood as the story of its material past and making processes that set up an interaction between the present and the past (and often the future). The biography of an artwork centres largely on creation, the gathering together of materials, but it can have significant moments of display, change of ownership, damage, or even destruction. Is the creation of the artwork the main story to which back-story refers? This is one possible reading, and one which satisfies the theoretical needs. I would be equally happy to eliminate the counteracting main story. The back-story is a narrative that attaches to the artwork, that can be read alongside, that can interact with the biography of the artwork and the life-stories of the viewers. More important than main story, the concept that is necessary to establish is the autonomy of the artwork; the artwork must stand on its own with or without its back-story. And of course, as in narrative art forms, back-story does not have to be revealed. It can remain a secret, letting the work “speak for itself”.

If we accept the premise of autonomy, then what is the point of back-story and how does it work? Back-story does three things:

- (1) Back-story engages the viewer by setting the work within a storied view. Narrative is an inviting element for the viewer, and allows engagement to take place even when subject matter is troubling or shocking (concentration camps, untreatable illness, abuse of power), and a direct approach would be off-putting to many.
- (2) Back-story puts the viewer in the right position with regard to the work, what Genette called the right ‘distance’. It establishes an emotional connection that allows a closer appreciation.
- (3) Back-story lengthens the reading time, permitting the viewer to spend enough time with the work that complex meanings can be more fully communicated.

Back-story in contemporary sculptural art does not operate in the clear structured way of narrative art forms. However, narrative theory does have something to

offer, most notably, Genette's concept of *retroception*. One way that back-story operates in both literature and sculpture is by allowing the "reader" to return to the work and see it from a different perspective.

It was possible to recognise four ways in which the artist can disclose back-story: title, *paratext*, public biography and reiteration. These methods of disclosure, to varying degrees, enable the artist to provide the viewer with content directing them to read the work from a storied perspective, and through *retroception* to provoke a deeper understanding of the work. However, rather than explaining something, back-story can be seen as the unveiling of something that was already immanent in the work.

6.3 Results

The research set out to address a gap in knowledge by contributing to an understanding of how back-story can function in contemporary sculptural art. The research was conducted through my professional practice supported by existing theory and an analytical study of selected artworks. This dialogue between practice and analysis revealed a particular process in my making methods that was closely related to back-story, a process I call incorporation to highlight its difference from the more well-known method of inclusion.

In my practice, I use different processes to add foreign (non-glass) materials into glass using warm or hot glass-making techniques. In the method of inclusion, this often led to the incineration of the additions and the transmutation of the glass. The added materials were no longer physically recognisable, their presence evoked through bubbled textures, changes of colour, or charred shapes. The process set up a temporal collision within the work which could suggest back-story to the informed viewer. In the 'Vanitas' series, the mirror glass physically acted upon, or interacted with the 'inclusions' to give a particular metaphoric value to the work. With the addition of less combustible materials the foreign body was more readable to the viewer but glass fusion became limiting in its sculptural possibilities. During residencies at the Royal Glass Factory, the process of incorporation evolved where materials were partially encased in lead crystal, remaining fully recognisable. From a conceptual perspective, I realised that the process, or action of incorporation, of putting something into the body of

something else, could be seen as an enactment which performatively embodied back-story. The incorporating glass provides a new perspective on the object's past, in the manner of back-story through *retroception*.

The research achieved three outcomes that make original contributions to knowledge: (1) providing a framework for the understanding of back-story in contemporary sculptural practice; (2) demonstrating the process of incorporation that contributes to the means of the sculptor to evoke and embody back-story; and, (3) creating of a body of original artwork centred around the concept of back-story that can form the subject of further questioning.

This study of back-story would further benefit from the collection of feedback from an audience following their encounter with artworks using different methods of disclosing the back-story. This would enable a greater insight into how back-story is read and how it influences the reception of the work. But that is a sociological study not within the realm of art practice. Practice can be furthered by continued exploration of incorporation. But one of the important aspects is how to disseminate the public biography, if that back-story continues to be an element of my work. The biographical back-story surfaced as a consequence of the specific location of the Spanish residency, although previous works had also addressed personal experiences. It became necessary during my research to formulate a public biography to disclose this back-story. This was a painful process and my initial attempt will need further developing before being placed more fully in the public arena.

Back-story, once revealed, can excite action that can bring about change. It can reattach the material to its significance, giving it an additional weight, provoking the viewers' emotional sensibility and a deeper understanding of the work. Back-story can ultimately bring about a transformation or transcendence of the art object, and new meaning. In the artists examined, back-story is not based on fictional but real life stories. It may take on a mythical aura but remains rooted in reality. At its strongest, it is driven by the artist's philosophy, a passion, conviction and commitment which pervades the artist's body of work. Back-story can be an undercurrent which moistens the artist's work to make it more palatable, or crash over it like a tsunami.

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- Aukeman, A. (1994) *Doris Salcedo: Privileged Position*. March. ARTnews 93, pp. 157-157
- Bal, M. et al. (2007) *Doris Salcedo Shibboleth*. Exhibition held at the Tate Modern, London, 9 October 2007 - 6 April 2008 [Exhibition catalogue]
- Balshaw, M., Griffiths, M., Toíbin, C. (2014) *Cornelia Parker*. Exhibition held at the Whitworth Gallery, Manchester, 14 February - 31 May 2015 [Exhibition catalogue]
- Barson, T. (2004) 'Unland: The Place of Testimony'. Spring. *Tate Papers*, no.1. [Online] [Accessed on 28 February 2016] <http://www.tate.org.uk/research/publications/tate-papers/01/unland-the-place-of-testimony>
- Basualdo, C. (2005) 'Doris Salcedo, Carlos Basualdo in conversation'. In Phaidon, *Press Play: Contemporary artists in conversation*, London: Phaidon Press Limited. pp. 527-541. [Basualdo interviewed Salcedo in 1999]
- Basualdo, C., Huyssen, A., Princenthal, N. (2000) *Doris Salcedo*. London: Phaidon Press Limited.
- Baudrillard, J. (1996) *The System of Objects*. London: Verso.
- BBC News Manchester. (2011) Police 'overwhelmed' by riots in Manchester and Salford. 10 August. BBC News. [Online] [Accessed on 15 August 2011] <http://www.bbc.co.uk/news/uk-england-manchester-14467588>
- Bernárdez, C. (1999) *Joseph Beuys*. 3rd ed., Madrid: Editorial Nerea, S.A.
- Beveridge, P., Doménech, I., Pascual, E. (2003) *Warm Glass*. New York: Lark Books
- Biro, M. (2003) 'Representation and Event: Anselm Kiefer, Joseph Beuys, and the Memory of the Holocaust'. Spring. *The Yale Journal of Criticism*. 16. (1) pp.113-146.
- Blazwick, I. (2013) *Cornelia Parker*. London: Thames and Hudson.
- Bleckner, R. (1995) *Felix Gonzalez-Torres*. Spring. Bomb 51. [Online] [Accessed on 12 April 2014] <http://bombmagazine.org/article/1847/felix-gonzalez-torres>
- Blume, E., Kleemann, B., Pissarro, J. (2010) *Joseph Beuys: Making the secrets productive*. Exhibition held at Pace Gallery, New York, 5 March – 10 April 2010. [Exhibition catalogue]
- Bourriaud, N. (2002) *Relational Aesthetics*. Dijon: Les Presses du réel.
- Bradley, J., Huyssen, A. (1998) *Displacements*. Exhibition held at the Art Gallery of Ontario, Toronto 8 Apr – 26 Jul 1998 [Exhibition catalogue]
- Buskirk, M. (2005) *The Contingent Object of Contemporary Art*. Cambridge, Massachusetts: MIT Press
- Chametzky, P. (2010) *Objects as History in Twentieth-Century German Art: Beckmann to Beuys*. Berkeley: University of California Press.
- Craig, B. (2008) *Contemporary Glass*. London: Black Dog Publishing

- Danto, A. C. (2005) *Unnatural Wonders; Essays from the gap between art and life*. New York: Columbia University Press.
- Danto, Arthur C. (2013) *What art is*. New Haven: Yale University Press
- Davvetas, D. (1989) 'Joseph Beuys – Man is Sculpture.' *Art & Design, German Art Now*, December 1989, pp. 15-28.
- Demarco, R. (2016) *A Unique Partnership: Richard Demarco, Joseph Beuys*. Edinburgh: Luath Press Limited.
- Durini, L. (1997) *The Felt Hat, Joseph Beuys, A Life Told*. Milan: Charta.
- Focillon, H. (1992) *The Life of Forms in Art*. New York: Zone Books.
- Foster, H. (ed.), (1998) *The Anti-Aesthetic, Essays on Postmodern Culture*. New York: The New Press.
- Franzke, A (1989) 'New German Sculpture, The Legacy of Beuys.' *Art & Design, German Art Now*, December 1989, pp. 29-33.
- Bal, M., Carlos, I., Anjos, M. (2011) *Doris Salcedo Plegaria Muda*. Exhibition held at Moderna Museet, Malmo, 21 May – 9 April 2011 [Exhibition catalogue]
- Fundación Centro Nacional del Vidrio. (1991) *Royal Glass Factory*. Exhibition held at Galerie Robert Heitz, Strasbourg, 11 February – 10 March 1991. [Exhibition catalogue]
- Genette, G. (1997) *The Work of Art, Immanence and Transcendence*, Ithaca, New York: Cornell University Press
- Genette, G. (1980) *Narrative Discourse*. Ithaca, New York: Cornell University Press.
- Genette, G. (1997) *Paratext: Thresholds of interpretation*. Cambridge: Cambridge University Press.
- Genette, G. (1999) *The Aesthetic Relation*. Ithaca, New York: Cornell University Press.
- Gibbons, J. (2007) *Contemporary Art and Memory: images of recollection and remembrance*. London: I. B. Tauris
- Glenn, J. (no date) *Ruland - On the Prima Materia*. The Alchemy Website, [Online] [Accessed on 25 June 2016] http://www.levity.com/alchemy/ruland_e.html
- Govan, M. (1989) 'Romantic Strategies of Representation, Beuys - Penck - Polke.' *Art & Design, German Art Now*, December 1989, pp. 65-71
- Green, D. (2005) *Metonymy in Contemporary Art: A New Paradigm*. Minneapolis: University of Minnesota Press
- Greenberger, A. (2015) *What you see is what you see: Donald Judd and Frank Stella on the end of painting in 1966*. July. Art Media ARTNEWS. [Online] [Accessed on 21 July 2016] <http://www.artnews.com/2015/07/10/what-you-see-is-what-you-see-donald-judd-and-frank-stella-on-the-end-of-painting-in-1966/?singlepage=1>
- Griffith, B. (2007) *Kiln-Formed Glass*. New York: Lark Crafts

