

# Resting Reef: A meaningful memorial service and a new approach to the grief process

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**Abstract**—The death industry is extremely outdated. It doesn't respond anymore to the needs of people and is often perceived as cold and bureaucratic towards its customers. In the UK, trends show that people are requesting personalized and unique funerals out of traditional cannons. There are also reported demands for eco-burials, as people are more aware that climate change is more urgent than ever. By taking these two aspects into consideration, there is an opportunity to design a new memorial service that responds in a holistic way to people's desires. This research highlights a human-centered methodology with insights that led into the proposal of a meaningful service that helps people to plan and cope with the challenges brought by death.

**Keywords**—*Experience, Service, Death, Memorial, Grief*

## I. INTRODUCTION AND LITERATURE REVIEW

### A. Background and Motivation

Resting Reef originates from a piece of work started as part of the Terra Carta Design Lab (TCDL) initiated by Prince Charles and Jony Ive in collaboration with the RCA. The proposal offers a new memorial service and eco-burial that regenerates marine life by 3D printing reef structures with human ashes. At the end of the TCDL, the project had grown, generated considerable media traction, and had a spot at the We Innovate accelerator programme from Imperial College London. By that time, the project was mainly developed in its sustainability area, but a solution regarding the experience and service design for future customers was missing. It was then that the aim of developing this Major Project was decided.

Additionally, the interest in death has been always present. Based on a personal experience of the author's father sudden death just before joining GiD, half of the practice was dedicated to reflecting on the experience of discomfort and collecting stories from around the world. Afterward, an exhibition called "MORTEM, A new take on death" was curated, and a purpose was set to design experiences aiming to positively redefine how humans experience one of the most traumatic happenings in life.

### B. Literature Review

#### (1) *An unchanged Funeral Industry*

Funerals are overlooked and in desperate need of disruption. The practice as we know it now originated in the early 20th century after the Industrial Revolution set technological advancements such as the modern funeral industry with the funeral service itself as we know it [1]. This model of care and remembrance for the deceased hasn't changed for over 100 years. Additionally, "most people find the topic incredibly boring" [2]. All of the above, makes the industry a rich space for exploration.

#### (2) *Death's perception is shaped by cultural conditions*

Funerals follow cannons established by religion and tradition. They shape how we perceive death and surrounding rituals. Although this way of doing it resonates with a large part of the world's population, trends show that more people are requesting alternative options because of a misalignment with how it's performed [3]. Moore and Williamson suggested that within society "the most useful conception of the fear of death may be that it is a variable subject to manipulation by social context" adding that "a society's culture may offer explanations of death that either repress or encourage fears about death" [4].

#### (3) *The Changing Face of UK funerals*

A report from the U.K.'s largest funeral director company reported in 2019 how the industry is changing at an accelerated pace to respond to people's needs and desires. Some examples of changing preferences are:

- Having funerals outside traditional cannons (With 77% of funeral directors reporting this)

- Desire to have a celebratory mood for the event rather than a complete funeral (with 36% preferring it and 86% of funeral directors reporting people being more willing to have it unique and personalized)
- Increasing preferences for eco-burials (18% of customers)

People are also becoming more aware of the importance of planning ahead—with 49% of people thinking about how they would like to be treated after death [3].

#### (4) Existing Funeral Rituals around the world

The study surveyed the most commonly practised religions (Buddhism, Christian/Catholicism, Hinduism, Judaism, Islam, Mormonism) and showed commonalities and patterns within funerary practices. The research revealed important common characteristics for individuals regardless of what they believe. For example, the importance of group mourning, the presence of a guiding figure, songs and readings as means of expression, the presence of objects to represent the deceased, and overall the importance of ceremonies to honour the life of a loved one [5-12].

The adjacent analysis explored other rites worldwide, concerning the different passages that mark the steps along life's path and identified rituals relating to community and nature. Some examples are The Sunrise Dance of the Apache from the U.S., Todos los Santos in Bolivia, Día de los Muertos in Mexico, the Famadihana reburial from Madagascar, and the cremation tradition in Varanasi, India [13].

#### (5) Alternative Funerals and Burials at sea

Research on alternative memorials revealed people's preferences and the possibilities within current practices. The exploration highlighted the following key findings—overall emphasis on life celebrations; funerals being highly personalized and made without rush; people's tendency to leave instructions for what they want; and the presence of physical mementoes to aid remembrance after the ceremony [14].

Some options on the market resonate with what Resting Reef aims to do, such as Eternal Reefs in the U.S. [15] and Solace Reef in the U.K. [16].

#### (6) Grief and Emotional Journey

Even though there is no single way of grieving and each experience with death is different, Dr Elisabeth

Kübler-Ross pioneered the understanding and study of the emotional states that people tend to feel when dealing with a loved one or one's own death. When designing a new memorial service, it becomes pertinent to understand people's emotional journey and the 5 general grief stages: Denial, Anger, Bargaining, Depression, and Acceptance [17].

## II. METHODOLOGY

The project aims to create a service around human death. It followed an overall human-centred design [18] research-informed design approach (Figure 1) [19].

### A. Discovery

The study conducted Secondary Research with the main focus on learning, analyzing, and observing current contexts around death and funerals.

#### (1) Bereavement Training

Firstly, an online bereavement training was attended through the "At a Loss" organization [20] to gain insights on how to conduct interviews ethically with people that experienced death.

#### (2) Competitor Analysis

As part of competitor research, the author attended a live stream from Eternal Reefs [21-23]. The company is one of the fastest-growing eco-burials in the U.S. It performs an in-person ceremony where people mix the ashes into the reef balls, followed by a live placement of the structures on the ocean floor, concluding with a family's dedication.

#### (3) Field Research

The author carried out field research to better understand the coastal context in the U.K., where Resting Reef's rituals will be situated. During the visit to a pier in Bournemouth, the researcher captured photo documentation and sound recordings to perform a sensory exploration of the landscape views of the pier, the intensity of the sound of the waves, and the breeze conditions<sup>1</sup>.

### B. Definition – Primary Research

The study then complemented secondary findings by directly engaging stakeholders and experts in the

1. See appendix A for documentation evidence

death industry field. The Taught Students Ethics Committee from the Royal College of Arts ethics approved the study prior contact.

#### *(1) Survey*

The research followed with an online survey to understand the current ways in which people from around the world perform rituals and remember their loved ones who died<sup>2</sup>.

#### *(2) Interviews with potential customers and survey respondents*

Some people expressed interest in choosing Resting Reef as their legacy on the project's website (restingreef.co.uk) from the exposure in media. This opened the opportunity to conduct a series of interviews together with survey respondents who expressed their interest in having a further conversation. An email was sent and 4 meetings were held<sup>3</sup>.

#### *(3) Interviews with experts*

Next, the researcher conducted Further interviews with 3 experts: a thanatologist with a comprehensive experience in user therapy, an expert in the funeral industry, and the owner of Eternal Reefs<sup>4</sup>. The interviews helped strengthen the understanding of customers' insights and recognize potential limitations.

#### *(4) Journey Maps and Experience Flow*

Initial sketching resulted in the development of 9 journey maps to map the service and identify the key elements throughout Resting Reef's experience. These maps identified various scenarios and customers approaching Resting Reef: From a person planning ahead to fulfil her/his final wishes to someone dealing with the unexpected death of a loved one or someone who already has the ashes but does not know what to do with them<sup>5</sup>.

#### *(5) Plan Ahead Analysis*

References from the company Better Place Forests were analyzed to gain inspiration about the 'plan-ahead' options available on the market. Their website offers small online quizzes to identify aspects that coincide with personal preferences regarding a funeral and a guide to starting the conversation about death with family and friends<sup>6</sup>.

### **C. Outcome Ideation and Development**

Synthesis of all information obtained in Primary and Secondary research guided the following project development.

#### *(1) Brief development*

Considering the Ritual Design Toolkit from the Interaction Foundry at Imperial [24], the designer generated a detailed brief to frame the desired characteristics for Resting Reef's objects. Next, the author collected references and inspiration to inform shape development. Afterwards, the journey maps served as a foundation for mapping the desired functions over time. These functions included the presentation of the service, a chronological description of the services that Resting Reef will provide, and resources to help people during their grief<sup>7</sup>.

#### *(2) Multi-belief space study*

The study considered the theory of multi-belief spaces in architecture aided in designing an object detached from any religious or traditional association.

#### *(3) Sketching and Prototyping*

The sketching phase generated several shapes and possibilities following the desired object functions. Afterwards, the designer built paper and cardboard prototypes to explore their spatiality<sup>8</sup>.

#### *(4) Experience Prototype: Ceremony*

Since the experience with death and grief is personal and subjective, the study developed a prototype experience to test the design and phases proposed for the Resting Reef ceremony identified in the experience flow. Following Nielsen and Landauer's model [25], the study invited 6 people from different demographics who had previously experienced bereavement.

The researcher wrote a voice recording script combined with recorded sounds of waves to guide participants. The experiment took place in an enclosed room with 3 main interactive acts and prompts. The room contained a video of the sea horizon to simulate the sensation of the coast.

During the prototype ceremony, participants carried out a reflection and visualization phase, followed by a release phase that involved a writing exercise on dissolvable paper, and finally, a phase to

2. See appendix B for more reference  
3. See appendix C for documentation  
4. See appendix D for more reference  
5. See appendix E for more reference  
6. See appendix F for more reference

7. See appendix G for more reference  
8. See appendix H for documentation

commemorate and honour the life of their loved one. Afterwards, a debrief session was done with the participants to record their feedback<sup>9</sup>.

