

The practice of Human-Centered Design: Design of Tombstone for the Living

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Declaration

I hereby certify that this report constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another. I declare that the dissertation describes original work that has not previously been presented for the award of any other degree of any institution.

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Abstract

The current situation of death education in mainland China starts late and lags relatively behind development compared with the developed countries in the West, which is related to the traditional cultural perception in China.

By the lack of death education, people are still reluctant to talk about death with their friends and family, which is not conducive to society's development and mental health. This causes many young people to suffer psychological problems when facing death for the first time and also contributes to the poor quality of death in China.

The object of this study is to make up for the lack of death education in China by finding a way to help people initiate this difficult but necessary conversation and confront death earlier.

This dissertation presents a solution as a tombstone for the living. Practicing a human-centered design approach. Remind people that life is finite, they need to determine their priorities. Encourage them to engage in death-related reflection and discussion with those close to them so that death can become a truly prepared ritual rather than a rushed, abrupt end. Meanwhile, combine with the function of daily furniture to make it better integrated into daily life, so that the impact can start more easily and last more deeply.

Contents

Chapter 1. Introduction

- 1.1 Context
- 1.2 Potential Market
- 1.3 Literature Review
- 1.4 Case Study
- 1.5 Research Question

Chapter 2. Methodology

Chapter 3. User Research

- 3.1 Online questionnaire
- 3.2 Workshop & Interviews
- 3.3 Exposition of intend audience

Chapter 4. Design Process

- 4.1 Early design concepts
- 4.2 Concept refinement
- 4.3 Sketching
- 4.4 3D prototyping and testing
- 4.5 Materials testing
- 4.6 High-quality prototyping

Chapter 5. Conclusion and Further steps

Bibliography

Chapter 1. Introduction

1. 1 Context

Low quality of death in China presents as death anxiety and lacking of death planning because of negative emotions and traditional taboos.

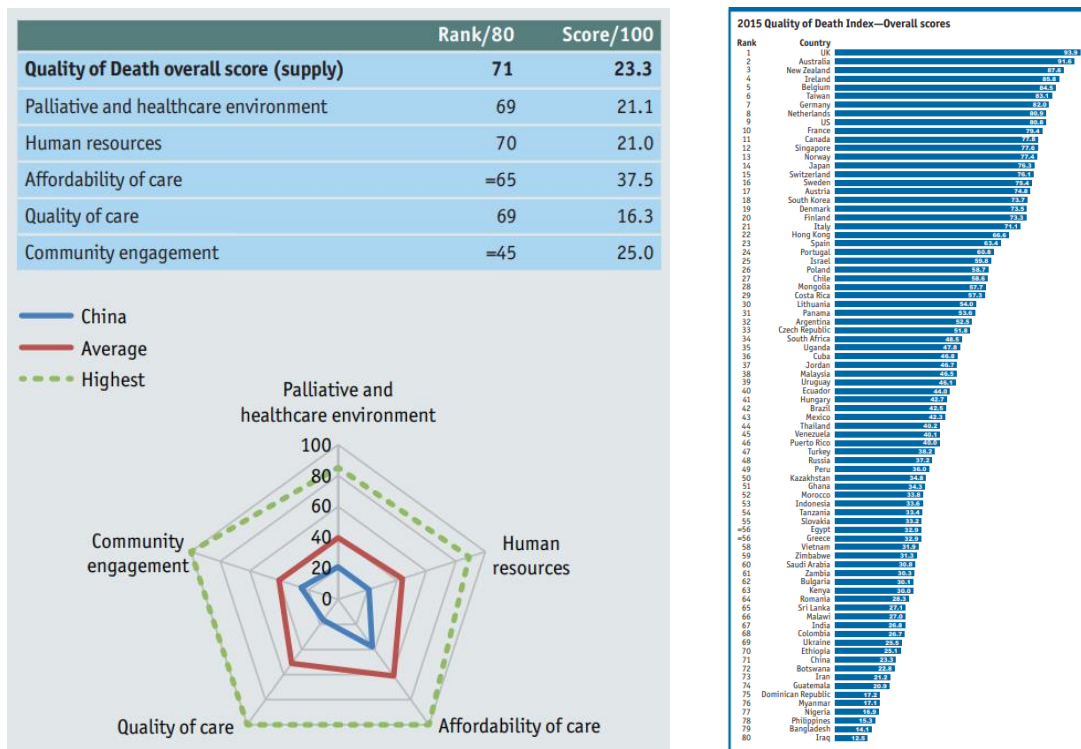
Death education is desperately lacking in China. In traditional Chinese thinking, death is an unlucky topic. People avoid talking about death and even the words that can be associated with it in their daily lives. Therefore, there are gaps in both the culture and the system. There are few books on death education in China, and there are no courses on death or life education in schools.

A survey of 111 bereaved people found that after the death of a loved one, more than 70 percent faced problems such as insomnia, 82 percent often felt lonely and nearly a third had suicidal thoughts. According to a 2007 survey by the Beijing Suicide Research and Prevention Center, more than 287,000 people commit suicide each year in mainland China, according to the report, which found that suicide is the leading cause of death among people aged 15 to 34 in China. (Chuanjiao, 2007)

Chinese people are more introverted in expressing their emotions. Unfortunately, in our long and repressed tradition, showing emotions is often not allowed, crying often represents weakness, and love is often presented in the form of unsmiling or reproachful harshness. Chinese people are not good at expressing emotions in daily life, not daring to cry when sad, and sadness may be expressed as extreme anger. Even to family members, it is difficult to say love you or to give a hug to each other. Therefore, the more sensitive topic like death was harder for them to talk about.

Hospice care is a concept that is treated with indifference in Chinese society, and institutional development has encountered various bottlenecks in the country. Because of the lack of education on death, in many people's minds, hospice care means waiting for death, which is a great violation of filial piety and ethics. For nearly recent 30 years, there are only about 200 hospices on the mainland. This is far from enough compared to China's huge population base. In the United States, for example, in 2011, nearly 44.6 percent of people died in hospice programs, and 1.65 million people received hospice care. (Zou, 2013)

Because of these beliefs, medical resources tend to focus more on curative treatment and less on palliative care. This puts mainland China directly ninth from the bottom of the Quality of Death Index in 2015.



(Fig. 1: The 2015 quality of death index and ranking of palliative care across the world)

Above all, the lack of death education is harmful to the social development and mental health of people.

1.2 Potential Market

More and more Chinese are opting for more environmentally friendly funerals, the government encourages people to abandon the traditional practice of burying themselves in the ground, banning burial, and practicing cremation. According to the Beijing Municipal Civil Affairs Bureau, environment-friendly funerals accounted for 44 percent of the total in Beijing last year. A guideline released this month by the Ministry of Civil Affairs sets a target for 50 percent of annual ceremonies to be green by 2020. The green funeral that is now being promoted in the country is the storage of ashes in a box in a special room in the funeral place. (Yi, 2018)

According to the 2021 Statistical Bulletin on National Economic and Social Development released by the National Bureau of Statistics, the country's population increased by 480,000 to 1.413 billion at the end of 2021, and 10.14 million people died of cancer, accidents, sudden death, and other causes in the year, with a mortality rate of 7.18 per thousand. The death rate exceeded 7.10 per thousand for the first time in nearly six years. In terms of population structure, the total number of elderly people aged 60 and above increased by 3.29 million to 267 million at the end of 2021, accounting for 18.9 percent of the total population. As a country with the largest population in the world and a growing elderly

population base, China has entered the stage of elderly population hoarding. With the trend of population aging and the acceleration of new urbanization, the market will generate huge demand for funeral services, which will provide motivation for the pursuit of personalized funeral services. (The 2021 Statistical Bulletin of the People's Republic of China on National Economic and Social Development, 2021)

Because of the traditional concept, bargaining on this matter is unethical, so there is a lot of profit in the funeral industry. In China, a representative listed company in the funeral industry, Fushouyuan, the company maintains a high gross profit level for a long time, the comprehensive gross profit rate is about 80%, and from 2018 to 2021 gross profit rate is as high as 85.58%, 85.68%, 84.68%, and 84.7%. The operating revenue of Fushouyuan was 226 million yuan, 241 million yuan, 265 million yuan, 290 million yuan, and 365 million yuan, respectively, up 16.53%, 11.79%, 12.07%, 2.27%, and 22.9% year-on-year. (Fushouyuan 2021 financial report, 2021) Therefore, many unnecessary expenses can be avoided by providing products that people can plan and purchase when they are healthy. Moreover, the funeral goods currently on the market are very single in function and form, and usually contain only basic information about the deceased, which does not allow future generations to understand what kind of person the deceased really was. So in this design I try to combine new functions, so that people can show themselves more richly to let the descendants understand the deceased better, and also encourage people to plan their life better to show to the descendants, and users do not need to buy a new item to avoid waste.