- Harlan V. (ed). (2007) *What is Art? Conversations with Joseph Beuys*. London: Clairview.
- Hayes, C-M.L., Walters, V. (2011) *Beuysian Legacies in Ireland and Beyond: Art, Culture and Politics (European Studies in Culture and Policy, Vol. 6)*, Munster: LIT Verlag.
- Herbert, M., MacDonald, F., Stang, M. (2013) *Thinking is Making, Presence and absence in contemporary sculpture*. London: Black Dog Publishing.
- Holloway, K. (2016) *From the Era of AIDS, the “disappearing” but important works of artist Felix Gonzalez-Torres*. 11 March. Alternet. [Online] [Accessed on 15 April 2016] <http://www.alternet.org/books/era-aids-disappearing-important-works-artist-felix-gonzalez-torres>
- Horsfield, K. (1993) 'Interview with Kate Horsfield'. In Kuoni, C. (ed.) *Energy plan for the Western man Joseph Beuys in America*, New York: Four Walls Eight Windows, pp. 61-75. [Horsfield interviewed Beuys in 1980]
- Ingold, T. (2013) *Thinking through Making*. October 31. Institute of Northern Culture. [Online] [Accessed on 20th May 2016] <https://www.youtube.com/watch?v=Ygqe72-4zyo>
- Ingold, T. (2013) *Making*. London: Routledge
- Jappe, J. (2001) 'Interview with Beuys about key experiences', In Ray, J. (ed.), *Joseph Beuys Mapping the Legacy*. New York: D.A.P/Distributed Art Publishers, pp. 185-198. [Jappe interviewed Beuys in 1976]
- Jung, C. (1968) *Man and his Symbols*. United States: Dell Publishing
- Klüser, B., Schellmann, J. (eds) (1980) *Joseph Beuys: Multiples. Catalogue Raisonné Multiples and Prints 1965-80*. 5th ed., New York: New York University Press.
- Krauss, Rosalind E. (1981) *Passages in Modern Sculpture*. Cambridge, Massachusetts: MIT Press
- Kuspit, D. (1984) *The Critic is Artist, The intentionality of Art*. ('Beuys: Fat, Felt, and Alchemy', pp. 345-358.), Michigan: UMI Research Press.
- Levin, K. (1993), 'Introduction', In Kuoni, C. (ed.) *Energy plan for the Western man Joseph Beuys in America*, New York: Four Walls Eight Windows, pp. 1-5.
- Levi-Strauss, C. (1979) *Myth and Meaning*. New York: Schocken Books
- Lippard, L. (ed). (1997) *Six Years: The dematerialization of the art object from 1966 to 1972*. Berkley: University of California Press Ltd.
- MacMillan, I. (1997) 'I Remember You.' *Modern Painters*, Spring 1997, pp. 46-48.
- Manchester Metropolitan University (2012) *“Riot glass” bowls win art prize*. 27 July. Manchester Metropolitan University. [Online] [Accesses on 5 August 2012]. <https://www.mmu.ac.uk/news/news-items/1617/>
- Marcus, George E. (ed). (1997) *Cultural Producers in Perilous States*. Chicago: The University of Chicago Press.
- Mengham, R. (2004) Doris Salcedo: Neither. Exhibition held at the White Cube, London, 10 September – 17 October 2004. [Exhibition catalogue]

- Merewether, C. (2000) 'Interview with Charles Merewether.' In Basualdo, C., Huyssen, A., Princenthal, N. (eds.), *Doris Salcedo*. London: Phaidon Press Limited. pp. 134-145. [Merewether interviewed Salcedo in 1998]
- Mesch, C., Michely, V. (eds). (2007) *Joseph Beuys. The Reader*. London: I. B. Tauris
- Meskimmon, M. (2011) *Contemporary Art and the Cosmopolitan Imagination*. London: Routledge
- Morgan, F., Morris, S. (1995) *Rites of Passage, Art for the End of the Century*. Exhibition held at Tate Gallery, London. 15 June - 3 September 1995 [Exhibition catalogue]
- neo:artists. (2012] neo:artprize2012 Finalist.[Online] [Accessed on 20 November 2012]. http://www.neoartists.co.uk/artprize_detail.asp?complImageID=29
- Nickas, R. (2006) 'Felix Gonzalez-Torres: All the Time in the World'. In Ault, J. (ed.) *Felix Gonzalez-Torres*, New York: Steidl/dangin, pp. 39-51 [Nickas interviewed Gonzalez-Torres in 1991]
- Nisbet, P. (2001) 'Crash Course'. In Ray, G. (ed.) *Joseph Beuys Mapping the Legacy*. New York: D.A.P/Distributed Art Publishers, pp. 5-17
- Pendergrast, M. (2013) *Mirror Mirror. A History of the human love affair with reflection*. New York: Basic Books.
- Ravenal, J. B. (2000) *Vanitas: Meditations on Life and Death in Contemporary Art*. Exhibition held at the Virginia Museum of Fine Arts, Richmond. 4 April - 28 Jun 2000 [Exhibition catalogue]
- Ray,G. (ed.), (2001) *Joseph Beuys Mapping the Legacy*. New York: D.A.P/Distributed Art Publishers
- Ray, G. (2005) *Terror and the sublime in art and critical theory*, New York: Palgrave Macmillan.
- Richard Demarco Gallery. (1970) *Strategy: Get Arts*. Exhibition held at Edinburgh College of Art, Edinburgh International Festival, 23 August - 12 September 1970. [Exhibition catalogue].
- Rosenthal, M. (2005) *Joseph Beuys Actions, Vitrines, Environments*. Exhibition held at Tate Modern, London, 4 February – 2 May 2005. [Exhibition catalogue]
- Sharp, W. (1993) 'Interview with Willoughby Sharp.' In Kuoni, C. (ed.) *Energy plan for the Western man Joseph Beuys in America*, New York: Four Walls Eight Windows, pp. 77-92. [Sharp interviewed Beuys in 1969]
- Slater, A. (2012), *neo:artprize reviewed by Dr Alison Slater*. 27 June. Neo blog. [Online] [Accessed on 15 July 2012] <http://www.neoartists.co.uk/blog/?p=2892>
- Sollins, S. (2013) *Doris Salcedo: Variations on brutality*. April. Art21. [Online] [Accessed on 17 February 2016] <http://www.art21.org/texts/doris-salcedo/interview-doris-salcedo-variations-on-brutality>
- Spector, N. (1995) *Felix Gonzalez-Torres*. New York: Guggenheim Museum Publications

- Stephens, C. (2006) *Richard Demarco, a memoir*. Published by Charles Stephens
- Storr, R. (2006) 'Felix Gonzales-Torres: etre un espion'. In Ault, J. (ed.) *Felix Gonzalez-Torres*. New York: Steidl/daikin, pp. 229-239. [Storr interviewed Gonzalez-Torres in 1995]
- Thistlewood, D (ed). (1995) *Joseph Beuys, Diverging Critiques*. Liverpool: Tate Gallery Liverpool and Liverpool University Press
- Thompson, C. (2011) *Fluxus, Joseph Beuys, and the Dalai Lama*. Minneapolis: The University of Minnesota Press.
- Tisdall, C. (1987) *Bits and Pieces. A Collection of Work by Joseph Beuys from 1957 to 1985 assembled by him for Carolne Tisdall*. Exhibition held at Richard Demarco Gallery, Edinburgh, 1987 Edinburgh International Festival. [Exhibition Catalogue].
- Umland, A. (2006) 'Project 34: Felix Gonzales-Torres'. In Ault, J. (ed.) *Felix Gonzalez-Torres*. New York: Steidl/daikin, pp. 241-246. [Originally published in 1992]
- Walters, V. (2000) *Joseph Beuys and the Celtic Wor(l)d. A Language of Healing* (European Studies in Culture and Policy Vol 10), Munster: LIT Verlag.
- Whitehouse, D. (2012) *Glass: A Short History*. London: The British Museum Press
- Widholm, J. R. (2015) *Presenting Absence: the work of Doris Salcedo*. MCACHicago. [Online] [Accessed on 22 February 2016]
<http://www3.mcachicago.org/2015/salcedo/texts/presenting-absence/>
- Williams, Richard J. (2000) *After Modern Sculpture, Art in the United States and Europe 1965-70*, Manchester: Manchester University Press.
- Wolfs, R. (ed) (2011) *Frontera. Teresa Margolles*. Exhibition held at catalogue, Kinsthalle Fridericianum, Kassel, 4 December 2010 – 20 February 2011 [Exhibition catalogue]
- Wood, N. (1999) *Vectors of Memory: Legacies of trauma in post-war Europe*. Oxford: Berg

Appendix I

This appendix includes images of other work produced during my research. Initial work was made in the glass making facilities at Manchester Metropolitan University. As I was working with mirror glass and materials not conventionally used alongside glass I was required to undertake a full risk assessment in order to continue with my particular area of research. The results of this assessment are included in Appendix II.

Much of the work was produced during residencies undertaken outside the UK. Although not envisaged in my initial research planning they gave me a fresh space to think and work and the engagement with new people and places brought an additional dimension to the work, most notably, my residencies in Spain. Access to glass making facilities was not a prerequisite for the residencies and I needed to adapt my processes accordingly, but continued to work with glass and found objects which were the primary materials for my research art practice. Not all the work produced specifically addressed my research concerns but were informed by them.

The opportunity to exhibit my work during the course of my research was important for a number of reasons: It enabled me to disseminate my research and practice; raised questions regarding the use of paratext and how the work should be displayed; gave an opportunity to receive feedback, and; a space to reflect on the work.

Residencies:

Dates	Details
Nov 2015	Tianjin Academy of Fine Art, Tianjin University, Tianjin, China
Oct–Nov 2014	Royal Glass Factory, La Granja, Spain
Jun 2014	Royal Glass Factory, La Granja, Spain
Apr– May 2014	Plataforma Revolver, Lisbon, Portugal
Dec 2013	Royal Glass Factory, La Granja, Spain
Sep–Nov 2013	Ebenbockhaus, Munich, Germany

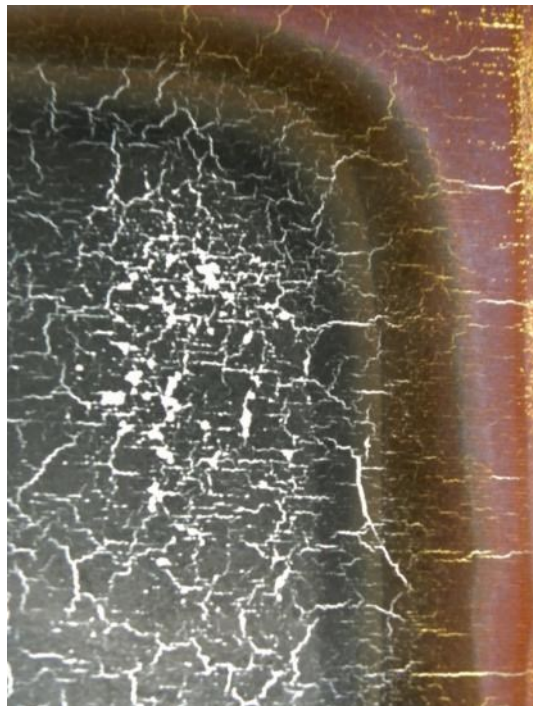
Exhibitions:

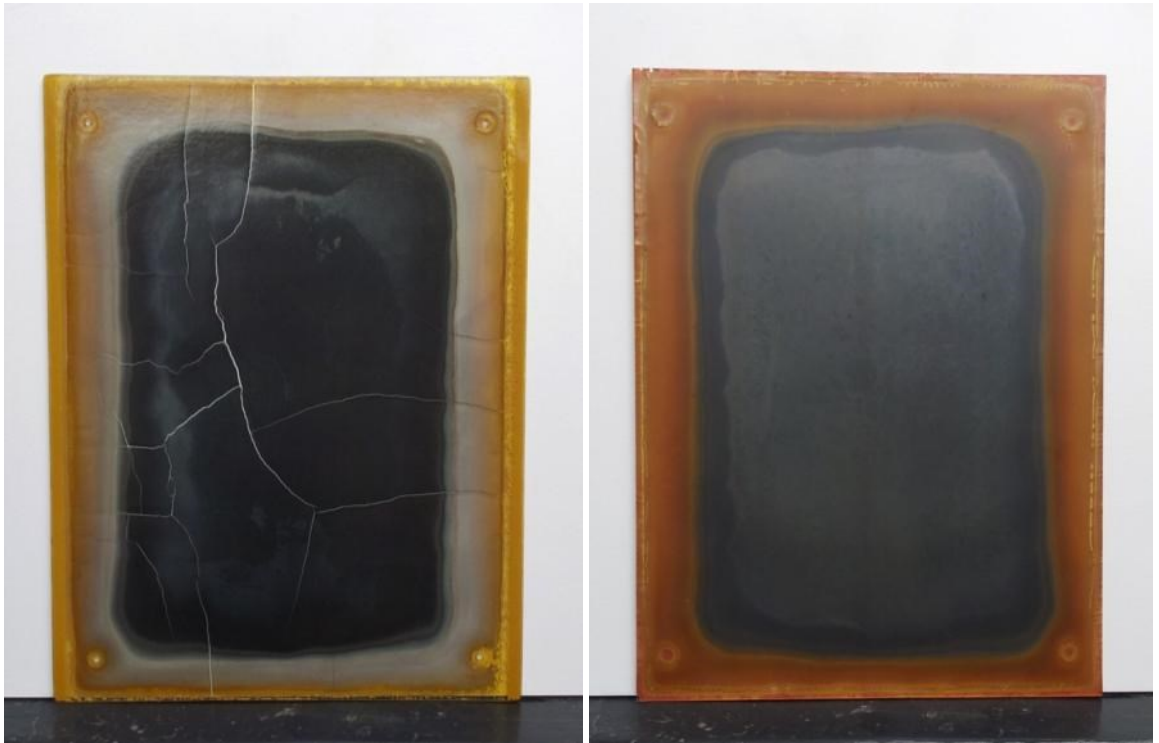
Dates	Details
Sep 2015–Nov 2016	Harris Museum & Art Gallery, Preston, UK
Nov 2015	<i>Materials as Form</i> , TAFA Art Galley Tianjin- China (Curator)
Sep 2015	Rogue Open Studio, Manchester, UK
Jun –Jul 2015	British Glass Biennale 2015, Ruskin Glass Centre Stourbridge, UK
May–Jun 2015	<i>Shell</i> , Spode Factory, Stoke-on-Trent, UK
Dec 2014–Jan 2015	<i>Monstrous Cosmological Flux</i> , Sala do Veado, National Museum of Natural History and Science (MUNHAC), Lisbon, Portugal (solo exhibition)
May–Aug 2014	<i>Think, Act, Form: materials, origins and affinities</i> , Plataforma Revolver, Lisbon, Portugal (solo exhibition)
Sep 2014	Rogue Open Studio, Manchester, UK
Sept –Oct 2013	Munich Ander Art Festival, Munich, Germany (solo exhibition)
Aug –Sep 2013	Olympia Art Hotel , Munich, Germany (solo exhibition)
Sept 2013	Rogue Open Studio, Manchester, UK
Nov 2012–Aug 2013	<i>21st Century Rural Museum: Portugal</i> (collective exhibition) - Palacio das Artes, Porto. - Ciclo de Artes Plasticas de Coimbra - Museu do Design e Da Moda (MUDE), Lisbon, Portugal
Nov 2012-Jan 2013	Cabedal. Plataforma Revolver, Lisbon, Portugal
Sep 2012	Rogue Open Studio, Manchester, UK
Oct 2012	<i>Meanwhile See This</i> , Castlefield Gallery, Manchester, UK
Jun–Jul 2012	Neo:artprize 2012, Gallery 22, Bolton, UK
Sep 2011	Rogue Open Studio, Manchester, UK
Feb 2011	<i>Part of the Programme</i> , Finnish Academy of Fine Arts, Helsinki, Finland



[Fig 1] *Mr and Mrs Smith*, 2012
Antique mirror glass
45.5 x 37.5 x 0.6 cm (each)

[Fig 2] *Mr and Mrs Smith*
(detail)





[Fig 3] *Untitled* (Vanity series) 2012
Antique mirror glass, X-ray Radiograph
60 x 46 x 0.5 cm

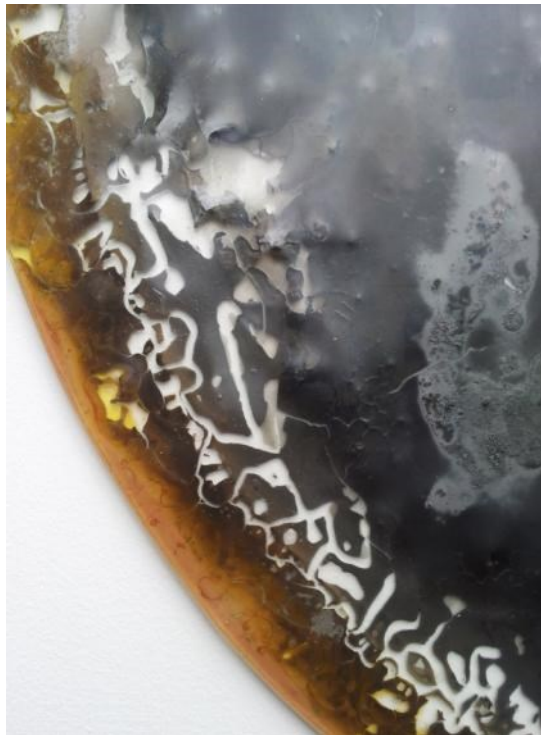
[Fig 4] *Untitled*
(Vanity series) 2012
Antique mirror glass,
effervescent vitamin
C – lemon, natural
lemon juice
40 x 15 x 0.3 cm





[Fig 5] *Untitled* (Vanity series) 2012
Antique mirror glass, Paracetamol, graphite powder
70 x 50 x 0.4 cm

[Fig 6] *Untitled* (Vanity series) 2012 (detail)





[Fig 7] *Untitled* (Vanity series) 2011
Antique mirror glass, bicarbonate of soda, toothpaste, vitamin C
44 x 29 x .03 cm / 49 x 29 x 0.3 cm



[Fig 8] *Untitled* (Vanity series) 2012
Antique mirror glass, tin can, vitamin C
45 x 45 x 0.4 cm



[Fig 9] *Untitled* (Vanity series) 2012 (detail)

[Fig 10] *Untitled* (Vanity series),
2012
Glass, vitamin C, pigment
64 x 49 x 0.5 cm



[Fig 11] *Untitled* (Vanity series)
2012
Antique mirror glass, vitamin C
45 x 45 x .05 cm



[Fig 11] *Untitled*
(Vanity series) 2012
Antique mirror glass,
Lancôme cosmetics
105 x 20 x 0.5 cm





[Fig 12] *Untitled* (Vanity Series) 2012.
1920s mirror with 'crinoline woman', cosmetics and health products.
32.8 x 55.5 x 0.6cm



[Fig 13] *Untitled* (Vanity Series) 2012.
Antique mirror glass, tin can.
34.2 x 55.5 x 0.6cm



[Fig 14] *Untitled (Vanity Series)* 2012.
Antique mirror glass, coal , Paracetamol, vitamin C
50 x 50 x 0.4 cm



[Fig 15] *Untitled (Vanity Series)* 2012.
Antique mirror glass, silver nitrate, cosmetics and health products.
25 x 50.2 x 0.6 cm

[Fig 16] *Untitled* (Vanity series)
2012
Antique mirror glass, tin can,
graphite powder, pigment
54.5 x 35 x 0.3 cm



[Fig 17] *Untitled* 2014
Mirror glass, crow feather, silver nitrate
8.6 x 50.5 x 0.3 cm



[Fig 18] *Untitled*, 2014
Lead crystal, bird, butterfly, blood, garnet
55 x 40 x 1 cm

[Fig 19] *Untitled* 2014
Bullseye glass, mirror,
sheep bones, silver
nitrate
100 x 50 x 4.5 cm



[Fig 20] *Untitled 2104*
Bullseye glass, sheep
bones, calcium powder,
silver nitrate
90 x 50 x 2.8 cm



[Fig 21] *Untitled 2014*
Lead crystal, fish bone,
lead, silver nitrate, gold leaf,
calcium
55 x 55 x 0.9 cm

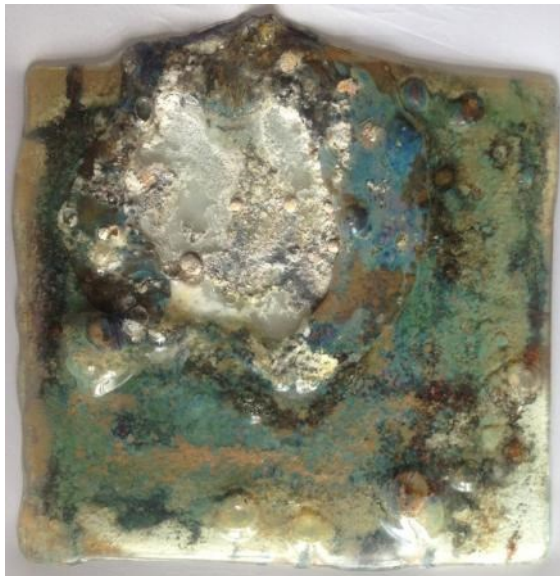




[Fig 22] *Untitled 2013*
Glass, incinerated cigarette
17.5 x 11.2 x 1.1 cm



[Fig 23] *Untitled 2013*
Glass, incinerated cigarette
17.5 x 11.2 x 1.1 cm



[Fig 24] *Untitled 2014*
Lead crystal, turquoise mineral, Dead Sea salt,
ores, silver nitrate
20 x 20 x 1.2 cm



[Fig 25] *Untitled 2014 (detail)*

[Fig 26] *Untitled* 2012
Antique mirror glass
30 x 23 x 0.8 cm



[Fig 27] *Untitled*, 2014
Lead crystal, sheep bones
and teeth, lead, calcium
20 x 20 x 0.8 cm