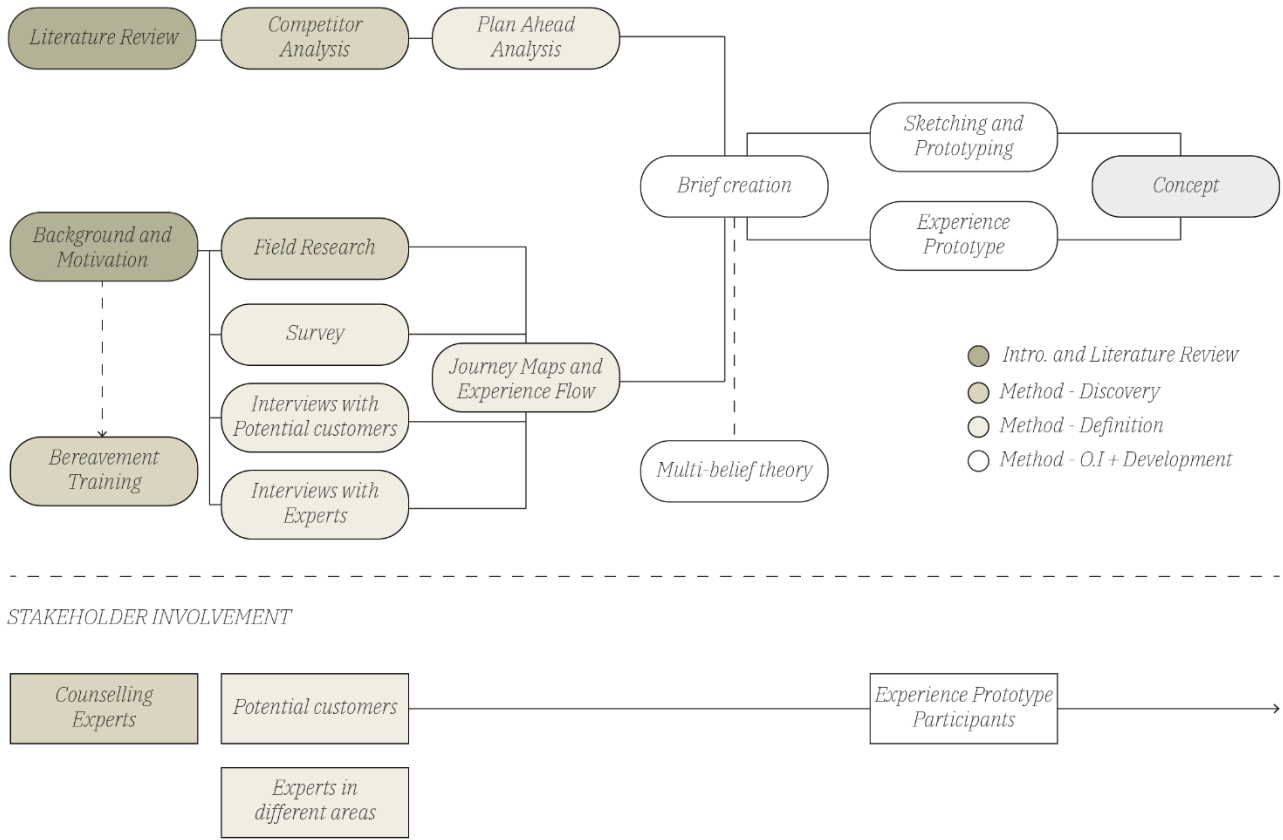


Figure 1. Methodology Process

### III. RESULTS

The following table presents the key results and insights from each phase and sections developed in the Methodology.

Discovery	Competitor Analysis	Understanding of the experience flow of current service and the detection of tensions and opportunities to further develop.
Discovery	Field Research	Spatial and U.K. context consideration into the design of the Resting Reef ceremony process.
Definition	Survey	32 entries from a group of people between the ages of 18 and 41+, from

		14 different nationalities, with 53% considering themselves Secular/ Non-religious/ Atheist/ Agnostic.  Relevant practices and types of objects were identified in times of remembering a loved one that died <sup>10</sup> .
Definition	Interviews with potential customers and survey respondents	General dissatisfaction with the way funerals are performed, and the lack of planning.  Decrease of anxiety when remembrance practices reflected the person that died.
Definition	Interviews with experts	Behaviors and emotions that emerge while dealing with the death of a loved one.

9. See appendix I for reference

10. See appendix J for reference

		The importance of the use of gentle and soft language when referring to concepts related to death.
Definition	<i>Journey Maps and Experience Flow</i>	Key opportunities and scenarios throughout the journey to first introduce design propositions.
Definition	<i>Plan Ahead Analysis</i>	An online tool helps makes it easier to decide on funeral practicalities and make any arrangements and changes when needed [26].
Outcome Ideation and Development	<i>Brief creation</i>	The purpose of the design was defined together with HMW questions, desired emotional outcomes, opportunities, challenges, among others.
Outcome Ideation and Development	<i>Multi-belief space study</i>	Object configuration that can provide multiple interactions depending on the emotion or preference that the customer is experiencing.  Importance of characteristics such as using neutral color and material palettes, having certain harmony as a whole, no sense of orientation, and a proposal that “does not fall out of line” [27].
Outcome Ideation and Development	<i>Sketching and Prototyping</i>	A “toolbox” format was selected and developed by ideation through sketches.  Paper prototypes revealed the potential of having information distributed by layers.  The presence of a memento became crucial to establish a continuity between the ceremony and the

		performance of rituals in people’s homes.
Outcome Ideation and Development	<i>Experience Prototype: Ceremony</i>	Participants expressed their appreciation for a ceremony that was guided as meditation and for the possibility of having different activities to perform instead of being static.  They also expressed their wish to be advised to prepare before the actual act to be able to process information with time

Table 1. Breakdown of Methodology with consequent Results.

Based on the results and insights obtained from the process, the researcher determined 4 key service elements for development and validation:

(A) A tool for people to plan their final wishes, (B) an initial touchpoint/interaction once people choose Resting Reef as their legacy, (C) The ceremony on the site, and (D) A personal memento that people can go to honour their loved ones after the ceremony (See figure 2).

Although these elements occur at different stages, the author concluded that they should relate and connect. In the next stage, the designer explored communication and presentation alternatives to differentiate from existing services—traditional and new.

The author considered insights from conversations with funeral industry expert Jevon Truesdale, highlighting the importance of language and gentleness concepts, and a tutorial with product design guru Nick Monroe, who underlined the increasing trend and need for devotion towards Mother Earth instead of religion. The conversations opened further research opportunities and confirmed the power of approaching difficult emotions through metaphors as proposed [28].

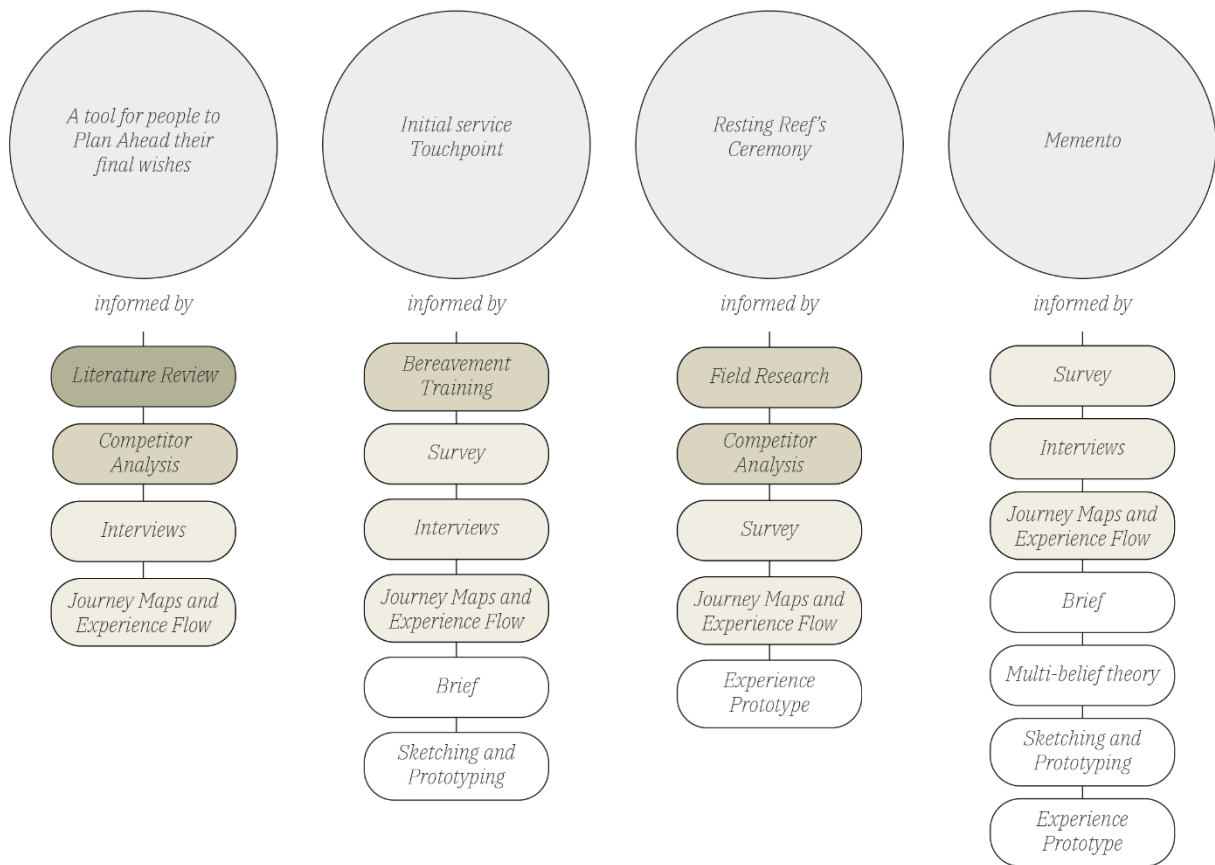


Figure 2. How the main outcomes were informed by the Methodology

adapts to different scenarios and situations of death, follows an overall framework: (A) Plan, (B) Prepare, (C) Commemorate, and (D) Care and Heal, as shown in figure 3.

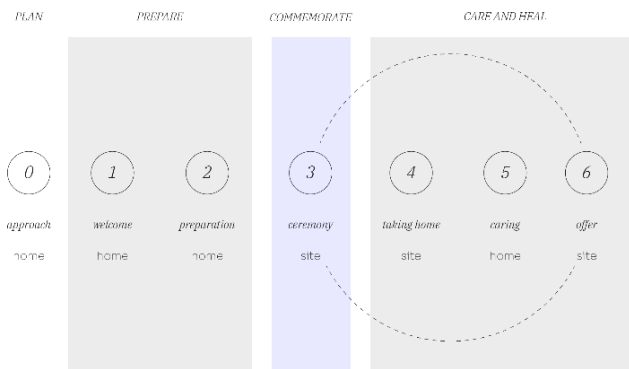


Figure 3. Overall Experience Journey

#### IV. PROPOSAL

The designer proposes a holistic and meaningful service to help people plan, face and cope with the challenges brought by death while reinforcing Resting Reef's mission to regenerate marine life.

