

Navigating Loss

by

Jane Wu

A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Architecture

Waterloo, Ontario, Canada, 2022
© Jane Wu 2022

AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

This thesis explores the realm of death and loss through architecture. I question how architecture can facilitate a healing process beyond customary spaces like a cemetery, memorial, or temple, and how the raw emotions associated with loss can be represented in a tangible way.

The experience of loss is one of the most natural and certain parts of our life, whether in a private or collective setting, we are all affected by it. Loss is always coupled with a complex set of emotions. Using my skills as a student of architecture, I have developed this thesis as a method of coping with those emotions—a momentary closure.

This document is an expression of the rawness of loss represented through storytelling, art, and design. With the desire to start an open conversation, it begins with a vulnerable moment where I share personal stories of loss and death. Organized around my experiences and the mysterious disappearance of Malaysia Airlines Flight 370 (2014), this thesis traverses the cross-cultural needs and responses to loss in the immediate moments that follow, and the vast expanse of time afterwards. I search for common ground between the grieving processes of different places and people to understand its universal characteristics and explore how these elements, or a lack thereof, can impact one's ability to process loss and, ultimately, to heal.

This study bends into an investigation of architecture and its capacity to respond to traumatic loss. It challenges architecture's ability to convey a story, provide a journey, and transform its occupants. It culminates in a design proposal for a vessel that proffers a journey of healing, a home for rituals and ceremony, and a transition between life, death, and rebirth. Through a curated selection of moments, architecture itself becomes a medium to portray real experiences of loss and death, and the memories attached to them.

This thesis is an account of my healing journey.

ACKNOWLEDGEMENTS



To my supervisor, Robert Jan van Pelt, thank you for jumping in in the final months and for the energizing conversations. Since the beginning of my undergraduate studies, you have shown me the power of storytelling and have inspired me to search for the story behind everything. I am grateful for the countless stories we have shared. The nameless one made it into the book as a tribute to those conversations.

To my committee member, Jane Hutton, I am grateful for your willingness to be a part of this journey. Thank you for the invaluable insights and critiques as they were exactly what I needed to close up that final chapter. Thank you for sparking the beginnings of ideas in how I can continue this work.

To my internal reader, Anne Bordeleau, thank you for challenging me to imagine how I can blur the boundary between the expressive and the rational approaches of architectural representation. This blurring of boundaries is definitely something I will continue to ponder upon.

To my external reader, Fred Thompson, thank you for bringing your expertise of rituals and spaces into the conversation and for planting the seed of possible future explorations in rituals of renewal. Most of all, thank you for inspiring me to see architecture as a world of wonder.

Figure 1: The nameless one

I am forever grateful for my parents, Hoo Haw Wu and Chin-Kuenn Wu, and my brothers, Jarson Wu and Jaron Wu. Thank you for your continuous support throughout this journey and through all my endeavours.

A special thank you to my dear friend, Jaliya Fonseka, your friendship has no bounds. I am grateful for your compassion, excitement, and commitment to my thesis journey and beyond. Thank you for always listening.

I am grateful for all the friends and colleagues who have contributed to this journey. There are far too many to name but I would like to express my sincerest gratitude to Edith Chow for your encouragement and conversations, Joseph Collier for your companionship, enduring support, and patience with my writing, Bryce Clayton for the laughs and motivational words, and Sebastien Vuong for keeping me humble and always telling it like it is.

To my M2 studio instructor, Dereck Revington, thank you for asking the hard questions. If it were not for this pivotal studio, I would not have found my thesis subject.

My sincerest gratitude to Nicole Guenther and Tina Davidson for your support, patience, and kindness throughout the past few years.

To my wonderful editor, Amrit Phull, thank you for taking the time to read through my document and for the thoughtful insights.

My sincerest gratitude to Matthew Azuma, Colin Oakley, and Eric Shum, for your support since day one. Thank you for the endless nights of folding cranes and for your enduring friendship.

To Rita Ho, thank you for bringing my best friend into this world, as without that friendship I would not be where I am today. Your unimaginable resilience is truly inspiring.

To my Haw family, you know who you are, thank you for the endless support and for listening to my thesis develop over the years.

And finally to my dearest partner, Carmon Wong, thank you for your commitment to my explorations and searches both in this journey and beyond. I am grateful for your constant motivation, the conversations, and your insights as I read drafts upon drafts and spewed ideas even into the wee hours of the night. You have been my pillar of support and I would not have been able to finish this journey without you.

Dearest Andrew Levitt,

No words can truly describe my appreciation for you.

As my supervisor throughout the majority of my thesis journey, I am indebted to you as I would not be here today if it was not for your guidance and unfaltering support.

I am grateful for your unwavering belief in me, even when I doubted myself. Your excitement and enthusiasm from day one showed me that my story is worth telling and that all the supposed unrelated elements are actually very much intertwined.

You have forever changed my understanding of what it means to listen, showed me the importance of empathy and compassion, and instilled within me the art of listening to my inner self.

Finally, thank you for helping me distill what would have been a twenty volume thesis into one complete piece of work.

May you rest in peace.