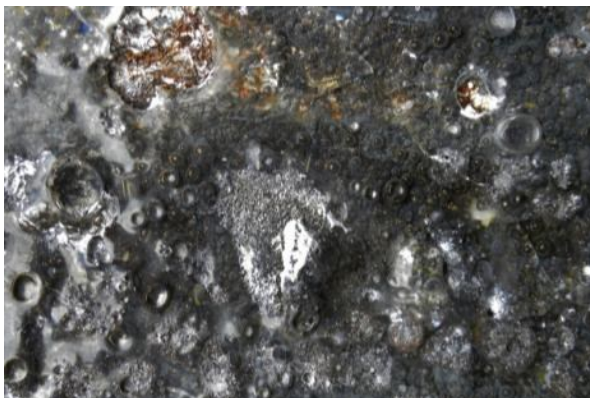




[Fig 28] *Untitled* 2014
Lead crystal, steel wool, Dead Sea salt, mercury
53.2 x 30.87 x 1.1 cm



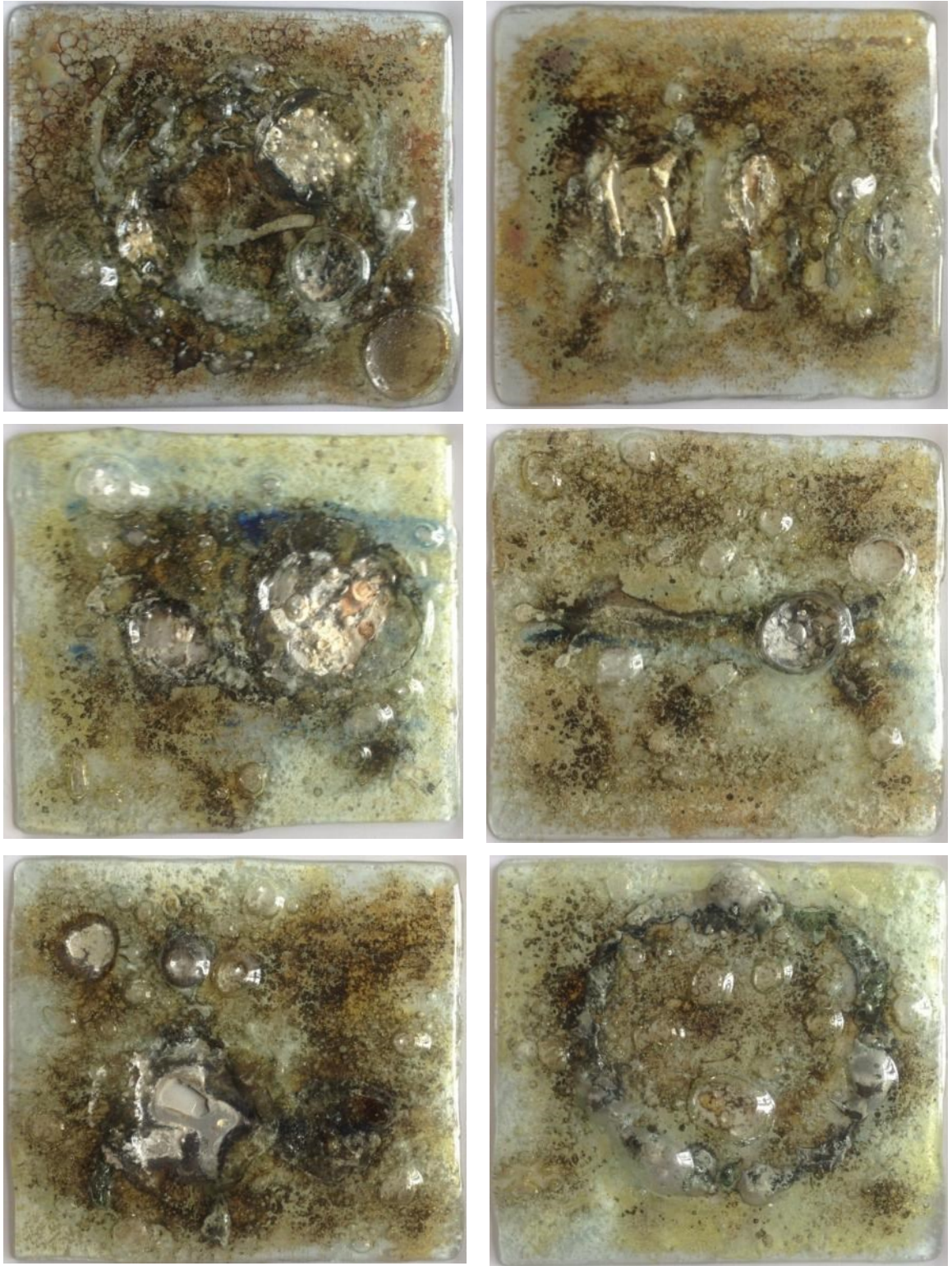
[Fig 29] *Untitled* 2014
Lead crystal, ores, pigments
80.2 x 40.8 x 0.9 cm



[Fig 30] *Untitled* 2015 (detail)



[Fig 31] *Untitled* 2015 (detail)



[Fig 32] *Untitled* 2014
Lead crystal, lead, sand, iron powder, silver nitrate, soil from Segovia
18 x 28 x 0.8 cm



Fig 33] *Castilla y León* 2014
Lead crystal, sea salt, ores, soil from Segovia
38 x 38 x 0.6 cm (each)



[Fig 34] *See beyond the form* 2014.
Lead crystal, my tears
22 x 18 x 7 cm



[Fig 35] *See beyond the form* 2014



[Fig 36] *Gap* 2014
Lead crystal
3.5 x 92 x 30 cm

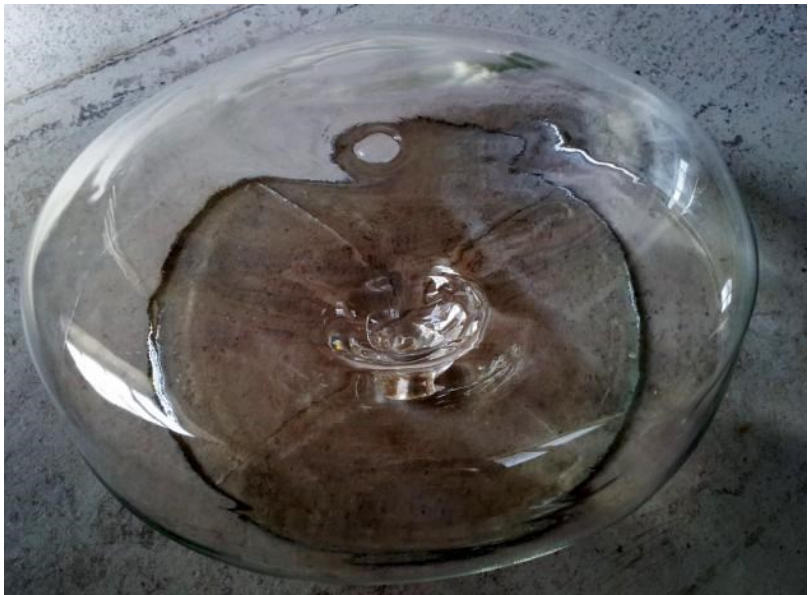
Shell

Exhibition: Spode Factory, Stoke-on-Trent
29 June – 26 July 2015

[Fig 37] *Untitled*
(spinning) 2014
Lead crystal, water
33 x 58 x 58 cm



[Fig 38] *Untitled*
(spinning) 2014
(detail)



Monstrous Cosmological Flux

Exhibition: Museum of Natural History and Science (MUHNAC), Lisbon
5 December 2014 – 4 January 2015



[Fig 39] Exhibition banner



[Fig 40] *Gothica 2014*
Lead crystal, nylon wire
Dimensions variable with installation



[Fig 41] *Fallen* 2014
Lead crystal, nylon wire
Dimensions variable with installation



[Fig 42] Exhibition view: inclusions

[Fig 43] *Untitled 2014*
Lead crystal, wire,
bicarbonate of soda,
silver nitrate, *Perdra Hume* (aluminium
sulphate and potassium),
ores
20 x 20 x 0.8 cm



[Fig 44] *Untitled 2014*
Lead crystal, silver
nitrate, lead, mercury,
Perdra Hume (aluminium
sulphate and potassium)
43 x 28 x 0.8 cm



[Fig 45] *Untitled 2014*
Lead crystal, silver, copper nitrate, cobalt pigment, tin, lead
32 x 68 x 1.2 cm



[Fig 46] *Slow dancing in hot room #8* 2014
Crystal glass, Iron roofing truss joint deracinated from the Royal Glass Factory, Spain
26 x 29 x 12.6 cm

THINK. ACT. FORM. materials, origins and affinities
Exhibition: Plataforma Revolver, Lisbon
16 May – 28 June 2014



[Fig 47] Exhibition view (Room 1)



[Fig 48] Exhibition invitation



[Fig 49] *The skin I live in* 2014 (detail)



[Fig 50] *Consciousness* 2014
Concrete blocks, glasses, water, stainless steel razor blade
48 x 50 x 40 cm

[Fig 51] *Saudade* 2014
Antique mirror glass,
mirror backing
71 x 59 x 0.6 cm



[Fig 52] *Shelter* 2014
Wooden gate frame,
glass, mirror, metal
98 x 58 x 2 cm



[Fig 53] *Educe me*
2014
Old wooden door,
mirror, glass, bricks,
iron, brass cymbal,
light bulb, electric
cable
Dimensions variable



[Fig 54] *The skin I live in*
2014
Stainless steel mesh
scourer, glass, steel,
water, mirror
232 x 90 x 90 cm



Munich Ander Art Festival
Munch, 27 September 2013



[Fig 55] *Dachau Moorland 2013*
Linen pillow cover from Third Reich stamped *H U. Heeres-Unterkunft* (German Army Quarters), lead crystal chandelier drops sewn by hand with human hair
81 x 55 cm

21st Century Rural Museum
 Exhibition: Palacio das Artes, Porto
 3 November – 31 December 2012.