Such outcomes may be possible by providing customers with an experience flow that, although

Each step requires several touchpoints. This Major Project developed one for each within the decided scenario of a family dealing with the death of a loved one. Respectful of pain points connected with practicalities, the designer mapped decision-making touchpoints to understand when is the most convenient for people to decide on them.

All concepts presented are described by a set of metaphors linking death with the natural processes of the planet earth to reassure customers and fortify the connection of the Resting Reef service with nature. An example of it is shown in figure 4.

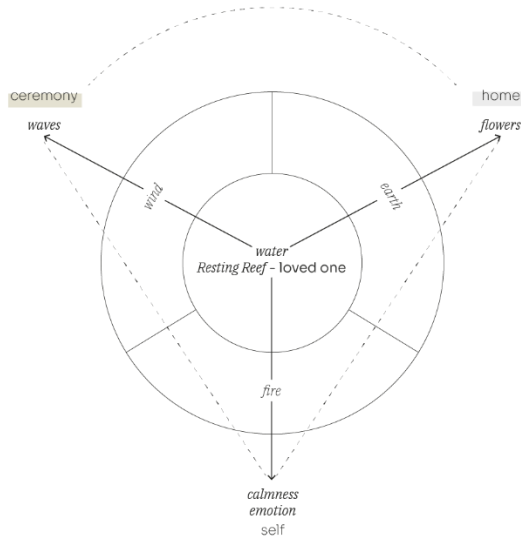


Figure 4. Service communication based on metaphors and natural elements

(A) *Plan*: Resting Reef will provide an online platform to organize all the practicalities and save all information for when needed to aid in approaching these challenging conversations and ensure final wishes are honoured. This part of the service will be completely free. In it, people will be able to state that they want Resting Reef as their legacy and decide on aspects such as their preferred location, the people they would like at their ceremony, and other miscellaneous (Figure 5).

Once recorded on the platform through a simple selection method, it will automatically generate an output document in letter form called "My Resting Wish" for people to share with their loved ones sensitively. This letter will have a unique customer code to refer to Resting Reef when changes are needed or when the time comes to proceed to fulfill the final wishes of the deceased person.

(B) *Prepare*: This stage will begin once death happens. It aims to make our customers feel welcomed, understood, and supported throughout their grief process. It is also a way for them to have a sense of control and knowledge of the service's following steps.

Resting Reef will send customers a "Blooming box" (named following the grief process evolving from a state of denial to acceptance) [17]. Within its "layer-by-layer configuration" (Figure 6) people will find:

- A description of Resting Reef's ethos and how we contribute positively to the planet

- Step-by-step guidance on the date for their ceremony and what to expect
- Specially designed rituals, like a memory journal, to connect deeply with the deceased person.
- The box will also have an essential role after the ceremony, as it will contain a scented element and biodegradable dissolvable paper to interact with their memento (given until the ceremony).

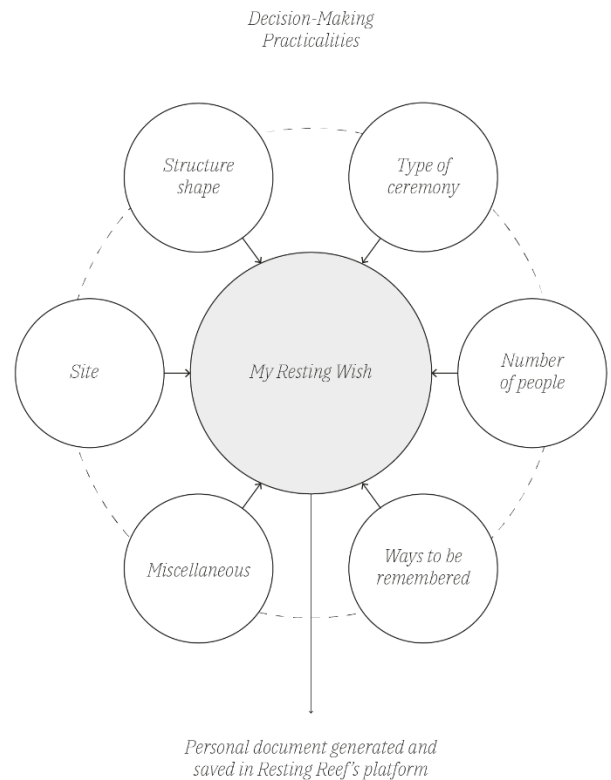


Figure 5. Decision-making aspects and practicalities that conform "My Resting Wish"

*Blooming Box Layering*

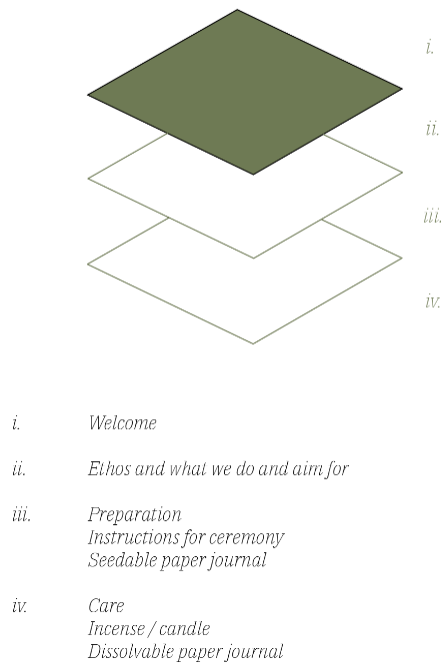


Figure 6. Layers and contents within the Blooming Box

(C) *Commemorate*: Resting Reef's ceremony to celebrate the life of the deceased and the placement of the structure on the ocean's floor.

The ritual takes inspiration from wave formation (Figure 7) to guide different phases and respond to changing emotions experienced during grief. It follows from a state of calmness in deep waters (called the Swell), the accumulation of energy for bigger wave formation (The Fetch), to the point when it reaches the shore, crashes and expands on it (the Swash).

The ceremony starts with a Reflection phase, inviting attendees to a meditation-like activity to prime the mind for the following steps. It continues with a release phase, which, as its name suggests, seeks to release any pent-up emotions. Here, people can write a biodegradable and water-dissolvable paper message to their loved ones and send them off to the ocean. Finally, the experience concludes with a celebration phase where customers receive their mementos and share their memories on seedable paper that can be the memento's flower pot area.

*Natural phenomena of wave formation*

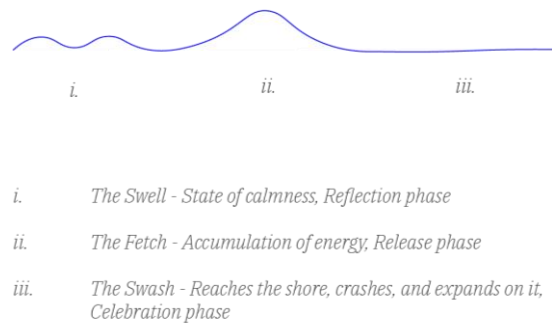


Figure 7. Ceremony phases inspired by wave formation natural phenomena

*Memento's cycle between home and restoration site*

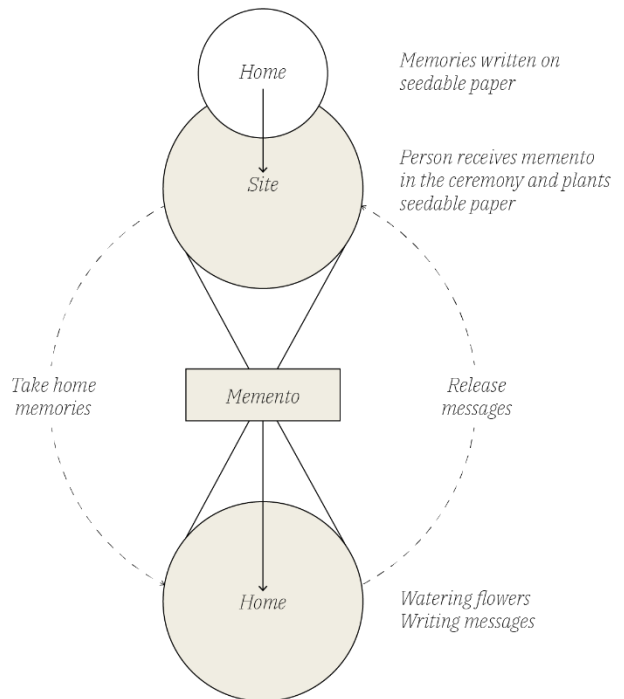


Figure 8. Transitions and cycles between spaces and interactions enabled by the memento.

(D) *Care and Heal*: By bringing the memento home after the ceremony, customers will be able to come back to it either collectively or individually every time they think about their loved one.

The object will be made using a casting process with part of the deceased's ashes. It is designed to have 3 interactions in 1, customers will:



- Get flowers in their pot from caring for and “watering their memories”
- Have a soothing scent that will connect them to the coast with space for candles or incense
- Be able to gather daily messages written on the water-dissolvable paper to share them with their loved ones now part of Resting Reef, every time they go back to the coast.

This experience will generate an organic cycle between the rituals performed at home and returning to the Resting Reef site (see Figure 8).

## V. DISCUSSION

The designer validated the final proposal in an interview with the thanatology expert and explored notable limitations. Considering these limitations is essential for Resting Reef to further develop as a business once the project evolves from this Major’s Project (Table 2).

Limitation	Description
<i>Affordance and Logistics</i>	Once Resting Reef becomes a business, it will then be determined if the service proposed works and is effective in that circumstance.
	Depending on real-customer output and the business model strategy implemented, things may change.
	Some elements proposed may be too expensive to produce and distribute, which may then limit the capacity of delivering the service to people.
<i>Scalability</i>	The service will be shaped by the possibility of its scaling, which will be also determined by aspects such as the price of production, distribution, timetables, etc
<i>Ethics</i>	All participants and stakeholders involved in this project had some kind of experience in grief and loss. However, because of ethical limitations set by the Taught Students Ethics Committee from the Royal College of Arts, it was not possible to test it with actual bereaved people to gain more insights.