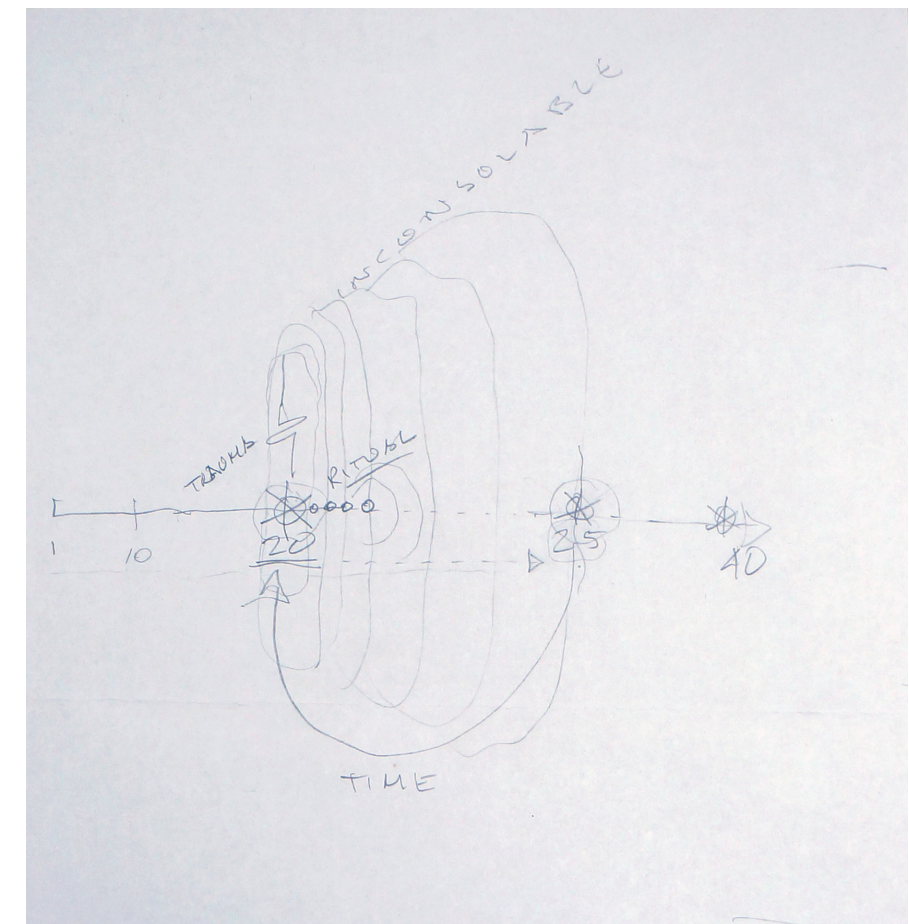


Figure 2: Untitled (On loss), Andrew Levitt, 2017

DEDICATION

To those who have experienced loss and to you, dearest reader.
Please know that you are not alone for there is always someone who will
listen... truly, fully listen.

In memory of Cynthia Tsang.
1990 - 2010

TABLE OF CONTENTS

Author's Declaration - iii
Abstract - v
Acknowledgements - vi
Dedication - xi
List of Figures - xiv

PREFACE - 1
DANCING WITH DEATH: An Extended Introduction - 11

FLIGHT	-	49
LOSS	-	97
REMEMBERING	-	153

MOMENTARY CLOSURE - 191

Bibliography - 201

LIST OF FIGURES

All figures by the author unless otherwise noted.

ACKNOWLEDGEMENTS

- Figure 1: The nameless one* vi
Artefact. Stuffed animal made with a sock, 2016.
- Figure 2: Untitled (On loss), Andrew Levitt, 2017* ix
Drawing. Andrew Levitt, while discussing trauma and loss, 2017.

PREFACE

- Figure 3: Fly* 5
Original source unknown.
- Figure 4: Invitation envelope* 7
Artefact. Origami envelope, 2022.
- Figure 5: Invitation front* 8
Artefact, 2022. Photograph by Hengki Koentjoro.
- Figure 6: Invitation back* 9
Artefact, 2022.

DANCING WITH DEATH: An Extended Introduction

- Figure 7: How to fold a crane* 13
Digital diagram, 2021.
- Figure 8: Death and life* 16
Painting. Gustav Klimt, 1910/15, <https://www.leopoldmuseum.org/en/collection/highlights/146>.

- Figure 9: White flower* 18
Digitally hand drawn, 2020.
- Figure 10: Barbeque skull* 20
Digitally hand drawn, 2020.
- Figure 11: Cockroaches* 21
Digitally hand drawn, 2021.
- Figure 12: Fading* 25-27
Digitally hand drawn, 2021.
- Figure 13: Cynthia* 29
Digitally hand drawn, 2021.
- Figure 14: Seneca crash article* 31
“Students, instructor killed in plane crash near Toronto.” CTV News. November 10, 2010. Accessed June 1, 2021. <https://www.ctvnews.ca/students-instructor-killed-in-plane-crash-near-toronto-1.576925>.
- Figure 15: One thousand cranes* 38-39
Digitally hand drawn, 2020.
- Figure 16: Nightmare* 41
Digitally hand drawn, 2020.
- Figure 17: Dream* 44-45
Digitally hand drawn, 2022.
- Figure 18: Origami crane* 47
Digitally hand drawn, 2020.