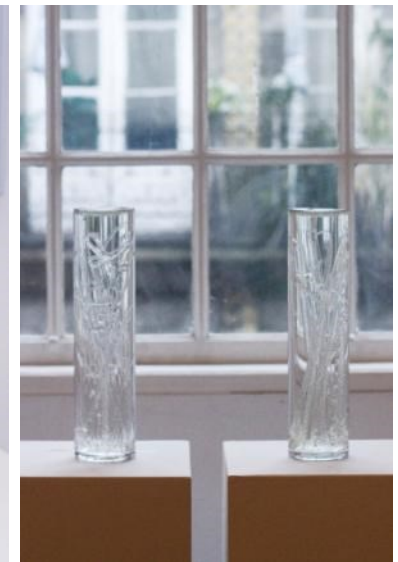
[Fig 56] Exhibition view (room 3) © Cristina Rodrigues / 21st Century Rural Museum



[Fig 57] *Nervous system* 2012
 Glass, ionised water
 Dimensions variable with exhibition
 © Cristina Rodrigues / 21st Century Rural Museum



[Fig 58] *Heartbeat* 2012
 Glass, ionised water, surgical thread.
 30 x 14 x 14 cm
 © Cristina Rodrigues / 21st Century Rural Museum



[Fig 59] *Cold veins* 2012
 Glass, ionised water
 32 x 32 x 12 cm
 © Cristina Rodrigues / 21st Century Rural Museum



[Fig 60] *The harvest 2012*
Borosilicate glass, nylon wire
450 x 30 x 3.5 cm (variable with installation)
Photo by Diogo Castanheira

Cabadal

Exhibition: Plataforma Revolver, Lisbon
15 November 2012 – 26 January 2013



[Fig 61] *Smoking room* 2011
Double glazed window unit, cigarette smoke, transparent plastic straw
100 x 125 x 2.2 cm

Rogue Open Studio
Exhibitions: Rogue Studio, Manchester
September 2012 & September 2013



[Fig 62] *The Vow* 2012
Marble, glass
1.5 x 76.5 x 46 cm



[Fig 63] *Untitled* 2012
Mirror glass, plaster ceiling rose surround
6.2 x 55.6 x 55.6 cm



[Fig 64] *Greetings from Munich* 2013
Polythene, wooden measure sticks, Perspex, aluminium foil, plaster, broken glass, tracing paper, plastic lemon
10 x 280 x 280 cm



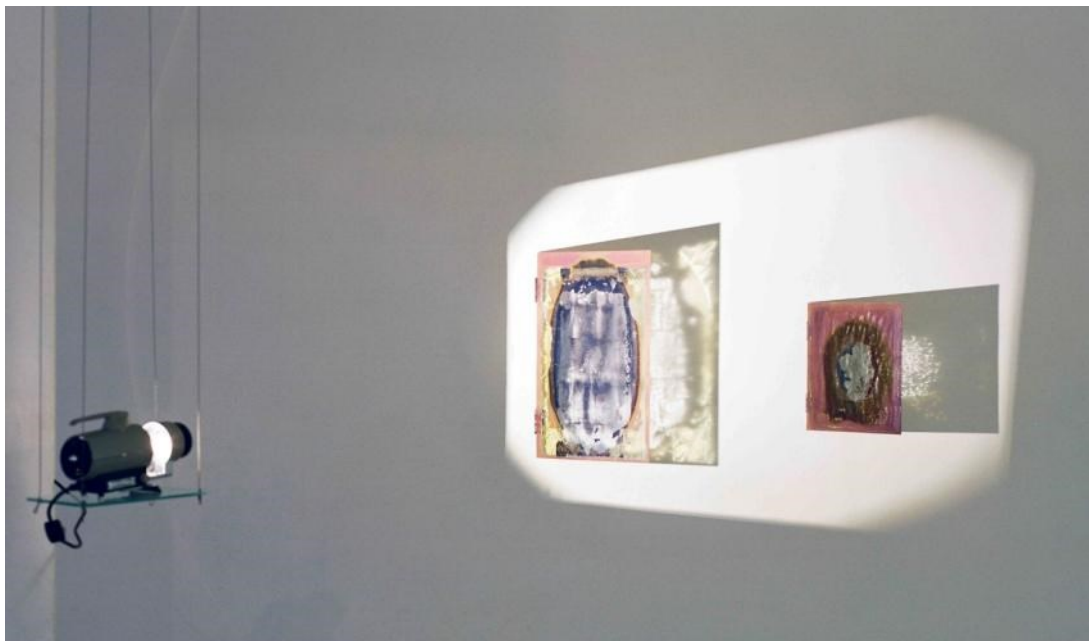
[Fig 65] *Greetings from Munich* (detail)

Meanwhile see this

Exhibition: Castlefield Gallery, Manchester
19 October – 4 November 2012



[Fig 66] *Untitled* 2012
Double glazed window unit, vintage wooden bowling ball
12.8 x 72 x 46 cm



[Fig 67] *Untitled* 2012
Projector, steel wire, glass, metal
Dimensions variable with installation.



[Fig 68] *Ladder* 2012
Borosilicate glass, nylon wire
Dimensions variable with installation



[Fig 69] *Untitled* 2012,
Vacuum flask glass liner, UV adhesive,
41 x 10 x 10 cm

Appendix II

Risk assessment report on the use of 'inclusions' in glass fusion

1. Introduction

This risk assessment has been produced at the request of the Technical Group Manager, Art and Design, Manchester Metropolitan University. It concerns the use of 'foreign' or 'unknown' materials in the glass kilns in the pursuit of my art work in the University glass workshop. The process used is tack and full fusion with the addition of inclusions. For the purpose of this assessment these inclusions have been categorised as health and beauty products, other materials and products, organic materials, metals and mirrors. The use of mirrors is treated as an inclusion as the coated sides of the mirror are not exposed during the firing process but 'included' between two sheets of glass.

2. Scope of the report

This report is aimed at assessing the health hazards associated with the use of specific materials in the glass fusion process and the risk of damage to the equipment used during this process. It should be noted that the materials I use are not hazardous at normal room temperature. It is their potential as hazards when exposed to high temperatures that is evaluated. The report analyses the materials and their behaviour under high temperatures, assesses any risks and recommends control methods to minimise such risk.

3. Method of analysis

The assessment was made through the analysis of:

- Material Safety Data Sheets: These provide information on potential hazards and toxicity, physical and chemical properties, and fire data/measures from which it is possible to assess potential risk of exposing the material to extreme temperatures. Some data sheets are for generic compounds rather than specific brands as the composition of product types is essentially the same.
- Existing literature on the use of inclusions: Many of the materials I work with in my inclusions are already commonly used by glass makers and jewellers, in particular, certain metals. Inclusions are a long practiced technique and a review of literature on the subject provides evidence to support the assessment.
- Elemental analysis of mirror backing: Mirror backings were analysed by identifying the elemental composition using SEM (Scanning Electron Microscope) with EDS (Energy Dispersive X-ray Spectroscopy) analysis. An understanding of the elemental composition enables an assessment of the risks of exposing these materials to extreme temperatures.

4. Existing controls

The University has a risk assessment for the use of the kilns, and general health and safety procedures for working in the glass making facilities. This report is based on the assumption that existing risk controls methods are followed during the process, including appropriate inductions. Where further controls or actions are deemed necessary to carry out the process safely, these will be specified in the list of risk control methods at the end of this report.

ANNEX I Risk assessment for the use of electric kilns to fuse, slump and bend glass

5. Inclusions

In glass making, an inclusion is a material that is placed between two layers of glass and becomes trapped during the fusion process as the two layers are laminated by the heat. Metals in various forms are the most popular material used in inclusions as they can achieve a wide range of colour and textural effects. The combination of metals gives even further variations and possibilities. Dry organic material inclusion is often used to create a 'heat signature' as the material carbonises at high temperature leaving only an imprint or shadow.

Although some results are predicable when the process is tightly controlled, experimentation is the most rewarding part of working with inclusions and can bring the most valuable results. Almost any material can be used in an inclusion, restricted only by their reaction to high temperatures. In general, flammable materials such as paper, plastic, hair and fabric are avoided and appropriate care is taken with any substances that emit fumes on heating.

5. The process

My inclusion work involves two types: (i) a full fusion process where the glass is laminated and the inclusion trapped between the layers; and (ii) light tack fusion used with mirrors to allow the two sheets of glass to be separated after firing. I often prefer to work with paired mirrors or use one mirror paired with a sheet of clear glass. To help avoid cracking due to different coefficients of expansion, the two sheets should be compatible i.e. from the same manufacturer or type of glass, such as float glass, although this was not always possible in my work. Mirrors are placed back to back so the backing forms an inclusion. I sometimes also add small quantities of health and beauty products, organic or other materials to create an unpredictable range of colours and effects upon firing.

ANNEX II Examples of layups [Figs 1-6] and final work [Figs 7-12]

The firing schedule for my work varies depending on the size and thickness of glass, the nature of the inclusion, and the effect I am trying to achieve. The most important phases of the process for me which help to control the final piece are:

- Pre soak: to prevent bubbles forming in the inclusion a 'bubble soak' can be used holding the temperature at about 650°C which squeezes out the air. Soaking at a slightly lower temperature allows organic material to burn off so that the finished full fused inclusion avoids bubbles.
- Process soak: for tack fusion temperature is around 730-760°C. I usually use the lower temperature for a short hold if I am working with mirrors so that the pieces can be separated after firing. I use Vaseline (petroleum jelly) around the edges to help with separation after firing. Mirrors usually show a different colour around the edges where the air causes more oxidation.

For full fusion the temperature is between 760-820°C. I encourage bubbles in my work and often heat to the working temperature directly so that edges of the glass seal before any material fully burns off. The gases released during combustion cause a bubble in the final piece.

6. Analysis reports

The range of materials used in my inclusion works have been grouped into categories based on the method of analysis.

6.1 Health and beauty products

6.2 Other uncommon products and materials

Items 6.1 and 6.2 were assessed by an analysis of Material Safety Data Sheets.

ANNEX III (analysis report)

6.3 Common inclusion: metals and organic material

Item 6.3 was assessed through a review of existing literature

ANNEX IV (Review of the use of common inclusions)

6.4 Mirrors

Item 6.4 was assessed by using SEM) with EDS analysis

ANNEX V (analysis report)

7. Conclusion of analysis

Health and beauty and other uncommon products and materials: All the materials are stable in their normal state at room temperature and do not present any risk which requires special attention. However, it is assumed that appropriate handling, labelling and storage of the materials would be followed.

The fire and explosive data section of data sheets is a description of how the material will or might behave in the event of a fire. In the glass inclusion process the materials are not exposed to a naked flame or in a 'fire' situation, but one of extreme temperature. The materials will certainly degrade to some degree under the high temperatures in the kiln but the hazards will not be the same as with direct exposure to a flame.

In my inclusion process the products are used in small quantities and are not exposed directly to the air, where the risk of combustion would be higher, but contained within the layers of glass. In many instances the air between the layers of glass is squeezed out before full degradation, oxidation or carbonisation of the material takes place. As the fusion of the layers of glass takes place further degradation may be stopped or potentially toxic fumes trapped within the glass forming a bubble.

A few of the materials were found to be flammable and it may be advisable to not include these materials in inclusion work even though the actual likelihood of combustion taking place is small as there is no exposure to a direct flame. The glass workshop technical adviser should make a decision based on the analysis provided.

Considering these factors and the use of small quantities of material used, the level of risk can be controlled to an acceptable level to permit the continued use of the materials deemed low risk.

Common inclusions, metals and organic material: Except known hazardous metals, their use does not present a risk for kiln working inclusion. Although burning of leaves and garden waste is illegal in many places to avoid excessive air pollution the insignificant quantity of material used in my work would not be such as to restrict its use.

Mirrors: The analysis showed that modern aluminium backed mirrors contain no dangerous or toxic elements and their continued use does not present any particular risk. Although the old mirror tested showed a potential for some presence of hazardous elements, the level of lead was statistically insignificant, so does not raise concern. The Technical Officer of the Analytical Science Department, Hayley Andrews concluded that 'after closely analysing the EDS results, I feel that they are enough to suggest that the 'Victorian' [old mirrors ca.1880-1930] mirrors are safe to use'.

Although the composition of the backings of these mirrors does not contain levels of toxic elements considered a risk by the Analytical Science Department, the burning off of this material, specifically the 'paint' layers, may emit noxious fumes and contamination which would need to be controlled.