### *Specific scenarios*

The proposed interactions may not be effective with specific experiences of death such as when a relationship ends on bad terms, when the customer is not able to reconcile with death because of traumatic events, or in scenarios of sudden or unexpected deaths where people tend to choose a service on convenience over other values.

Table 2. Limitations of the project.

## VI. CONCLUSION

Overall the development of the project has demonstrated that it is possible to design a meaningful memorial service for climate-conscious people that goes hand in hand with Resting Reef’s values and that responds to increasing demands for alternative funerals.

Some of the most important findings related to the different proposed touchpoints are: the relevance of ‘planning ahead’ and stating final wishes (My Resting Wish) to attract customers and secure their memorial happens with Resting Reef—presenting an opportunity to plan and decide on practicalities ahead of time and reduce the burden when death happens.

The fact that people appreciate guidance during their grief makes an object that primes and accompanies them throughout it (Blooming Box) highly relevant.

Contrary to traditional burial ceremonies, there is a notable desire for an option focused on celebrating the deceased’s life. Moreover, balancing guidance, the performance of small activities, and the start of a ritual that can be continued afterwards in a private setting provides a meaningful experience for the customer (Memorial Ceremony and Memento).

The results achieved in this project shaped a critical path to Resting Reef’s service development towards its future as a successful business. Even so, there are subsequent events, and future work suggested to achieve a holistic service:

Area	Description
<i>Validation</i>	Customer validation when Resting Reef is already operating as a business with people already involved in the service.
<i>Online platform and Customer Service</i>	Online BETA platform development for My Resting Reef Wish in <a href="http://restingreef.co.uk">restingreef.co.uk</a> and tracking of people's preferences to inform further development of the service.
<i>Experience Prototype</i>	Experience prototype at the actual site to compare timings and how outcomes change in comparison with the one performed in an enclosed space.
<i>Stakeholder Testing</i>	Validation on how people use the memento in real settings to conclude if it becomes something relevant that they incorporate into their daily lives.

Table 3. Proposed future areas of development.

#### ACKNOWLEDGMENTS

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This Major Project is made in memory of my beloved father Alejandro Murillo who was always there for me and pursued me to do a Master's Degree abroad.

#### AUTHOR BIO

Aura Murillo is a Mexican designer with her practice developed at the Royal College of Art and Imperial College London as part of the Global Innovation Design programme.

She has developed projects that range from curating an entire exhibition to product design in Mexico, Copenhagen, Barcelona, Italy, Japan, Thailand, and Taiwan.

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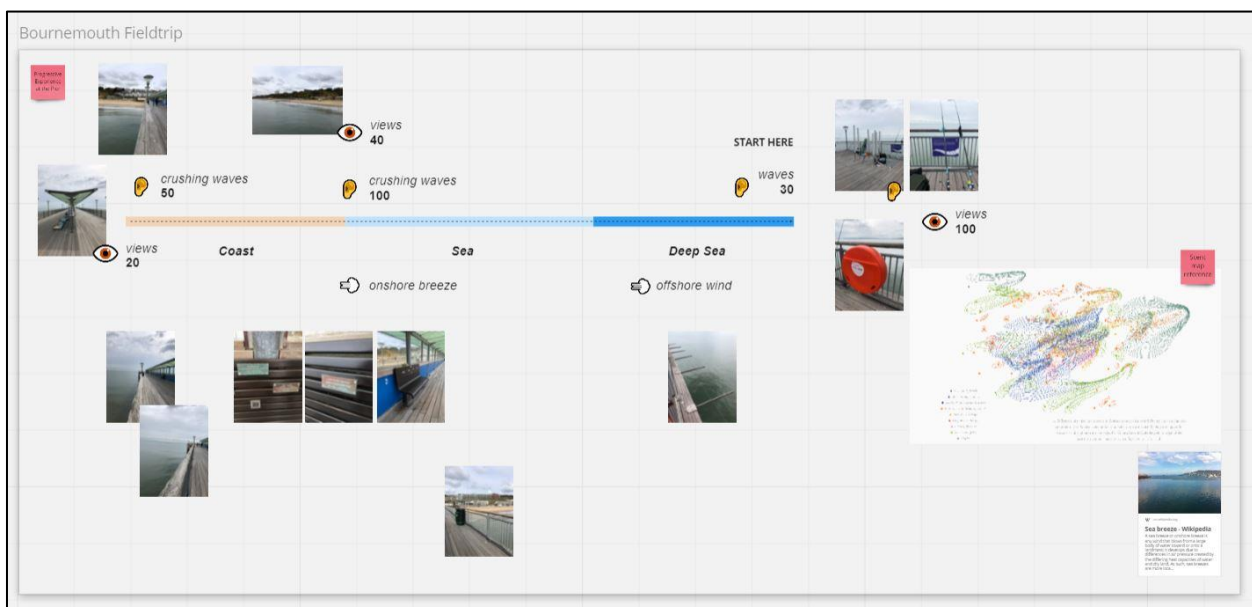
#### REFERENCES

- [1] A. Volpe, "Disruption comes for death," *Vox*, 23-May-2019. [Online]. Available: <https://www.vox.com/the-goods/2019/5/23/18635971/cremation-sustainable-funeral-eco-friendly-alternatives-burial>.
- [2] A. Murillo, L. Skajem, and A. Peña, "Conversation with Antton Peña," 06-May-2022.
- [3] Coop Funeralcare, Coop, UK, rep., 2019.
- [4] C. C. Moore, "The Universal Fear of Death and the Cultural Response," *Sage Pub*, 14-Aug-2003. [Online]. Available: [https://us.sagepub.com/sites/default/files/upm-assets/106359\\_book\\_item\\_106359.pdf](https://us.sagepub.com/sites/default/files/upm-assets/106359_book_item_106359.pdf).
- [5] Empathy, "A guide to religious funeral traditions," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/a-guide-to-religious-funeral-traditions>.
- [6] Empathy, "Antyesti explained: Guide to Hindu funeral and mourning practices," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/funeral-and-mourning-practices-in-hindu-tradition>.
- [7] Empathy, "Buddhist traditions in death and mourning," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/buddhist-traditions-in-death-and-mourning>.
- [8] Empathy, "Muslim traditions in mourning and grief," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/muslim-traditions-in-mourning-and-grief>.
- [9] Empathy, "Mormon traditions in mourning and grief," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/mormon-traditions-in-mourning-and-grief>.
- [10] Empathy, "Alternative memorial ceremonies," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/alternative-memorial-ceremonies>.
- [11] Empathy, "Catholic funeral and mourning traditions," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/catholic-traditions-in-funerals-and-mourning>.
- [12] Empathy, "Jewish traditions in death and mourning," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/jewish-traditions-in-death-and-mourning>.
- [13] A. Ryman, *Rites of life*. Paris: Evergreen, 2010.
- [14] Empathy, "Planning a memorial service," *Empathy*. [Online]. Available: <https://www.empathy.com/funeral/planning-a-memorial-service>.
- [15] Eternal Reefs, "Eternal reefs " living legacies that memorialize our loved ones," *Eternal Reefs*, 09-Nov-2014. [Online]. Available: <https://www.eternalreefs.com/>.
- [16] Solace Reef, "Home," *Solace Reef*, 23-Jul-2020. [Online]. Available: <https://www.solacereef.co.uk/>.
- [17] Kübler-Ross, On grief and grieving: Finding the meaning of grief through the five stages of loss. New York etc.: Scribner, 2014.
- [18] IDEO, "The Field Guide to Human-Centered Design," *Design Kit IDEO*. [Online]. Available: <https://www.designkit.org/resources/1>. [Accessed: 2022].
- [19] P. J. Stappers, "Research through design," *The Interaction Design Foundation*. [Online]. Available: <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/research-through-design>. [Accessed: 2022].

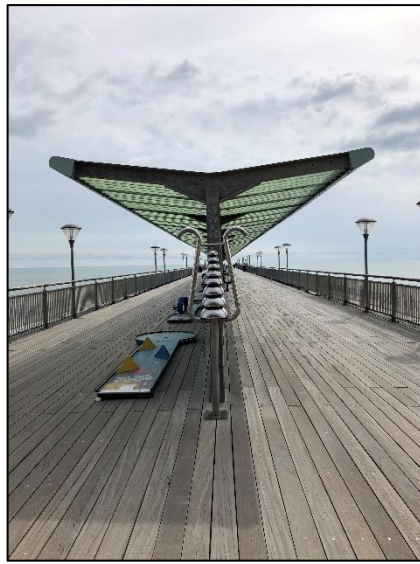
- [20] At a Loss, “Training for supporting bereaved young people,” *AtaLoss.org*. [Online]. Available: <https://www.ataloss.org/pages/faqs/category/listeningpeople>.
- [21] Eternal Reefs, “#1 Miami Casting April 08, 2022,” *YouTube*. [Online]. Available: <https://www.youtube.com/?watch=>. [Accessed: 08-Apr-2022].
- [22] Eternal Reefs, “#1 Miami Viewing April 10, 2022,” *YouTube*. [Online]. Available: <https://www.youtube.com/?watch=>. [Accessed: 08-Apr-2022].
- [23] Eternal Reefs, “#1 Miami Placement April 11, 2022,” *YouTube*. [Online]. Available: <https://www.youtube.com/>. [Accessed: 11-Apr-2022].
- [24] P. J. Stappers, “Research through design,” *The Interaction Design Foundation*. [Online]. Available: <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/research-through-design>. [Accessed: 2022].
- [25] J. Nielsen and T. K. Landauer, “A mathematical model of the finding of usability problems: Proceedings of the interact '93 and CHI '93 Conference on human factors in computing systems,” *ACM Conferences*, 01-May-1993. [Online]. Available: <https://dl.acm.org/doi/10.1145/169059.169166>. [Accessed: 2022].
- [26] Better Place Forests, “Your 'just in case' plan,” *Better Place Forests*. [Online]. Available: <https://www.betterplaceforests.com/basic-planning>.
- [27] F. D. de Velasco, “Multi-belief/Multi-faith Spaces: Theoretical Proposals for a Neutral and Operational Design ,” 2014. [Online]. Available: [https://www.spirit-filled.org/documents/Multi\\_belief\\_Multi\\_faith\\_Spaces\\_Theoreti.pdf](https://www.spirit-filled.org/documents/Multi_belief_Multi_faith_Spaces_Theoreti.pdf).
- [28] J. Hockey, “The acceptable face of human grieving? the clergy's role in managing ...,” *SAGE journals*, 1992. [Online]. Available: <https://journals.sagepub.com/doi/abs/10.1111/j.1467-954X.1992.tb03390.x>.

