

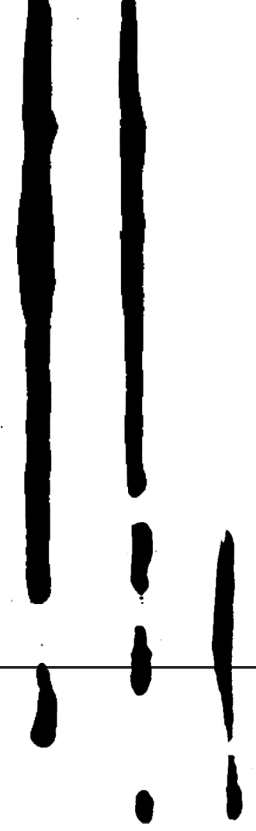
# STORYTELLING *through* DESIGN

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BDes (Hons) Interior & Spatial Design

Marc Spowart / 40397535

To what extent can storytelling influence the design process to create a more user-focused, appealing and engaging experience





# Edinburgh Napier

## UNIVERSITY

### Storytelling through Design

To what extent can storytelling influence the design process to create a more user-focused, appealing and engaging experience

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'A design research portfolio submitted in partial fulfilment of the requirements of Edinburgh Napier University for the award of:  
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"I confirm that the final version of my dissertation conforms to the requirements of the Degree Regulations in all respects. It is an original piece of work which is made available for photocopying, for inter-library loan, and for electronic access at the discretion of the Dean of School of Arts & Creative Industries."

Signed: Marc Spowart

Date: 09/01/2022

### A C K N O W L E D G E M E N T S

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## DESIGN CONTEXTUALISATION

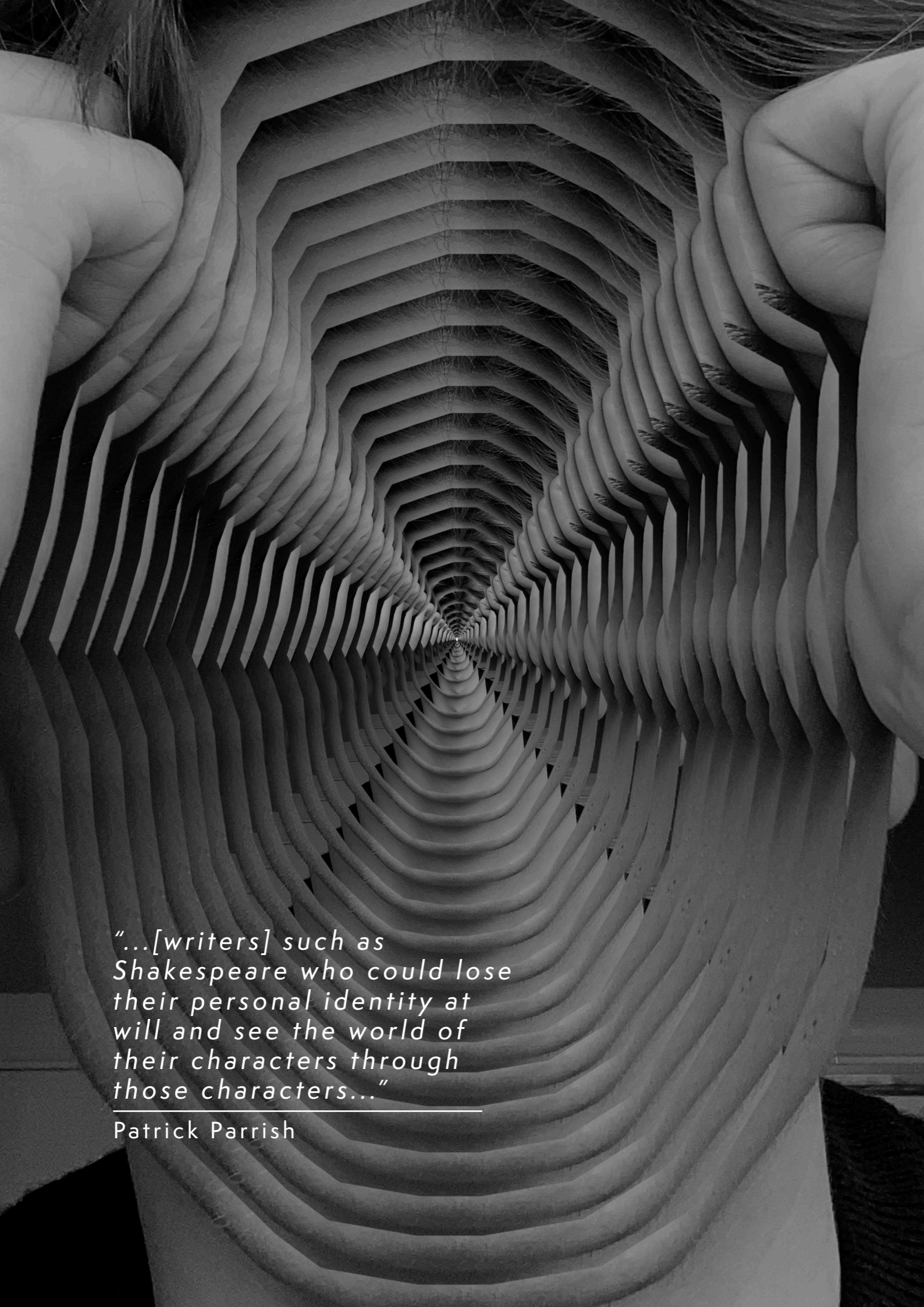
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### Aims & Objectives

This literature review aims to break down storytelling in design; discover how it affords a richer design process, and create a more user-focused design; study the importance of a story arc and how it could be applied through space, and explore the concept of visual literacy.

The classic view on design is that a successful one should never be disparate from function (Chipambwa, 2017). However, aesthetics can also provide functionality in unconventional ways; they can form a narrative that creates a richer user experience (Parrish, 2006). The researcher has chosen to study storytelling through design to explore the notion of a new way of design thinking as they think it is a significant method that has been overlooked in the industry.

Moreover, translation of text to imagery is of critical value to the major design project being undertaken, where the aim is to portray the pain and struggles of homosexuality under the eyes of the Catholic church. These topics are emotionally heavy, and so to make them legible to all, the visual creates a universal language for people to understand and interpret them. Words are often too objective for individuals to grasp the whole meaning behind them, whereas the subjectivity of images allows the essence of a concept to shine through more readily.



*"...[writers] such as Shakespeare who could lose their personal identity at will and see the world of their characters through those characters..."*

Patrick Parrish

## Introduction

In its simplest form, design can be defined as an analytical and creative process that engages one in opportunities to experiment and generate functional solutions to problems (Razzouk and Shute, 2012). However, such narrow-minded thinking reduces design to a literal context. User-focused design requires the capacity to put oneself in another's shoes and see a design through their perspective; it is a crucial skill and encourages viewers' engagement, treats subject matter more empathetically, and ensures genuine interest in a viewer's experience (Parrish, 2006). The poet John Keats uses the concept of "negative capability" to explain this. By being at ease in one's ability to actively pursue "uncertainties, mysteries and doubts", one detaches themselves from the whole idea of self to gain a greater understanding of how others holistically react (Ulmer, 2019). Keats recognised this characteristic in pioneers of writing such as Shakespeare, "who could lose their personal identity at will and see the world of their characters through those characters", like a true storyteller (Parrish, 2006). The concept of storytelling and building a narrative in design is not broadly discussed when looking at a design process, despite its benefits to designers proven to be advantageous. For this reason alone, it is an area of design thinking and processes that should be studied in more depth so that new and upcoming designers have a knowledge of it.

## 1.1 Storytelling in Design

*[Stories] offer a means of a journey, a discovery even...*

- Patrick Parrish



Collage (Spowart, 2021)

Stories are primarily based on life, on the general qualities we obtain from experience and the individual ones we uncover through rigorous observation, but their strength comes from expanding beyond this factual basis. They offer a means of a journey, a discovery even, whereby the stories reveal more each time on taking a said journey on multiple occasions. Fictional storytelling encourages one to utilise one's imagination to construct scenarios that teach us aspects of reality that are not as evident through analysis. Furthermore, storytelling can then be considered a form of research. Instead of dissecting analysis, we bring parts of the world together to uncover their collaborative possibilities. Due to this characteristic, designers are more inclined to incorporate storytelling in the creation of their designs. (Parrish, 2006).

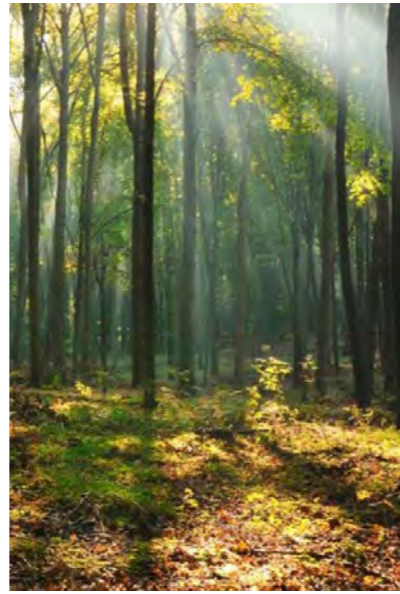
Creating a story in design requires the application of artistic practice, specifically the use of imagery. Applying imagery to convey an idea, a story or a message creates more narrative than words alone – it invites action, suggests motion or time, and introduces a point of view. Ellen Lupton uses the example of a 2D image of a forest to articulate this. She states that most images one would find by searching online include a collection of different trees, paths, waterfalls, or rays of light casting through the foliage (Lupton, 2017). These elements provide the image with narrative and subconsciously conjure up the beginnings of a story in a viewer's mind.