FLIGHT

- Figure 19: How to fold a plane* 51
Digital diagram, 2021.
- Figure 20: Landscape with a farmer plowing and the fall of Icarus* 54-55
Painting. Marten Ryckaert, 1620-1630, <https://www.wallraf.museum/sammlungen/barock/rundgang/raum-3/>.
- Figure 21: Seneca crash memorial* 57
Photograph, 2020.
- Figure 22: Seneca C-GSCZ* 58
Photograph. Tom Podolec / CTV News, <https://www.ctvnews.ca/three-die-after-plane-goes-down-near-toronto-1.576096>.

Figure 23:	Beechcraft F33A Bonanza specifications	59	Figure 35:	Map of missing persons	78-79
	Plane specifications source 1: https://www.bonanza.org/aircraft-index/browse-by-type/bonanza/bonanza-f33a/ .			Map completed in 2016.	
	Plane specifications source 2: Flight Manual for Raytheon Beechcraft F33A Bonanza Version A11.		Figure 36:	Boeing 777-200ER specifications	80-81
Figure 24:	Seneca C-GSCZ flight information map	60-61		Plane specifications source: https://www.boeing.com/assets/pdf/commercial/airports/acaps/777_23.pdf .	
	Flight path source: https://www.tsb.gc.ca/eng/rapports-reports/aviation/2010/a10o0240/a10o0240.html .		Figure 37:	Intended flight path	82
Figure 25:	Seneca crash debris	64		Map completed in 2021.	
	Photograph. CTV News, https://www.ctvnews.ca/three-die-after-plane-goes-down-near-toronto-1.576096 .		Figure 38:	MH370 flight and search information map	84-85
Figure 26:	Night sky	66-67		Map completed in 2016.	
	Photograph. Eric Shum, 2020.		Figure 39:	Right flaperon found on Reunion Island	87
Figure 27:	Piece of Air India Flight 182	69		Photograph. EPA, https://www.thesun.ie/news/2614848/could-the-flight-mh370-mystery-be-solved-once-and-for-all-by-this-photo/ .	
	Photograph. https://www.birminghammail.co.uk/news/local-news/man-who-built-bomb-which-blew-315612 .		Figure 40:	Debris found in Mozambique	87
Figure 28:	Partially reconstructed cockpit of Swissair Flight 111	69		Photograph. CNN, https://www.buzzfeednews.com/article/davidmack/mh370-mozambique-debris .	
	Photograph. Andrew Vaughan / The Canadian Press, https://toronto.citynews.ca/2018/08/30/we-are-declaring-emergency-now-a-transcript-of-final-cockpit-communications/ .		Figure 41:	Remembering loved ones, 2019	90
Figure 29:	Adam Air Flight 574	69		Photograph. Kate Mayberry / Al Jazeera, https://www.aljazeera.com/news/2019/3/8/mh370-bewilderment-and-disbelief-five-years-after-plane-vanished .	
	Photograph. https://commons.wikimedia.org/wiki/File:Adam_Air_Boeing_737-4Q8_PK-KKW.jpg .		Figure 42:	Lighting candles, 2014	90
Figure 30:	Air France Flight 447 debris	70		Photograph. CNN, https://edition.cnn.com/2014/03/08/world/asia/malaysia-airlines-plane-missing/ .	
	Photograph. Brazilian Navy / AFP Photo, https://www.bbc.com/news/world-europe-49598838 .		Figure 43:	Pray for MH370	93
Figure 31:	In the clouds	72-73		Photograph. Original source unknown.	
	Photograph, 2019.		Figure 44:	Board of messages	93
Figure 32:	Missing plane	74		Photograph. Reuters, https://www.financialexpress.com/world-news/mh370-families-say-no-new-findings-in-investigation-report/1262985/ .	
	Digitally hand drawn, 2021.		Figure 45:	Origami plane	95
Figure 33:	MH370 reporting	76		Digitally hand drawn, 2020.	
	Original source unknown.		LOSS		
Figure 34:	MH370 article	77	Figure 46:	How to fold an ingot	99
	“Flight MH370 bound for Beijing goes missing.” The Star. March 8, 2014. Accessed June 1, 2021. https://www.thestar.com.my/news/nation/2014/03/08/missing-plane-mas .			Digital diagram, 2021.	
			Figure 47:	Sunglasses	102
				Digitally hand drawn, 2021.	

