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Using light, shadow, and distortion as an inspirational and liberating design language

The foundation of surface pattern design and textiles is centred around the use of visual language which is integral to the design process of creating patterns. There are numerous ways to create imagery, the most common starts with a pencil or paint brush. Having not taken a conventional art education route, these mediums are not my first choice to create images with. Being requested to draw in a traditional and conventional way can create unnecessary fear for me and completely hinders my creativity. I thoroughly enjoy using an unconventional, fluid approach, which allows me to design in a more intuitive way. However, I am yet to find my style. So, I intend to embrace this module to find new ways of producing imagery and therefore, allowing it to help enable me to create a new visual language that is inspirational and liberating for me.

My response to the thought experiment module touched on a few elements that I felt could be further developed. During this module, I had started to explore the link between music and visual imagery and it was a revelation that music could guide me in creating freely, without fear and in a more organic way. This approach took away the fear of getting it wrong. I realised that there is no right or wrong way, due to it being you own interpretation and creative response to the music which allows 'freedom of imagination,' (Dabrowski, 1995 p.19).

Wassily Kandinsky (1866 -1944), a Russian painter, used music to influence his artwork, creating images from sound (Image1). Kandinsky had been diagnosed with a neurological condition called Synesthesia. This condition is where, 'information meant to stimulate one of your senses stimulates several of your senses' (Healthline, 2018). Therefore, Kandinsky could see colour when listening to music. Consequently, many of his artworks is a visual response to the experience of hearing music, 'an expression of an inner need, [and] an expression of his soul,' (Listening In, 2019).



***Image 1. Fragment 2 for Composition VII*, 1913**

Influenced by Kandinsky's use of music to create imagery, I attempted to create my own designs using music to inspire me. I realised that music with lyrics already had a visual meaning for me and therefore I chose to only listen to instrumental music. Using a range of unconventional objects, I experimented with various forms of mark making. I initially used dried plants, wood, and brushes dipped in ink and applied to paper. I found it difficult to fully expand and explore my imagery as these materials proved restrictive. I then wondered if using reactive print paste on fabric in the print room would allow for more freedom, however, this medium was also slow and restrictive. I decided to move to a digital platform to create my responses to the music. Procreate was selected and this was liberating and allowed me to quickly create varied and interesting artwork digitally, (Image2). Having a wider access to different digital tools, more textures and layering options, allowed for an unhindered emotional response to the music. I was then able to confidently convert these digital designs into a physical print with the Riso printer.



Image 2. My digital experiment, drawing on Procreate listening to lofi music

This approach of using music to inspire an alternative visual language was intended to eliminate fear and inspire a more natural, liberating form of creative expression. However, the reality was it didn't work for me. What I had overlooked was that Kandinsky used his condition to create his own visual language. This notion that he allowed his condition to create his art is what enabled him to become a 'pioneer of European abstract art'(Tate). So, if I am to create my own unique visual language, I am not going to achieve it by attempting to imitate Kandinsky's technique, however, I can still be inspired by his artwork.

Similar to Kandinsky, an artist that uses their neurological condition to fuel their artwork is Yayoi Kusama, who experiences vivid hallucinations. In an interview with BOMB magazine, she openly discussed that, 'artwork is an expression of my life, particularly of my mental disease,' (BOMB Magazine, 1999). Even though 'she was judged 'not passable' in drawing', (Solomon, 1997), inspirationally, Kusama has been able to find a visual language so distinguishably her, that her iconic design of polka dots has earned Kusama the title of 'the princess of polka dots,' (Nanena, 2021). An extension of her dotted design is the installation artworks that she creates, such as the famous 'Infinity Mirror Rooms', with one being based in the Tate Modern, London (Image3). In this room made from mirrored walls and lights to produce a repetitive illusion, the viewer becomes an 'active participant' (Salterton Arts Review, 2022), immersing them into an out-of-body experience, as they are engulfed into the reality altering space.