The presence of barium (not yet verified as harmless barium sulphate) and lead in the mid-twentieth century mirror would exclude the use of this type of mirror unless the protective backing layers were first removed with an appropriate solvent, leaving only the reflective layer. The reflective layer of silver and aluminium is not a hazard as it reacts in the same way as using metals in glass inclusion work.

An alternative approach suggested by Dr Philip Sykas was to produce mirrors by silvering the float glass or other glass objects allowing the risk to be controlled safely. Safe small-quantity methods for doing this have been developed for crafts workers.

6. Risk control methods for using inclusions in the kiln forming process

Risk associated with using the materials in the inclusion process may result from the thermal degradation of the materials under extreme temperatures but this risk can be safely controlled by putting appropriate measures in place.

As a result of the analysis undertaken I recommend the following control methods to be able to continue with my experimentation in the glass workshop. Some of these control methods are already part of the existing risk assessment for the use of the kilns but are included below if they are of particular relevance to my process. The control methods include management controls, engineering controls, storage arrangements and record keeping.

HAZARDS:

Inhalation of toxic fumes
Combustion and fire
Damage to kiln

RISK CONTROL METHODS:

- Any new inclusion materials to be approved by workshop technical advisor before use.
- Safety sheets (MSDS) should be obtained for analysis of new substances
- Workshop technical advisor to check 'layup' before being put into kiln
- Small sample test to be fired when experimenting with new materials
- Remove 'paint' backing from mirrors leaving metal reflective surface when necessary as recommended in ANNEX V.
- Inclusion not to be exposed in kiln, i.e. must be fully sandwiched between glass. Mirror backing should not be exposed in the kiln.
- Maximum thickness of inclusions should be limited to 3mm.
- Dry organic material before use or soak in kiln to dry out.
- Quantity of work placed in kiln at one time approved by workshop technical advisor.
- Other student work not to be fired in the kiln at the same time to avoid contamination of other's work
- Extractors to be on during the full firing process.

- Kiln not to be opened when other students in the workshop
- Opening of kiln to be supervised by workshop technical advisor
- Kiln to be left open for 15 minutes with extractors on before glass work removed
- Glass work to be washed after removal from kiln.
- Kiln to be thoroughly cleaned after use to approval of workshop technical advisor
- All kiln shelves to be cleaned and re-primed after each use.
- Kiln to be given light firing after used to burn out any potential contamination if necessary
- Designated kiln shelf/s reserved for exclusive use of inclusion glass work if necessary to avoid any contamination of other students' work.
- Work produced assessed by workshop technical advisor to identify any issues or potential risks with materials used.
- Researcher to keep photographic and written documentation of all 'layups'
- Researcher to record firing programmes
- Researcher to keep log of any incidents or concerns encountered during the firing process
- All materials are labelled and stored in a designated area.

7. Final summary

The use of inclusions in kiln fusing is a common technique in glass making practice and the process well documented. It is a warm glass process where experimentation is encouraged and the results can be exciting, producing unpredicted aesthetic qualities. The unexpected is a core element of my artistic practice.

Thermal degradation of the materials will take place (partial or complete) during the firing process but the risk of combustion is highly unlikely due to the limited amount of air and oxygen between the layers of glass used in inclusion work and the quantity of material available.

There is a potential risk of contamination of the kiln shelves but this is not permanent and can be controlled by cleaning and preparing the shelves, ensuring inclusions are not exposed, using kiln paper as appropriate, and subsequent firing of the kiln to burn out material if considered necessary.

Although fumes will be produced the extractor fans will withdraw these from the kiln during the process and regular checks of the extractor filters will show if there is any cause for concern. Some of these fumes produced may be harmful or toxic but the risk to health can be reduced to an acceptable level by following the control methods outlined. In the specific case of the use of cigarettes, it is recognised that cigarette smoke is carcinogenic, but the partial oxidation of one cigarette would not present a health risk of concern in the controlled situation described here. In my full glass fusion work the glass laminates before full oxidation takes place and fumes are contained within the two sheets of glass forming bubbles and reducing any health risk.

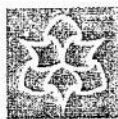
Without further detailed research, experimentation and analysis it is not possible to assess absolutely the risk of combining materials in the layup but considering the quantity of material used, and the benign nature of most of it, this is unlikely that this will significantly increase the risk.

This investigation and assessment of the materials I use in my glass work has provided the evidence to recommend a number of control methods to reduce any potential risks to an acceptable level which should allow the continuation of my exploration and development of art practice in the glass workshop.

Ana Rosa Hopkins, March 2014

ANNEX I

Risk assessment for the use of electric kilns to fuse, slump and bend glass



Manchester
Metropolitan
University

RISK ASSESSMENT

FACULTY Art & Design	DEPARTMENT School of Design	
1) ACTIVITY Use Of Electric Kilns To Fuse, Slump And Bend Glass	HAZARD CLASSIFICATION Class D Yellow	
2) PERSONS AT RISK Staff; Students; Visitors		
3) HAZARDS Risk of Burns to eyes, hands and arms. Fire. Electrocution. Lifting. Cuts and abrasions. Inhalation of dust. Tripping and slipping.		
4) RISK CONTROL METHODS <u>Instruction on safe use</u> <u>Record of training for all users</u> Use correct PPE- (Personal Protective Equipment) 1. Eye protection to EN 168 fitted with filters to EN 171 must be worn when looking into the kiln 2. Heat resistant gloves with thermal protection to EN 407. Electrical safety switches must be fitted to all electric kiln doors. An electrical isolator clearly marked and visible must be fitted. Clear instructions for the safe operation of the kiln must be close to the kiln and visible, along with the names of the staff responsible for the kilns. Ensure work area is clear of obstacles. No objects to be placed on top of the kilns (combustible or non-combustible). Either use kilns with extraction when firing enamels and luster's or use a programmable kiln that can be fired after college hours when no one is present. Consult a member of staff if firing anything other than refractory or glass material. Do not fire combustible or synthetic materials in the kilns. Do not put low melting point metals in kilns. If in doubt ask a member of glass staff. Do not open the kiln door unless the temperature is lower than 150°C. Hot items must be handled with heat resistant gloves Use correct loading procedures especially when loading or removing heavy or awkward objects. Seek assistance if required. All kiln furniture must be stable. Do not slide fingers or hands over kiln shelves. Remove small pieces of waste material and dust with an appropriate vacuum cleaner fitted with suitable filters. When opening kiln door - stand back.		
5) FURTHER ACTION REQUIRED		
NAME AND TITLE OF ASSESSOR	SIGNATURE	DATE 15.03.04
D NUTTALL H & S TECHNICAL ADVISER		REVIEW DATE 15.03.09
SIGNATURE OF TECHNICAL MANAGER		DATE

ANNEX II

a. Examples of layups



[Fig 1] Health and beauty products used in layups



[Fig 2] Layup with Eucryl, bicarbonate of Soda and other products



[Fig 3] Layup with cigarettes



[Fig 4] Mirror layup with mosaic of broken mirror pieces

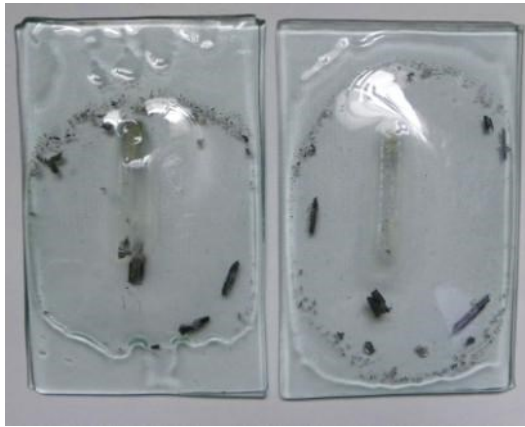


[Fig 5] Examples of mirrors used



[Fig 6] Layup with various test samples

b. Examples of final work (full fusion)



[Fig 7] Cigarette



[Fig 8] Sycamore tree seed



[Fig 9] Aluminium foil, vitamin C and copper



[Fig 10] Bicarbonate of soda



[Fig 11] Antique mirror (carbonised)



[Fig 12] Baking powder, acrylic paint and aluminium foil

ANNEX III

Report on the analysis of health and beauty and other products and chemicals

Method of analysis

The analysis was conducted through the study of Material Safety Data Sheets for the materials I use in my inclusion work. These provide information on potential hazards and toxicity, physical and chemical properties, and fire data/measures from which it is possible to assess potential risk of exposing the material to extreme temperatures. Some data sheets are for generic substances rather than specific brands used in my inclusion work, because the main composition of product types are very similar.

Results of analysis

The focus of the analysis is on the reaction of the materials to extreme heat and in the presence of fire. Furthermore, if hazardous elements are present in the composition of the product, these are noted. It should be noted that in the case of cosmetic materials, strict legislation precludes dangerous metals such as lead or cadmium in their composition. For all the materials cited, the quantity used in any particular art work is quite limited, a maximum of three grams for all materials used in one mirror, but often below one gram. A risk level has associated to each product based on the assumption that the recommended control measures are in place as outlined in the overall report.

Product	Description	Composition	Melt pt. °C	Potential hazard when exposed to high temperatures	Risk level
Health & beauty products					
Lipstick	Solid pigmented wax based.	Including oils, wax, moisturiser and pigments.	36 - 80	Thermal degradation may produce oxides of carbon, nitrogen, hydrocarbons and derivatives	Low
Lip gloss	Liquid varies in colour	As above	N/A	As above	Low
Lip colour	Solid pigmented wax based.	As above	36 - 80	As above	Low

Colour blush	Pigmented pressed powder cake	Including talc, calcium silicate, oils, mica,	N/A	As above	Low
Tone rehab	Pigmented liquid	Including glycerine, pigments including titanium dioxide	N/A	As above plus oxides of silicone	Low
Hand & body lotion	Liquid	Including glycerine, Cetearyl alcohol (emulsifier)	N/A	No hazards identified	Low
After shave / colognes	Clear liquid	Includes Alcohol and ethanol	N/A	Flammable liquid	High
Shea butter	Refined fat from Karite tree	Butyrospermum parkii	30 - 38	Keep away from ignition sources	Med
Herbal Essence Shampoo	Viscous opaque liquid	No ingredients considered hazardous. Contains <0.5% Hydrochloric acid	N/A	Thermal degradation may produce oxides of carbon, nitrogen, silicone, hydrocarbons and derivatives	Low
Pantene shampoo	White liquid	No ingredients considered hazardous in concentrations present in product	N/A		Low
Hair & body wash	Clear yellow liquid	As above	N/A	Thermal degradation / combustion may include carbon dioxide/monoxide. Avoid excessive heat	Low
Dove soap bar	White bar soap	As above	Not known		
Liquid hand soap	Dark pinkish clear liquid	As above	N/A	Thermal degradation may form toxic fumes	Low
Dove mousse foam	White foam	As above	Not known	None	Low

