

Student Name: Louise Rimmer

2306111

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Cath Brown & Anna Lewis

Theme – The Link between Emotional and Physical Transparency in Glass Art

Transparency, specifically in the frame of glass art, can be explained as both a physical property due to its clarity and ability to transmit light, and also a metaphorical condition of openness and perception. However, transparency is never neutral; it fluctuates between clarity and ambiguity, simultaneously concealing and revealing, demanding that viewers actively construct meaning. These concepts can be exposed through the works of certain glass artists who can seamlessly blend these dual natures of clarity and ambiguity through their

works. These include Olafur Eliasson, whose immersive installations use light, colour, and audience participation to transform perception. Dale Chihuly makes use of monumental glass forms that form a spectacle with his monumental blown glass forms that write the autobiography of his life. Finally, Laura De Santillana incorporates layered glass tablets to explore fragility and relational transparency. Their practices resonate with theoretical frameworks that deepen our understanding of the nature of these artists and their works. The distinction between literal and phenomenal transparency as laid out by Colin Rowe and Robert Slutzky aligns with Eliasson's work surrounding spatial ambiguity. The phenomenology of embodied and intersubjective perception is linked from Maurice Merleau-Ponty to De Santillana's 'third' plane as a recurring theme in her work, and Dale Chihuly's language of glassblowing and storytelling is supported by Gyorgy Kepes' theoretics of the universality of visual communication. Combined together, these artists and thinkers reveal transparency as a dual language of matter and emotion, positioning glass art within a shared human experience.

When looking at the concept of transparency in art, especially when it comes to glass, it can be simple to just think of this as the physical, clear qualities of the glass. While physical qualities play a significant role in the understanding of meaning within certain types of art, it is also important to understand the emotional side to the piece. The physical, or literal transparency, is all to do with the way that a material is seen through and the way that is used to create the piece of work, whether it being the art itself, looking through it, or maybe colour and light come into play. These results are tangible

and easily visible. However, the emotional side to transparency comes from a concept, theme, or emotion being revealed through the work - the work becomes a window to the deeper meaning.

By looking at the work of artists such as Olafur Eliasson, we can gather a deeper insight into the significance of **Literal** Transparency in glass, and how it goes much deeper than just surface level. Eliasson's work consists of a blend of sensory and conceptual work, focusing on the interactions between the viewer, object, and environment, as his "interest in the five senses and how they guide us through experiences is a constant theme in his work" (Kliwer, 2024). His use of optical illusions, especially in his works such as **Your** Rainbow Panorama and **The** Weather Project can appear delicate and complex, yet are also quite simple, utilising natural elements and the people around to transform them into something radical. He frequently uses glass, mirrors, and water to create literal transparency within his work, allowing the viewer to question what is real and what is hidden by looking through or into his work.

Eliasson uses layered perceptions of space, colour, and light to blend literal and phenomenal transparency in his work. A key example of this is in his work of *Your Rainbow Panorama*, a circular glass walkway made of panels in every colour of the spectrum, positioned at the top of the Aarhus international art gallery in Denmark. This large-scale installation almost serves as a lighthouse in the city, drawing attention to itself both from the inside as you look across the whole city, as well as from the outside, as it can be seen from all over the city. However, from the inside the installation acts as an observatory, because as you look out on the

rest of the city reality shifts and distorts, as Eliasson notes that the colour of the glass intensifies depending on your speed as you walk around it (Eliasson, 2014).



Figure 1 - Your Rainbow Panorama

The combination of both bodily and spatial participation creates a unique experience for those inside and out via the interaction between layered perceptions of space, colour, and light. Using these interactions Olafur creates a space which “virtually erases the boundaries between inside and outside” (Eliasson, 2014). Eliasson’s work is a distinctive blend of literal and phenomenal

transparency as he takes the medium of glass and transforms it into an experience through perceptual layering. The audience is just as important as the installation itself, as Eliasson's work requires the individual to participate in order to bring meaning to the installation. This meaning is created by each person having an individual experience and perspective, which is why most of his works are always titled starting with '*Your*,' showing the collaboration between artist and audience. He demonstrates how his work is not just about seeing through but also seeing differently, combining the physical reality with subjective experience.