1. 3 Literature Review

What is the real reason people fear death?

James Diggory and Doreen Rothman (1961) asked a sample of the general population (a total of 563 people aged 18-22) to rate several consequences of death. Here are the most common fears about death, in order of importance:

"My death would cause grief to my relatives and friends"

"All my plans and projects would come to an end."

"The process of dying might be painful"

"I could no longer have any experiences,"

"I could no longer care for my dependents,"

"I am uncertain as to what might happen to me if there is a life after death"

Combine with the interviews, the answers were divided into the following three categories.

The sense of being deprived of what you had (feeling of loss).

Due to the definition of self-image or self-concept, the more part people included the more death deprivation. (self-awareness, intimacy, wealth). Death forces us to experience a sense

of personal loss. People feel fear because of the strong sense of self. The more a person wants to preserve himself, the greater the fear of death.

The experience after death or the unknown world after death.

Death is unknown, with the arrival of death we will be in a completely unfamiliar field. That means uncertainty, not knowing the direction, deprivation of life, and the unknown after death, which is the fear brought by death.

The feeling of regret over past or unfinished events.

The fear of death is often closely linked to the feeling that life is wasted. Many people's death anxiety comes from never developing their full potential. Many people feel hopeless because their dreams have not come true. They are afraid to look at their life and find that they have achieved nothing. They haven't really lived according to their own ideas and dreams. The less you experience life to the full, the more you fear death.

How to reduce the death anxiety of people?

Different cultures and religions have different views and attitudes toward life and death. To summarize, the Western worldview generally believes that life is beautiful, so losing it is painful, and thus their attitude towards life is to make the most of it while they have it and make it as valuable as possible. However, in the Eastern view, dominated by Buddhism, life is considered to be painful because there is loss, suffering, illness, and death everywhere. There is no denying that there are many good things in life, but they are usually not eternal, and even if we used to have them, we will lose them one day, this process is just making it more painful for us. Based on this explanation and setting, what Buddhism wants to do is to free people from the illusion of self. The main reason that death is terrifying is that it makes people fear their own demise. And if there is no ego, then there is nothing to perish and make people feel afraid. The concept of transition ritual was introduced by German anthropologist Van Gennep (1908), who believed that human societies are always in transition from one condition to another, and this process is often accomplished through rituals. In different societies, the funeral, the ferryman, presents different characteristics, for example, we have the tradition of weeping, and they used to be all kinds of drumming, while the Western funeral rites are inseparable from Christianity. In the West, the individual is the centre of the funeral ritual, so the deceased is the centre, and the focus is on the placement of the soul of the deceased. Instead, the focus is on the actions and rituals of the living. It is impossible to judge which attitude and concept of life and death are correct. Besides, research by Bregman (2019) found that a strong faith alleviates the fear of death to some extent. But only a very few true religious believers have an inner faith to help them. Most of

them have some kind of religious belief, but it is not enough to help them avoid psychological conflicts and fears.

There has previously been little comprehensive understanding of how subtle, everyday death awareness can inspire attitudes and behaviors that minimize harm to self and others and promote well-being. According to an analysis of recent scientific studies by Society for Personality and Social Psychology (2012), awareness of death can improve physical health and help us reprioritize our goals and values. Even unconscious thoughts of death, such as walking through a cemetery, can lead to positive change and promote helping others. For example, in the 2008 Personality and Social Psychology Bulletin, Vail cites a study by Matthew Galliot and colleagues that tested how simply being near a cemetery affected people's willingness to help strangers. Says Vail: "The researchers hypothesized that if the cultural value of helping people is important to people, then an increased awareness of death would inspire an increase in helping behavior." Second, a 2010 study by Immo Fritsche and his co-authors at the University of Leipzig revealed how an increased awareness of death inspires sustainable behavior when pro-environmental norms become salient. A 2009 study by Zachary Rothschild and his colleagues at the University of Kansas showed that increased awareness of death can motivate religious fundamentalists in the United States and Iran to show peaceful compassion for members of other groups.

If this fear becomes a constant consciousness, we will not be able to exercise our normal functions. It must be properly repressed so that we retain a little comfort in our lives.

Repression means more than setting aside, and thus in normal circumstances, people actually run around, never believing in their own mortality, just as people are convinced of the immortality of their physical bodies and try to grasp death. Of course, a man will say that he knows he will die; but in reality, he does not care. He lives happily, and he neither needs to think about death nor feels distressed by it, but this is a purely rational, verbal awareness. The self-conscious emotion of fear is suppressed. This is the latent repression of the fear of death, and the attitude of people to life after the latent repression. Even after being awakened, it is possible to engage in subliminal repression to escape. So, since this psychological trauma makes people afraid, it is natural for people to intentionally bypass this topic.

Anthropologist Ernst Becker (1997), in "Denying Death," argues that the ability to think about death causes existential terror and that a large part of the heart will then be used to cope with that fear. Becker argues that human beings' exaggerated perceptions of their own character, power, and worth give life meaning and "eternity. Without these perceptions, the individual is plunged into severe fear and anxiety, and loses motivation to live because of the realization that he or she will eventually die. For Becker, "life and illusion coexist.

People avoid death anxiety without being conscious of it. Most people are not aware of their death anxiety at a conscious level. Death anxiety is replaced by disguised and reshaped appearances, such as fanatical religious beliefs, obsession with accumulating wealth, and the blind pursuit of fame because these can provide people with so-called immortality.

Dr. Kathryn Mannix has studied and practiced palliative care for forty years and provides professional skills training for palliative care professionals. In the book 'With the End in Mind: Dying, Death, and Wisdom in an Age of Denial', she covers six aspects: understanding the patterns of dying, finding the right way to say goodbye, choosing a better time to discuss death, adjusting life expectations, leaving gifts to the world, and transcending the limits of life.

Because of cultural taboos about death, we rarely talk seriously about it until we or our loved ones are about to die. But talking openly about death can reduce superstition and fear.

(Mannix, 2019) That is why people should confront death early because these topics are easier to have when people are healthy.