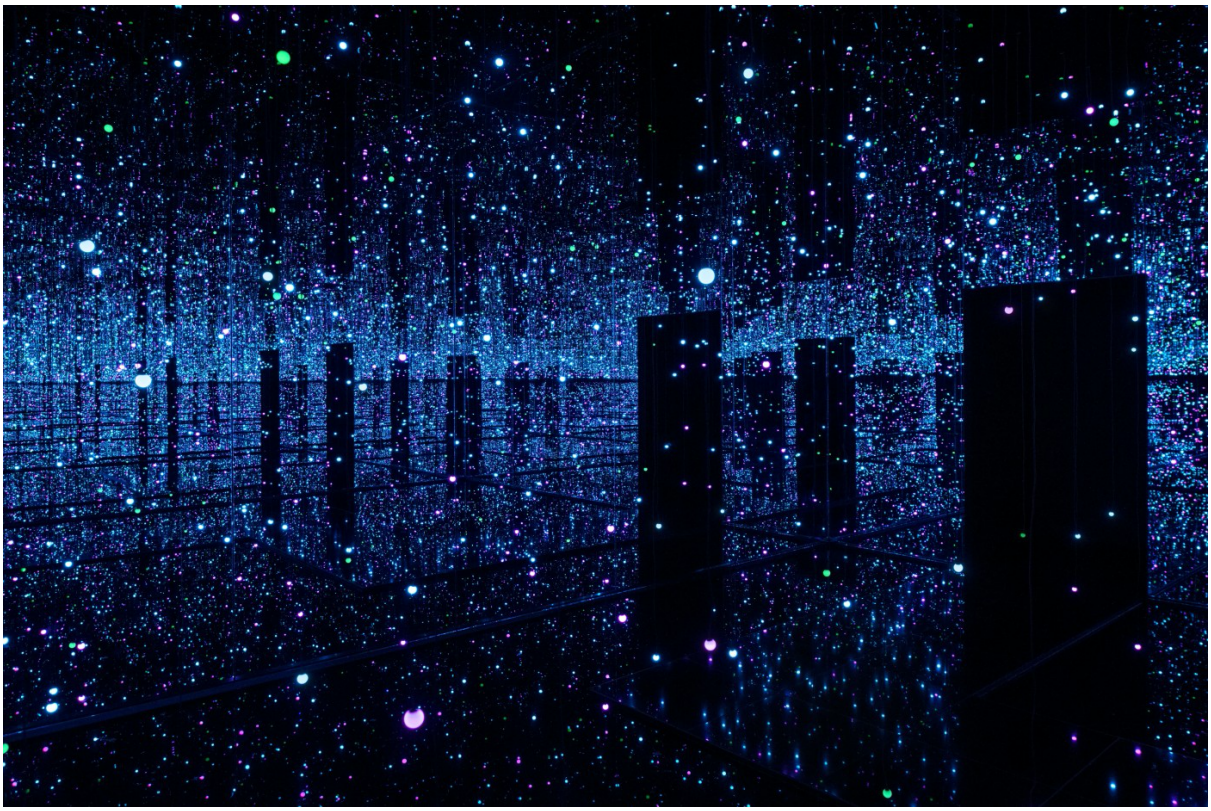


Image 3. Yayoi Kusama: Infinity Mirror Room at Tate Modern

As Kandinsky and Kusama embraced their conditions to express themselves, I too, need to embrace my own condition of Dyslexia and confidently express myself creatively in a way that is unique to me. The thought experiment module highlighted to me that a notable aspect of my thought process is linked to having Dyslexia, which is associated to a 'primary mode of thought which is intrinsically visual and inherently creative' (Morgan and Klein. 2000, p. 26-27) By allowing myself to embrace my inherent ability to see things in a particular way, as the 'ability to think outside the box is invaluable to artistic creativity', (Bacon and Bennett, 2012), I can consciously use it to create my own unique visual language. I have identified that installations captivate my attention the most. Colourful, multisensory art, such as Kandinsky's and Kusama's, are inspirational to me. Artist which

create visually stimulating pieces that connect with the viewer make the encounter significantly thought provoking for me.

The installation, Future Materiality Pavilion, created by Pravda Bureau, a multidisciplinary architectural practice for the Moscow Urban Forum in 2019, is a visually stimulating and thought-provoking piece to me, (Images 4 & 5). The installation of the Future Materiality Pavilion was designed to reflect the changes happening in Moscow, “like a river, always different, but remaining in place” (Pravda Bureau, 2019). The installation was constructed from T and C shaped dichroic glass pieces. This reflective material was the focal point within the work. The interaction of the sunlight streaming through the exhibition window illuminated the iridescent colours of the glass to create a fall of coloured light in the surrounding space.