Figure 2 - The Weather Project

The Weather Project is another example of how Eliasson uses a mix of participation and layered concepts to blend literal and emotional transparency. It consists of two hundred low sodium mono-frequency lamps arranged to look like the sun, mixed with mist in a dark room at the Tate Modern in London to replicate the sun rising out of the mist. , Due to the low frequency of light emitted by the lamps, the only colours visible in the room are yellow and black; any other colours are rendered invisible. **This** gives the illusion that the audience is close to the sun,

however the whole scene is reflected by the ceiling of mirrors, allowing the audience to see themselves and everyone around them experiencing it. While the intention of Eliasson was to capture the element of the weather in London through the street light effects and the mist, as well as the effects of global warming in the city, as through the mist he captures the idea that “You will see clouds today that you will never see again.” (Eliasson, 2003), it is also another collaboration between artist and audience. With the mirrors on the ceiling reflecting the whole ordeal, people would often interact in groups, making gestures and lying on the floor to watch their own reflections, lying together under the sun. While the light, mist and mirrors visually alter and reflect the space, the reflected hall creates a transparent reality; a space where the haze blurs the boundaries between individual spaces., and each perspective and experience is individual, leaving the interpretations completely open.

Through his blend of physical transparency, architecture, interaction and ambiguity, Eliasson easily mixes the concepts of literal and phenomenal transparency introduced by Colin Rowe and Robert Slutzky, whose research lays out the difference between the two concepts as “an inherent quality of substance, as in a glass curtain wall; or it may be an inherent quality of organization.”(Rowe, Slutzky 1963). Through both *Your Rainbow Panoramic* and *The Weather Project*, Eliasson takes the work of Rowe & Slutzky and expands it from solely architectural to experiential. They state that by “recognizing the physical plane of glass and concrete and this imaginary (though scarcely less real) plane that lies behind it, ... a transparency is effected not through the agency of a window but rather through our being made conscious of primary concepts which 'interpenetrate without optical destruction of each other.’” (Rowe & Slutzky, 1963).

This links directly to Eliasson's work in *Your Rainbow Panorama* and *The Weather Project*, as they each combine the physical and abstract qualities of glass and the surrounding effectors to create literal and phenomenal transparency. In *Your Rainbow Panorama*, the coloured glass corridor is the 'physical plane,' and the refracted city views are the 'imaginary pane' behind it. This shows that transparency is not just an effect of the glass window, but the awareness of the overlapping realities created by this; Aarhus as a city itself, the way the hues change in the coloured windows, and the symbol of the rainbow itself as they interpenetrate without optical obstruction' (Rowe & Slutzky, 1964). In *The Weather Project*, the mist, lamps, and mirrors are the 'physical plane,' and the doubled sun and communal gathering underneath are the 'imaginary plane.' Transparency in this sense is not just about looking through the haze of the room, it is about perceiving the overlapping concepts of social participation, environment, and weather. Once again, this shows that these planes can coexist, as the sun is both real and artificial, and the hall is both infinite and finite at the same time. Overall, Eliasson's works highlight the key points of literal and phenomenal transparency, as he shows that it is not purely about the clarity of the material, but also the conceptual layering that is happening at the same time.

Within glass art, emotional transparency can take many different tones, such as Eliasson and his ability to blend literal and phenomenal transparency, there are other ways in which transparency can take form in glass work. Through his innovative use of glass, Dale Chihuly has transformed the material from a traditional craft medium into a one capable of large-scale, immersive expression. For Chihuly, glass isn't solely a method of visual experimentation, but a means of reflecting and revealing different periods of his life. Chihuly treats transparency as

a way to reveal memory, emotion, and personal transformation. His works become an autobiography, often reflecting upon turning points in his personal life and career, moments of change, recovery, and renewal. Transparency in Chihuly's work becomes a metaphor for openness and self-reflection. Each piece of work and the collections he produces draw such personal inspiration that it is clear to understand each time in his life that correlates to each specific work, whether it be his travels, working in different countries, or even his personal life experiences, such as his car injury that left his eye injured and changed the way he worked forever. To be allowed such a personal look into an artist's life is a privilege for both makers who take inspiration from him as well as the public, as it takes great courage and personal understanding to allow your life to be so thoroughly exposed. His continuous use of glass despite setbacks and hardship shows his devotion to expose process and emotion through glass, rather than hide behind it. Each series, such as Chihuly over Venice, can be seen as a response to a particular phase in his life. The flowing organic shapes and layered colours reflect changing perspectives and emotional states, with the physical transparency allowing light to move through these transitions, while allowing deeper insight into who he is both as a person and an artist.



Figure 3 1 - Chihuly Over Venice

Chihuly's unique methods of translating his life stories and experiences into his work is something he has instituted from the start of his career.