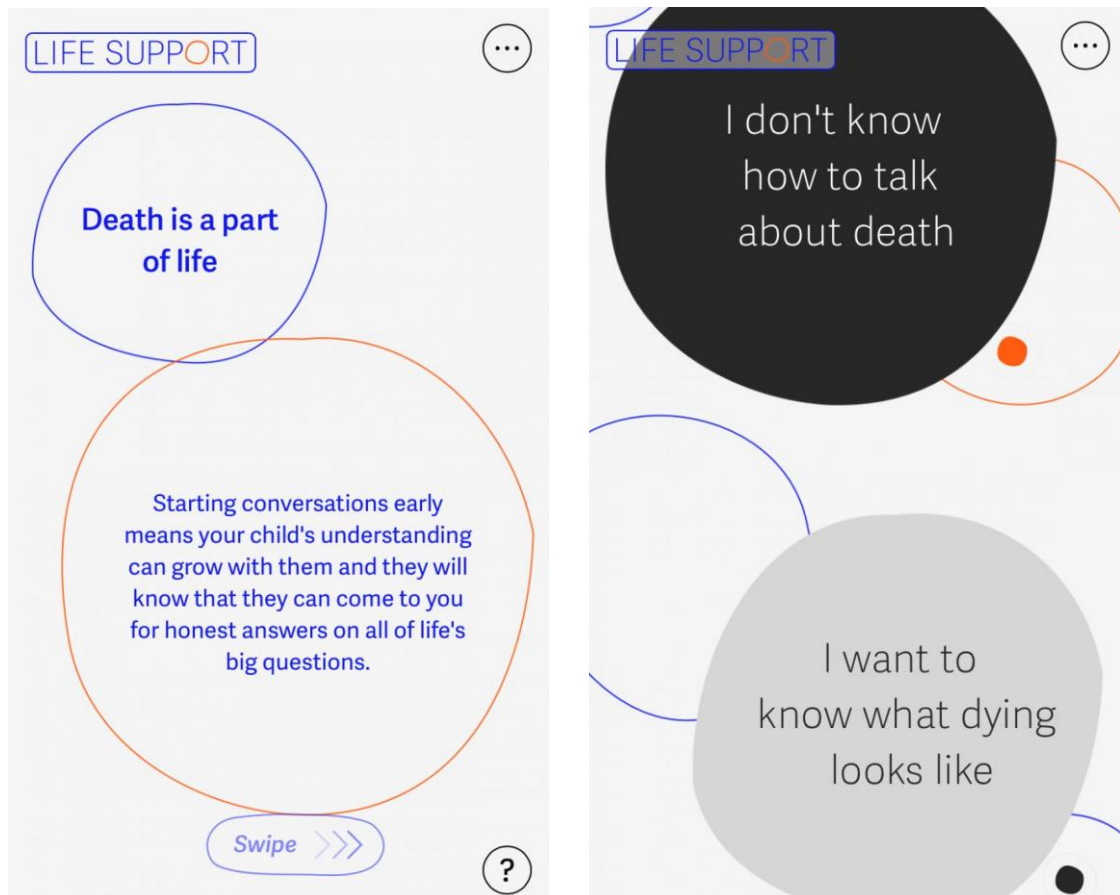
Kathryn mentioned in the book a patient's family -- Joe, his wife Nelly got cancer, but out of love, Joe did not want Nelly to suffer too much, so he did not tell his wife the diagnosis.

Kathryn and Nelly communicate after the discovery, in fact, Nelly already knew everything, also out of love, she also chose to keep secrets, and bear the pain alone. "So it seems to me that although Nelly is sick, you are both suffering. And each and every one of you are suffering alone. Nelly is upstairs worrying about Joe, Joe is downstairs worrying about Nelly... I wonder if you can handle the pain better by talking about the situation. "This was Kathryn's advice to the loving old couple.

A frank conversation also allows the dying person to make a written plan in advance and discuss with loved ones whether to accept or forgo treatment that will extend life but not restore quality of life. The patient's relatives can prepare these rituals in advance to meet the patient's wishes and allow them to say goodbye to the world in their own way while they still have the ability to do so.

Finally, my design focus on encouraging talking openly and promoting death awareness of people as solutions

1. 4 Case Study



(Fig. 2: Life Support, a digital tool to help users cope with death)

The mobile-centric website Life Support, designed by creative consultancy The Liminal Space, helps people face death through their smartphones. It includes death-themed visual therapy, tips on how to talk to children about death, and advice from palliative care experts to make it easier for people to start death-related conversations and reflections. Different from this project, I prefer the materialized output to help people face the consequences of death. (The liminal space, 2021)



(Fig. 3: The self-assessment toolkit designed by Sara Lopez Ibanez)

After researching the process of mental health provision and treatment approaches in the UK, Sara concluded that what patients struggle with the most is the initial communication with the doctor. So she decided to use objects to help navigate the distress and become a tool that can be used to communicate with others. (Sara, 2017) Likewise, the first discussion about death is difficult. A similar tool would allow users to discover which kind of help they need in the face of death and where they can get it.



(Fig. 4: The Coffin chair created by Yeyang Liao)

Central Saint Martins graduate Yeyang Liao has designed a coffin chair that can be used as an item of daily furniture when people are alive, then can be cremated together after death. In China, the older generation attaches great importance to the ceremony of preparing their own coffins. Before, many elderly people had prepared their own coffins while they were alive to pray for longevity. Usually, they also keep the coffin at home. The world is developing more and more efficiently and modern, and many traditional things have disappeared, they should not be simply copied or abolished, we should pass on the traditional values through modern methods while adapting to social development. (Yeyang , 2018) In the same way, many people used to worship their relatives' urns in their ancestral temples, so it is not unacceptable to have an urn at home.



(Fig. 5: Touching father part one by Dong Song)

Touching Father is a series of three artworks created by artist Song Dong (1997) for his father. Song Dong has always been particularly afraid of his father, who has never hugged him as far back as he can remember, but he has always wanted to be close to him, to hug him, for example, but always with some embarrassment and timidity. Song Dong describes "a kind of awe" that men may not be naturally good at showing intimacy. This is especially common in the Chinese, who are not good at expressing love, and the word love cannot be pronounced in any way, but the good thing is that they are clear to each other.

When Song Dong proposed this work to his father for the camera, he was seriously rejected by his father many times. Song Dong said you have always wanted me to succeed, right? Help me do this so I can become famous. The father did not say anything else, as a tacit agreement. Song Dong lamented that for the success of his son, the majesty of the firm was also put down.

In the first part he chose to use the illusory light hand cast on his father's body, later according to Song Dong's description, the whole process is a bit out of his expectation. At that time, his father was smoking, and when the shadow hand was on his father's body, he felt embarrassed and awkward, then he suddenly took off his shirt and undershirt, and returned to his original sitting position with restraint. After the work was completed, these two people did not have any conversation about it, but they were closer to each other. Song Dong said he was always afraid of him when he was a child, and later when he was half-grown he somehow felt a little bit unable to look at him. Always feel that the generation gap between the two of them is too deep, after this experience, Song Dong understands that the ditch is not necessarily filled, and the bridge can work.



(Fig. 6: Touching father part two by Dong Song)

The second one was after the death of Song Dong's father, Song Dong really touched his father's body with his hands. This time the work was sealed in the videotape by Song Dong and never taken out to watch.



(Fig. 7: Touch father part three by Dong Song)

The third part, by then it had been 8 years since the death of his father, after 8 years of time Song Dong had the courage to face his father's image again. That was the last image left by his father before he died, Song Dong cast the image into the water, forever missed, forever untouchable.

1. 5 Research Question

As such, this research focuses on the main research question:

How to encourage people to initiate death-related conversations and reflections?

Chapter 2. Methodology

Because of the emotional focus of the death theme, a human-centered design approach was adopted. By putting the people we serve at the center of the design process, we are able to create products and services that resonate, keeping in mind the needs, pain points, and preferences of users at each stage of the process, and tailoring them to the needs of the audience. The first phase is dedicated to learning from the target user. Rather than developing products based on preconceived ideas, we spend time discovering what they really want through questionnaires and interviews and conducting workshops together. The inspiration phase requires empathy to understand the experiences and emotions of others. Put yourself in the user's shoes and identify their current problems and how they are trying to solve them. Finally iterate to adapt to the user's needs. Prototypes are basically scaled-down versions of products that do not need to be perfectly designed and developed, and can even be just a part or feature of a product, used to facilitate quick participation in real user testing, and are key to identifying problematic defects in prototypes so that designers can make timely adjustments. The developed prototypes are tested by empathic users to let them experience the products and services and get real-time feedback.

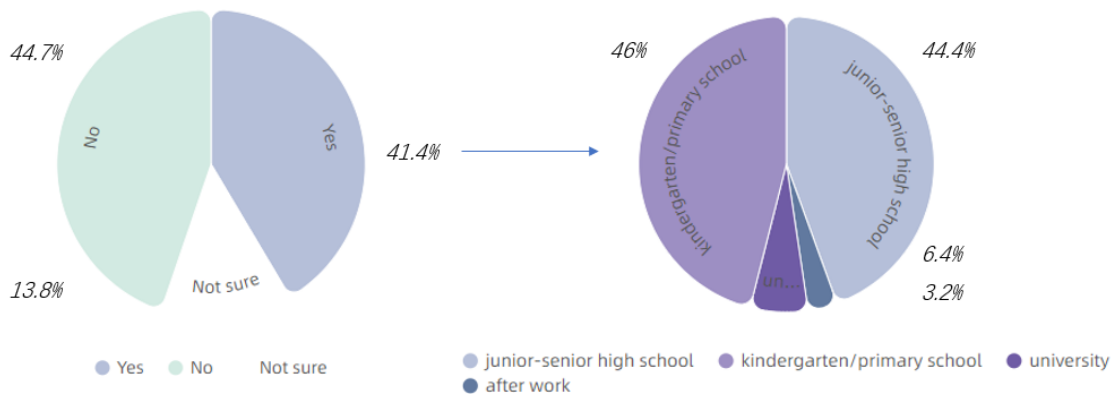
The ultimate goal of design is not the product, but to meet the needs of people. With the development of society, human-centered is not only a value, but also a way of thinking in modern design, which requires designers to consider human factors in design, including psychological habits, customs and education, political economy, religion and social needs, always taking human as the starting point and target user of design, and respecting human habits and emotions, which is the concept of human-centered design.