Image 4 and 5. **Future Materiality Pavillion by Pravda Bureau 2019**

As the formation is maze like, the viewer must physically walk through the piece, this in turn changes the direction of the casting light, producing shadow copies of the person experimenting the installation. In addition, the incorporation of audio into the installation was designed to create a highly immersive experience for the visitor. The sunlight altering throughout the day combined with the movement of the viewer caused the work to change significantly, which was designed to make the experience of the installation more personal.

I was disappointed to have not been able to attend the Future Materiality Pavilion exhibition. However, it prompted me to take my work in a new direction. I captured a moment of refracting light that I noticed appeared in my workspace. It was the contrasting green-blue iridescent colour casting onto the grey ceiling that caught my eye. This led to my

initial experiments. First, creating a striped pattern from the image using Photoshop, I printed it out onto acetate sheets. I then used these sheets on the overhead projector to experiment with layering and manipulating the light (Images 6&7). Using quick lo-fi allowed for experimentation that felt low risk as it eliminated any worry of wasting materials. I was able to sufficiently pick out elements that I thought were successful. The fall on colour between each section that was made up from numerous uneven shapes, with snippets of colours that could be seen through the layers was the most engaging for me.

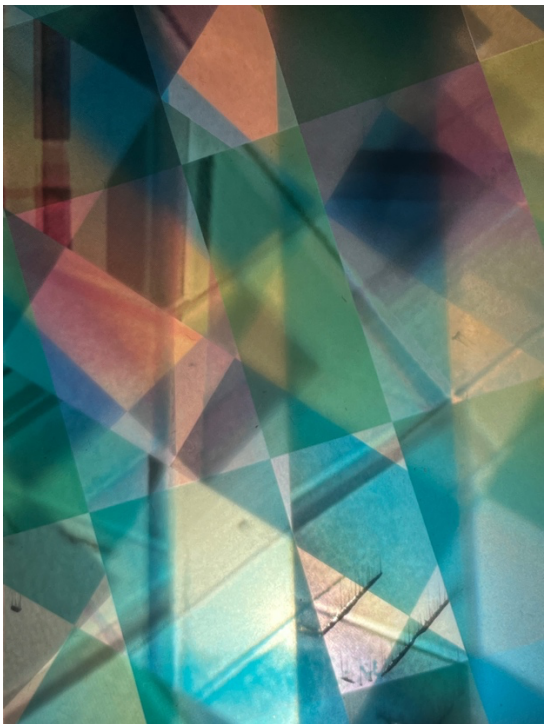




Image 6 and 7. My overhead projector experiment, layering and

Although my main objective for this module was to find an inspirational and liberating visual design language, it was also important that this visual design language related and developed my practice as a surface pattern designer. Seeing the images, created as a result of my experimentation with light, was particularly inspiring when they were digitally printed onto fabric. The first thing I noticed, was how different they looked and felt when translated onto fabric. They appeared significantly different to when they were on a digital screen or printed on paper. The digitally printed images were almost like watercolour had been painted on the fabric.

The over-layering reminded me of the Olafur Eliasson 'In Real Life' exhibition consisting of numerous installation rooms I attended in 2019. 'Your Uncertain Shadow (colour)' was made up of five coloured spotlights that projected onto a white wall, and when the viewer walked in front of these light it caused multiple coloured copies of their silhouettes. Olafur Eliasson is a sculpture and large-scale installation artist, using elemental materials such as light to enhance the experience. My experiments of using coloured acetate on the overhead projector remined of the thought-provoking play of colour and layering that were present in

Eliasson's 2019 exhibition. I found creating images in this way an immersive experience which allowed me to fully embrace and enhance my creative thinking in a liberating way.



Image 8. Olafur Eliasson: Your Uncertain Shadow (in colour) 2019

Eliasson's 'Radiant existence sphere' installation had many elements that I was motivated to incorporate into my work, light, colour and distorted imagery. The use of 'mirrors, lenses, and colour-effect filters', and how this cast a coloured geometrical patterned shadow onto the surrounding walls and floors is inspirational, (Image 9).