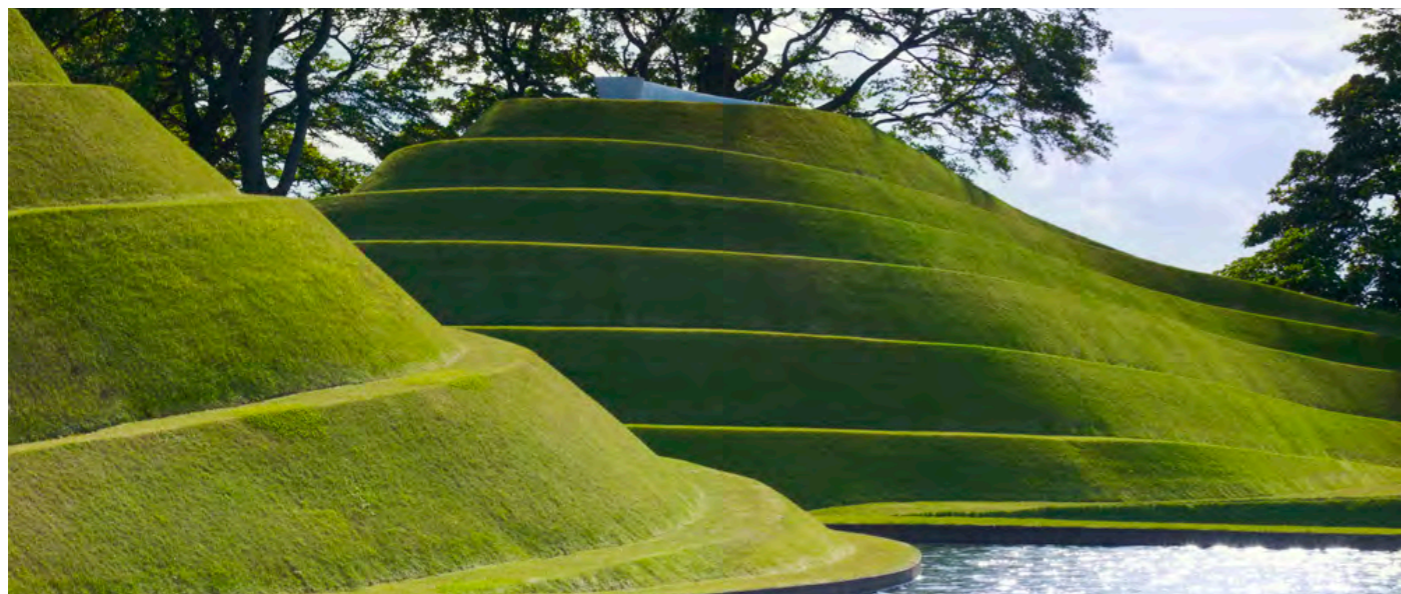
Forest (Sherwood, 2019)



Forest (Yiu, 2019)



Forest (A walk...forest, n.d.)



Lupton's idea of pathways creating a narrative is also relevant in a 3D context. She reinforces her point by adding that landscape designers often utilise such features to convey an atmosphere or story (Lupton, 2017). An example of this is the Cells of Life at Jupiter Artland just outside Edinburgh, created by landscape designer Charles Jencks. When pitching his proposal for the design, Jencks described it as "a coherent route, the clarification of a triangular structure underpinned by three mounds, and a narrative." The process of mitosis (the breaking down of a cell) inspired said narrative, which can be seen by looking at the design's composition in a plan view (Project: Jencks' Cells of Life landforms, n.d.). Using this to underpin the design, Jencks allowed his design decisions to be better informed, creating a richer concept and user experience.

To summarise, the essence of storytelling in design is to use tools from literature to convey a narrative on a larger scale that a user subconsciously reads. When designing, it should also be considered a part of the research process as it can direct a line of inquiry in various paths depending on the combination of elements telling the story.

Bottom Left: Cells of Life (West, 2018)

## 1.2 User-Focused Design

*It allows users to feel seen and creates intuitive & pleasurable experiences*

- Jamie Taylor



User-focused design (Tambini, 2018)

The storybook is a widely understood platform for storytelling, and many people study it to gain a better grasp of storytelling itself (Parkinson and Warwick, 2017). However, there are several definitions of what criteria the event of a story requires. Take the conditions of human cognitive psychologist Jerome Bruner that originated from his idea of narrative structure (Cole, 1991); they are as follows: "1. an action directed towards a goal, 2. an order established between events and states, 3. a sensitivity towards what is accepted in human interaction, and 4. the revealing of a narrator's perspective" (Cole, 1991). When we apply this theoretical model to a storyline about a design concept, we can see how beneficial it is. To explain further, Parkinson offers the "concept for a new kitchen gadget to prepare a meal more quickly. An order established between events and states could become the stages of a recipe (events) or the progress of the dish being served (states). Sensitivity towards what is canonical in human interaction is central to design as all concepts are created with a user in mind, in this instance, a cook. The concept itself could be considered the designer's perspective - their unique interpretation of the kitchen gadget" (Parkinson and Warwick, 2017). Analysing each element of the user experience ensures that all needs and requirements are met and, in turn, creates a more enjoyable experience for the user.



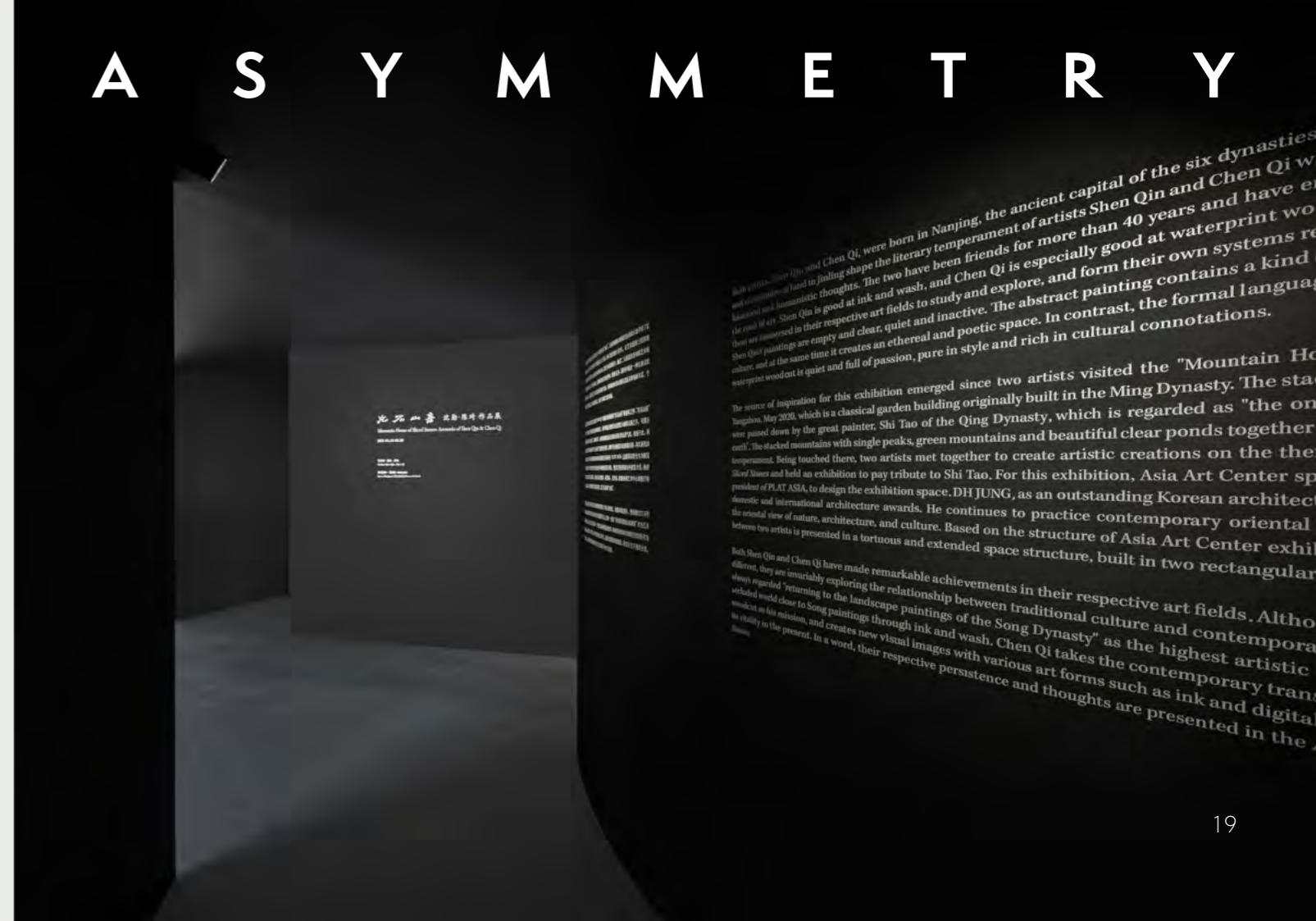


*"[User-focused design] ensures users feel seen and creates intuitive and pleasurable experiences"*

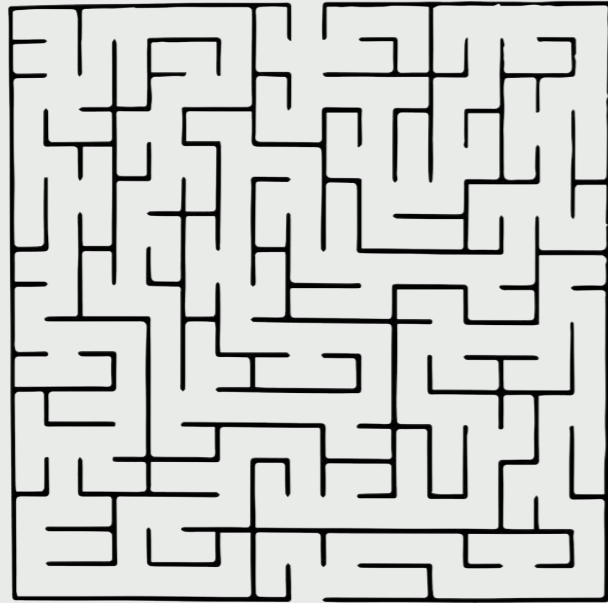
Jamie Taylor

User-focused design in a spatial context is essential, for example, in public and exhibition spaces. It ensures users feel seen and "creates intuitive and pleasurable experiences" (Taylor, 2020). Visitors to museums often accuse the spaces of offering too strict an environment, effectively reducing the user experience to observation and a lack of interactivity. They perceive the museum experience as not as engaging and appealing as it could be. Designers perceive it as lacking the learning potential it could provide to visitors by developing bespoke itineraries to communicate the cultural history they retain (Dal Falco and Vassos, 2017). There has been advancing importance posed on settling these issues, focusing on using digital technology. According to Tallon's study discussing technology in museums, only 35% of museums offer mobile applications, and a further 34% consider providing one (Tallon and Walker, 2008). The use of digital technology in exhibition spaces "opens up a more active conversation between visitors and the museum space" (Dal Falco and Vassos, 2017). This could be achieved by incorporating the museum experience's components into a narrative experience that would create an individualised story through interactions inside the museum and before and after the visit. To this objective, modern technology would allow artefacts, historical figures, structures, and events to become the protagonists of a storytelling experience that emerges as a new dynamic and conversation between user and venue (Dal Falco and Vassos, 2017).