Chapter 3. User Research

3.1 Online questionnaire

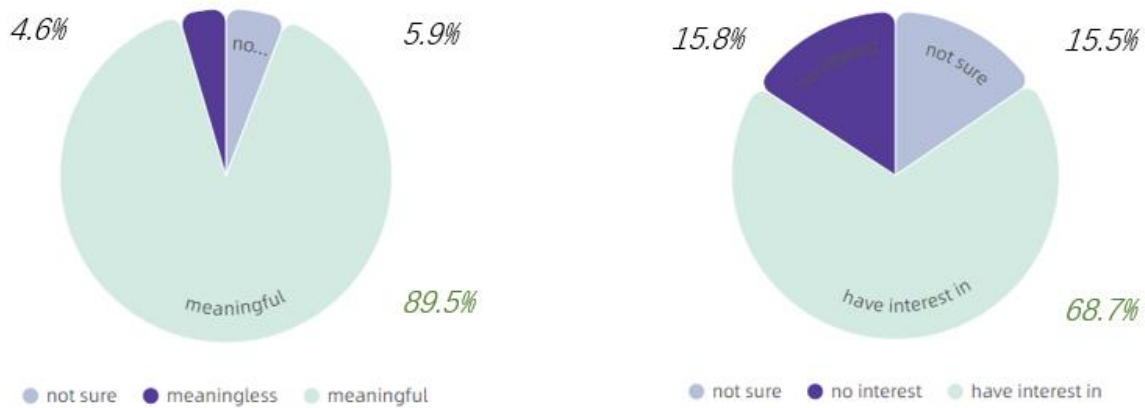
On April 1, an online questionnaire was sent out "How do you think about the topic of death". By April 13, a total of 76 valid completed questionnaires were collected.

The first single-choice question, *from childhood to adulthood, has your family ever initiated a conversation with you about death-related topics? If you have, when was the earliest?*



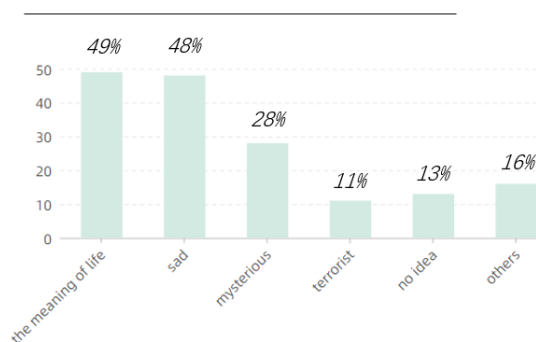
According to statistics, less than half of the participant's family members initiated the discussion of death-related topics, and it mainly occurred in high school before, the content was only about the basic understanding of death, but after having the ability to think deeply, there were few opportunities to have in-depth conversations.

The following questions, *do you think it is meaningful for young people to talk about death-related topics? And if there is a workshop on the theme of "death" (in the form of a tea party / based on a film or book / artistic presentation/board game, etc.), would you like to try to approach or participate?*



In the comparison of the two charts above. 89.5% of participants thought it was, while only 68.7% of those were willing to try to participate in such a workshop. This 20% difference in data shows that some participants are not willing to participate in a workshop in an open and offline way; others indicate that they prefer to keep such a reflection to themselves or family. Therefore, my design will focus on stimulating open communication with family in a private environment.

#Q4 *What does the topic of death mean to you? (Multiple Choice)*



It can be seen that death brings people a variety of feelings. Even for an individual, there are contradictions on this issue. Some participants may choose “the meaning of life” and “full of horror” at the same time. This means that we need to be open to allowing people to show their different interpretations of death. Therefore, I want to get rid of the limitations of traditional education to just trigger relevant discussion.

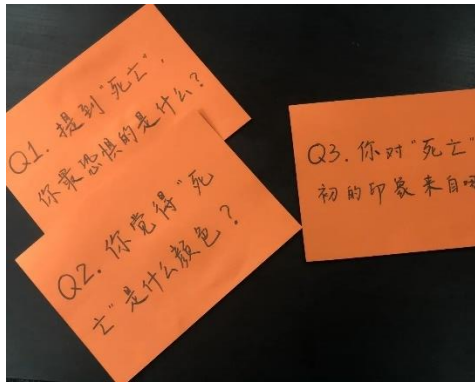
In order to promote the follow-up related workshops, the last open-end question is *'If you were invited to an offline workshop on the theme of "death", What kind of format do you want the workshop to take?'* And some answers are selected, " Give myself a living memorial service", " Exposure to some art installations, like some exhibition.", " Let participants have spiritual support". After the discussion, we found that usually the impact of an exhibition only lasts for a few days, so I want to design death memorials that can be placed in the home to turn it into the best exhibition hall so that the impact can start more easily and last more deeply. A death-related themed workshop where participants can create a death memorial for themselves to express their views on death or their wishes. Observe their design process and finally listen to what they want to express through such a design.

3.2 Workshop & Interviews

Each of us has a different understanding and feeling of death. Most children are already curious about the word death in kindergarten, and the initial concept of death is born in every child's heart. And with the increase of experience, people's attitude toward death also changes. So how many of us talk about death, lighthearted or serious, with relatives, friends, partners, and even children? It's not easy to talk about death, especially when it's someone we love. The fear of death being unknown is overwhelming, and we truly wish that we and those around us would be spared grief. This contradiction is too difficult to balance and coupled with the ideological shackles imposed by social culture, an invisible agreement to remain silent is formed by tacit understanding. As a result, people are often at a loss when facing the death of a loved one, and no one knows how close or far death is.

Through the form of a workshop, providing a platform for people to talk about death. Here, everyone is free, is emotional, is able to release. You can share your own stories, and you can even show your own interpretation of life and death in artistic ways, and no one will interrupt you or question you. You are the most peaceful recipient and witness of your own life and death. Through the discussion of several periods, I hope that we can break the inherent impression of the topic of death and start the death-related topic more easily.

The first activity hoped to provide a relaxed and free space for people to talk about death. A total of 12 people aged 22 to 49 participated, including social work students, a middle-aged mother, a design company owner, and young people who just entering society. First of all, I brought up some death-related issues for discussion.



#1 What is your greatest fear of death?

Some people say: "It's pain, a physical pain." Some people say, "It's the rupture of relationships." Some people say, "It's an endless disappearance, a disappearance of unconsciousness and senselessness."

#2 What color is death in your eyes?

"Death in my impression is a phantom, a kind of retro feeling of the 20th century. In my opinion, death is more like a momentary release, recording the greatest energy of every moment."

"I think it's black. Death gives me the feeling of black cloth because it blocks our exploration of the world. There may be many people or things that we want to care about, and many unfulfilled wishes. These are after death. Can't go on. It gives me a sense of the unknown, and the unknown is black."

"I am a 49-year-old mother, and my thinking is more realistic. Death in my eyes is white because in real life, the environment we are exposed to after death is white, such as the white cloth in the hospital, and the decoration of the funeral home. "

#3 How do you say goodbye to someone close to you if only the second half of the year is left?

"Whether I go first, or he goes first, I think it's all in the way of joy and sorrow. Because the relationship between friends is relaxed, and there is no feeling of tension. It may be a sentence of 'the time to eat is over, I have finished what I should drink, so I will say goodbye to you.'"