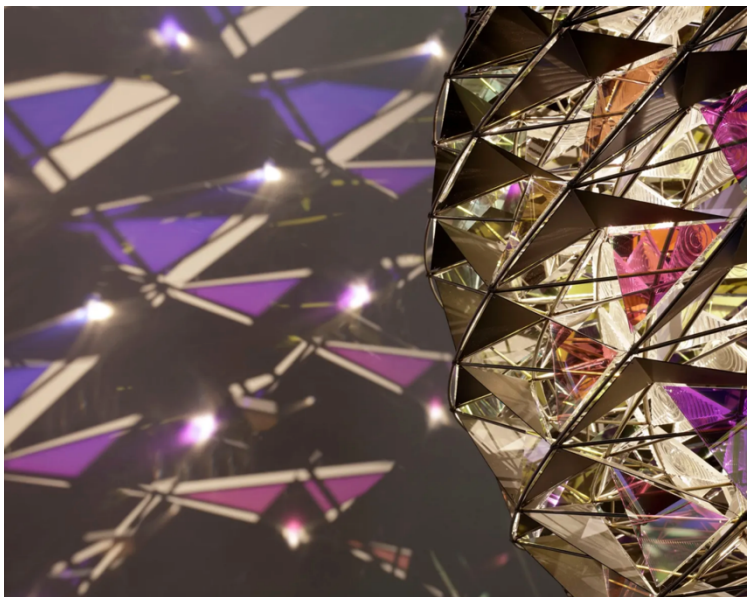


Image 9. Olafur Eliasson: Radiant Existence Sphere 2019

Similar to Eliasson, Serge Beaulieu and Yelena Filipchuk use geometric patterns and lights in their sculptures to reflect patterns onto the surrounding installation space. Beaulieu and Filipchuk collaboratively create large geometric sculptures which “reflect patterns drawn from mathematics, science, nature, and culture”, (Smithsonian American Art Museum, 2019). They call themselves ‘Hybycoza’. Their sculptures allow the viewer to physically experience them and are deliberately designed and constructed to balance the large scale hard geometric frame and the soft interior illumination to take over the whole installation space. This is designed to be an immersive experience that centres the viewer within the art.

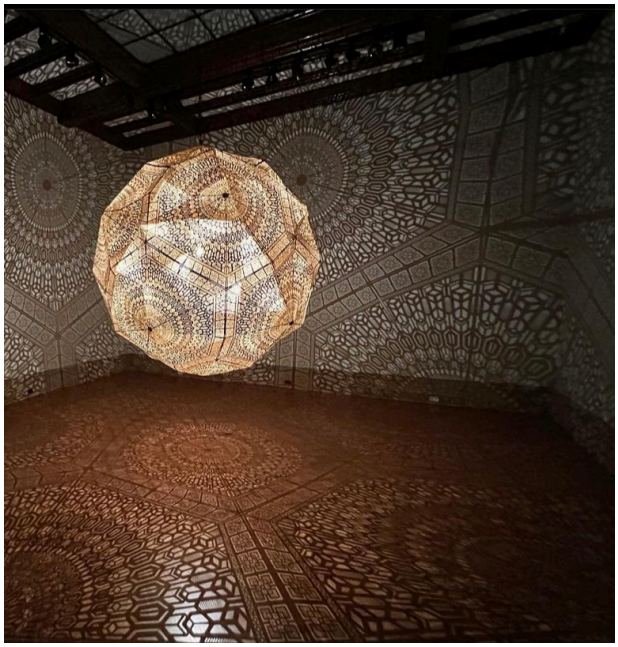


Image 10. Hybycoza installation

Influenced by the impact of the imagery that mirrors, colour and refracted light can create, I carried out some experiments using sunlight, a crystal optical glass triangular prism and my camera (Image 11, 12 & 13). Using the prism in an unconventional way, I placed it onto my camera and used this method to photograph my work space. This method created images, depending on the angle, a distorted reflection and sometimes a duplicated image. When the camera and prism were directed at linear objects, it recorded a rainbow-like outline in the image.