Figure 48:	<i>Caribbean Sea, Jamaica, 1980 [Neg. #301]</i> Photograph. Hiroshi Sugimoto, https://www.sugimotohiroshi.com/seascapes-1 .	104	Figure 66:	<i>Burning joss paper series: image 6</i> Photograph, 2019.	135
Figure 49:	<i>Aegean Sea, Pilion, 1990 [Neg. #350]</i> Photograph. Hiroshi Sugimoto, http://www.panthalassa.org/hiroshi-sugimoto-seascapes/ .	107	Figure 67:	<i>Paper house, 1996</i> Photograph, Chin-Kuenn Wu / Hoo Haw Wu, 1996.	136-137
Figure 50:	<i>Horizon</i> Digital image, 2016. Based on photo <i>Mirtoan Sea, Sounion, 1990 [Neg. #352]</i> by Hiroshi Sugimoto.	112-113	Figure 68:	<i>Folding paper cranes, Toronto, Canada, 2010</i> Photograph, 2010.	139
Figure 51:	<i>Grief</i> Digitally hand drawn, 2022.	120-121	Figure 69:	<i>Folding joss paper, Muar, Malaysia, 2019</i> Photograph, 2019.	139
Figure 52:	<i>Joss paper</i> Photograph, 2019.	126	Figure 70:	<i>Paper house, 2019</i> Photograph, 2019.	140-141
Figure 53:	<i>Folded joss paper</i> Photograph, 2019.	127	Figure 71:	<i>Burning paper house</i> Photograph, 2019.	142
Figure 54:	<i>My mother preparing curry puffs</i> Photograph, 2020.	128	Figure 72:	<i>Burning paper house series: image 1</i> Photograph, 2019.	143
Figure 55:	<i>A potluck for my maternal grandfather's death anniversary, March 2019</i> Photograph, 2020.	129	Figure 73:	<i>Burning paper house series: image 2</i> Photograph, 2019.	143
Figure 56:	<i>My uncle saying his prayers</i> Photograph, 2019.	130	Figure 74:	<i>Burning paper house series: image 3</i> Photograph, 2019.	143
Figure 57:	<i>Burning joss sticks</i> Photograph, 2019.	131	Figure 75:	<i>Burning paper house series: image 4</i> Photograph, 2019.	143
Figure 58:	<i>Conversing with our ancestors</i> Photograph, 2019.	132	Figure 76:	<i>Burning paper house series: image 5</i> Photograph, 2019.	143
Figure 59:	<i>Clams alternate up and down</i> Photograph. Wenjin Haw, 2021.	133	Figure 77:	<i>Burning paper house series: image 6</i> Photograph, 2019.	143
Figure 60:	<i>Burning joss paper</i> Photograph, 2019.	134	Figure 78:	<i>Something on the horizon</i> Digital image, 2016. Based on photo <i>Mirtoan Sea, Sounion, 1990 [Neg. #352]</i> by Hiroshi Sugimoto.	148-149
Figure 61:	<i>Burning joss paper series: image 1</i> Photograph, 2019.	135	Figure 79:	<i>Origami ingot</i> Digitally hand drawn, 2020.	151
Figure 62:	<i>Burning joss paper series: image 2</i> Photograph, 2019.	135	REMEMBERING		
Figure 63:	<i>Burning joss paper series: image 3</i> Photograph, 2019.	135	Figure 80:	<i>How to fold a boat</i> Digital diagram, 2021.	155
Figure 64:	<i>Burning joss paper series: image 4</i> Photograph, 2019.	135	Figure 81:	<i>Nest ambience study</i> Artefact. Clay and wire mesh, 2016.	158
Figure 65:	<i>Burning joss paper series: image 5</i> Photograph, 2019.	135	Figure 82:	<i>Nest shadow study</i> Artefact. Clay and wire mesh, 2016.	158

Figure 83:	Flight study image 1 Artefact. Wire mesh, 2016.	158
Figure 84:	Flight study image 2 Artefact. Wire mesh, 2016.	159
Figure 85:	Flight study image 3 Artefact. Wire mesh, 2016.	159
Figure 86:	Nest and flight Hand drawn. Charcoal on paper, 2016.	159
Figure 87:	Flight into... Hand drawn. Charcoal on paper, 2016.	159
Figure 88:	Nest on the water Photograph. Hossein Zare, https://www.fgideas.org/black-white-photography-hossein-zare/ .	161
Figure 89:	Potential itinerary of travels Travel path reference 1: https://www.sailmagazine.com/cruising/jimmy-cornell-back-on-the-water . Travel path reference 2: https://www.sail-world.com/Australia/Blue-Water-Odyssey-launches-across-the-world/-105519 .	162-163
Figure 90:	Vessel on the horizon Digital image, 2016. Based on photo <i>Mirtoan Sea, Sounion, 1990</i> [Neg. #352] by Hiroshi Sugimoto.	166-167
Figure 91:	Land to water Digital image, 2022. Based on photo <i>Black Sea, Ozuluce, 1991</i> [Neg. #366] by Hiroshi Sugimoto.	169
Figure 92:	Entrance Digital image, 2022. Based on photo <i>Black Sea, Ozuluce, 1991</i> [Neg. #366] by Hiroshi Sugimoto.	171
Figure 93:	The canal Digital image, 2022. Based on photo <i>Black Sea, Ozuluce, 1991</i> [Neg. #366] by Hiroshi Sugimoto.	172-173
Figure 94:	The womb Digital image, 2022.	174-175
Figure 95:	Contemplation Digital image, 2022. Based on photo by Daniel Lerman.	179
Figure 96:	Water Digital image, 2022.	181
Figure 97:	Stairs Digital image, 2022.	182
Figure 98:	Spiral Digital image, 2022.	185

Figure 99:	Flight Digital image, 2022. Based on photo by Tyler Lastovich.	186-187
Figure 100:	Origami boat Digitally hand drawn, 2020.	189

MOMENTARY CLOSURE

Figure 101:	Searching for the crash site, November 1, 2020 Photograph, 2020.	195
Figure 102:	The crash site, November 18, 2020 Photograph, 2020.	199

PREFACE

PREFACE

Not all those who wander are lost.

- *The Fellowship of The Ring*, J.R.R. Tolkien

This has been an epic journey, a most fulfilling one, and I wouldn't change a thing.