"In fact, in getting along with my partner, there are always other considerations, such as balancing love and life, balancing family and love. If there is only half a year left, then maybe I will be like gambling, All-in. I will every day write a love letter to her on the last day."

"It's just companionship. The most important thing is companionship. I don't want to be separated. Time is too hasty, and there is no time to grieve. Only companionship is real."

#4 What do you want your funeral to be like?

"I hope that after I die, what I leave behind can still be preserved in a living state. I hope that my ashes are hourglasses embedded in tombstones, not sitting in a place like the current urn, I hope that my ashes are Still 'alive'."

"I hope that after I die, I can donate all the organs I can donate, and the things that cannot be donated will be cremated, and then turned into a handful of chemical fertilizer, sprinkled on the soil, and let it breed a flower. I think life is about A flower will bloom."

The next activity is to make death artistic, and let participants design death memorials themselves. Skull is the most explicit representation of death, providing a skull painting for participants to convey their understanding of death through re-creation.



"Death and life are opposites, but at the same time, they are integrated. All life, in fact, stems from death. Death has given us a better life. Tibetans are particularly in awe of life, and they will not go to catch rivers. Even if the yak is slaughtered, they will choose the aged yak to slaughter. Because they know that life comes from nature, after they die, they will return to nature. In fact, many of the lives we see are Countless dead inorganic salts that gave birth to our life."

"I collaged the remaining branches and leaves from the top cut into a mustache shape, and I didn't waste it, because I don't think life is necessarily only upward. The head of death is like a flower pot in the middle, and the top is full of vitality. It is life, and the following is also life. Sometimes we live in this society and need to go through a lot of hardships, then we just try to make life better. We are in all directions of life, and we can also go down, in an opposite angle, to find the meaning of life."



"Actually, I think that survival is a process of moving towards death. You actually know this all the time, just to separate death from your current hope. You think that is too desperate."

"We look at the beliefs in many religions. Where do people go after death? No one will mention that after you die, you are gone and dissipated. No one will say that. In Jesus' Bible, he will mention Heaven is such a thing. In Japan and China, there will be hell and hell. In Egypt, they will also have the reincarnation of the Styx, and then go to weigh the heart, round after round. In fact, human beings do not dare to extinguish this hope So death is actually a symbol of hope, you just don't want to face your own uncertainty and despair about the future."

"No one will tell you where you will go after death, so you can only set a destination for yourself, and that is your goal in the process of dying."



"This one is more like expressing my perception of life. The sweet-scented osmanthus above, I am trying to simulate the feeling of the breeze. Whenever I feel the breeze blowing my cheeks, such as going out this morning, I feel the gentle breeze with the fragrance of sweet-scented osmanthus. Blowing, I have a very happy feeling that I feel alive."

"Then in the middle part, I blindfolded it, which means that even though I can't see the world, I still smell the flower. Often in some specific seasons or time periods, it's just a little bit familiar. The taste of it will drag us into the memory and make us feel 'it's good to be alive'."

"At the bottom is the feeling of rotting and damp soil, which is giving birth to new life. The fragrance of the soil gives me a very strong sense of solidity and makes me feel that I am a fresh and surging life."



3.3 Exposition of intend audience

Chinese people are deeply influenced by Confucianism and Taoism, and generally take a negative attitude towards death, coupled with modern atheism and materialism education. Death should not even be mentioned in words, it is a symbol of misfortune and fear.

From the perspective of developmental psychology, the fear of death is hidden deep in the unconscious from self-awareness to adolescence. Entering adolescence, people will have reflections on life, then death anxiety explodes on a large scale. So adolescents usually think about death, and even a few have suicidal thoughts. But adolescents' attention to death is usually overshadowed by other important life events (their studies and careers) in early adulthood.

However, the anxiety about death increases with personalization and age. Eventually, death can no longer be ignored. Although widespread, death anxiety is deeply repressed and rarely experienced entirely. Death anxiety is difficult to be seen in the clinical presentation, so it is rarely an explicit subject of treatment, especially in short-term psychotherapy.

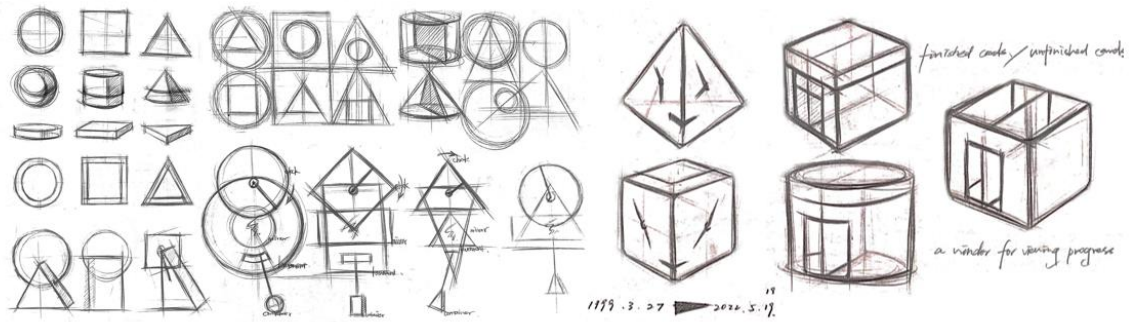
Therefore, the main target users of this design are people who have death anxiety after adolescence, to remind and help them to reflect and talk about death and life

Chapter 4. Design Process

4.1 Early design concepts

After the workshop, the research showed that different users have different needs and things want to express, so the final output is modularized so that users can choose their combinations according to their needs.

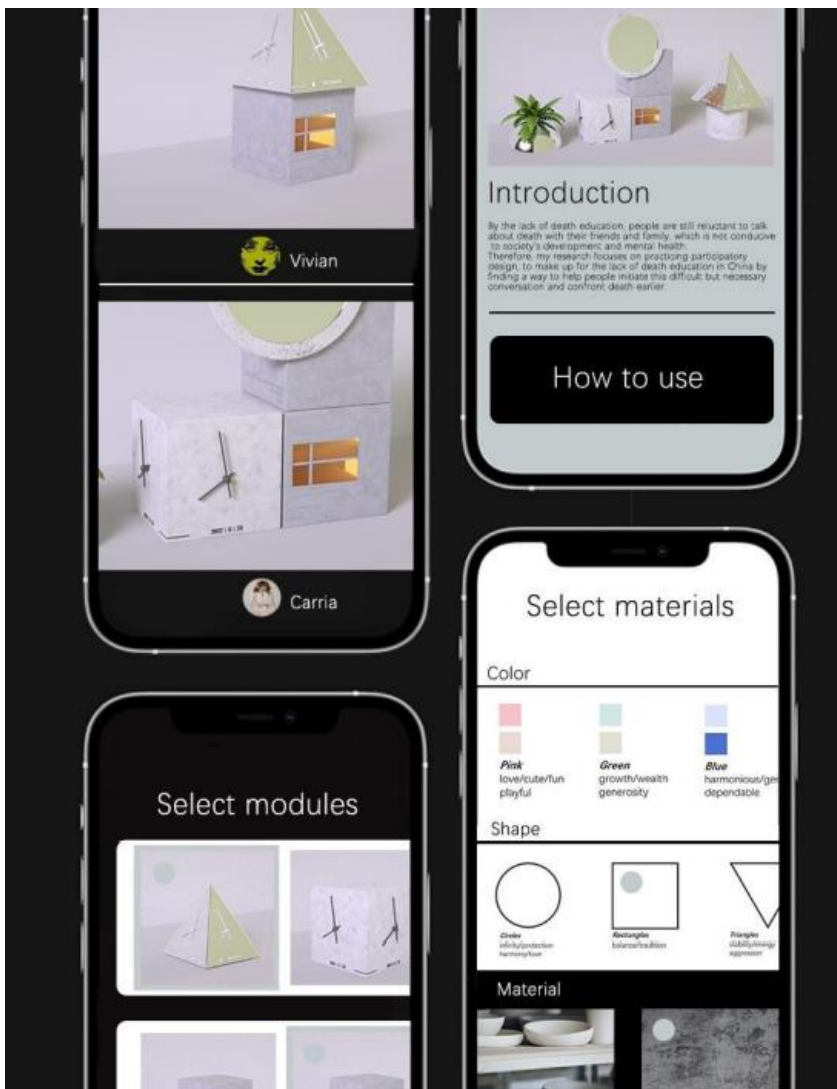
The design of the appearance should be more futuristic to better suit modern homes and to break the traditional stereotypes of the memorial, offering a modern alternative to the idea that urns are dark and can only be placed in mausoleums. Most current urns are uninspired, old-fashioned, and expensive. The shape of each module will be designed into different geometric shapes so that users can freely assemble to show their personalities.