Image 11, 12 and 13. My experiments thought a glass prism

Following on from this, I collected reflective surfaces, such as, shiny foil, glass and a metallic envelope, (Image 14, 15, 16 and 17)

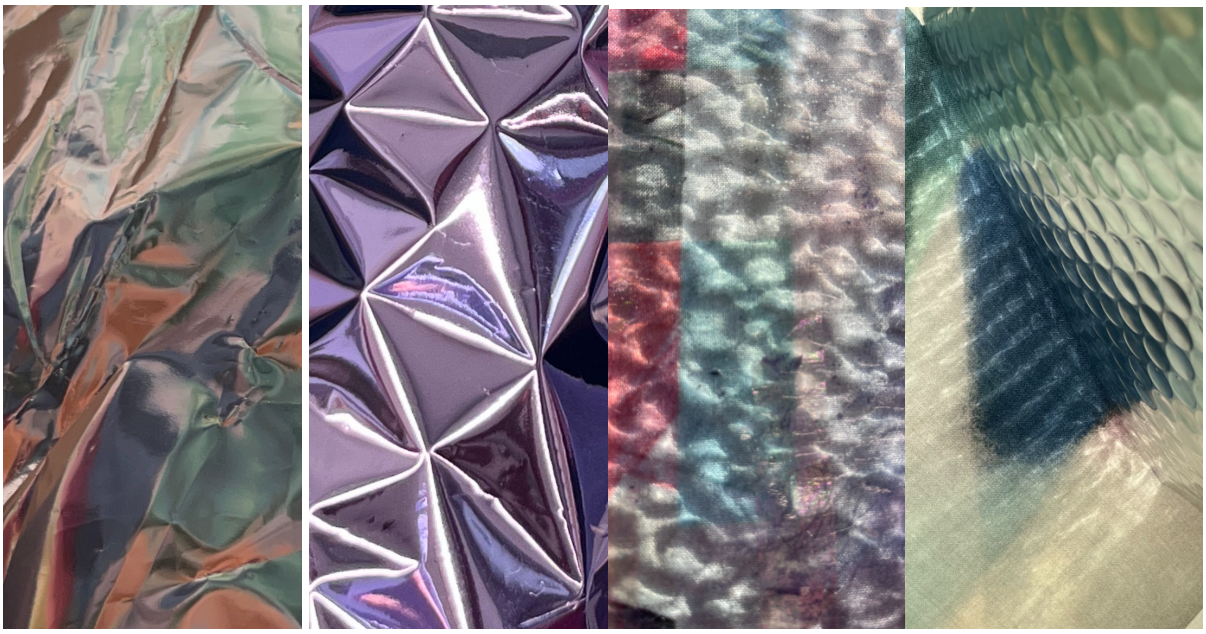


Image 14, 15, 16 and 17. My experiments using reflective materials

I wanted to expand and understand the potential for a distorted visual image collection. I angled the shiny silver foil so that the sunlight reflected onto it, and then used my digitally printed artwork to cast additional colour onto it. Flexing the foil further distorted the image. Using light and reflecting it on the selected surfaces allowed me to capture exciting new imagery.

Journey of Curiosity, a visual sound artist and photographer, also captures exciting patterns from using reflected light. He uses water and the physics of sound vibration to create a unique visual language of sound-mandalas. His use of lights to capture these sound vibrations into visual artworks is moving, (Image 18).



Image 18. Journey of Curiosity 'Thalassa' print

The study of visible effects of sound and vibration is called Cymatics. Hans Jenny was the first to associate all wave-related phenomena in a broader sense with cymatics. By using different frequencies, different patterns are formed, and it was Ernst Chladni who was first to discover these patterns, now called Chladni figures (Image 19), by using a metal plate, flour and a violin bow. It can be said that these patterns mirror patterns that can be found in biological forms and natural processes.