## APPENDIX

### A. Bournemouth Pier Documentation



Sensorial analysis considering views from the pier, sounds and breeze conditions.



Left to right, top: View from the pier to the coast, documentation of ceiling to protect from storms.



Left to right: Documentation of objects present (bench with plaques), view of Bournemouth coast.

## B. Survey with Google Forms

Rituals and ways of remembering someone that passed away.

Questions Responses 33 Settings

Section 1 of 4

### Rituals and ways of remembering

Hey there. Thank you for taking the time to answer this survey :)

Email \*

Valid email address

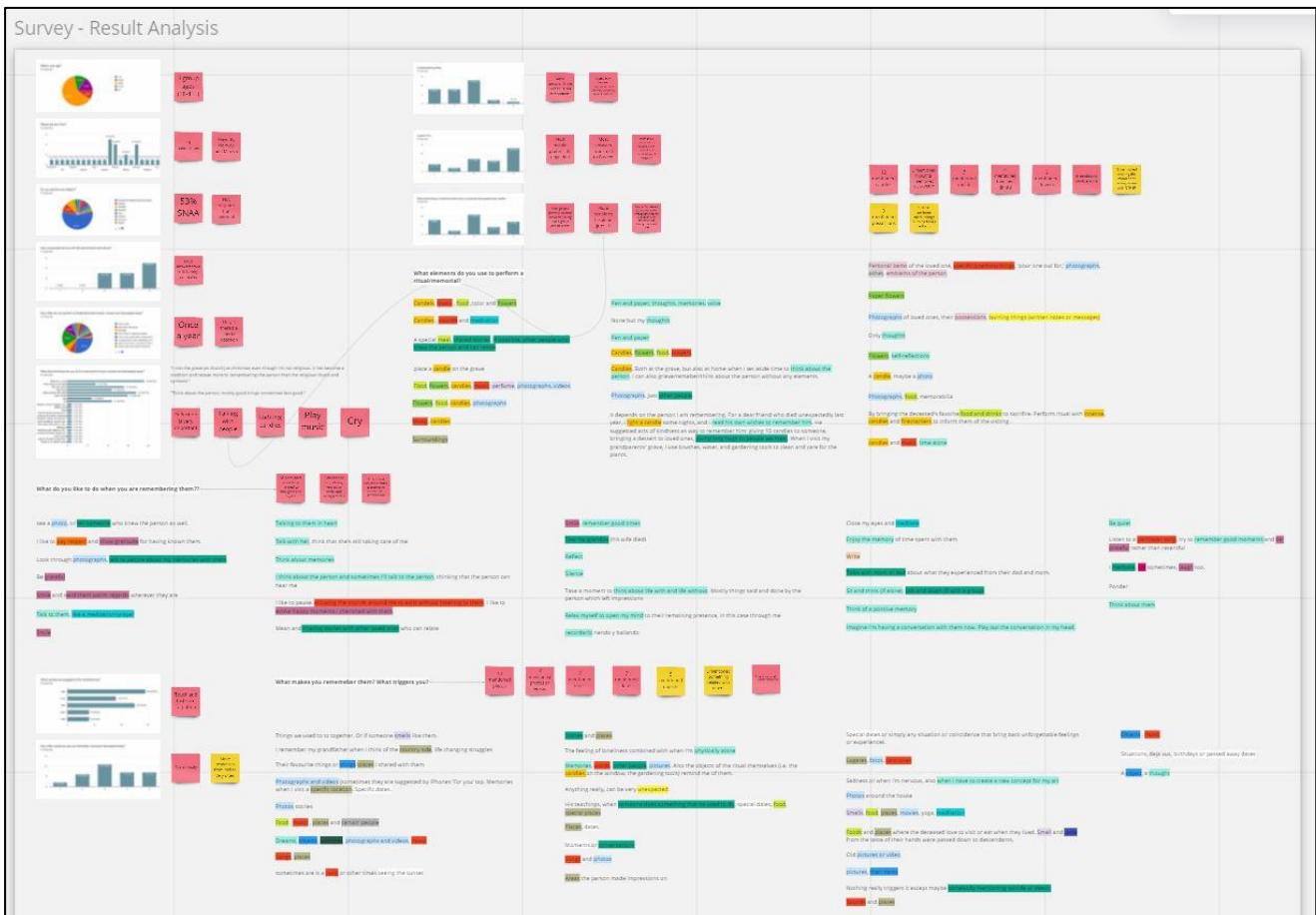
This form is collecting email addresses. [Change settings](#)

What's your age?

- 18

18-25

Screenshot from survey made with Google Forms



Part of the Survey Result Analysis using the Miro platform. Color coding to identify patterns and sticky notes with opportunities

### C. Interviews, documentation

**INFORMATION SHEET FOR PARTICIPANTS**

**Project:** Rituals and ways of remembering someone that passed away (Resting Reef).

You should only participate if you want to; choosing not to take part anymore will not disadvantage you in any way.

It is important for you to understand why the research is being done and what your participation involves. Please take time to read the following information carefully and discuss it with others if you wish. Ask if there is anything that is not clear or if you would like more information.

- This research is for participants that have lived any kind of experience related to death (either directly or indirectly) and that are open to sharing it.
- If you agree to take part in it, your answers from a 1:1 interview will be used to develop research that will inform a final proposition for the project Resting Reef. Answers will be saved and used anonymously for the development of the research.
- Even if the research and the questions are designed to be as sensible and respectful as possible for the participants, some risks in taking part may include distress. You have the right to take part as long as you feel comfortable. If you agree to participate, you may withdraw at any time without giving a reason.
- The research will follow strict ethical practice and all information about you will be handled in confidence. All personal data will be stored securely. This will be on a password-protected computer.
- The information held for the study will only be the participant's name, email, and the responses provided.
- The responses used for the development of the project will be viewed by a panel grading the project but personal information will not be included and will not be identifiable without the permission of the participant.

You may also withdraw any data/information you have already provided up until it is used for the exhibition.

If you have any questions or require more information about this study, please contact the researcher using the following contact details:

**Aura Elena Murillo Pérez**  
+44 7862 691197  
auramurillo@network.rca.ac.uk

**Thank you for taking the time to read and consider this information**

**George Frankel - Interview**

Father-to-son industry is extremely difficult to adopt in the US.

Credibility

South Carolina

Push strategy- Consumers asking for the option

Customers that already had the ashes started contacting

Direct to the customers

Identifying ourselves as reef builders and it was a great strategy

One you pay you are another number, funeral directors take care of everything

Powerless, no control of what you are doing - Families participating

Provide a great process, people in charge have to be very sensitive

By not doing it in mass you preserve your relationship and are attentive to their needs, they don't feel that they are the number

The impact of the service that it can have in someone's person

Family dynamic heal

You wouldn't believe what we just did in Florida

10,000 \$ are largely our costs

Nobody gets it right all the time, there's nothing wrong with humor

We don't talk about death and dying in our immediate family. A huge shift in the conversation (COVID) limited in family numbers, etc

People that liked the idea wanted to pre-fund, we got so many inquiries about it. - Insurance company takes care of everything. Eternal Reefs not as name as beneficiary of the insurance policy - Non-profit status.

Left: Example of Information Sheet for interview participants

Right: Example of notes from interview with expert

### D. Interviews with experts and other stakeholders

The image shows a Zoom meeting interface. On the left, a Google Docs document is open, displaying a list of interview questions in Spanish. The questions are:

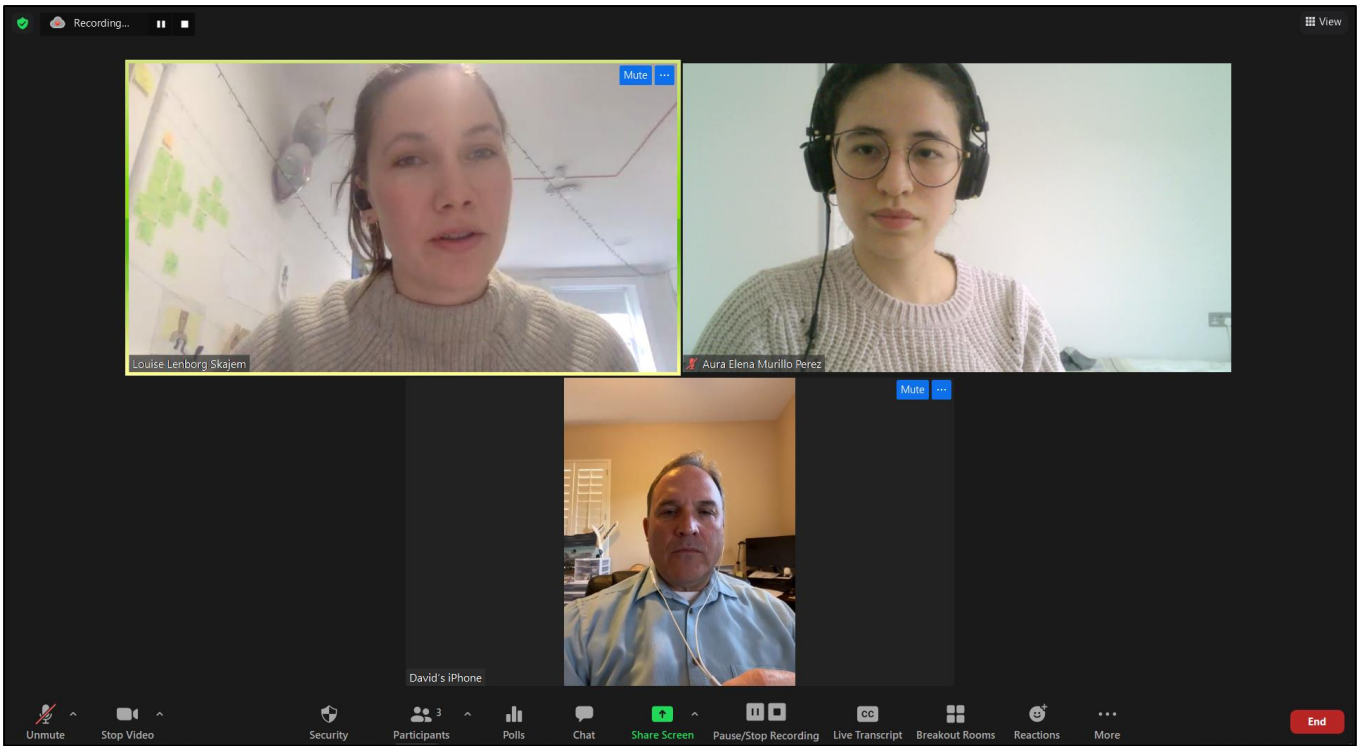
- Explicar el concepto
  - Página web
- Explicar mi Proyecto Final de Maestría:
  - Servicio - Ceremonia - Objeto/Memorabilia

Como tantatóloga y experta en el tema quiero preguntarte algunas cosas para ayudar a probar mis hipótesis y diseñar mi proyecto.