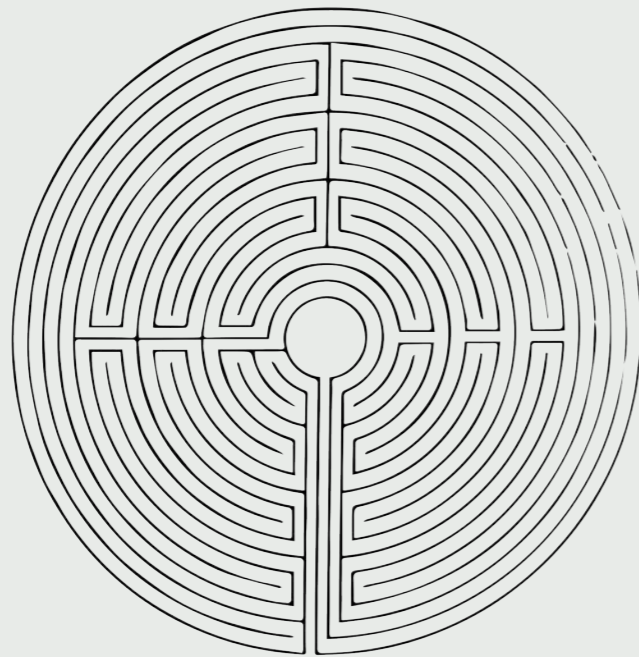
Another way one achieves narrative in an exhibition space – without using technology – is down to its composition. This was researched and analysed by Bayer and Moholy-Nagy, masters of the Bauhaus, in 1939, who discovered an argument of symmetry versus asymmetry and freedom versus control (Lupton, 2017). “Classic museum buildings feature halls that lead into each other all on a single axis with symmetrically placed doorways”. This seems orderly at first to curate; however, the end-user experience is chaotic as the visitor has no straightforward spatial journey. So, by creating “an asymmetrical layout with staggered entryways instead, it allows curators to control the narrative a lot easier.” This leads to the argument between control and freedom of movement; design controls so much of a user experience, especially behaviour. Lupton argues that considering control when designing is an ethical responsibility as a designer; one should deliberate to what degree one wants to create freedom of motion for people and build their own path. Alternatively, designers can sometimes produce a unified experience by creating a single and unambiguous path; however, it is often an unappealing journey for users. This is an example of the designer’s ultimate control through narrative space (Lupton, 2017).



Opposite: Museum top (Anna, 2021), bottom (Camosa, 2021)



**MAZE**  
*Freedom*  
*Confusion*



**LABYRINTH**  
*Control*  
*Certainty*

A debatable example between control and freedom of movement in space is the store design of IKEA. Visitors often describe the user experience as "like being trapped in a maze"; although, this is not entirely true. A maze is designed to confuse but also to give a certain amount of freedom to get lost. On the other hand, IKEA has carefully constructed a path that they want visitors to follow, which guides them through a journey of different areas - this is a labyrinth. These terms often overlap incorrectly; a maze offers freedom of movement with a slight element of confusion, and a labyrinth creates a fixed path that translates a small space into a long walk. This can also be described as the 'heroes journey' where one encounters multiple short stopovers along a fixed path that builds a spatial narrative, becoming richer over time. The change in levels also lends itself to the feeling of a journey and reflects the idea of a story arc (Lupton, 2017).

As a whole, user-focused design requires a clear order of events that are controlled to a certain degree. This offers a user a more appealing experience and can be enhanced further by taking into account spatial composition as well as the introduction of technology.

### 1.3 Story Arcs

*A story arc in design allows a structure & order to be created*

- Karen McLellan



Open book (Victor, 2021)

As designers, we aim to create a story arc to avoid the plateau of a bland design journey. Thinking about the narrative of space and how we would diagram this brings us to the concept of a story arc and the understanding that every story has to have said arc. Firstly, it begins with an introduction that presents a challenge, invitation or opportunity; this builds a level of energy that increases tension and action in the narrative; one then reaches the peak of the story at a point of crisis; the descent then follows this with an element of climax or resolution and completes the story (Lupton, 2017).

McLellan believes that the primary purpose of a designer is not to amuse; but rather to convert consumers into genuine believers of the design process and solution. It requires more than just enjoyment from the end-user; they must be engaged in the story being told (McLellan, 2019). This brings us back to the idea of control and how much control a designer has over a narrative. McLellan uses the following three statements to articulate how she believes control can be regulated through a design process; "1. framing the story, 2. setting expectations and 3. establishing boundaries." The first allows one to confirm a narrative around the context and set the tone for the experience.

The second provides a common goal for the design – it is the point in which one can question what is being evaluated and what questions should arise from the narrative. Lastly, the third ensures that the meaning behind the storytelling is kept on track and that users understand the story's limits (McLellan, 2019).

In terms of applying a story arc through space, it can be described as creating a similar sensation to “watching an exciting film, riding a rollercoaster, or using a website” for users – “their brains are activated.” They are more likely to remember the experience long after it happened, to see value in what they experienced, to feel more enlightened in the themes of the chosen narrative, and want to repeat the experience (Lichaw, 2016). These factors all fit under the umbrella of engagement. Using McLellan's three statements in creating a story arc in design allows a structure and order to be created behind the scenes while keeping the end user's experience as comfortable and well thought out as possible.

A story arc is unavoidable when using storytelling in design and should be understood by designers to ensure that a user is gripped from the beginning to the end. This, again, requires a level of control which can change the tone of a story's narrative.

*Exposition*

## THE STRUCTURE OF A STORY ARC

*Rising Action*

*Climax*

*Falling Action*

*Resolution*

## 1.4 Visual Literacy

*The skill in which one can understand, develop and interpret visual language*

- Wendy Williams



Eye (Pixabay, 2021)

Within the recent decades, the significance of the visual over other forms of communication has been a constant throughout numerous disciplines, including design. This has brought the concept of visual literacy to the forefront, which has been slowly integrated throughout the twentieth century and beyond the progression of visibility. Although the term does not have a fixed definition, it has been altered and developed over time in response to various influences, including the growing popularity of visual technology and changing literacy ideas. However, more often than not, people's perceptions of this concept fall between two definitions. One view sees visual literacy as a set of visual communication skills trainable via education; the other defines it as a naturally acquired skill dictated by personal insight, experiences and enculturation (Pena and Dobson, 2021). These views are debatable depending on the context, but Williams encapsulates the values of both with the following definition; visual literacy is the skill in which one can understand, develop and interpret visual language (Williams, 2019).

While this is not a broadly taught topic, visual storytelling and narratives have been around for centuries. The earliest records can be observed from artwork made in caves, ancient scrolls and stained glass (Emanuel and Challons-Lipton, 2016).

Stained glass windows are one of the oldest forms of storytelling in human history, and whilst their primary function was to illustrate Biblical stories to the less educated people of the sixth century, they are still used in churches today. They can be defined as a sequential design that is read like a storyboard or tapestry. Similar to them, a window design sometimes includes a small amount of text; however, the stories were more often depicted through imagery alone. This allowed churches to portray more complex stories than one would achieve with just text. The use of symbolism was crucial in constructing a rich narrative; for example, people of power and dominance appeared much larger than their followers or servants, and altruistic, warm characters would be accentuated with halos and gold leaves (Sherriff, 2017).



Modern visual narratives can be seen in films, animation and comic books (Emanuel and Challons-Lipton, 2016). Visual cues observed in videography may be understood using basic cognitive skills even by an inexperienced viewer who has no previous exposure to media standards. By way of illustrating, Messaris states that "when seeing a character filmed from a low camera angle, even naive viewers can understand that the character is meant to appear powerful because viewers are accustomed to looking up to powerful people.



Stained glass top & bottom (Krieger, 2021)



Similarly, viewers' cognitive skills let them interpret subjective and objective shots as the camera switches from a character's point of view to a view of the scene itself". Furthermore, viewers are sensitive to contextual changes in nonverbal scenes, like when "shots of a character's face are intercut with shots of an object of interest or a listener's face." In doing so, this creates a juxtaposition and offers ambiguous meanings to the skewed imagery (Messaris, 1987).

From these examples of visual literacy, it is clear that it is a valuable skill to designers. It is proven that individuals with higher visual literacy can extract more information from the words they consume. Furthermore, they can benefit from a working knowledge of images and a corresponding vocabulary to articulate them (Williams, 2019).

Movie scene (The Best Low Angle Shots In Film, 2021)

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## C o n c l u s i o n

To conclude this literature review, the concept of storytelling and creating narratives in design are clearly of great importance. Defining storytelling as a research method offers a more collaborative form of design thinking by taking influence from areas other than the context in front of oneself. It provides a fuller design narrative and ensures a more satisfying experience for the end-user (Parrish, 2006). This is backed up by Lupton's analysis of critical tropes used in imagery that enhance visual storytelling (Lupton, 2017). In addition, the breakdown of the user experience and a story arc allows one to design through storyboarding, which guarantees a clear line of enquiry in the message one is conveying (Parkinson and Warwick, 2017). Furthermore, Williams' definition of visual literacy explained how designers could learn and utilise narrative skills in a project; these could also be applied to a spatial context and would fuel a more robust narrative for users to experience.

By integrating these skills into design practice, one's ability to switch between a user's perspective and a designer's will enhance decision-making in the design process (Parrish, 2006). Questions raised include how can these skills be applied to all areas of design, like interior and spatial projects, and also, what limitations are there in how far a story can dictate a design so that it is not disparate from function. Furthermore, the interpretations of stories from different individuals could conjure varying outcomes which would also influence a design. From research into these, one would hope to see storytelling become a more prominent part of design practice, which would create thought-provoking and impassioned design thinking.



## DESIGN RESEARCH

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### Introduction

The concept of storytelling through design is not an entirely new idea in the industry. Its primary focus is to combine the art of literature and design to portray a compelling message. Essentially, creating a narrative that is read without words. Whilst completing the initial secondary research, the researcher discovered the concept had not been explored through space as much as other avenues of design.

Numerous conclusions were drawn from the literature review, which consolidated the notion of storytelling as a beneficial method of designing. It was seen that applying narratives to design generally requires applying artistic practice – specifically imagery – to literature. (Parrish, 2006). In addition, it was also established how this creates a more user-focused design approach that concentrates on emotional responses. That analysing each aspect of the user experience ensures that all needs and requirements are met and, in turn, creates a more enjoyable experience for the user (Cole 1991).



The importance of the story arc was highlighted and how there is a level of control and freedom a designer has on a consumer's journey. It was also seen that this element of guiding an individual through a design creates a successful experience (Lupton, 2017).

These findings served as a foundation for further research to better understand how different individuals interpret stories and how people can translate and decipher narratives. This research will focus on developing a more substantial basis around user-focused design and how storytelling is a valuable tool to improve the experiences of said users. In terms of selecting methodologies to address this study, it was evident that a primarily qualitative approach was required to gain insight into particular opinions and views on the themes. The methods include an ethnographic observation at an exhibition, a cultural probe aimed at different minded individuals, a focus group that opened a conversation to the concept of storytelling, and a phenomenological study of a short film that considers those with visual and hearing difficulties.

## 2.1 Typewriter Evolution

*An ethnographic observation of an exhibition*  
National Museum of Scotland



Exhibition (Spowart, 2021)



The first form of research took an ethnographic approach. Influenced by Dal Falco and Vassos' study into museum design, the researcher visited an exhibition at the National Museum of Scotland entitled 'The Typewriter Evolution' (Dal Falco and Vassos, 2017). The visit would allow them to understand how people circulate and interact in public spaces like museums. Moreover, a typewriter connotes the idea of creating a narrative that links to the concept of using storytelling as a methodology for spatial design.

The main body of the exhibition included several typewriters in glass cabinets, images and text of typewriters through the decades, and artwork created using typewriters. There was no clear direction of circulation in the space due to the overly-spread artefacts. Beside every exhibition element was written text with a significant, bold title and description below – five of which included a QR code to scan, which promised one to find more information. Additionally, small screens were displaying short reels of content about typewriters. In contradiction to Tallon's study discussing technology in museums, very few visitors interacted with them despite the increase in mobile applications and devices being used.