Currently available modules are the clock, mirror, container, flower arrangement, scented candles, and so on. Combined with the function of daily tools such as clocks and mirrors, to make it better integrated into daily life, to help dispel the fear of death and remind you that life is finite, you need to determine your priorities. Finally, the clock can be used to show the time from your birth to your death, and the mirror can be used to show your favorite photo as the last photo. Reuse existing items instead of getting a whole new one for their ashes.

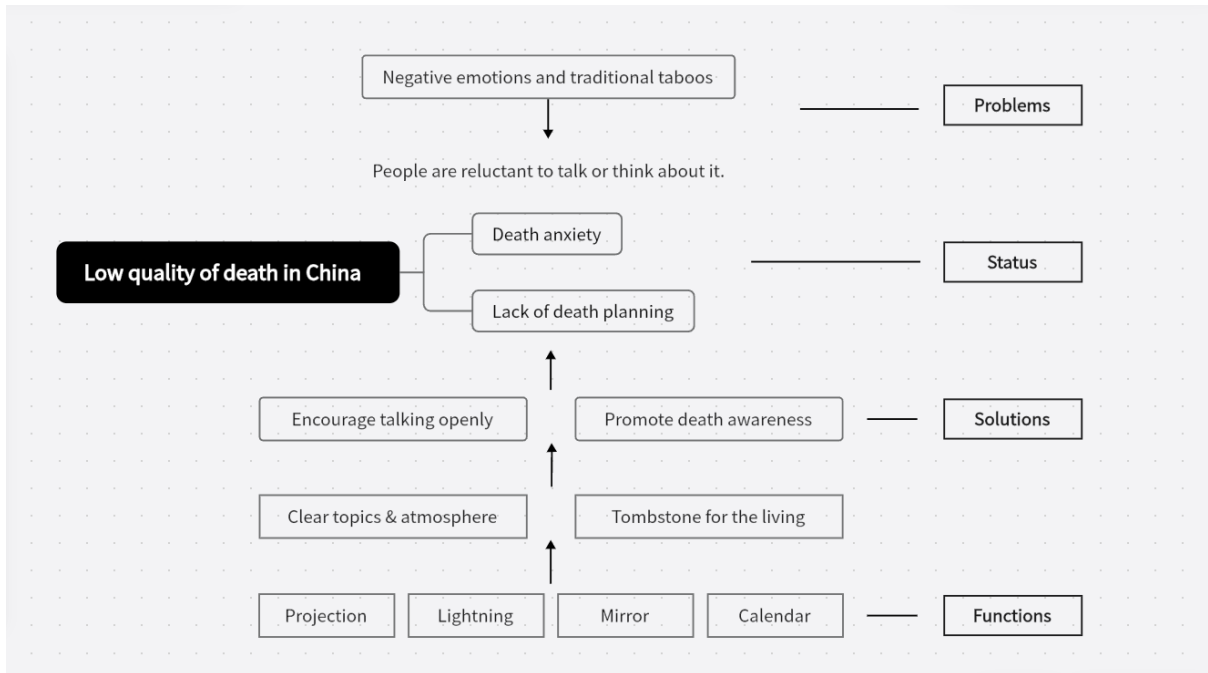
The cards with death-related topics (about values, beliefs, and end-of-life plans) will be put in the container, which will then be filled with your thoughts on death and important family conversations. This will make your end-of-life wishes clearer and avoid massive costs, guilt, and trauma for your family when they need to make decisions for you in the future. You can keep it at home, update it whenever you want, and eventually even put your ashes in it.

The final expected output is a modular set of death memorial products. In addition, the co-creation service allows users to select the module they want or book materials through the online app and then make their own modules in the offline workshop. Finally they can upload their combinations to the app and also see other people and the most popular custom combinations.



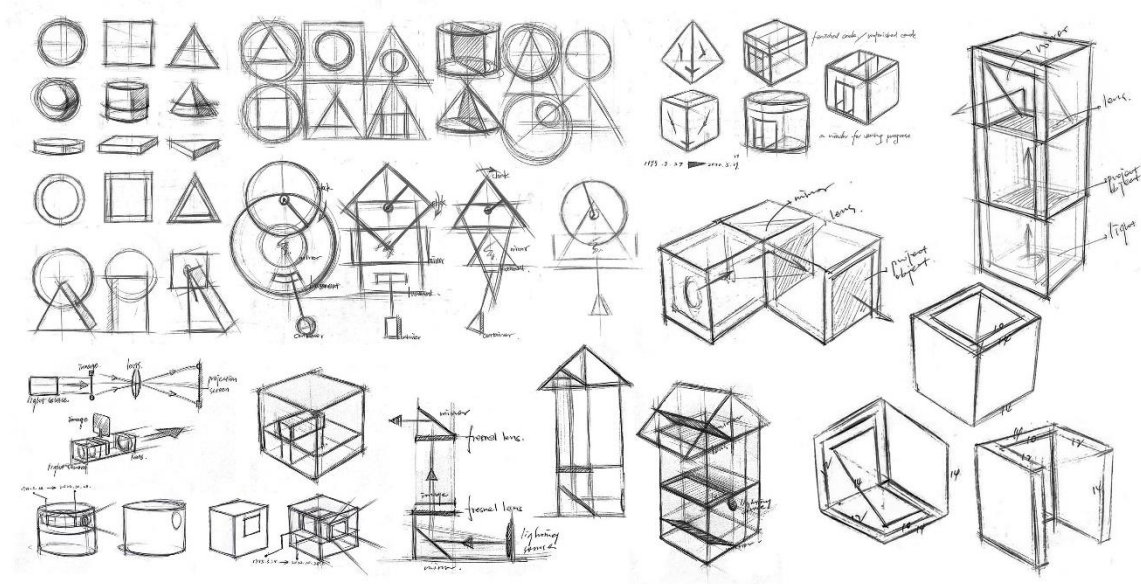
4.2 Concept refinement

After explaining the concept of this design to different people, I found that the final output form was too complicated and cumbersome, which made people confused, so I finally simplified it to the main concept – the tombstone for the living. And the following is the structure of concept refinement.



The final functions of my product are projection and mood lighting to provide clear topics and atmosphere to encourage talking openly, and tombstones for the living to promote death awareness. Through this way people are encouraged to start death-related conversations and reflections and to plan ahead for their own death.