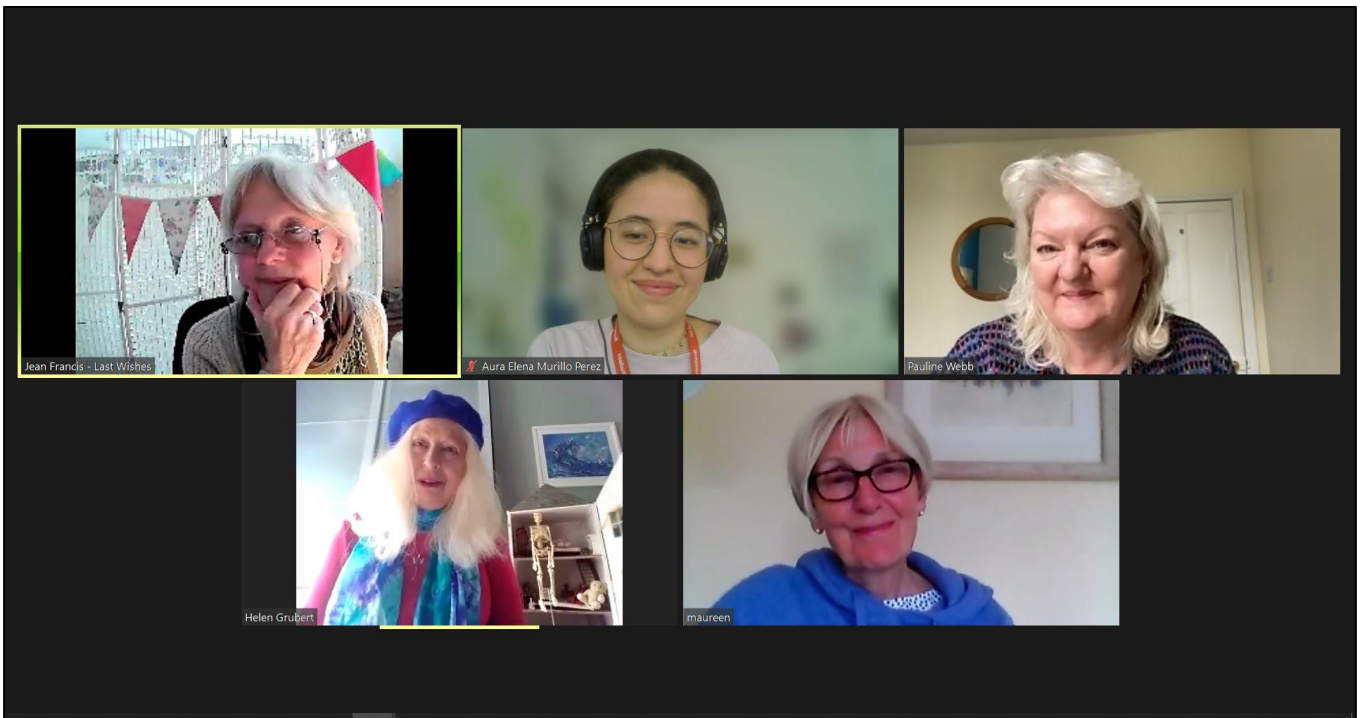
  - Simbolismos y rituales** ¿Cómo nos ayudan a sanar y a encontrar significado de una experiencia tan traumática?
    - Te permiten cerrar un ciclo es alog cultural, no todo el mundo lo necesita. Darle continuidad a tu vida
  - Técnicas prácticas para procesar el duelo?** Mi asunción es que debe de haber un proceso de reflexión, otro de liberación de emociones y pensamientos y finalmente uno de celebración o de buscar significados que nos den comfort.
  - Porque cuando tenemos alguna experiencia con la muerte estamos en un **estado de shock que nuestro cerebro no opera de manera racional** y la gente tiende a sentirse perdida?
  - ¿Porqué las ceremonias o los memoriales son tan importantes?**
    - ¿Constituyen un paso importante para el duelo?
  - ¿Cómo nos ayuda en el duelo hablar con los demás, con nuestros seres queridos?**
  - Uso de las palabras** con las personas que están pasando por el duelo.
    - ¿Cómo evitar que se puedan sentir lastimados o insultados?

On the right, the Zoom meeting shows two participants: Cecilia Colomo (top) and Aura Elena Murillo Perez (bottom). The Zoom interface includes controls for Mute, Stop Video, Security, Participants, Share Screen, Reactions, and More.

Interview with thanatologist Cecilia Colomo

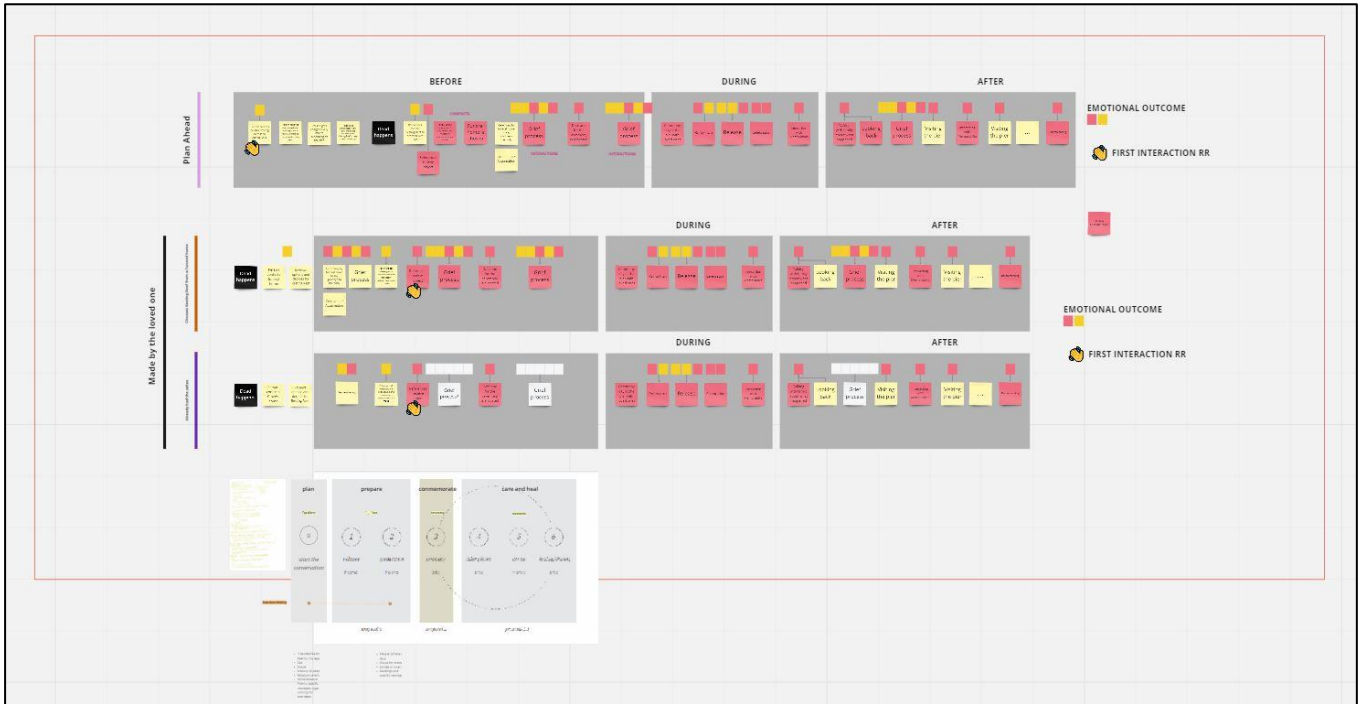


Interview with potential customer who expressed his interest at [restingreef.co.uk](http://restingreef.co.uk)



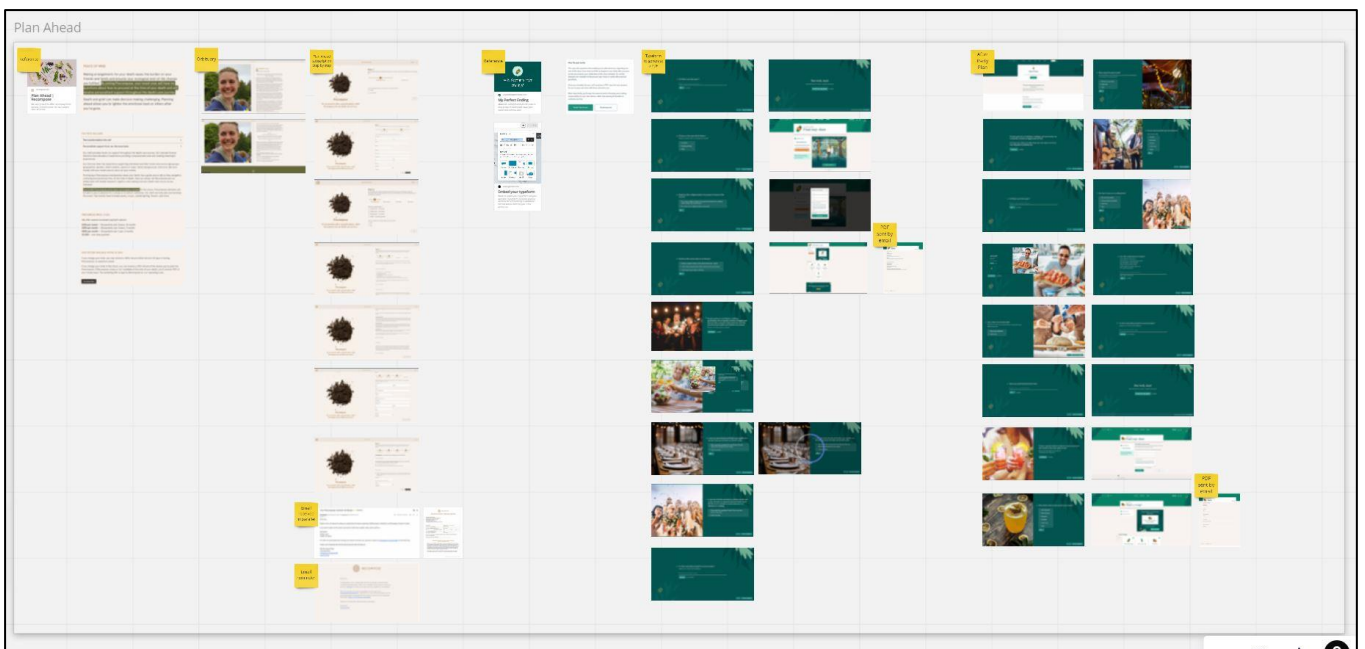
Conversation with 4 U.K. citizens about the importance of planning ahead.