After the researcher viewed the exhibition, they remained in the space to observe the behaviour of visitors for one hour. This allowed them to survey the interactions of individuals within the exhibition directly and form conclusions from the visit.

Close ups of Exhibition (Spowart, 2021)



## 2.2 The Handwritten Sketchbook

*A cultural probe designed to observe perspectives of storytelling*  
Edinburgh Napier University



Cultural Probe (Spowart, 2021)

The following research method undertaken was a cultural probe. This methodology prompts and collects information from individuals about their thoughts, lives, and experiences, supported by an apparent premise. Murphy uses the example of a diary that would be sustained for several days (Murphy, 2006). Typically, the user takes on a more artistic approach by using photographs and drawings, as well as writing. A pack is given to the user to create a said diary, including the required tools and brief instructions. One of the main benefits of employing a cultural probe when researching is gaining authentic results from users with little interruption from the researcher. They also allow one to compare and contrast results from secondary research, for example, the Design Contextualisation. A risk of using cultural probes is the reliability of collecting clear data. Due to users not being monitored during data creation, it can be unpredictable to know if they understand and maintain focus. With this being said, the probe must not be too loose or controlled as this could result in vague answers, loss of ideas and irrelevant information – a balance must be found (Murphy, 2006).

The objective of this probe was to inform the researcher of how different minded individuals interpret the concept of storytelling and the creation of narratives. Taking inspiration from Ellen Lupton's analogy between the forms of a maze and labyrinth discussed earlier, the probe was intentionally designed to contradict and confuse the participant – unlike the traditional path of a story arc – to invoke the most authentic responses possible (Lupton, 2017).

The probe was titled The Handwritten Sketchbook to introduce the element of uncertainty to the participant. The oxymoron connotes the essence of storytelling in design - where words meet pictures. The box contained one blank sketchbook, one pen and a stack of cards that included the instructions and tasks assigned. The tasks created were to encourage the participant to think abstractly and force them to record information less conventionally.

The participants chosen were four undergraduate university students, all with different study areas - design, science, philosophy & engineering. The researcher predicted that the results of the probes would show a group of distinct attitudes, both academically and creatively. This allowed the researcher to break down the varied individual approaches of the different subjects. For example, stereotypically creativity is a more common trait in design and, to an extent, humanities studies because they require one to think more openly and beyond facts; whereas regimented logical thinking is more apparent in math and science courses because they are based on rules and formulas (Pearson, 2016).

Opposite: Cultural Probe (Spowart, 2021)

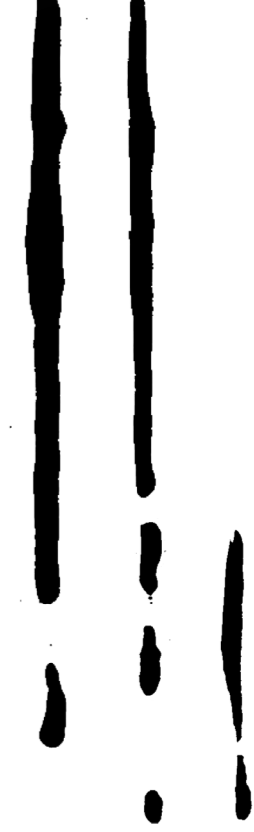




The first task instructed the participant to draw a picture of three different objects but only using words. The use of contradictory terms, 'draw' and 'words', put the participant at a crossroads, unsure of how to proceed with the task. They could either write, sketch or a combination of both. Thus, creating this subconscious element of problem-solving which would permit the researcher to discover the participants' perspectives and abilities on combining the art of literature and imagery.

The second task asked the participant to write a story based on an image. The aim was to urge the participant to use their imagination and allow them to translate their interpretation from pictures to words. Art, whether it be in the form of a painting or photography, often conjures a plethora of opinions that vary due to beliefs, morals and lived events (Lund and Anastasi, 1928). Taking this into account, the images selected were of three different spaces; one minimal contemporary hallway with contrasting light and dark surfaces; one derelict building with decaying period features and large picture windows; and one sculptural stone exterior space with change in levels and geometric shapes.

The third task ordered the participant to draw the noise of something. Noises relate to sound, which traditionally can only be recorded via an audio recording device. So by asking the participant to draw a noise, it makes them reflect on a specific time they heard the noise and convert it into imagery. Furthermore, it forces the participant to create their own narrative and reflect on past experiences and the emotions that came with them. In doing so, the researcher would then be able to dissect the interpretations of the noises and how they recall them. These results will be detailed in the appendix.



## 2.3 A Picture is Worth a Thousand Words

*A focus group discussion to survey the knowledge of visuality*  
Edinburgh Napier University



Group discussion (Morillo, 2021)

After the researcher considered the participants as individuals, they decided to bring the four of them together in a focus group to discuss storytelling themes and the collaboration of literature and imagery. From the probe, the researcher observed the students after being instructed to complete the tasks; however, creating a space where a discussion is imminent allowed the researcher to survey each individual's agreeing and conflicting opinions in a live setting.

In the late 19th century, Norwegian playwright Henrik Ibsen coined the phrase a thousand words do not leave the same deep impression as one good deed. This was later plagiarised by American advertising executive Frederick R. Barnard, giving us the analogy one knows today as a picture is worth a thousand words. Nevertheless, its meaning has remained the same – multiple ideas can be conveyed by a still image that conveys its essence more effectively than a written description (A picture is worth a thousand words, 2021).

The phrase encapsulated the idea of storytelling through imagery well and was, therefore, used as the starting point in the focus group. The researcher gave the group the expression and asked them to have an open discussion reflecting on what it means to them. Doing so let the researcher examine the participants' courses of thought and how they developed together in conversation.

Various opinions arose from the focus group discussion – all participants agreed that a picture is subjective and depends on an individual's own beliefs and lived experiences; their connections are endless and can bring people closer in certain situations. One participant also suggested that words often fail us as they never lose their meanings, whereas pictures offer much more; they speak the words that some cannot.





## 2.4 Light Waves

*A phenomenological study of a short film*  
Historic Environment Scotland



Screenshot from film (Light Waves, 2021)

During the focus group discussion, a point was raised asking how a picture can be worth a thousand words if one cannot see the picture? One can agree with the statement, but it is slightly ignorant as it is privileged to see. Those with visual difficulties would most likely disagree, but that depends on defining a picture or a story for that matter.

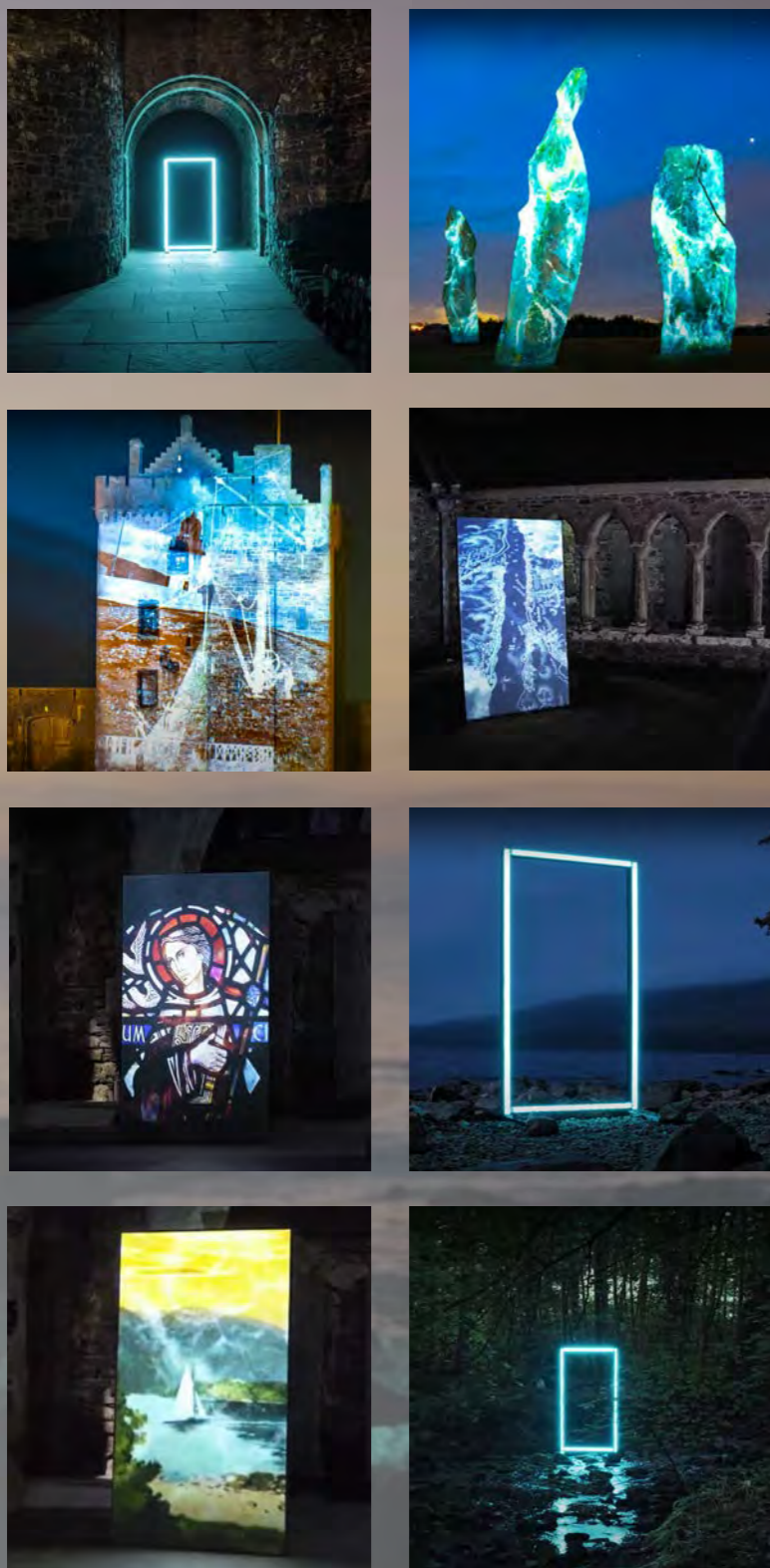
The fourth research method consisted of a more phenomenological study. The researcher watched the short film *Light Waves* produced by Double Take Projections for Historic Environment Scotland, celebrating Scotland's Year of Coasts & Waters 2021/22. The 10-minute film displays Scots and Gaelic culture, heritage and tradition and its relationship with its shorelines. The film is complemented by music from the electronic Celtic fusion band Niteworks and works from three Scottish poets who were asked to create pieces in English, Gaelic and Scots, in response to the Gaelic word *aiseag*, meaning journey or sea vessel. All set against the landscape of Scottish landmarks such as Blackness Castle, Iona Abbey, and Urqhart Castle. However, the researcher did not watch it in a conventional sense; they experienced it on three separate occasions – once with sound only, another with video only and lastly with both. This considered approach allowed the researcher to experience the narrative through the eyes and ears of those with hearing and visual difficulties.