4.3 Sketching

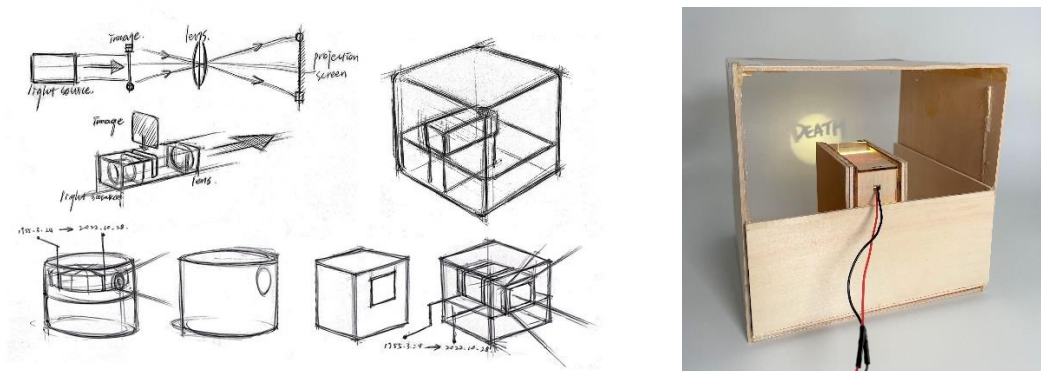


4.4 3D prototyping and testing

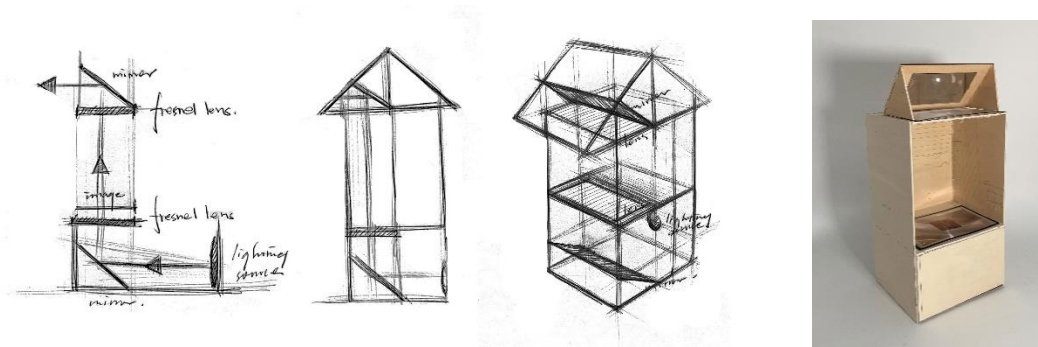


Model Iteration

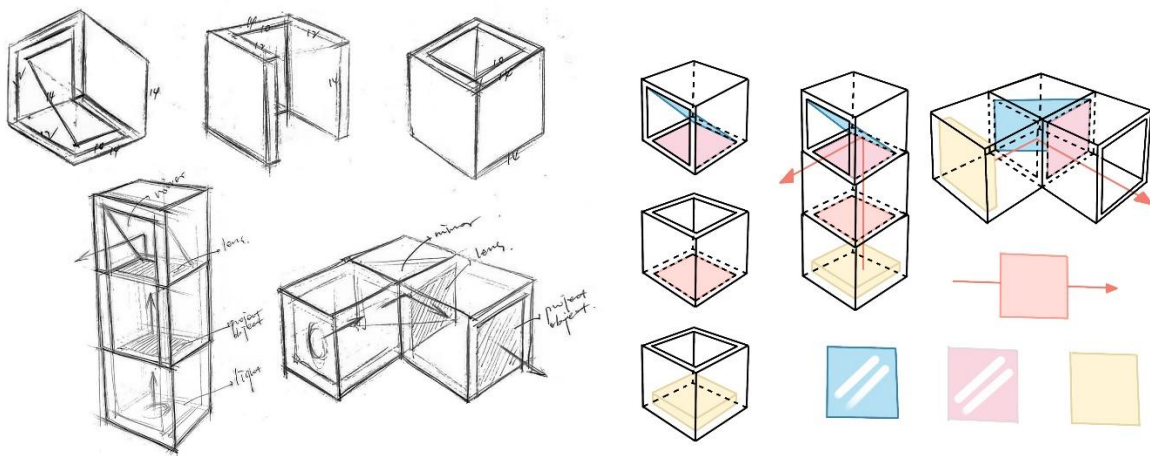
In the first generation of the model, I first simply implemented the main projection function, which allows the user to enlarge the projected image text through a lens.



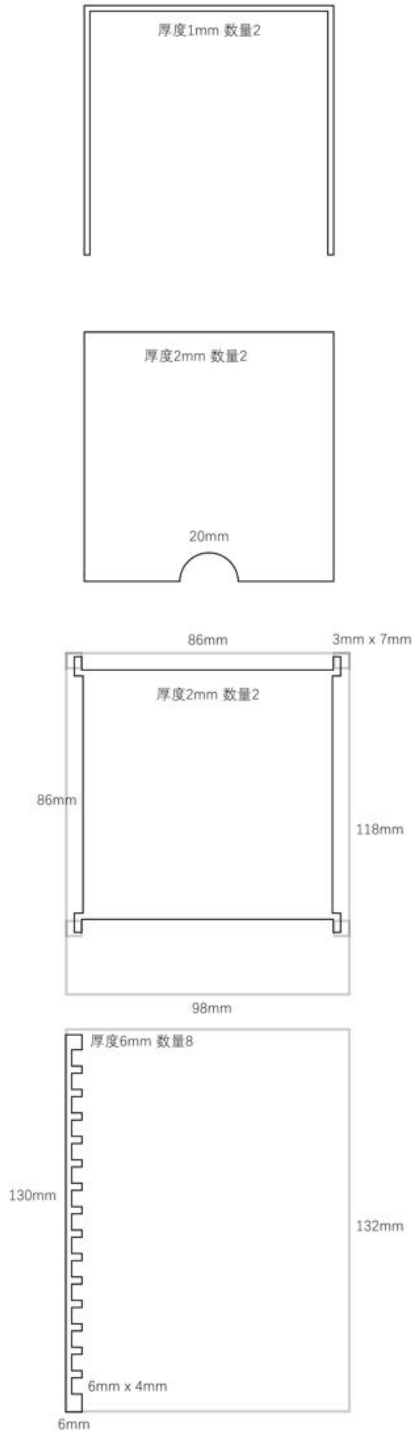
Based on the first generation model, I improved the second generation model by changing the line of light propagation so that the user can place the projected objects more easily and even write the projected text directly on the projected area.



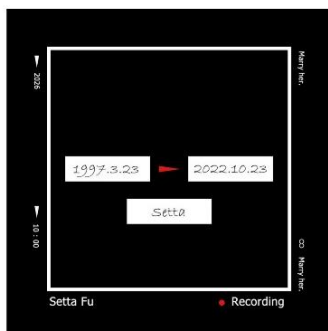
For the third generation of the model, I started to add the function as a tombstone. I modularized the model so that the user could change the structure to achieve these two different functions.



Next is a detailed demonstration of the projection module, I used a trapezoidal structure allowing the user to freely adjust the focal length for projection.



Everyone moves from the past to the present, but the memories of the past will eventually blur and be forgotten with the passage of time. To evoke memories of the past, people use different tools to record them. People used to record or take pictures with pen and paper. Nowadays, more and more people are storing their memories on their smartphones. However, due to the nature of smartphones, data keeps piling up, cluttered and unorganized, and the oversimplified process makes recording too easy, instead making it easier to forget, as if people use their phones to write down and then forget with confidence. So for the final projection part I plan to use physical outputs rather than electronic images. Therefore, I provide users with projection cards with excerpts from my collection of death-related topics for people to discuss, as well as a calendar that people can use as a tombstone.



*birth → death
(calendar)*



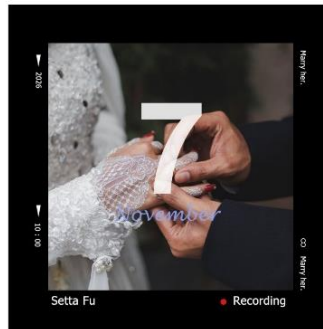
hand written contents



→ excerpted topics



your favourite photo



notes



→ important moment

4.5 Materials testing



At first, I chose wood as the main material to make the final model, but the result was not satisfied, so I carried out further material research in terms of functionality and the sensibility it brings to people.