His 'Chihuly over Venice' project was his own tribute to his time spent on his apprenticeship in Venice, blending his own experiences and memories there with the traditions of glassblowing that he studied. His time in Venice was crucial towards developing his understanding of glassblowing and also exploring how glass interacts with its environments, stating that "Venice was the perfect place to take glass to the next level. It is a city built on water and light—two of the things glass does best" (Chihuly, D. (1996) Chihuly Over Venice. Portland, OR: Portland Press.). The project was displayed over the canals in Venice, bringing glassblowing out of the traditional studios and galleries and exposing it in a different light to the public. The installation displays his own personal brand of highlighting the transparency of his deeply personal connection to glass work. Despite transparency taking on a personal meaning in Chihuly's methods of incorporating his personal life experiences into his work, this also takes on a deeper meaning in his more present works, as his car accident left him unable to blow glass as he used to, and instead used this opportunity to create and nurture a team of highly skilled specialists to create his visions for him.



Figure 4 - Chandeliers at the V&A

Chandeliers has been an ongoing collection of installations since the early 1990s, yet it exemplifies the choreographic approach Chihuly developed post-accident, as this shift is embedded in the collective labour required for the scale of the chandeliers. The change in his work from sole control instead becomes a focus on vision and teamwork, letting the material and the process speak for themselves, as he became “more of the director of my team” (Chihuly, 2006). The scale of Chandeliers along with the way the light interacts by refracting and scattering creates a constantly shifting visual experience, revealing the fragility of the glass itself while simultaneously asserting his resilience through scale and complexity, turning fragility into a spectacle.

While the physical qualities of transparency, such as its interplay with light, colour and form remain central, deeper emotional transparency resonate consistently in his work, such as how transparency is key in creating different layered meanings. Chihuly's work is effective and meaningful globally, and in his work, "light becomes the story itself - a raw, elusive substance capable of altering the colour and form of what unfolds before our eyes." (Glazer, n.d.). This vision aligns with the arguments of Gyorgy Kepes in 'The Language of Vision', which are key in understanding how visual elements, like in glass, communicate meaning. He states that “visual communication is universal and international; it knows no limits of tongue, vocabulary, or grammar, and it can be perceived by the illiterate as well as by the literate...” (Gyorgy Kepes, 1944. 'The Language of Vision', p. 13). Kepes' vision of a universal visual grammar aligns with Chihuly's style of art as it links to how transparency in glass work transcends language, visually telling the story of his life both physically and emotionally.

Chihuly also encourages this when discussing how "the main language of communication in the glass community is body language and the language of glass choreography." (Chihuly & Opie, 2001)  showing how through his exposure of his glasswork and his willingness to open himself up to it, the language of glasswork is universal. Kepes also links the universal nature of visual communication and light shape human perception, discussing how "our human nature is profoundly phototropic. Men obey their deepest instincts when they hold fast to light." (Kepes, 1965). Here, he explores the instinctive human attraction to light through his key word 'phototropic', meaning the "orientation of an organism in response to a light stimulus" (Contributors, 2025), furthering his concept that visual communication is universal, as it transcends both language and culture, and that the attraction to light is a primal instinct shared by all humans. This concept is shared by Chihuly, whose focal point of his work is that he "wants people to be overwhelmed with light and colour in a way they have never experienced." (Chihuly, 2008). By using his installations to immerse people in colour and illumination, Chihuly embodies how humans are drawn to light naturally, and it then becomes the shared language of emotion and perception. By combining the physical qualities of light and colour in his glass work, Chihuly's visual dialogue embodies the connection between personal narrative and Kepes' universal communication, creating a unique sense of emotional transparency through his work in a delicate yet profound manner.

The juxtaposition of physical and emotional transparency in glass can often be misconstrued, as the depth of meaning behind it comes from the links between the

two. The ability that artists have to create conceptual bridges between the clarity of the material and the emotional openness that is developed remains a major contributor to the depth of meaning these art pieces can hold. Laura de Santillana's minimalist work embodies this duality by blending physical and emotional transparency to form a third plane where they coexist, implying that "both spatial and temporal interval is the space between two spaces." (De Santillana, 2014). Her deep love and appreciation are one that has been nurtured from an early age due to her long family history with glassmaking in Venice, as she says she is "stuck with this love. It is like Jacob and the angel." (De Santillana, 2015), showing how her journey through her work is comparable to a religious experience. Her works also convey how perception is a bodily experience, something that is not just experienced by just looking with your eyes. Her work forces the full body to experience emotion by both revealing and concealing simultaneously, the perspective changes through having to physically bend and orbit the work revealing something new at each point.