Eucryl toothpowder	Pink powder	Consists mostly of Calcium Carbonate	N/A	Thermal degradation may form carbon dioxide and calcium oxide. Incompatible materials - aluminium, zinc and alloys	Low
Colgate toothpaste	Paste	No ingredients considered hazardous in concentrations present in product	Not known	None	Low
Vitamin C	White solid powder		Not known	Thermal degradation may form carbon dioxide and calcium oxide. Incompatible materials – chemically reactive metals	Low
Castor oil	Liquid	Castor oil	N/A	May be combustible at high temperature	Med
Propolis	Brown liquid	Propolis	N/A	As above	Med
Vaseline	Clear gel	No reportable ingredients		Thermal degradation may produce oxides of carbon, nitrogen, hydrocarbons and derivatives	Low
Lemsip	Powder	No hazardous ingredients	190	Thermal degradation may form acrid fumes	Low
Codeine	Tablet	Codine and other active ingredients	N/A	Thermal degradation may form toxic fumes	Low
Ibuprofen	Tablet	Ibuprofen	75	May be combustible at high temperature. Thermal degradation <i>may</i> form carbon oxides	Med
Asprin	Tablet	Sodium bicarbonate, citric acid, asprin	N/A	Thermal degradation may form toxic fumes	Low
Panadol	Tablet	Panadol	N/A	None	Low

Iodine	Tablet	Mostly paracetamol	N/A	Thermal degradation may form toxic fumes	Low
Paracetamol	Tablet	96% acetaminophen	N/A	As above	Low
Other products					
Glitter glue	Glitter flakes in viscous clear gel	No hazardous ingredients, mostly water	N/A	Dry paint films are combustible	Low
Pigments (MPCP)	Powder	Including polyester resin, pigment powder	N/A	Combustible in temperatures over 300°C. Thermal degradation may produce oxides of carbon, nitrogen, hydrocarbons and derivatives	Med
Methyl Violet pigment	Powder	Violet pigment	N/A	Thermal degradation may produce oxides of carbon and other toxic components	Low
Calligraphy inks	Coloured liquid	Mostly water	N/A	Not flammable, fire crates carbon dioxide/monoxide	Low
Drawing inks	Coloured liquid	Mostly water	N/A	Not flammable. Fire crates carbon dioxide/monoxide	Low
Glitter		Aluminium, chromium, magnesium fluoride		Flammable. Thermal degradation may form irritating and toxic fumes	Med
Lavender oil	Clear colourless or yellowish liquid	Steam distilled flowers	N/A	Combustion may produce oxides of carbon and other organic components	Low
Tea tree oil	Clear colourless or yellowish liquid	Steam distilled leaves and twigs	N/A	Flammable. Combustion may produce oxides of carbon and other organic components	Med

Eucalyptus Oil	Clear colourless or yellowish liquid	Distilled fresh eucalyptus leaves	N/A	Flammable. Combustion may produce oxides of carbon and other organic components	Med
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ANNEX IV

Review of the use of common inclusions

Introduction

The report contains examples and a brief review of some existing technical literature describing the inclusion process, materials used, technical data, effects achieved and any precautions that should be taken. The focus is on metal inclusion as this is the most common area for experimentation.

A detailed analysis of these materials has not been necessary as they are already considered safe to use in the kiln and adequate risk control measures are already in place within the existing university risk assessment for kiln work.

Literature reviewed

There are many sources of information on the use of metals in inclusion and I have listed three of these.

1. Beveridge, P., Domenech, I., Pacual. E. (2005) *Warm Glass: a complete guide to Kiln-Forming Techniques*. New York: Lark Books, pp. 38-39, pp. 80-81, pp. 89-91
2. Bullseye. *A riot of effects*, a technical sheet from the Bullseye website on the effects of using silver foil and copper bearing frit in an inclusion <https://www.bullseyeglass.com/methods-ideas/a-riot-of-effects.html>, and *Reactive inclusion* <http://www.warm-glass.co.uk/gallery-reactive-inclusions-cms-144.html>
3. Cummings, K. (2011) *Techniques of kiln-formed glass*. London: A&C Black, pp. 69-71

I have also researched a number of online blogs managed by glass makers which discuss experiments with inclusions which support this review.

Results of review

Metals for inclusions are used frequently by art glass makers and jewellers. The most common metals include:

- Silver, copper, aluminium, iron, tin, gold, zinc, platinum, palladium, brass, bronze and other common metal alloys

and they can be used in different forms:

- Foil, powder, mesh, wire, wool, sheet and powder

Metals with a low melting point such as tin (232°C), aluminium (660°C) and zinc (419°C) will oxidise during firing but are not considered hazardous.

Apart from lead and mercury, many other metals can be explored in inclusion work beyond those listed above. Where I have used other metals or explored different forms or compounds of the metal, I have included an analysis of their Material Safety Data Sheets at the end of this report.

It is important that metal inclusions are thin, either foil or leaf thickness, which will allow the glass to expand and contract normally. Colour variation using the same metal results from the type of glass used and the amount of oxidation, depending on temperature, time and amount of air oxygen available. Once fused, no further oxidation takes place. There are many variables which influence the outcome of the final work but these are not considered as part of this risk assessment.

The Bullseye technical sheet does make reference to the possibility of shelf contamination from the spreading out of metal foil reactions and recommends thorough cleaning and reprimed of shelves, kiln firing to burn out any contamination and the use of specific shelf for firing foils. There is no reference in any of the literature to risks of combustion or other health and safety issues.

Organic materials such as leaves, twigs and flowers can be used in inclusions. If temperatures are kept below 760°C not all the material will burn; at higher temperatures only a 'heat signature' or imprint will be left as the material is carbonised. Most organic material, like leaves, contain lignin and cellulose. When it burns heat is generated along with water vapour and carbon dioxide. Airborne particulates including soot and hazardous fumes such as carbon monoxide and other oxides may be produced.



[Fig 13-14] Example of organic material used in glass inclusion

ANNEX V

Report on the analysis of sample mirror backings using SEM with EDS analysis

Introduction

Analysis of the elemental composition of three mirror types was performed in November 2013 using SEM (Scanning Electron Microscope) with EDS (Energy Dispersive X-ray Spectroscopy) analysis to investigate the composition of the backing material for any hazardous materials.. The analysis was undertaken by the Technical Officer in the Analytical Sciences Department.

This analysis reveals the elementary composition and not how the elements react under high temperature in the kiln firing process, but the results are sufficient to ascertain the risks involved in using mirrored glass and the necessary control measures that need to be followed. Analysis was only possible of a small sample (three) but coupled with knowledge of historical mirror-making practice, the results provide sufficient evidence to determine potential risk.

Mirror production

Ordinary domestic mirrors are made by coating glass with a metallic reflective coating, usually silver or aluminium. Mercury was used for early mirrors but this was replaced in the nineteenth century when the silvered-glass process was developed by Justus von Liebig in 1835.

To protect the metallic coating from corrosion and scratching further coats are applied, which may include an opaque paint to increase the reflection and anti corrosive coating such as copper, finished with a washable paint base coat usually red or grey.

Method of analysis



[Fig 15] Scanning Electron Microscope

An EDS analysis was first performed on the samples. For each sample 5 electron images were taken and analysed. The Technical Officer advised that the SEM has a detection limit of approximately 5% weight and elements in the spectrum measuring below this limit may be inaccurate. For quantitative analysis the EDS literature states that the atomic percentage of the elements should be rounded to the nearest whole number

The initial results detected Barium in one of the samples and a further analysis using RAMAN was used in an attempt to determine the form of Barium present in the sample. However, due to the presence of many different compounds in the sample, no meaningful results were obtained. This report is therefore based on a close interpretation of the EDS analysis by the Technical Officer of the Analytical Science Department.

Samples tested [Figs 16-19]

The samples tested were selected to represent mirror types of different age that are tied to clearly differentiated manufacturing process. The exact process is not determinable, but the elementary analysis is a powerful method for suggesting what this process may have involved by providing the proportional amounts of various elements present. Thus, the presence of silver (Ag) or aluminium (Al) are indicative of the composition of the reflective layer of the mirror.

For each sample a small amount of the backing was removed from the mirror with a scalpel. The material collected and analysed included the metal reflective coating and any other protective backing present on the mirrors.

1. Old mirror (representative of the oldest type used in my work)

Bevel edged mirror, 6mm thick, showing two coatings on top of the metallic reflective layer. The protective paint is a thick red oxide coloured paint finish. The mirror is stamped with a 'British Silvered Glass' mark and has a rough edge. The precise date of the mirror cannot be determined, but this type is typical of mirrors from about 1890 to 1920. In this type, the glass was painted in a flux, placed in a silver solution and subjected to an electric current, which fixed the silver to the painted surface. These mirrors traditionally have either a red or grey paint backing coat.

2. Mid-twentieth century mirror

3mm thick, showing two coatings on top of the metallic reflecting layer; a reddish coating and a dark grey protective paint. The mirror has the manufacturer's name 'FLABEG'. Again the edge of the mirror is very roughly broken, predating modern cutting techniques. [Note: the history of the firm and developments in edge cutting can be found on the company's web site: <http://www.flabeg-automotive.com/unternehmen/historie.html>]

3. Modern mirror

New mirror tile showing two coatings on top of the metallic reflecting layer, the later being a light matt grey protective paint. Many different processes are used to produce modern mirrors but this mirror was chosen as it is typical of the type of mirror I have been using in my research. In general, modern techniques, such as sputtering, reduce the quantity of metal used in mirror production.

Results of the analysis [Figs 20-32]

No traces were found of mercury or chromium in any of the samples. For the analysis below the percentages referred to are the atomic %

1. Old mirror

Each sample contained 0.02-0.03% of lead which, for quantitative analysis purposes, is considered to contain 0% lead. Other elements including zinc 2% and iron 2% are present, but present no risk.

Zinc is used in paint for its anti-corrosive properties and iron may be present in the 'red oxide' coloured base finishing coat.

2. Mid-twentieth century mirror

These samples contained an average value of approximately 1% lead and barium, and 4% iron. The exact form of barium was not possible to determine. The Flabeg website claims that their mirrors use 100% lead-free backing paint but probably this mirror predates their claim. The movement for lead-free legislation grew in the 1970s.

Barium sulphate, which is non-toxic, is used in paint for its reflective properties e.g. photographic paper, which may be used in the middle backing layer to increase the reflection of the mirror. However, as mentioned above, it was not possible to establish with certainty the form of barium using RAMAN. The lead is most probably contained in the paint backing but due to the difficulty in separating the three different layers of backing material to identify where the lead is contained, further detailed investigation was not carried out.

3. Modern mirror

As would be expected, these samples did not contain any harmful elements. Average values of 3% aluminium and 3% silicon were present. A small amount of titanium was also found.

Most modern mirrors are now produced using aluminium as the reflective material. Aluminium powder is 'splattered' onto the glass and then two or more layers of protective waterproof paint applied. The small level of silicon in these coatings may be used to provide protection against oxidation to the reflecting metal coating.