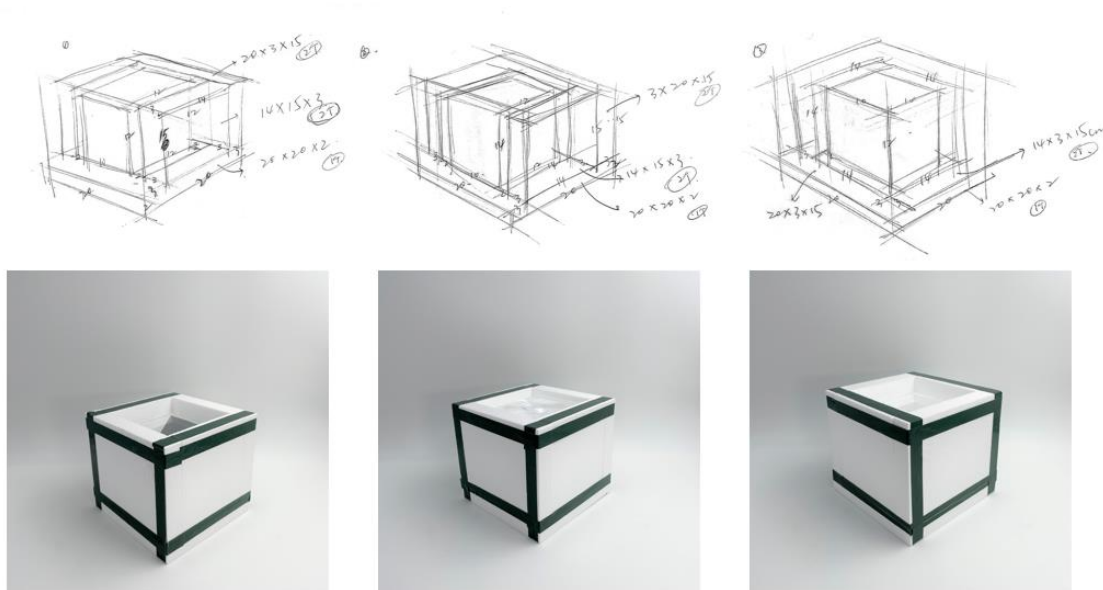


(Fig. 8: Church of the Light by Tadao Ando, 1989. Photograph by Nobuyoshi Araki.)

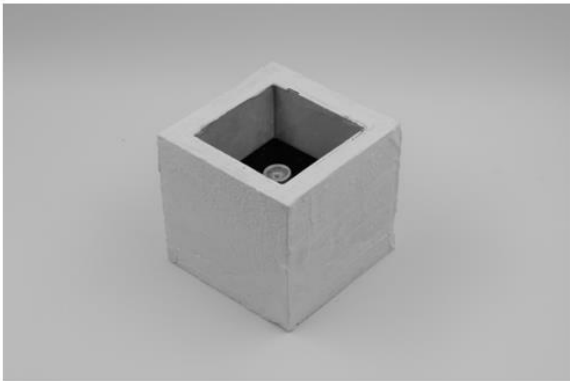
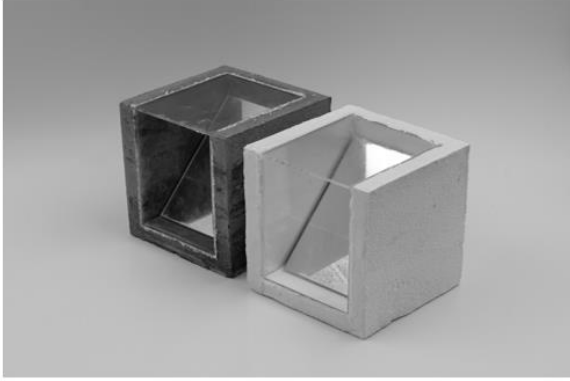
Concrete-based materials are composite materials made of gel materials, aggregates, and water configured in appropriate proportions, and then hardened over a certain period of time. Concrete is the most used artificial civil engineering and construction material in the world because of its hardness, high compressive strength, durability, wide source of raw materials, simple production method, low cost, high plasticity, and applicability to various natural environments.

In addition, the history of human use of concrete is so long that it brings a certain divinity to this material. That is why many famous architects used concrete to build religious buildings, such as the very famous Church of Light, precisely because of its primitive charm. It is also extraordinarily powerful in the space, giving psychological support, seriousness and warmth. The unadorned concrete texture, the calm and natural characteristics, and the most genuine initial state create an extraordinarily relaxing and rustic atmosphere in the space. And the natural feeling of low color The texture of concrete, whether with industrial style, retro style, or modern style can be easily integrated into the space, so that the product can be better integrated into the home.

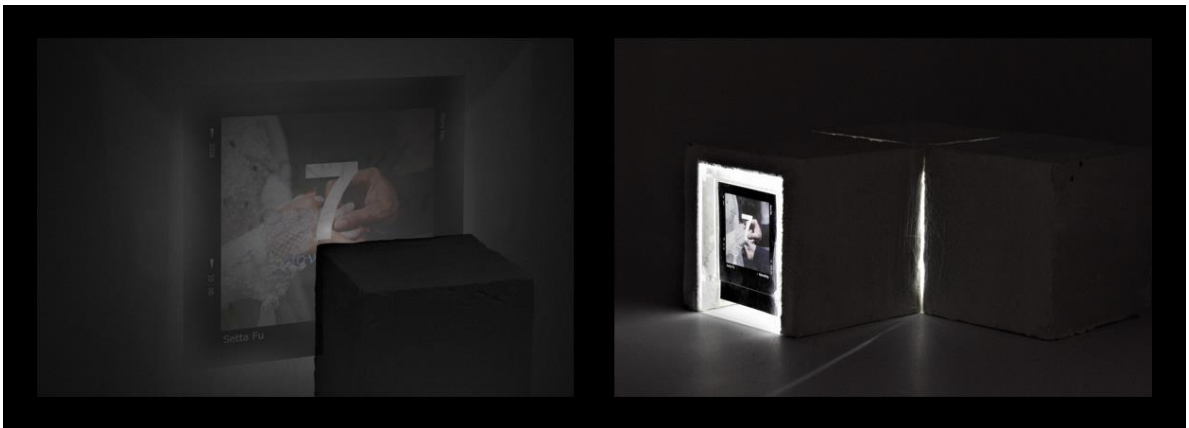
4.6 High-quality prototyping



So I chose the concrete-based material for the final model. First I made the mold with foam according to the size and injected the cement. There were also many unexpected problems encountered during the production process, such as poor mold closure that would leak, the selection of mold material for easy release, the influence of temperature and humidity in the cement setting process, and the pouring and mixing process. It made me realize that the cement casting process is not as simple as I thought.



Chapter 5. Conclusion and Further steps



Finally, I implemented the two main functions that project excerpts of death-related topics for discussion and important life moments so people can remember them better, as a calendar in the form of a tombstone for the living, it can also be used as a tombstone at the end.

However, in the final test I got the user feedback that during the process users assembling into two structures, the guidance is not clear enough, so next, I want to redesign the shape of different modules to give users the correct and clear guidance on how to assemble.

Facing the unknown of death, we have to be prepared to say goodbye in advance. Remind yourself that life may pass at any time, but not in a pessimistic and desperate way, but as a

way to encourage yourself to cherish the time, cherish the loved ones around you, and do something more meaningful.

At a young age, with no illness or pain, suddenly started to think about death late one night and felt an infinite fear. It is because the real purpose of the fear of death in this case is not to make you overcome the death that human beings have been unable to overcome so far; its real purpose is to remind you that you will die, so your time is limited not to waste on unmeaningful things.

Accepting death means that you also have to go through life accepting the meaninglessness of life. The fact that life was meant to have little meaning is not negative or sad. Quite the contrary, this fact liberates you from the fundamental chains of being controlled in the social norms. Your acceptance of the fact that life is meaningless frees you from your obsession and pursuit of meaning to explore the larger world. Precisely because life itself is meaningless, there is nothing that binds one, and nothing that is deserved or taken for granted. Life can be whatever you want it to be, with infinite possibilities and infinite meanings. Life is completely under your control, and every second of the moment is completely autonomous.

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List of Figures

Fig. 1- <http://www.moh.gov.cn/mohzcfgs/pgz/200804/18710.shtml>.

Fig. 2- <https://www.dezeen.com/2021/02/18/life-support-the-liminal-space-death-website-smartphones/>

Fig. 3- <https://www.dezeen.com/2017/07/04/mindnosis-kit-helps-people-overcome-mental-health-issues-graduate-designers-2017/>

Fig. 4-<https://www.dezeen.com/2019/07/10/yeyang-liao-coffin-chair-design/>

Fig. 5-https://songdong.artron.net/works_detail_brt000492500002

Fig. 6-https://songdong.artron.net/works_detail_brt000492500002

Fig. 7-https://songdong.artron.net/works_detail_brt000492500002

Fig. 8- <https://www.metalocus.es/en/news/shaping-light-church-light-tadao-ando>