Figure 5 - Green Eye

Within the golden glow, similar to the sun, of **Green Eye**, De Santillano uses the striking eye in the centre as a focal point to use the eye as an extension of your own to look further into the piece, “opening a window into the cloister and otherwise imperceptible interior.” (De Santillano, 2010). With the eye being used as the window into the ‘third plane’ that she creates through her work, the contrast between the opacity and clarity causes the light to shift within and around it, shifting perspectives and the emotion conveyed with this. The fragility of the glass eye seemingly appearing within **the** sun conveys a familiar feeling of vulnerability to the viewer, their emotions being reflected back at them. This is due to the fact that the eyes are widely considered to be the window to the soul, originating from Roman philosopher

Cicero, who originally stated that “the face is a picture of the mind as the eyes are its interpreter” (Cicero, 55 BCE).



Figure 6 - 3 Eyed Lateral

3 Eyed Lateral furthers her use of eye imagery, making this with influences from ancient South Asian iconography with the ‘third eye’ of enlightenment being presented. This third eye can also be the ‘third plane’ she creates through her work, creating multiplicity and layering of meanings, “like a veiled impression of a world hidden within, visible only through the three viewing points” (De Santillana, 2010). This piece requires physical perspective changes as the viewers must orbit the piece to look through each of the three ‘eyes,’ and this forced shift of perspective highlights the link between seeing and feeling, creating emotional complexity. The fused frit on

the surface refracts and transmits light, creating layered visual effects that provide ambiguity to the piece, leaving it open to personal interpretation.

Philosophically, De Santillana's works enact Merleau-Ponty's theory of the phenomenology of perception through the ambiguity of her work by using light and the glass itself to create layered perceptions, as he describes that "the real is coherent and probable because it is real, and not real because it is coherent" (Merleau-Ponty, 1968). This shows that in De Santillana's work, ambiguity is not accidental but essential as reality precedes rational clarity; perception is ambiguous and indeterminate by nature. Her glass works embody this existential condition, showing that human experience, like glass, is fragile, open, and always subject to multiple readings. Bodily engagement is also essential when analysing and viewing her works, as they cannot be fully understood from a single viewpoint. In Green Eye, the viewer can move around and observe the piece yet can only see in through the viewpoint of the eye. In 3 Eyed Lateral, the viewer must bend, shift, and alter their viewpoint to see through the different parts. This links to Merleau-Ponty and his theory of perception, as he states that "the body is our general medium for having a world" (Merleau-Ponty, 1945). Through this, the body is central to our consciousness, and therefore our perception and way of perceiving. The physical changes in the body as you experience De Santillana's work causes changes in perspective with each bodily shift.

Overall, the works of Eliasson, Chihuly and De Santillana explore how transparency in glass art is a blend of both physical conditions and emotional metaphors. The material clarity, transmission of light, colour and fragility, combined with exposure,

immersion, perspective, and personality create communication beyond words, discussing how transparency is not passive but active. On a physical level, transparency allows light to pass, refract and multiple, creating immersive environments that blur the distinctions between interior and exterior, however these artists use their distinct physical traits of art and use it to communicate their individual emotional metaphors. Eliasson merges visual and spatial participation to create layered perceptions of space, colour, and light, and by using audience interaction as a collaborative technique his work becomes open-ended with infinite perspectives. The collaboration being both artistic (through his work and the audience interaction) and also personal (through the transition from his own ideas to each individual perspective). Chihuly is led by the material itself and the way it transmits and refracts light but also becomes emotionally transparent through his team-work and autobiographical style of work. De Santillana manipulates the opacity and translucency of glass to create a 'third plane' within, however this plane is both real and illusive due to the layered perceptions and shifting nature of her work. Each artist demonstrates in their own way that transparency is never neutral within glass: it is constantly shifting to transform perspective, change emotions and communicate across boundaries, whether they be real or imagined. All three works embody literal and phenomenal transparency at the same time, as "transparency implies a simultaneous perception of different spatial locations." (Rowe & Slutzky, 1963), through their respective ways of creating overlapping perception. These artists emphasise intersubjectivity and shared perception through their use of glass and light to create spaces that feel universally accessible, similar to how "the child lives in a world which he unhesitatingly believes accessible to all around him... he does not suspect that all of us are limited to one certain point of view of the world." (Merleau-

Ponty, 1945). The emotional and physical transparency conveyed by each artist becomes universal through their worldwide reach and their interaction with the individual, as the “value of a work of art is to demonstrate universal qualities” (Kepes, 1965). Overall, transparency in the works of Eliasson, De Santillana and Chihuly, as framed through Rowe and Slutzky’s dual special condition, Merleau-Ponty’s intersubjective perception and Kepes’ vision of universal communication, is revealed as both emotional and physical as light and glass are transformed into a shared human experience of perspective and vitality.

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