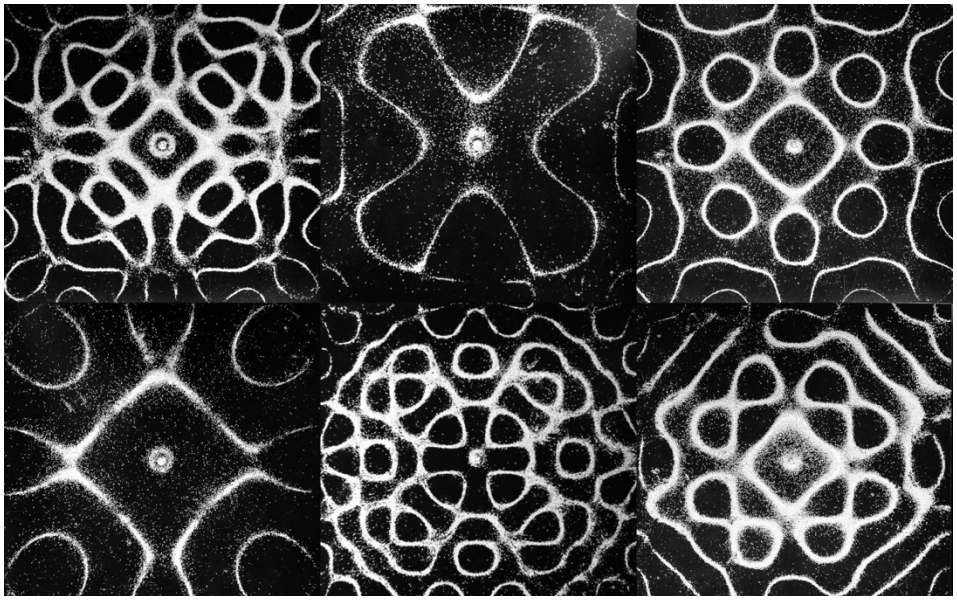


Image 18. Chladni figures

Journey of Curiosity is not the only artist to use this sound wave-related phenomena to create visual artwork. 'Resonant Waves' is an "art-science project that reveals and celebrates how sounds can form complex symmetrical shapes and patterns". They use the sound equipment to document visual patterns created by sound vibrations. Their goal was to create a multi-sensory, immersive installation (Image19). They achieved this by building an artwork that contained seating which allowed the audience to instantaneously feel the vibration of the sound and see the visual imagery created from that sound vibration, "they simultaneously hear, feel and see the patterns created," (Grillotti, DiLallo and Forbes, 2020).



Image 19. Resonant Waves project

Attempting to analyse my practice, I considered how my work is relevant to current trends. WGSN predict that there is a rising trend for sensory experience within the fashion world. This is currently being achieved through a more visual rather than a tactile approach. The Spring/Summer Active Forecast of 2024 is SenseScapes, with the sub-topic trend of 'Synesthesia'', trying to "evoke a multi-sensorial experience through multicoloured ombré, swirling marble patterns and digitally inspired abstracts." This use of colour and abstract image is similar the imagery I have been developing and I can visualise where my designs would fit comfortably in a fashion context, (Image 20)



Image 20, My visualisation of my imagery onto fashion

However, due to my research, I am inspired and liberated by the innovation of E-Textiles which is creating new potential options for the fashion and textiles market. This is a newly and rapidly developing area "e-textiles have the potential to expand our sensorial interaction with materials and digital worlds." The reason I am inspired by this is that for the first time, potentially, a piece of clothing can give the wearer a simultaneous physical and visual experience.

The continued entanglement of the physical and digital design world allows for unprecedented innovation in textile technology, allowing for the "immersive experiences in the digital realm and greater expression in real life," (WGSN). There is a wide scope for the exploration of the new sensory fashion. New technology has been able to assist Spain-based OWO patenting and creating a 'wireless haptic vest that allows users to feel more than 30

different sensations. The algorithm has potential to create infinite sensations such as a gunshot or a hug.'

This module has evolved into something completely different from where I originally started. The main objective was to create a visual language that was inspirational and liberating for me and this has remained at the forefront of my research. The journey has created a shift in how I perceive myself. I now have clarity and an understand of my design approach and learning style.

My interest in installation art, the connection with the art in a physical way and the multisensory experience that comes with it, has been a main source of inspiration. I have realised that this isn't a coincidence, it is linked to my own neurological condition. I always knew I was a visual learner but during my research I came to realise that I am also a kinesthetic learner. The key learning requirements for those with a kinesthetic-tactile learning style is the need to use body movement and to interact with their environments. In short, we are learners that learn through hands on experiences. A combination of visual and/or auditory study produces a multi-sensory learning environment where deep learning can be achieved for people like myself. As result of this module, I have gained more confidence as I now understand myself better and therefore, feel liberated.