## E. Journey Maps



Journey Maps from different customer scenarios to identify opportunities for the service.

## F. Plan Ahead Analysis



Analysis from the platform betterplaceforests.com with quizzes to help customers plan their final wishes.



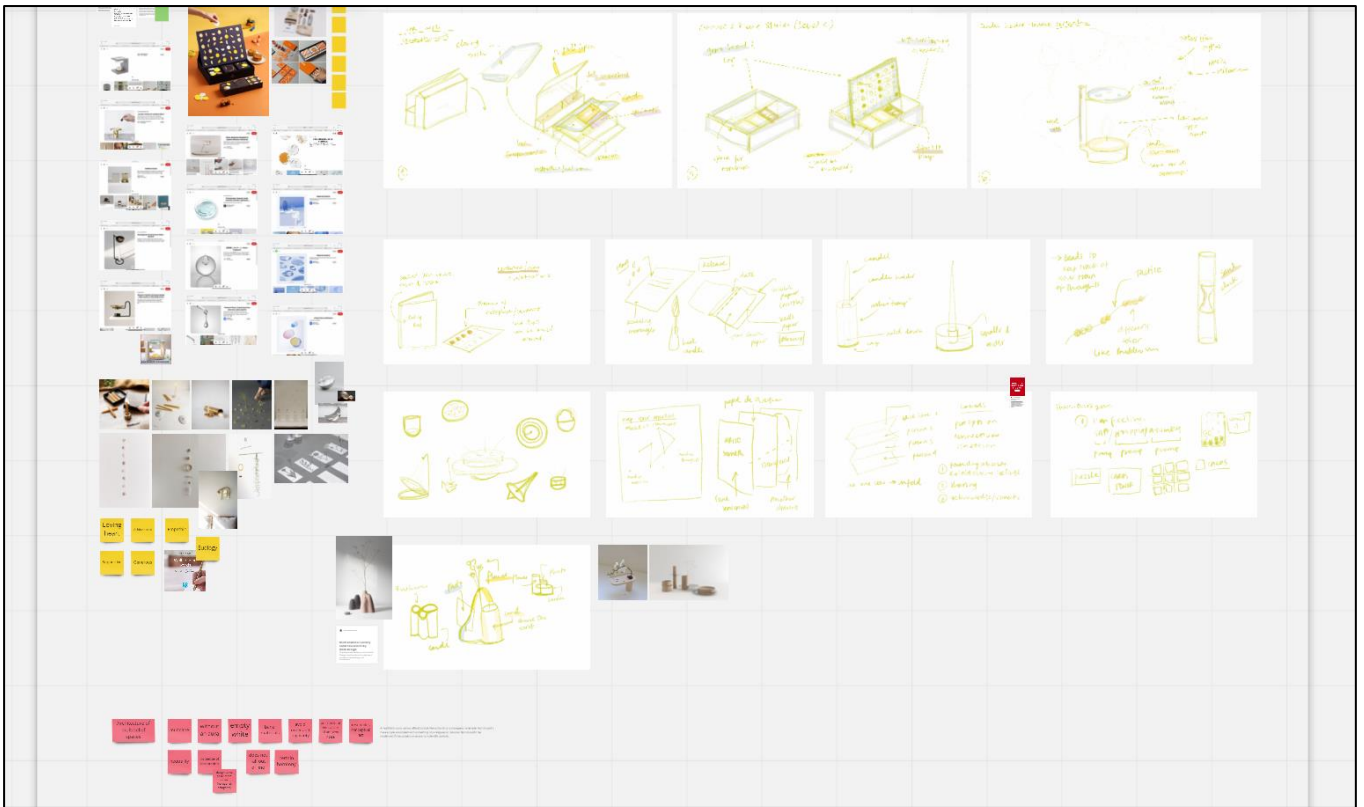
## G. Design Brief

<p><b>Resting Reef</b></p> <p>Brief   Memorabilia Object</p> <p><b>Purpose</b></p> <p>An object that accompanies Resting Reef's customer's journey into their grief emotions and thoughts. It has to make sense of what we do and be aligned with Resting Reef. It has to become a guide to go through the different stages of our service.</p> <p>The ____ (partner/closest family member... or something similar) of the deceased will get it right after their loved one died, and the experience through the object will have continuity at the ceremony and will help them afterward to remember.</p> <p><b>Motiv</b></p> <p>How might we create <i>delightful experiences throughout the Resting Reef service for customers to connect with themselves, their deceased one, and the marine environment (Resting Reef's site)?</i></p> <ul style="list-style-type: none"> <li>Transform negative emotions into calming ones</li> <li>Help process their thoughts</li> <li>Enhance positive emotions like gratefulness and celebration throughout the process</li> <li>Reinforce Resting Reef's ethos and processes</li> </ul> <p><b>Desired Emotional Outcome</b></p> <ul style="list-style-type: none"> <li>First (Between the death and the ceremony): Surprise, Relief, Expectance, Curiosity, Excitement             <ul style="list-style-type: none"> <li>Grief process: Bargaining, Acceptance</li> </ul> </li> <li>Second (The ceremony): Calmness, Acceptance, Joy, Connection</li> <li>Third (After the ceremony until the recommendation of the service): Comfort, Joy, Reassurance.</li> </ul> <p><b>Desired Behavior</b></p> <p>Following the guidance and still having control and decision of what they prefer to do. Creation of emotional connection with the intervention</p>	<p><b>Resting Reef</b></p> <p><b>Existing Rituals that may be replaced</b></p> <p>The design doesn't aim to replace existing religious or everyday rituals, but incorporate the existing practices that the customer already does into the proposition. It is about creating a canvas where different practices can be incorporated if desired.</p> <p><b>Opportunity</b></p> <p>Currently, there are no tools that guide the customer into the whole process of going through the death of a loved one from the moment the death happens to when remembering their loved one.</p> <p>By being side to side with the customer and providing comfort we are going to be able to reinforce our brand, customer loyalty, and recommendations.</p> <p><b>Challenge</b></p> <p>Creating an object that becomes relevant and indispensable throughout the process and not something that families put on their shelves. An object that is delightful to use and that brings more value to the customer than not using it.</p> <p><b>Context</b></p> <p>Starting at the customer's home, following up until the ceremony at the Resting Reef's site and then back at the customer's personal space. Individual and/or group interactions.</p> <p><b>Format</b></p> <p>An analogical/palpal solution to promote better connection and concentration far away from screens and notifications.</p> <p><b>Things to consider to align the design:</b></p> <p>On one survey done to 33 prospective customers, when asked, "What are the elements that you use to perform a ritual?" responses showed:</p> <ul style="list-style-type: none"> <li>13 people using candles</li> <li>8 people mentioned thoughts and memories by myself</li> <li>7 mentioned music</li> <li>6 mentioned food and drinks</li> </ul>	<p><b>Resting Reef</b></p> <ul style="list-style-type: none"> <li>6 mentioned flowers</li> <li>6 mentioned photographs</li> </ul> <p>When asked, "What do you like to do when you are remembering someone?" responses showed:</p> <ul style="list-style-type: none"> <li>18 mentioned something related to thoughts and myself</li> <li>8 mentioned something related to smiling and being grateful</li> <li>7 mentioned something related to sharing the moment with someone else</li> </ul> <p>When asked, "What makes you remember them and what triggers you?" responses showed:</p> <ul style="list-style-type: none"> <li>11 mentioned photographs</li> <li>9 responded jewelry</li> </ul> <p>Throughout the survey, the senses of touch and taste were underestimated. Small and light are the ones more used.</p> <p><b>Metric of success:</b></p> <p>Test: Emotional Outcomes observed after performing the proposed interactions Long-term: Organic growth through the referral from exiting customers, market positioning, and customer reviews.</p>
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Document with guidelines to design a physical object for the experience