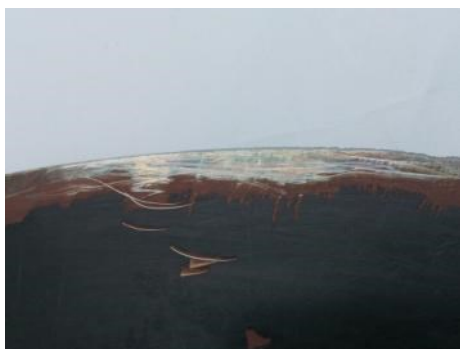
Mirror tested



[Fig 16] Old mirror



[Fig 17] Old mirror (detail)

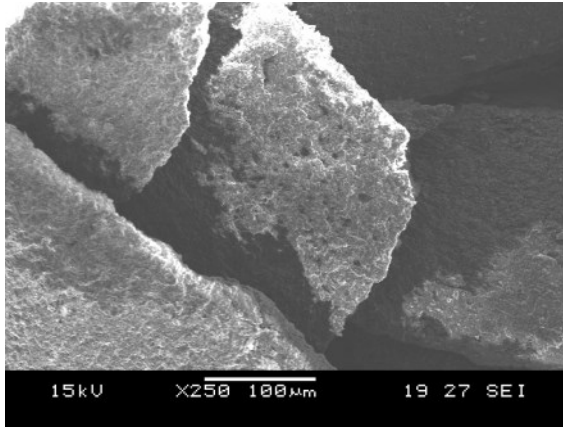


[Fig 18] Mid twentieth century mirror

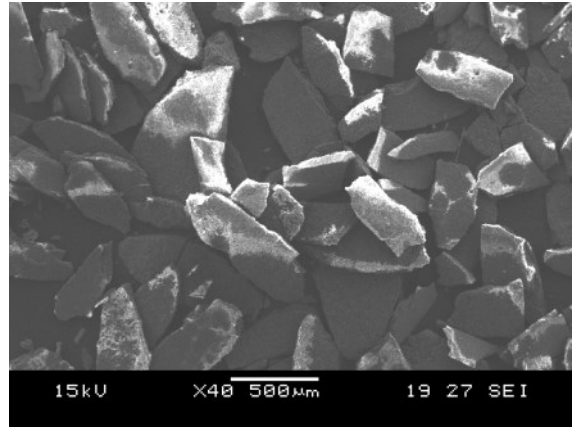


[Fig 19] New mirror

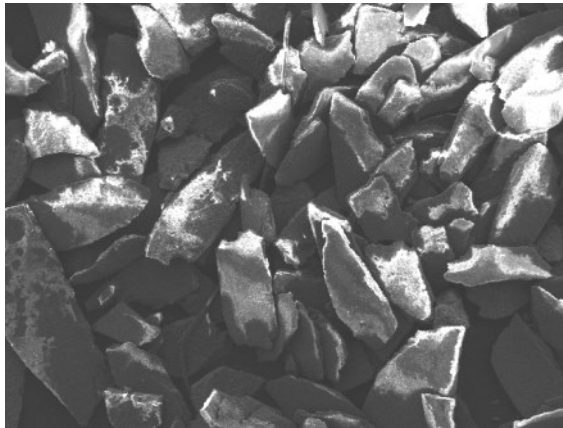
Electron Microscope images



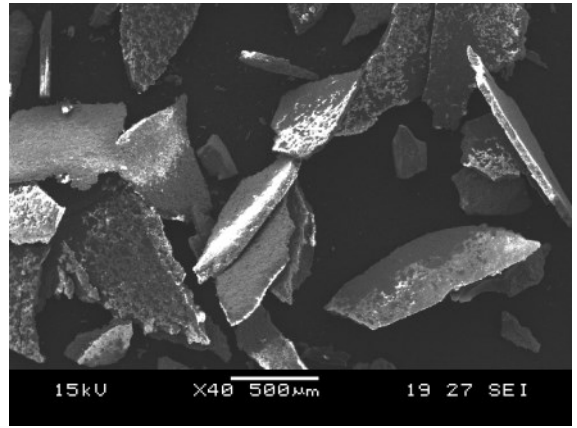
[Fig 20] New mirror sample 1



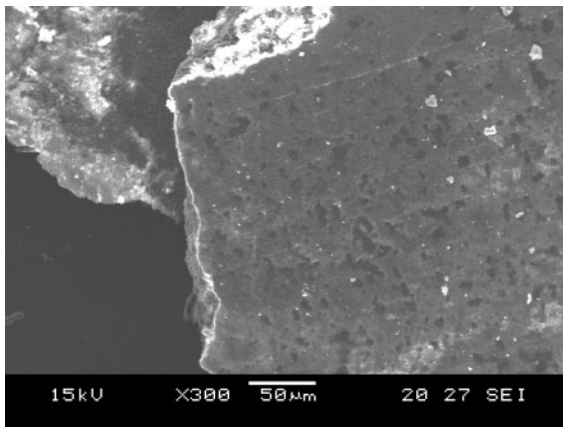
[Fig 21] New mirror sample 2



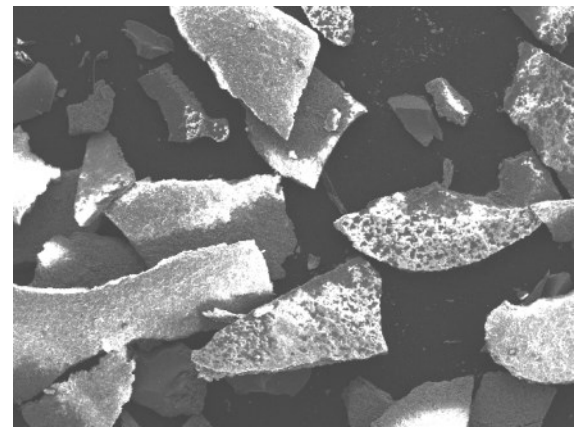
[Fig 23] New mirror sample 3



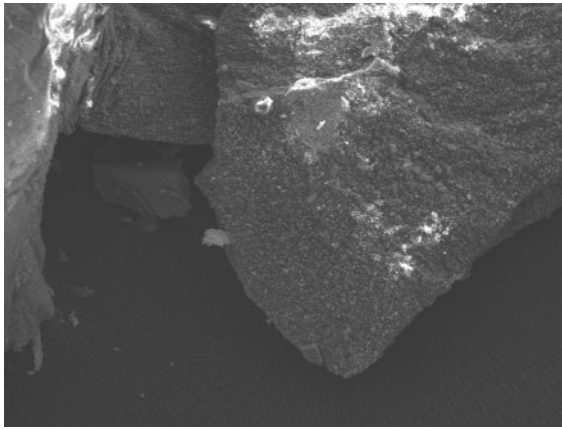
[Fig 24] 1950s mirror sample 3



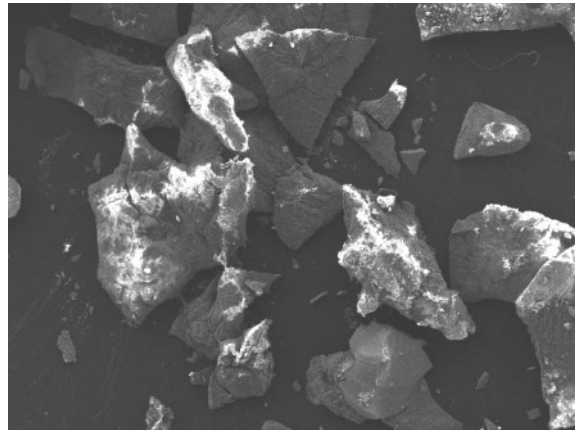
[Fig 25] 1950s mirror sample 2



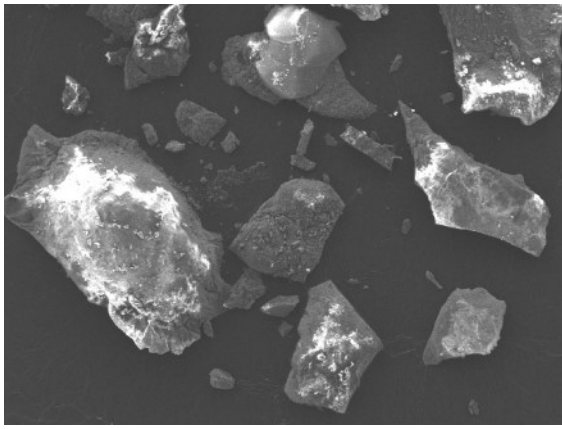
[Fig 26] 1950s mirror sample 3



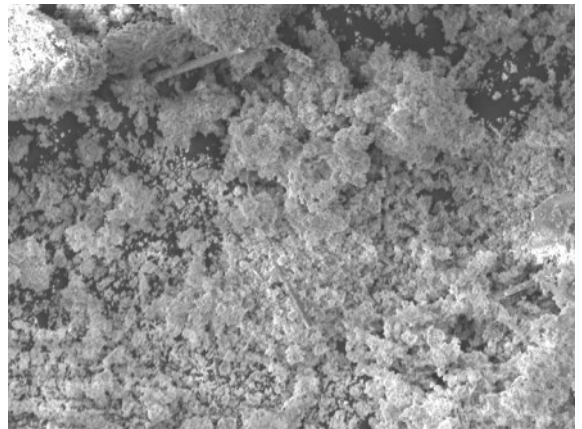
[Fig 27] Old mirror sample 1



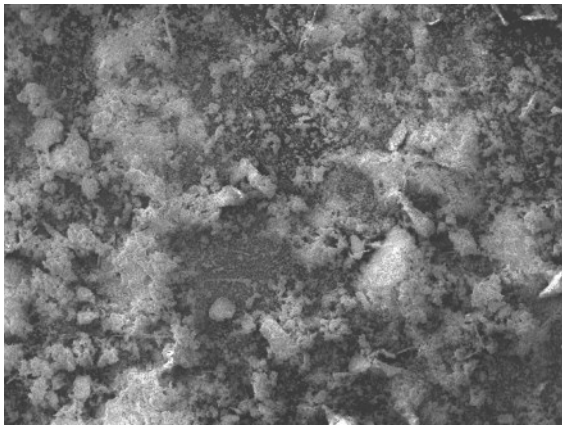
[Fig 28] Old mirror sample 2



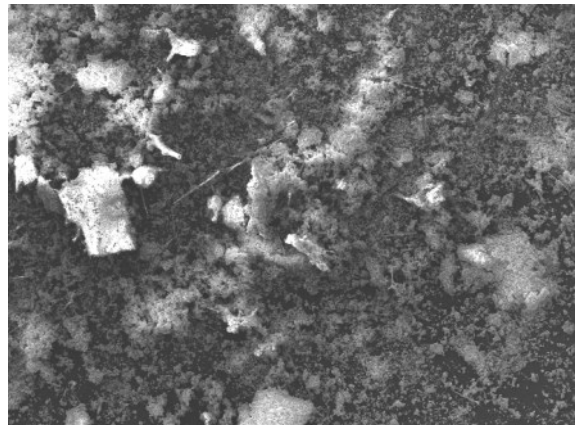
[Fig 29] Old mirror sample 3



[Fig 30] Old mirror after kiln sample 1



[Fig 31] Old mirror after kiln sample 2



[Fig 32] Old mirror after kiln sample 3