In this journey, I have learned so much about myself and what I have to offer, not only within architecture but also in the vast realm beyond. It has taught me that there is no right path towards a clarity of purpose: as long as I trust my instincts, the path will carve itself out. It is for these reasons I feel it important to provide you with a backstory of where my journey began and how it has culminated in this document.

At the very beginning, I had absolutely no idea what subject I wanted to explore or where my passions within architecture lay. I continuously asked myself, "What is my place in architecture? What is something I want to see change? How do I make this change?" My intuition guided me towards nature and our shared relationship with it.

You must be thinking, "Nature is a pretty broad topic." I agree. Unsure of what I specifically wished to explore, I decided to start with animal architecture.

Set on exploring the architecture of the natural world and its builders, the animals themselves, I spent the first few months of my research understanding their spaces. I was absolutely fascinated by the beauty of the wasp nest, the functional intricacy of an ant hill, and the tenacity of birds that use their bodies as a tool for nest-building. I found so much wonder in how these tiny creatures are able to build such awe-inspiring homes.

This study led me to biomimetics and investigating how biological research can inform architectural design methodologies, morphologies, and performance. At this point, I was convinced that I would be designing some sort of pavilion inspired by animal architecture and I needed to select an animal to focus on. Unsure of how to make this decision, I was advised to throw a dart at a map of animals, but I selected the bird instead. I wasn't sure why—it just felt right.

I analyzed birds, their flight patterns, and their nests, drawing various diagrams to capture technical intricacies I hoped to learn from and incorporate into my own design. I quickly realized that I was not interested in replicating the form of the nest nor the efficacy of its construction. I was not interested in tracking the flocking patterns of birds. I was not interested in designing a pavilion that allowed for bird and human cohabitation. My research to this point had been very technical and I felt that it was missing the one thing I absolutely love about architecture and design: the story.

Do all designs tell a story? Could my research and design tell a story? Which story would it be?

As I wrapped up my first term, I was excited to discover new potential directions in which I could push my research. I explored the more transient, experiential, and phenomenological qualities associated with the bird, specifically nesting and flight.

My second term was a whirlwind. Through an intense exploration into the affects of the nest and flight, I began to understand the nest as a place of refuge, a place of gathering, and a vessel that houses our mind, memories, and dreams. I was intrigued by the idea of a nest on the water as a juxtaposition of safety and a lack of control. Flight suggested freedom, freedom from control and its associated terrors and unknowns. I was particularly interested in the anticipation of flight, the apex of flight, and the ambiguity of touchdown and lift off.

As I dove deeper into the phenomenology of flight, I found myself opening and agitating an old wound. I was beginning to face something that has haunted me since 2010, knocking at the door of bereavement in search of closure. I had finally found my subject in a roundabout way—the very heart of nature: the duality of life and death.

With that, I am excited to show you how all these seemingly different elements piece together and I am absolutely thrilled that you have chosen to share this journey with me. It is my hope that we can come together and share a moment of connection. I welcome you to keep a notebook and writing utensil by your side so that you can record any thoughts or questions that may surface along the way.