## H. Sketches and Ideation

Structure set to develop the Ideation through Sketches and some initial ideas



Inspiration finding, more sketches and directions defined

### I. Experience Prototype: Ceremony

Experience Prototype

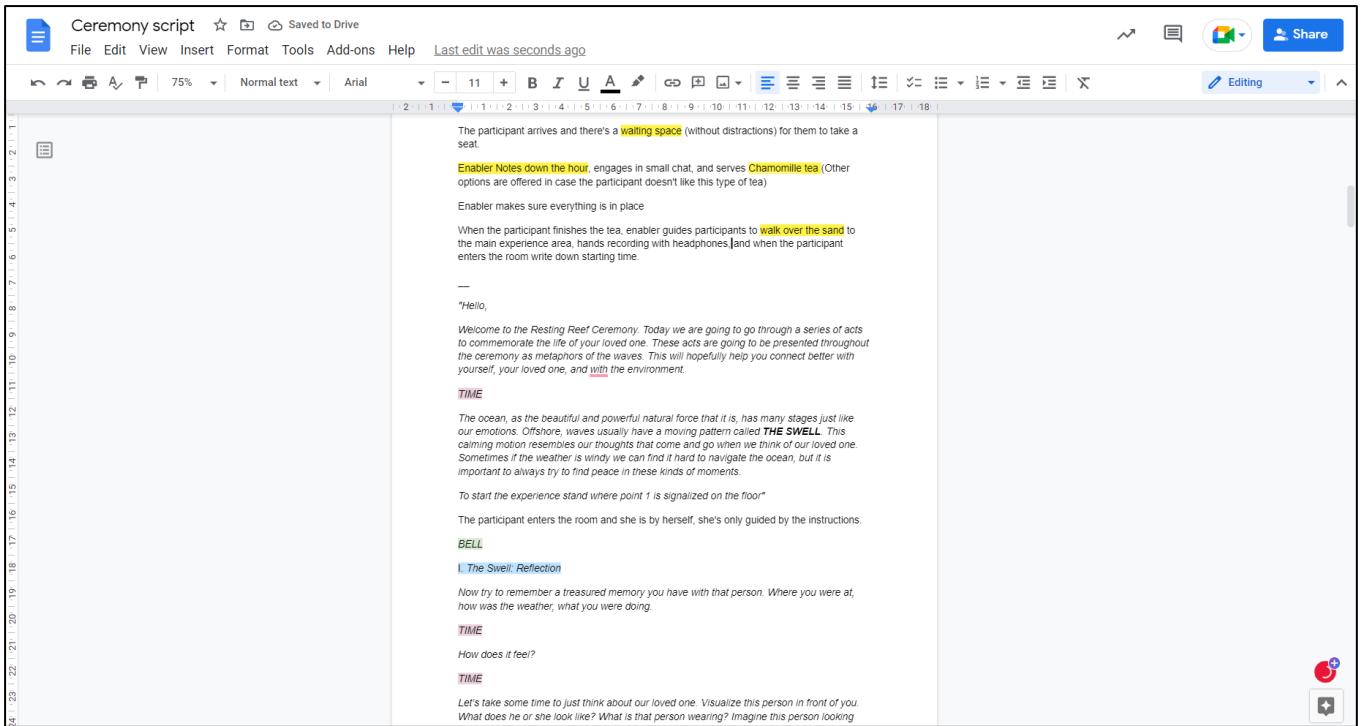
**TESTING: CEREMONY**

- Guided vs. Slightly Guided
- 1 individual, 1 sharer
- Static vs. Dynamic
- Reflection
- Team perception
- Release
- Degree of Celebration Mood
- Open questions
- Expectations
- Timing

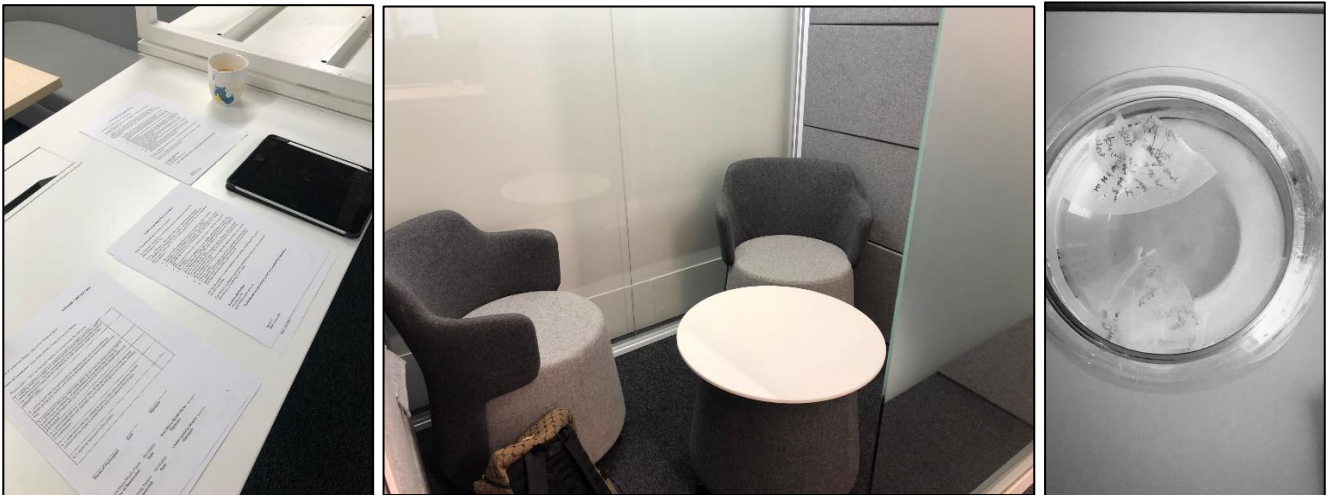
Lighting candles, Play music, About people, Seren's creation, Celebration journal

Do people like using something out of their...

Experience planning and strategy



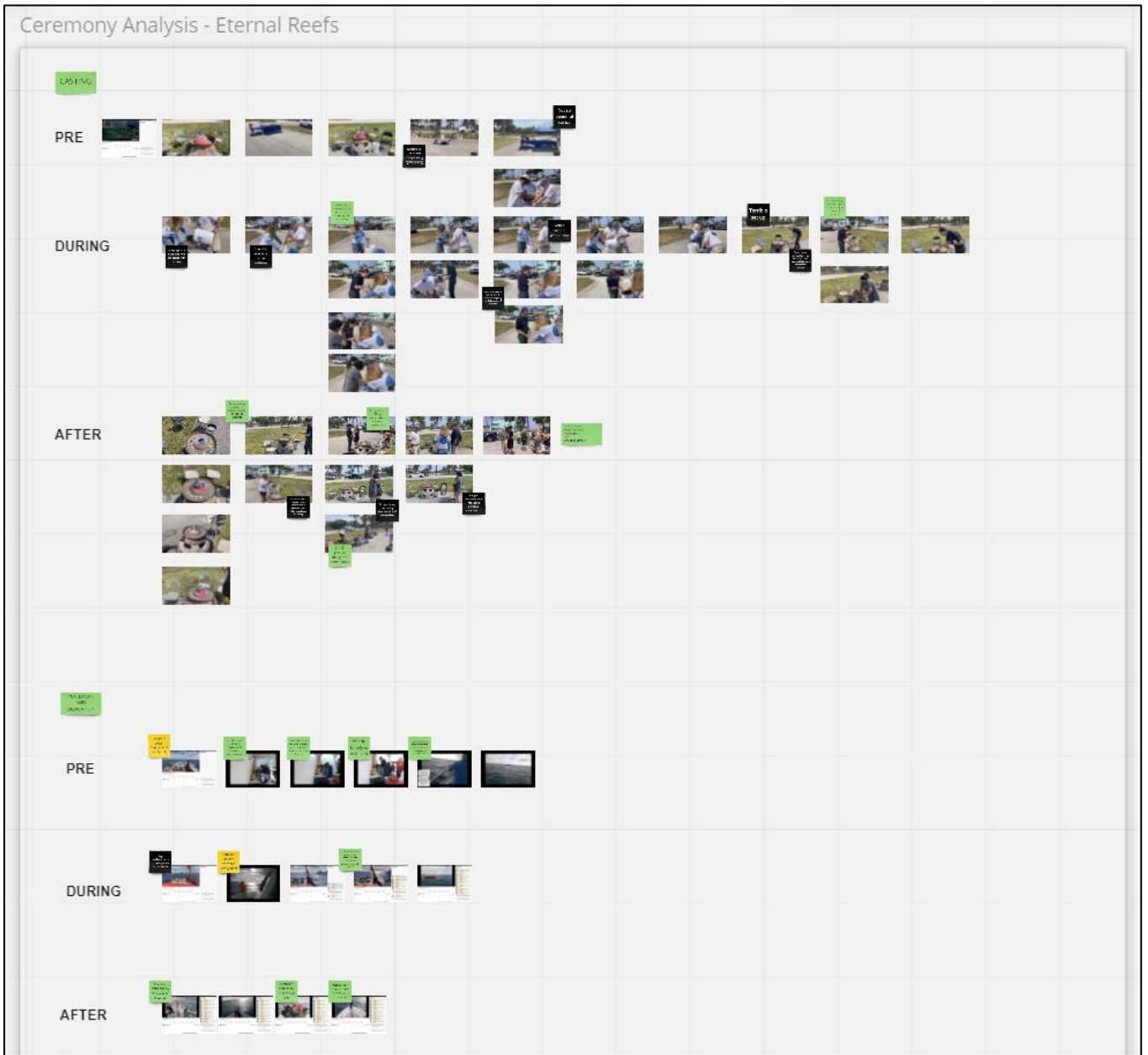
Creating the experience script recorded afterwards to guide participants



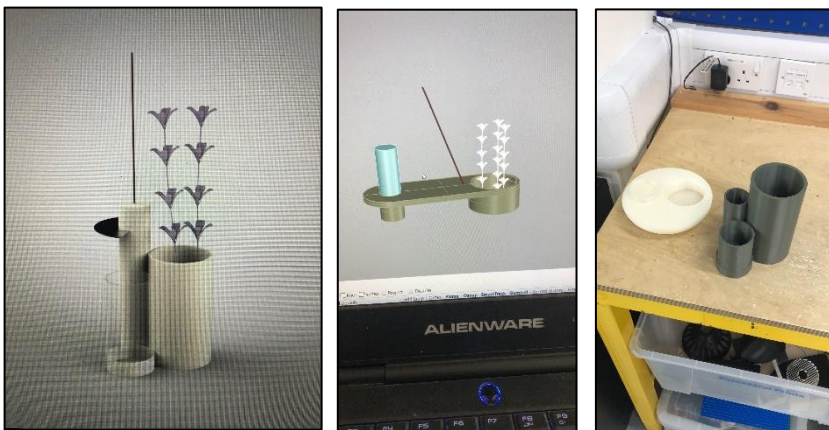
Left to right: Consent forms before entering the experience, private room for people to relax before and after the experience, outcome phase 2



Left to right: Phase 3 of the experience, signal to guide users



Eternal Reefs service analysis. Black sticky notes indicate tensions identified, green sticky notes indicate potentials



Early memento exploration (shape and sections)