Firstly, the researcher experienced the short film solely with audio. They then recorded their experience via a collage that portrayed the atmosphere created.

The audio began with the lapping of soft waves creating a feeling of serenity and solitude, which was then joined by the weight of an emotive piece of instrumental music. Soon after, the mellow tone of a soft Scottish accent was introduced, recalling poetry at a steady pace. They referenced Scottish place names and materials of the landscape. In the background, instruments were joined by a more contemporary beat, adding drama and increasing the rhythm. The music and speaker then changed to an electronic style which contrasted the second poet who spoke Gaelic. This introduced a feeling of patriotism that was only intensified by the bagpipes – it lifted the atmosphere creating an image of a roaring ceilidh. The waves then resumed and introduced the final poet who spoke in Scots. The whole orchestra gradually joined along with the contemporary beat again, and the final waves then softened and faded into silence.





Screenshots from film (Light Waves, 2021)



The researcher then removed the audio and watched the short film with only the visual. They then recorded this as a written study.

The film began at the coastline at dusk; a rectangular LED light stood proud like a doorway. The transition of images and clips was slow, displaying castles, lochs, mountains and shorelines. The LED doorway was a constant throughout the majority of all the clips, but large screens also inhabited historic locations presenting illustrations, stained glass windows, tapestries and old maps. The camera also zoomed into close-ups of the sea and sky showing the crashing waves and wandering clouds. Screens then developed to projections onto buildings – this layered the rough stone of castles with vivid imagery shining into every groove and crack. Timelapses of Scottish landscapes were also dotted between clips that showed the sunrise and set. The film closed in the exact location as it began with the LED doorway.



The short film was then viewed with audio and visual, generating the whole experience as intended by its creator. This phenomenological approach allowed the researcher to discover different interpretations of a story by removing certain senses.

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## C o n c l u s i o n

To conclude the research, which will be analysed hereafter, it is valuable to mention the insights gained. A ethnographic study permitted the researcher to understand where user-focused design stands through the lens of storytelling and where the gaps are in the consideration for the user journey. The other methods used then took the focus from the public to a smaller group of individuals and their varied ways of thinking. The cultural probe gave insight into people's interpretations of literature and art as a single medium. Furthermore, the focus group discussion brought those opinions together and allowed the researcher to watch their courses of thought intertwine over a single phrase. Lastly, the phenomenological approach to watching a short film opened up the question of storytelling can be told through audio, visual and both. After analysing, this data will offer designers a new perspective when aiming to convey a particular message and, in the future, ensure storytelling is an integral part of the design process.



## A N A L Y S I S

### I n t r o d u c t i o n

From the Design Contextualisation and Design Research findings, the researcher has obtained an insight into the concept of storytelling and creating narratives in design. Several research methodologies have been carried out, all underpinned by the secondary research examined in the contextual review. This was to acquire further understanding into storytelling as a whole, the importance of user-focused design and break down the benefits of narrative building in design. As a collective, this research hopes to alter the design process as we know it and inform designers – new & existing – of the significance of storytelling.

The analysis has examined that storytelling could be influential in spatial design, connecting narrative with circulation. It has also consolidated where the crux of a story lies both in principle and to different individuals. Additionally, visual literacy has been scrutinised and has shown that it is a valuable way to source richer information. Objectivity and subjectivity have been evaluated and compared, as well as the importance of user-focused design. Lastly, the concept of audio storytelling has been studied and contrasted with the visual. All these conclusions are explained and criticised through analysis of the primary and secondary research.

### 3.1 Defining Storytelling

#### *Analysis of Design Contextualisation*

When organising the secondary research, the researcher first needed to understand the concept of storytelling and conduct further inquiries into how it can be explained through design. The contextual review conveyed the idea of storytelling and allowed the researcher to create a detailed account of its properties and capabilities. It was distinguished that stories stem from life – precisely the qualities we gain from experiences and individual ones we reveal through personal analysis. This clarifies the origins of storytelling and their ambiguity concerning the fact that stories can often be warped through perception over time. Additionally, it was understood that narratives afford us a journey, whereby the stories uncover more each time when experiencing the story on multiple occasions.

Considering that stories can be defined as journeys, this offers a directly transferable skill to spatial design. Journeys could be applied to the circulation of space and offer a level of guidance for a user. This links to McLellan's analogy about a designer's control over a user, aforementioned in the contextual review, which discussed a designer's responsibility to ensure consumers genuinely believe in and are not solely amused by the design. These findings show that storytelling can influence spatial design to offer a more engaging and structured user experience, which is moreover appealing and enjoyable.

### 3.2 Creating Narratives

#### *Analysis of Design Contextualisation + Focus Group*

One of the significant observations taken from both the primary and secondary research is that creating narratives can be defined as the translation from the objective to the subjective.

It was established in the secondary research that subjectivity introduces a point of view, invites action, and suggests motion or time. Ellen Lupton's example of an image of a forest successfully portrayed this. She stated that most images one would find by searching online include a collection of different trees, paths, waterfalls, or rays of light casting through the foliage (Lupton, 2017). This was proved after researching images of the forest, and Lupton's claims were apparent. Such tropes are not recognisable to the naked eye; however, when actively searching for said feature, they are clear as day. The researcher put another example to the test, a city, and the results were similar. Most images were taken from street level and showed the busy public circulating around and across streets\_. Just as the forest connotes a developing journey along a path and promise of light through the leaves, the city portrays the bright, bustling life of a cosmopolitan environment and diverse community.



City (C40 Cities, 2021)



City (JLL, 2019)



City (Serefino, 2017)



Primary research concerning building narratives was also carried out through a focus group to understand how individuals responded to the idea that the visual can tell a story. The researcher gave the group the quote a picture is worth a thousand words and asked them to have an open discussion on their thoughts and feelings regarding this. The consensus was that pictures are subjective to the observer; however, each person had different articulations. Select comments from the participants during the discussion are below, whilst in-depth notes are included in the appendix.

- The design student stated that a picture is simply a stem for conversation.
- The science student agreed with the quote but affirmed that it is based upon the privilege of being able to see.
- The philosophy student asserted that pictures offer so much and often speak the words that so many cannot.
- The engineering student claimed that individuals would have varying responses depending on their experiences, morals, and memories.

The discussion generated various ideas from each individual, but the essence of the conversation had was that imagery could speak so much more than a piece of text. The amount of input from each participant varied; the philosophy student had the most and the engineering student the least. This clarifies that the concept of storytelling is a known one, although it is not often discussed. The research surrounding creating narratives permitted the researcher to understand where the value of a story lies, both in principle and from individuals' perspectives. Further research could be explored about storytelling in different design disciplines, and more qualitative research could also be conducted to understand a larger group of individuals' thoughts and opinions.

Bottom Left: City (Freeman, 2017)

### 3.3 To Be Visually Literate

#### *Analysis of Design Contextualisation*

The progression of the digital age has not halted since its beginnings in the 1970s, and through the development of technology, the visual has become a more prevalent part of people's everyday lives. Society reacts more rapidly to visual cues, and by only using basic cognitive skills, even an inexperienced user who has had no exposure to media can interpret visual narratives. Furthermore, this has summoned the concept of visual literacy, which can be summed up as the skills in which one can understand, develop and interpret visual language (Williams, 2019).

The contextual review discussed this notion to comprehend the skills required to build a successful story, and it was evident that it had no fixed definition. It was also clear that society views it as a relatively new and unexplored idea despite its historical presence. Research proved ancient references to visual storytelling and narratives; for example, the earliest records can be observed from artwork made in caves, ancient scrolls, and stained glass (Emanuel and Challons-Lipton, 2016). The lack of awareness of visual literacy nowadays portrays the idea that visuality has not been a constant throughout history, which additionally explains the limited development in storytelling as a design method.

One argument raised from the contextual review was whether or not visual literacy was either a trainable skill or a naturally obtained one. Traditionally, it has been related to art history and film studies due to them both being known for dissecting imagery down to more than just its forms, but to uncover the meaning and symbolism it provides (Thompson, 2019). This stereotype has filtered into people's minds and given them a fixed mindset on their ability and needs to be visually literate. However, it is proven that visual literacy is critical in areas outside art history and film. For example, maps can display the location of a

specific landmark much better than a verbal or textual account, and graphs can similarly illustrate the rise and fall of statistics (Thompson, 2019).

Moreover, visual literacy can be taught to those who cannot naturally obtain it. For many individuals, the word "literacy" conjures up images of dusty books mounting in a library. This is unsurprising considering the significance of literature in all of society's lives, especially for those not deemed 'digital natives' (Mac Donnchaidh, n.d.). So by bringing a visual element into literacy, those who do not have a genuine artistic flair diminish the idea entirely. However, being visually literate has nothing to do with how well one can sketch or paint; it is how well one can break down an image into the words that initially inspired it.

Take an English lesson, for example, where students often analyse poetry to articulate the author's message or narrative; this method can be applied in the same way to the visual. Teaching visual literacy also improves critical thinking; it allows people to describe what they see, not what they read; it makes them problem-solve to find common patterns and further analyse said patterns to uncover new information; also evaluate the assumptions made from prior research (American Historical Association, 2021).

Examining visual literacy has clarified that it is a highly effective way of acquiring richer information. It was also examined that the unfamiliarity of the concept today is only due to the dominance literature has had on society in recent history. The examples of ancient visual storytelling prove that society has had a previous relationship with visual literacy; and with the beginnings of it becoming a teaching method in and out of today's design world, that relationship can resume.