Figure 3 [opposite]: Fly





Figure 4: Invitation envelope



Figure 5: Invitation front



Figure 6: Invitation back

DANCING WITH DEATH:
An Extended Introduction

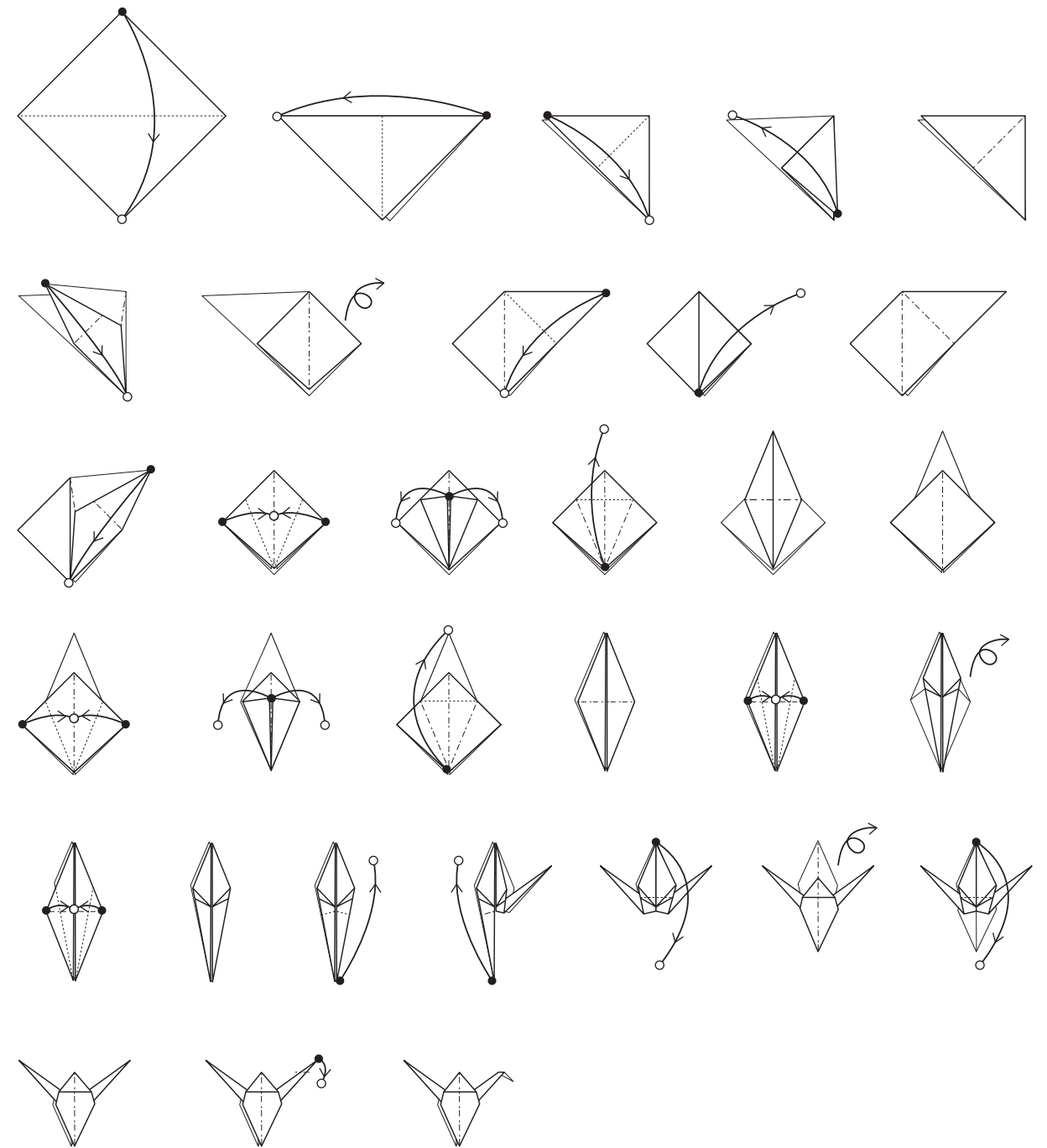


Figure 7: How to fold a crane

DANCING WITH DEATH

Growing up in my family, it was taboo to bring up the subject of death. Mainly for superstitious reasons, my brothers and I were discouraged from discussing it and quickly shushed by our parents whenever we tried.

Both my maternal and paternal lineages originate from China, but my parents were born and raised in contrasting environments: my mother in a rural village in Malaysia and my father in a small Taiwanese urban centre. This contrast in upbringing also created a difference in their views and perspectives on death. My mother is much more superstitious than my father, who is more open.

My mother warned us against whistling at night, as in doing so would invite malevolent spirits and other unwelcome visitors. White flowers had their own folklore. They could not be worn in our hair for adornment or celebration, for white and black are the colours of death, reserved only for funerals. Discussing death, the subject itself, was strictly forbidden. To do so would be to invite it in—to dance with death and, possibly, allow it to take from us the living.

This silence surrounding the subject of death was deafening, and I carried this silence with me throughout most of my life.



Figure 8: Death and life

MY DANCE WITH DEATH

Every experience with death is different.

One of the earliest memories that I can recall is my maternal grandmother's funeral ceremony.

I was four years old.

I remember being at the funeral home entrance where the grown-ups were handing out little white flowers for guests to pin to their shirts. There was a single step down toward the ceremony space. I remember thinking that the space felt incomplete, raw. It felt industrial. There was not much warmth or light and only one direction to walk: straight down an aisle flanked by rows of seats.

Moments later in this memory, I am slowly making my way towards the end of the aisle where a large wooden box sat. I did not understand what was going on. There was no prior conversation with my parents about the ceremony, or none that I recall. This would be my first image of death. I did not know what to expect but I was not scared, at least not at first. My grandmother was lying in the box, surrounded by plush white pillows reminiscent of my bed at home.

She was still, calm, and breathless.

She was dressed in her favourite outfit: simple black slacks and a light blue, patterned blouse with a soft knit cardigan.

She looked at peace.

Suddenly, she moved. Her arm moved! Crying in terror, I ran down the aisle back towards the entrance. I remember telling my mother what had happened, but she did not believe me. No one believed me.

Was my grandmother still alive?

The thought of us laying her to rest while she was still living haunted me throughout my childhood. I always wondered if it were possible, but there was no space to talk about it.

Many years later, I learned that dead bodies twitch and there can be muscle movement as the body gives out its final breaths.

My mother would not discuss the heaviness of her emotions around my grandmother's passing with me or anyone else until I finally explained to her what I was researching and why. I only recently learned that my mother, pregnant at the time, could not visit my grandmother on the day that she passed on account of superstition. She did not have the chance to touch, embrace, or cry with the body. She was denied the opportunity to cleanse the body and to say her first goodbye. The one consolation my mother held onto was that my grandmother had what we would refer to today as a good death. She died at home, in her bed, after a final meal with her family and loved ones, seemingly without any pain.



Figure 9: White flower

My next visit with death would be in 2002, when my paternal grandfather left our world. Looking back, I cannot believe how naive and disrespectful my brothers, cousins, and I acted during that time. The funeral procession lasted the entire day, beginning with what seemed like six hours of endless chanting at the funeral home. While family and friends arrived to pay their respects, we sat for what felt like an eternity, wavering between two states: awake and asleep.

I remember how on the way to the burial, the group of us sat in the funeral limo singing a parody of the Christmas song "Joy to the World," an old children's playground song that went something like this:

*Joy to the world,
Grandpa is dead.
We barbequed his head!
What happened to his body?
We flushed it down the potty,*

And 'round and 'round it goes,

And 'round and 'round it goes...