I've realised that taking photos and videos has always been a way I express my creativity. This now explains why I am particularly attracted to installations and the methods of artists such Kusama, Eliasson and Hybycoza. This assignment along with accepting myself has liberated me to be more experimental and use more out of the box thinking. Unconventional photographing images through a prism was something that I would not have previously thought to do. None of the images have been digitally altered, they are exactly as they were originally captured. Having the confidence to work in a different medium has been liberating and allowed me to create new and interesting imagery. The creation of these images has formed the foundation for a new approach and style of visual language which I look forward to continuing to develop and express.

Bibliography

Dabrowski, M. (1995) Kandinsky compositions. The Museum of Modern Art: Distributed by Harry N. Abrams, Inc.

Healthline, (2018) What Is Synesthesia? Available at: https://www.healthline.com/health/synesthesia#symptoms (Accessed: 12th December 2022)

Listening In, (2019) What's the Sound of Colour? Kandinsky and Music [video]. Available at: https://youtu.be/2xDnxkzQtdI (Accessed: 12th December 2022)

Tate, (20) A Brief History of Abstract Art. Available at: https://www.tate.org.uk/art/brief-history-abstract-art-turner-mondrian-and-more (Accessed: 14th December 2022)

BOMB Magazine (1999) Yayoi Kusama by Grandy T. Turner Available at: https://bombmagazine.org/articles/yayoi-kusama/ (Accessed: 16th December 2022)

Solomon, A. (1997) 'Dot Dot Dot: The Lifework Of Yayoi Kusama,' ARTFORUM February 1997, VOL. 35, NO.6

Nanena, C. (2021) 'The Princess of Polka Dots: Yayoi Kusama', Living In Design, 18th March Available at: https://www.livingindesign.com/journal/the-princess-of-polka-dots-yayoi-kusama (Accessed: 16th December 2022)

Salterton Arts Review (2022) Yayoi Kusama: Infinity Mirror Rooms – Tate Modern, London Available at: https://saltertonartsreview.com/2022/05/yayoi-kusama-infinity-mirror-rooms-tate-modern-london/ (Accessed: 17th December 2022)

Morgan, E. and Klein, C. (2000). '*The dyslexic adult in a non-dyslexic world*', London: Whurr

Rosenberg, H.S. (1987). *Visual artists and imagery.* Imagination, Cognition & Personality, 7: 77–93.

Bacon A, M. and Bennett, S. (2012) '*Dyslexia in Higher Education: the decision to study art'* European Journal of Special Needs Education, 2013 Vol. 28, No. 1, 19–32,

Smithsonian American Art Museum (2019) *Meet the Artists of No Spectators: The Art of Burning Man* Available at: https://americanart.si.edu/exhibitions/burning-man/online/hybycozo (Accessed: 30th December 2022)

Grillotti, R., DiLallo, A. and Forbes, A. (2020) *Resonant Waves: Immersed in Geometry*. The MIT Press Available at: https://muse-jhu-edu.ezproxy.uwtsd.ac.uk/article/762946/pdf (Accessed: 3rd January 2023)

WGSN, (2023) *Active Forecast S/S 24: SenseScapes.* Available at: https://www.wgsn.com/fashion/article/93984?lang=en (Accessed: 8th January 2023)

WGSN, (2023) *Innovation: E-Textiles.* Available at: https://www.wgsn.com/fashion/article/92985?lang=en#page7 (Accessed: 8th January 2023(

IMAGES

1) https://buffaloakg.org/artworks/rca19471-fragment-2-composition-vii
2) https://www.victoria-miro.com/news/1440
3) https://www.archdaily.com/921152/future-materiality-pavilion-pravda
4) https://www.hybycozo.com/py3e42fotcoc0xd58jwpfj1s4xw084
5) https://olafureliasson.net/artwork/radiant-existence-sphere-2022/
6) https://olafureliasson.net/artwork/your-uncertain-shadow-colour-2010/
7) https://journeyofcuriosity.net/collections/prints/products/thalassa