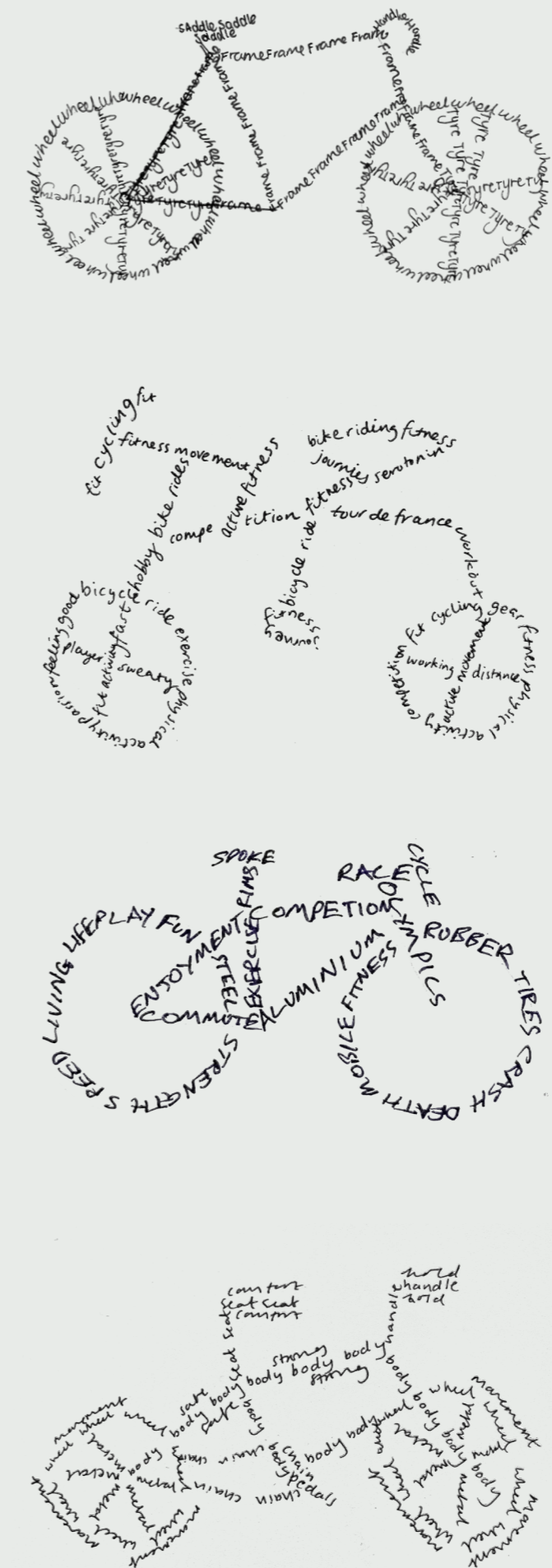


### 3.4 Perspectives of Storytelling

#### Analysis of Cultural Probe

From the contextual review, a question was raised regarding the interpretations of stories from different individuals. Whether or not their outcomes would vary depending on their style of thinking or if there would be patterns. Primary research was then carried out in the form of a cultural probe entitled The Handwritten Sketchbook. The participants were four students with different study areas – design, science, philosophy & engineering – to provide a spectrum of academic and creative approaches. They were instructed with three tasks, all surrounding the theme of storytelling and visual literacy.

The first task asked the participant to draw a picture of three different objects but only using words. This task had the most consistent results as the four students all used words to form the outline or shape of the object they were to draw. Furthermore, their words used all related to or described the object – some literal and others more metaphorical. Despite the unnatural nature of this task – having to draw using words – each participant’s interpretation of the task was the same. Therefore, the collaboration of text and imagery is not unknown to individuals; it is just abnormal and requires more profound thought.



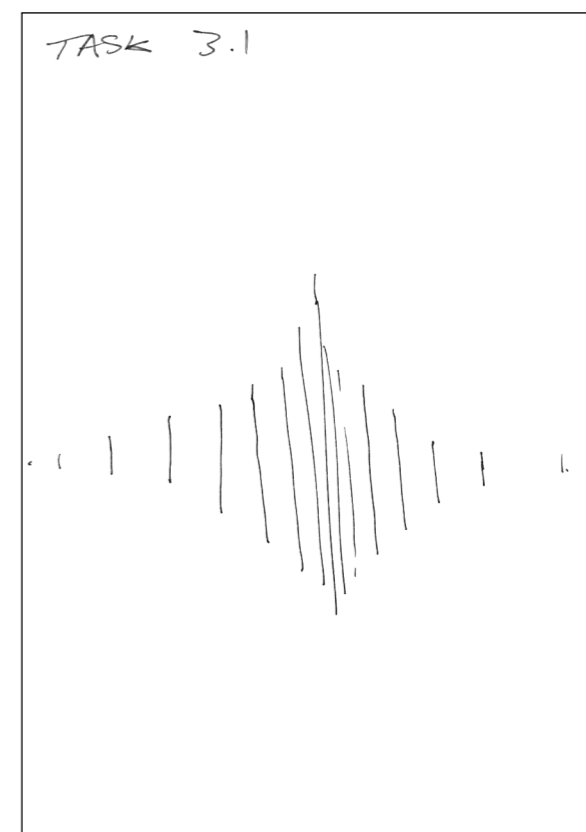
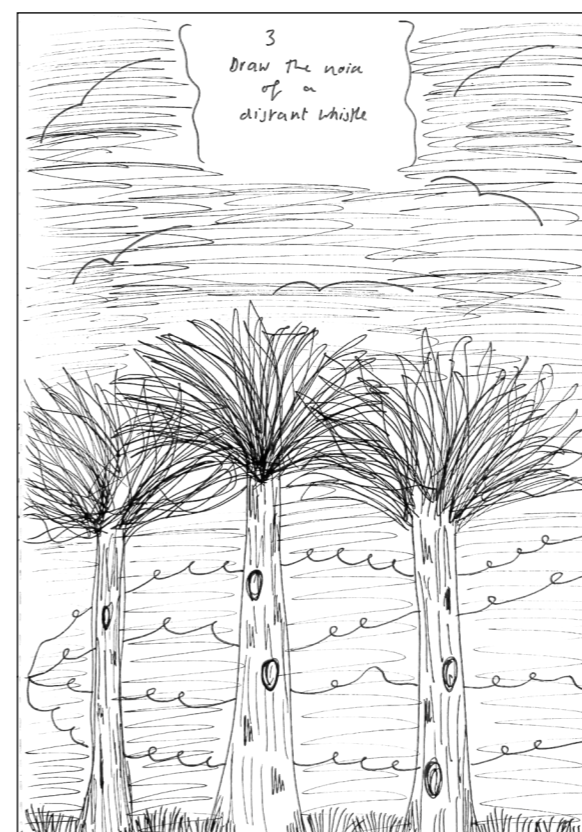
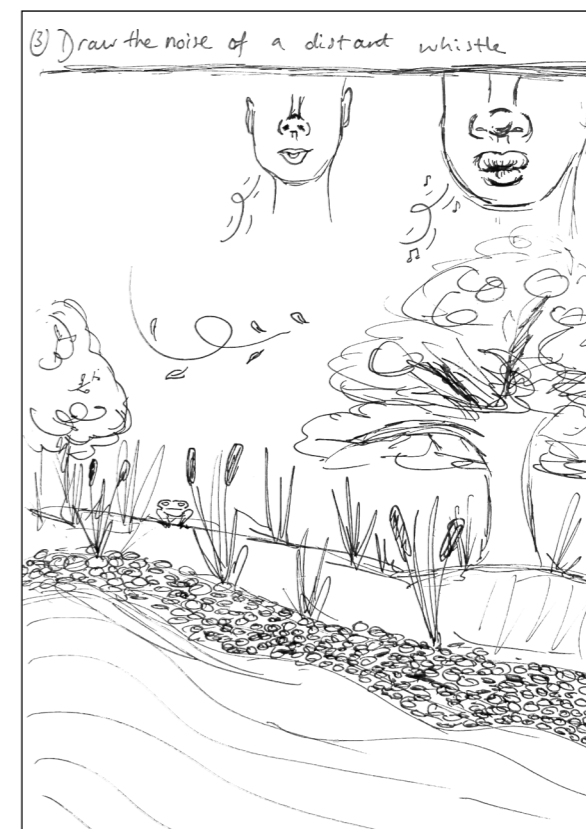
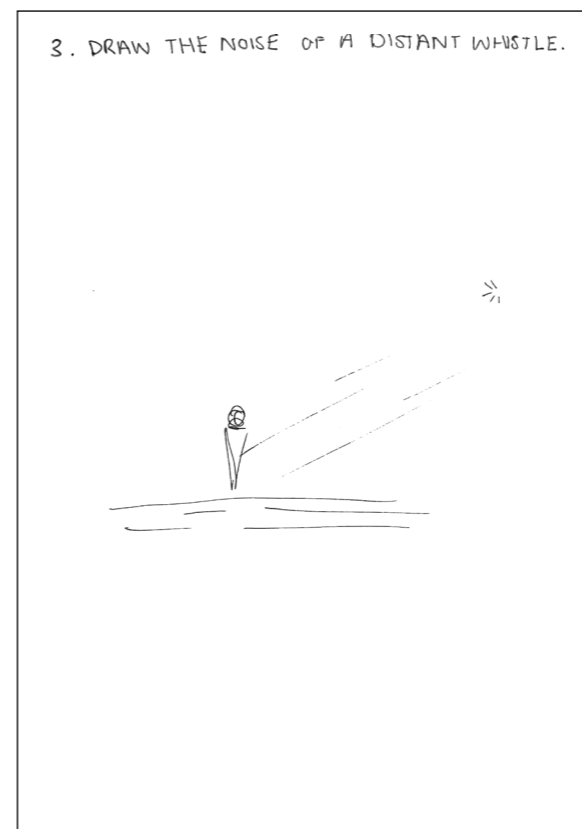
The second task ordered the participant to write a story based on an image. The results of this task were the most varied as each participant brought a different narrative to each image. Take the first image, for example, a muddled group of concrete blocks with angles directed on numerous paths.

- The design student's story portrayed their love for museums and how this specific building related to them as a being.
- The science student wrote a short descriptive story about a girl struggling to get back on her feet after losing a friend.
- The philosophy student wrote a personal reflection from the perspective of the building and described its emotions – depressed, isolated, and empty.
- The engineering student loosely described an almost abandoned museum and was the only participant to give the story a location – Berlin, Germany.

From this, the researcher examined that each student's study area most definitely influenced the story that they told. The design and philosophy student took a very personal approach; both immediately related to the building and translated its characteristics into an experience they had had, feelings they had felt or were feeling at the time. The science and engineering student had a different attitude to telling the story by creating specific characters and locations; however, they still invented a fictional storyline. This shows that emotion influences a creative individual in creating a narrative and that an academic individual uses imagery to inspire facts more than feelings. Additionally, this analysis confirms the stereotypes in the styles of thinking discussed in the contextual review.

The third task instructed the participant to draw the noise of something. Like the first task, the instructions contradict conventional methods as sound is often recorded via an audio recording device. Although, unlike the first task, these results were more diverse. Each participant had a different interpretation of the noise and portrayed it using a range of imagery.

- The design student's drawing depicted a figure on a plane of ground with a small spurt of lines representing the sound of a whistle in the distance. The whole drawing was poignant yet straightforward.
- On the other hand, the science student created a more detailed picture. They drew a natural landscape with trees, flowers, grass, and a flowing stream. The distant whistle took the form of two faces with pursed lips in the sky blowing into the scenery.
- Similarly, the philosophy student drew a natural landscape with trees and grass. A series of swirled lines ventured from one point and intertwined between the trees depicting the travelling of the whistle.
- The engineering student had the most minimal drawing – they drew sound waves using varying lengths of lines.