Why we sang that song, I have no idea. Perhaps it was due to our disinterest in something we did not fully understand, or it was our method of dealing with the weight of the situation, or maybe it was simply the result of boredom. I still wonder how different our actions would have been if we understood the gravity of the events that were happening right before us.



Figure 10: Barbeque skull



The particular details surrounding my grandfather's death play out like a film in my memory. It honestly reminds me of one of those *Freaky Stories* television episodes from the 90s. It is rumoured that on that fateful day when my grandfather was trying to get out of bed, he fell and got entangled in his bedding. The blankets eventually suffocated him to death. When one of my family members found him, he was as yellow as a daffodil and covered in hundreds of cockroaches. Recalling this time, I recognize how our memories of death can be so deeply distorted to match its portrayal in the media, and how deeply this portrayal shapes our views and perspectives on death. Commonly portrayed as something to be feared, it is no wonder that we hide from death and avoid the subject as a whole.



To date, I am still unsure as to what really happened. Whenever I ask my father to recount the details, I get the sense that it is a very uncomfortable discussion for him. He is unable to recall the general details of my grandfather's death.



Figure 11: Cockroaches

In 2008, I would lose my last living grandparent: my paternal grandmother. This particular loss was a drawn-out one. The family knew it was coming but did not expect it to happen when it did. To be honest, I do not remember the events leading up to her final day and it seems that each of us in the family have varying memories of that time.

We all agree that my grandmother was hospitalized after having fallen and broken her hip. Prior to the fall, she had surgery on her other hip from a previous accident. After the second surgery, she was kept at the hospital so that the doctors could monitor her recovery. During recovery, she contracted Necrotizing Fasciitis, also known as flesh-eating bacteria. As my grandmother was in her eighties at this point in time, a group of physicians had to make a quick decision as to whether they would operate.

I can remember how we were supposed to receive a call Monday morning with the decision, but instead received a call informing us that my grandmother had passed overnight. My clearest memory of this incident is waking up to my father picking up the phone. He was asleep when the phone rang. The memory of my father's reaction haunts me to this day, and was something I never expected. Up until this point, he had always held a strong, composed, and resilient front with anything that life threw his way. This was the first time I saw this front crack, his vulnerabilities exposed.

According to my father's memory, my grandmother had already gone through a preliminary operation that would allow the doctors to confirm whether the infection was indeed the flesh-eating bacteria. He remembers leaving the night before the call at around 11 p.m. To this day, he blames himself for his mother's passing. According to him, before he left that night, my grandmother's oxygen level was at zero. He questioned why it was zero, "*wasn't it only zero if someone was no longer alive?*" Frustrated by the situation, he eventually left the hospital as the nurses reassured him that it was not something to worry about. The same bacteria would take the lives of three to four others within the same hospital room as well.

I remember discussing the details pertaining to the final night at the hospital with my father years prior. He did not mention anything about the oxygen level, but instead made a comment about the nurses not giving my grandmother an IV drip. He questioned why there was no IV drip if my grandmother was not able to eat. Regardless of the particulars, I think what stuck with him the most was the fact that he was not able to be by her side in her final moments. She died alone in a cold, dreadful hospital room.

My father does not have all the details surrounding that fateful Monday morning. Apparently, his older sister knows details that have not been shared with the family. I have always wondered if this lack of information and detail prohibited him from resolving his grief.

According to my mother's memory, she and my father visited my grandmother a few days prior to her death. My grandmother was highly energetic. She asked for updates regarding everyone's daily lives. She ate food, including the boiled eggs they had brought her. My father cleansed her body that day before heading home. This would be the last day that my grandmother interacted with them during visits. Her eyes would not open again and she passed a few days later.

My brothers cannot recount any memories surrounding this particular loss.

Everything else surrounding my grandmother's death, including the funeral ceremony, rituals, and gatherings, are very much a blur to me. It is the intense emotions and unexpected nature of this loss that continues to linger in the deep depths of my memory. We don't really know which combination of events actually happened. This was the first time I witnessed what I now understand to be the process of grieving. From anger and blame to some degree of acceptance and everything in between, I learned through my father's experience how strongly loss can affect a person. He has not been the same since.

The death of a loved one changes you.

Although I had witnessed this change in my parents, I would not fully understand it until I experienced it for myself. After my paternal grandmother passed away, I thought that would be it. I thought that death and I would be taking a long intermission in our mysterious dance. As it turned out, this was not the case.

Nothing could have prepared me for my next dance with death.

Figure 12 [opposite and following pages]: Fading



THE WOUND

What we once enjoyed and deeply loved we can never lose, for all that we love deeply becomes part of us.

- Helen Keller

It has taken a lot of time for me to come to this point where I can talk about, comprehend, and confront what I experienced at twenty years old.

The first death that I could really understand.

The hardest death thus far.

The death of my best friend.

We had imagined the end of our journey together to be far, far into the future. After a life shared. Not at twenty. At the age of twenty, it is a common belief that we are invincible, immune to death. In my world, and for many within western society, it is a rare occurrence for death to visit at such a young age. It is an extremely difficult idea for the mind to grasp when dreams and goals are suddenly shattered quicker than they were formed.