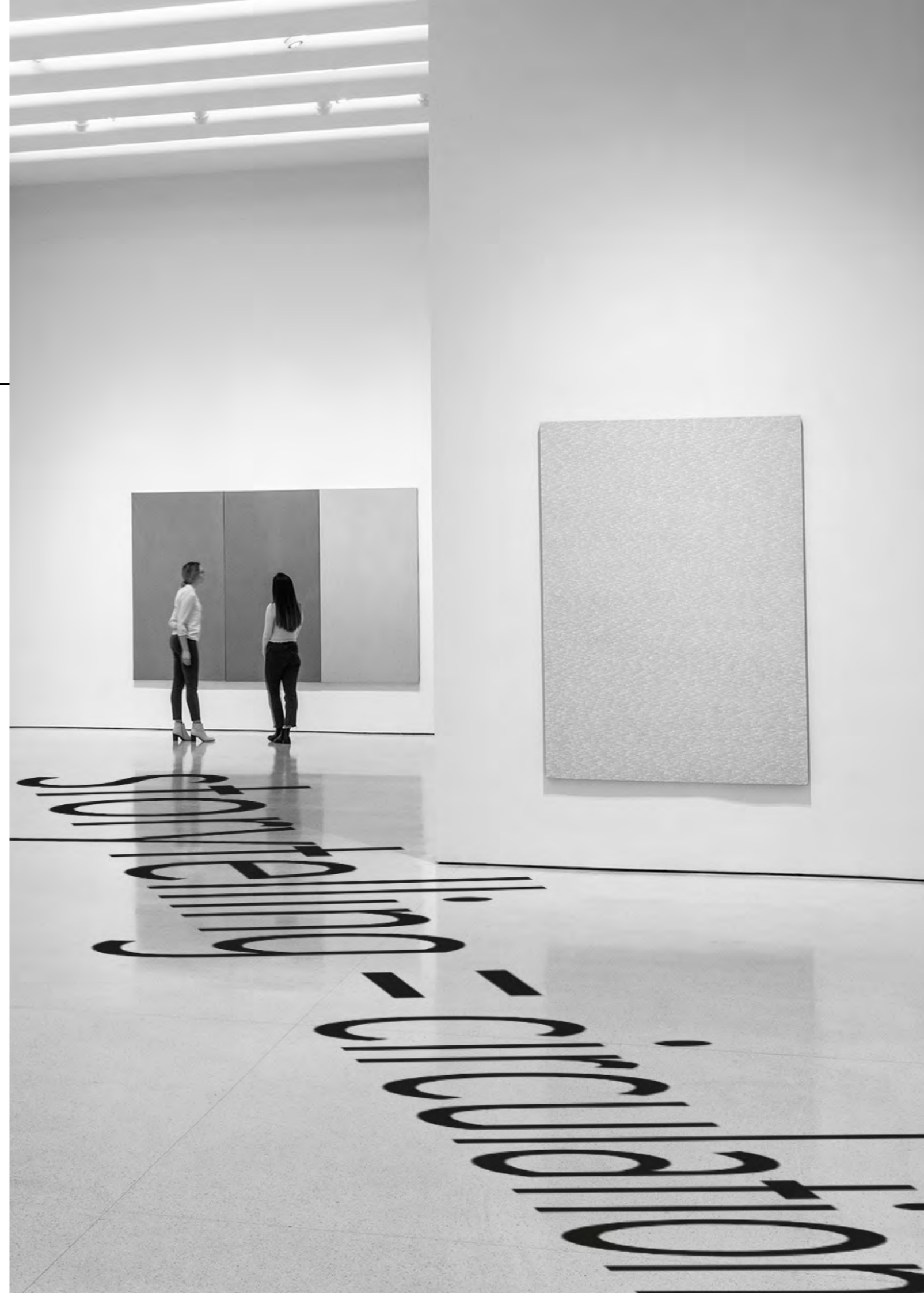
Cultural Probe results Task 3 (Spowart, 2021)

### 3.5 User-Focused Design

#### *Analysis of Contextualisation + Ethnography*

Through the secondary research, storytelling in user-focused design was understood as a beneficial enhancer to the end-user experience. The researcher discussed the idea of a narrative structure which introduced the notion that a user's journey could be compartmentalised into stages similar to that of a story arc, thus creating a link between the composition of a user experience and storytelling.


Said connection was further observed in the contextual review where the researcher considered the user experience in public spaces, specifically museums. It was noted that such spaces are often scrutinised for being restricting environments, where the journey is reduced to solely observation and absence of interactivity. This connotes that designers are not using museums or exhibition spaces to their full potential and diminishing the user experience. A tool to change this proposed in the contextual review was technology. Statistics showed it is becoming an increasingly popular feature in museum spaces, which offers users an active conversation with the space. It was then discussed that storytelling could fuel said conversation. Aforementioned, stories introduce a point of view, invite action, and suggest motion or time. Thus, placing stories into the context of a museum or exhibition where the contents of those spaces are rich in historical and cultural background would generate a more captivating experience for the end-user.






IS THIS THE RIGHT WAY?

CAN WE TYPE SOMETHING MUM?



**Typewriters in action**  
Scan the QR code with your smartphone to see a demonstration of the Columbia and Mignon typewriters



After these examinations of the secondary research, the researcher then undertook an ethnographic observation of an exhibition space to analyse the integration of technology more directly and if it enhanced the exhibit's narrative. The exhibition was entitled Typewriter Evolution and included two interactive elements - various QR codes that could be scanned using your mobile phone and small TV screens displaying historical footage of typewriters and their development through the years. The QR codes were positioned next to the majority of the display cabinets, all containing different models of typewriters, and they took you to a video of that typewriter being used upon scanning. The small screens were simply on a loop of black and white clips. Although both interactions offered a feeling of nostalgia, neither presented you with more information or enhanced the narrative of the topic. The researcher analysed that there was next to no interaction made by the visitors, which was due to the basic format of the technological interactivities and lack of storyline in the exhibit. The exhibit did not emulate energy to match such a characterful and rich subject as typewriters. It would have benefitted from artefacts that people could touch or use, possibly allowing the user to create a souvenir to take away. Furthermore, the scale could have been considered, so users had the opportunity to understand the inner workings of the artefacts and add a sense of drama to the space.



Left & Right: Collage & Exhibition close ups (Spowart, 2021)

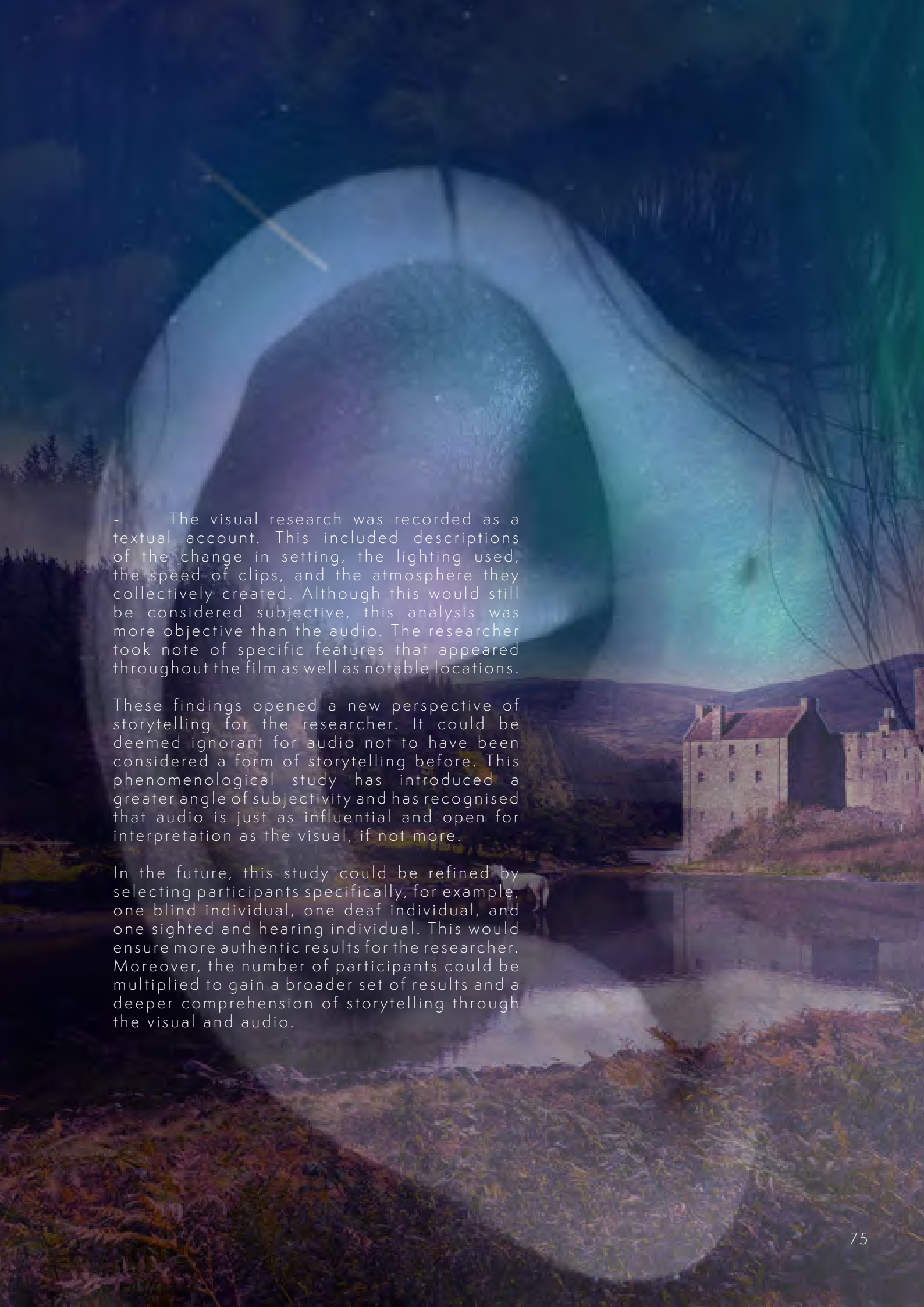
### 3.6 The Audio & Storytelling

#### *Analysis of Phenomenology*

Another form of storytelling can be articulated through audio. This was not studied in the contextual review; however, the question concerning how a picture is worth a thousand words for someone who cannot see raised from the focus group led the researcher to the phenomenological study carried out. This allowed the researcher to appreciate the perspectives authentically and directly in context. The first part of the study involved the researcher listening to the short film with no visual cue. The second part then removed the audio and only had the visual. Lastly, the short film was played as its creator intended.

By eliminating specific senses when viewing the short film, the researcher understood the significance of the visual, the audio, and their collaborative possibility.

- Experiencing the audio-only, to begin with, permitted the researcher's mind to wander into an atmosphere dictated by sounds. Aforementioned, sounds are subjective and thus carry different emotions to different individuals. In the researcher's case, the audio of the short film was fabricated into a collage inspired by the Scottish landscape and a whimsical fairytale. This was led by the combination of poetry being spoken in a native accent and light instrumental music in the background akin to the setting of a fantasy world.



- The visual research was recorded as a textual account. This included descriptions of the change in setting, the lighting used, the speed of clips, and the atmosphere they collectively created. Although this would still be considered subjective, this analysis was more objective than the audio. The researcher took note of specific features that appeared throughout the film as well as notable locations.

These findings opened a new perspective of storytelling for the researcher. It could be deemed ignorant for audio not to have been considered a form of storytelling before. This phenomenological study has introduced a greater angle of subjectivity and has recognised that audio is just as influential and open for interpretation as the visual, if not more.

In the future, this study could be refined by selecting participants specifically, for example, one blind individual, one deaf individual, and one sighted and hearing individual. This would ensure more authentic results for the researcher. Moreover, the number of participants could be multiplied to gain a broader set of results and a deeper comprehension of storytelling through the visual and audio.

## Conclusion & Further Study

The research methods of both the Design Contextualisation and Design Research have offered in-depth comprehension of how storytelling is defined and how it can be integrated into design. The findings will provide a basis for designers to understand the benefits of storytelling and narrative building and the need for designers and others to increase their visual literacy. Further research would enhance the importance of storytelling to the design and education industries. These could take the form of quantitative methods to understand how well-known storytelling is, which would further help direct the requirements needed to incorporate it into the curriculum in schools. The limitations of this research come from the scale of participants used in the primary research methods; a more reliable set of data would be gained by using a broader range of people. Although, the results from said methods were authentic and honest due to their personal nature.

In conclusion, the benefits of using storytelling as a design method have been proven successful, and despite its unfamiliarity in society nowadays, its historical context has been confirmed. It is significant to understand that individuals interpret storytelling differently, so the course of a story can vary depending on perspective. This is due to one's level of visual literacy, which has shown its benefits to designers – as well as other disciplines – moreover, offering the possibility for its integration into education. Creating narratives builds trust between people; it invites a conversation between an individual and a subject, or just individuals. However, stories can be told through much more than just a textual or visual account – there is also audio. These observations give hope for the visual – and audio – to become a more integral part of design practice and encourage the simple nostalgic act of storytelling to resurface in modern society.

## A P P E N D I X

### Notes from Focus Group

- Design student

It's worth more. A picture is full of conversation, no matter the picture a story can be created. The varied interpretations, analysis, opinions, connections are endless. No right or wrong. A picture is simply a stem for conversation. The elements in art are countless. The meanings behind each section is worthy of a thousand words. It can speak so much without using any words. Drawing is a form of communication. So, of course, it can speak sometimes, even louder than words.

- Science student

A picture on its own can be interpreted differently depending on its observer. A picture with context can also change its interpretation. The same picture can be seen differently at a different time of day or at a different stage of life from the observer. The limits of a pictures possibilities in meaning and interpretation are down to its observer. A picture can be worth a thousand words, it can also be worth one, it can even be ten thousand. This depends on it's observer. A pictures intentions depend on its creator but whether the observer chooses to agree with it, it is also down to the observer. I can say that a picture. I can say that a picture can be worth a thousand words but that is under the privilege of being able to see the said picture. Those with visual difficulties may not agree but that depends on what we view and what defines a 'picture'. Could be a physical picture but it could be a mental picture in our heads which opens further possibilities.

- Philosophy student

Words tend to be objective. How they are received may vary, how they are said can change. Emotions always convert and adapt to how we are feeling. But words, they don't lose their meanings. Pictures, however, are not objective. How someone engages and relates to a picture is so subjective. A couple kissing; for some they see a 'stock' image, for others, it could hold such perfect (or negative) memories. A snowy landscape; such joy, or freezing limbs. All subjective. And this is why when I read this quote, I would have to agree. As humans words

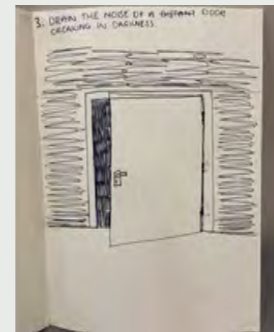
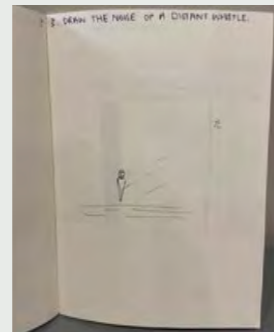
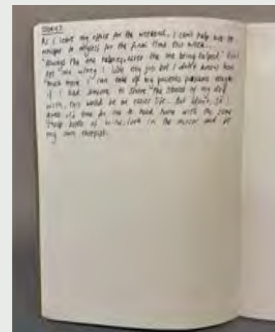
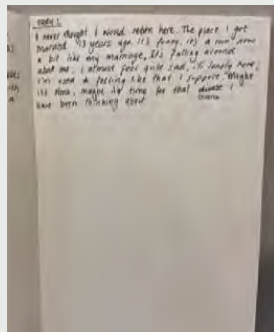
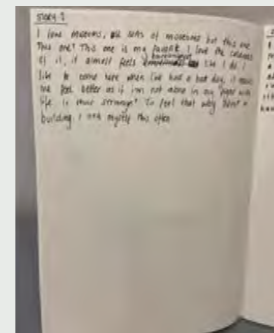
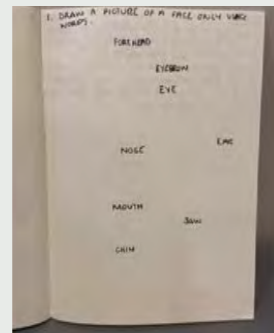
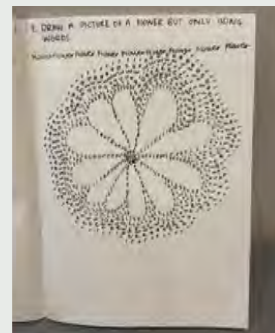
often fail us. We say them wrong, or don't even know the words themselves. But pictures, they offer so much. They speak the words that so many cannot. This is why I adore photography. It creates an insight, one perfectly captured moment that can be interpreted a million different ways. So yes, I think a picture is worth a thousand words, and so much more. It is impossible to comprehend it's worth. A picture is a memory that ignites a spark of emotion. A picture is a story, it is art.

- Engineering student

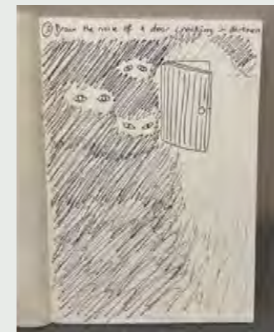
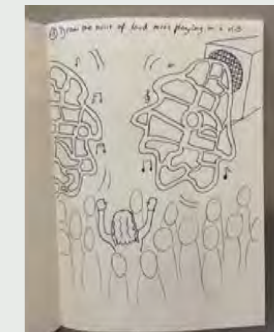
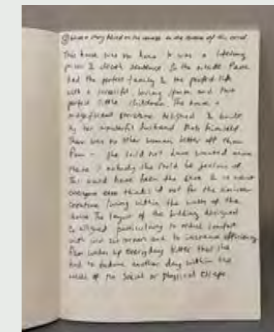
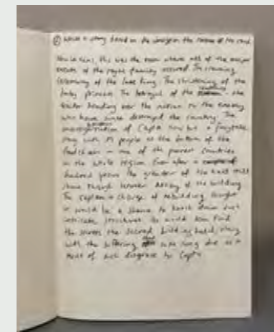
At least, each person will have a richer or poorer appreciation from picture to picture. One picture may evoke mountains of feelings, memories or stories for some, but mean very little to others. I suppose shared experiences and similarities in ones valuation of a picture is what draws connections between people. So no, it is worth much more than that.

# Completed Cultural Probes

## Design student



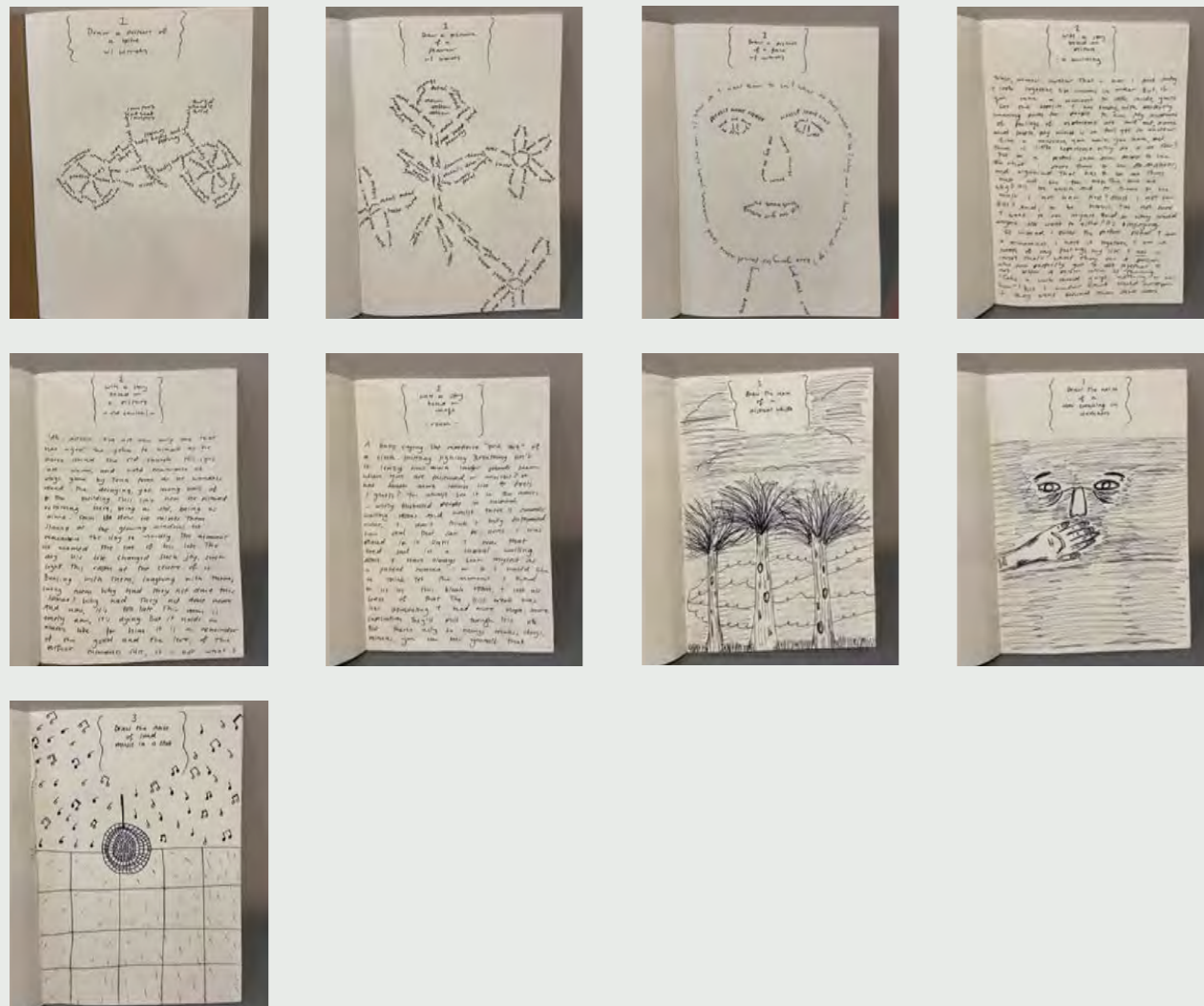
## Science student





Completed Cultural Probes cont.

Philosophy student



Engineering student



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*"There is no greater power on  
this earth than story. People think  
boundaries and borders build nations.  
Nonsense - words do."*

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Libba Bray