With this loss, I finally understood how tomorrow is never guaranteed, and that anything can change in a day, even in the blink of an eye.

On November 18, 2010, my best friend was fatally injured in a small aircraft accident. It was a routine lesson flight with two pupils and an instructor, similar to many she had successfully flown before. On this day, something went wrong and in an instant, the plane fell from the sky. It was destroyed on ground impact. The event was sudden and unexpected.

Her name was Cynthia Tsang.



Figure 13: Cynthia

As I write this, I struggle to choose a tense.

Do I write about her in the past tense or the present?

If she was my best friend, is she still?

I do not think there is necessarily a right answer to this, but have you experienced this dilemma? What was your conclusion?

I first met Cynthia, Cynth for short, in November of 2005. Although we went to the same school, it was common to not know everyone with approximately 700 students in my grade and around 2800 students enrolled. As the new school year began, I wanted to find a sports team or club to join. With the promise of chocolates, some of my friends convinced me to attend a dragon boat information meeting. I sat on the ground at the back of the room. Looking around at all the new faces, my eyes locked with those of another girl sitting alone. Somehow during that meeting, we both decided to head up to the front and steal some of the sample chocolates, and the rest is history. We left the room knowing a little bit more about this new sport called dragon boat, and more importantly with a new friend.

Cynthia quickly became one of my closest friends, my best friend, my sister. Dragon boat became our thing throughout high school and we vowed to continue the sport until we were old. While I spent nights drawing and painting, she talked endlessly about flying. Unsurprisingly, she went on to pursue her dream of becoming a pilot at the Seneca School of Aviation. We continued to paddle, taking on active roles within our local dragon boat communities. Once she had the go ahead, Cynthia rented a small plane, the Cessna 172M Skyhawk and shared her passion of flying with me, her mother, and her cousin with a tour around the GTA (Greater Toronto Area). The next goal was to be a passenger in a commercial aircraft while she was on the job, but this couldn't happen until she graduated from the program. As friends do, we had big future goals and smaller everyday plans. We were supposed to meet up on November 19, 2010, to shop for a white button-down coat that she had been raving about for the past while.

[< Home](#)

 CTV NEWS

CTVNEWS

Three die after plane goes down near Toronto

CTV.ca News Staff

Published Thursday, November 18, 2010 10:58PM EST

Investigators are probing the cause of a plane crash which killed three people northeast of Toronto on Thursday evening.

Officials were alerted to the crash after the single-engine, four-seat Beech 33 aircraft disappeared off the radar screen at Toronto's Pearson International Airport.

Police and emergency crews descended on the scene Thursday night, after a search helicopter discovered the crash site at about 7 p.m.

Search crews found the wreckage in a field near Highway 407 in north Pickering. Later, an air ambulance crew found that three people had died in the crash.

According to news reports, the aircraft was from Toronto's Seneca College, which has an aviation operations course.

The names of the deceased have not been released, but it appears that an instructor and two students -- one male and one female -- died. All three have been described as "young," according to reports.

The Transportation Safety Board is looking into what caused the fatal crash.

Figure 14: Seneca crash article

"I'm so sorry Jane."

This message will forever be ingrained in my mind. *Sorry for what? What was my friend sorry for?* Confused, I pushed him to tell me more. He had assumed I already knew. I don't really remember what came next, but at some point he must have told me about the crash; it's hard for me to recall the exact conversation. In denial and disbelief, I began searching for evidence that would prove the crash was a cruel joke. A quick Facebook profile search yielded limited results, maybe one or two comments referring to the possibility of a life lost. I tried calling her phone—straight to voicemail. *She could be sleeping*, I thought to myself, *it was almost midnight after all*. My Google search concluded with articles reporting on a plane crash with three unnamed casualties.

I am not sure how I concluded that the crash was real. I faintly remember speaking with her mother on the phone, but that may have been the day after. I remember sobbing when it finally clicked. I remember the sudden overwhelming pain followed by a hallowing cry that woke my parents up. I remember what I was doing at that exact moment, who I was talking to, and the song that was playing in the background. The song "Good to You" by Marianas Trench still strikes a chord every time I hear it. Isn't it interesting how music, along with other senses such as touch and smell, can bring back such distinct memories? The entire *Masterpiece Theatre* album by Marianas Trench always brings me back to that moment.

*When you're overwhelmed
And you've lost your breath
And the space between the things you know is blurring nonetheless
When you try to speak
But you make no sound
And the words you want are out of reach
But they've never been so loud...*

- "Beside You," *Masterpiece Theatre*, Marianas Trench

Hearing my cry, my mother asked me what was going on. I told her Cynthia's gone, she died in a plane crash earlier tonight.

"It's ok, you can always make new friends," replied my mother.

I don't think my father said anything.

I could not believe that was all my mother had to say. I was furious. I guess it is true that there is never a right thing to say in such circumstances and at that very moment, I felt that comment was the worst thing anyone could have said. Yet, those words were swallowed up by the unfathomable pain that quickly retook its place. I continued to cry. It felt like no amount of tears was enough. Even when there were no more tears, I wanted to force my body to produce more in the hopes that it would wash away the pain that reverberated throughout my body.

After a sleepless night, I thought it was a good idea to try to find some sort of normalcy for my day to day. I decided to go to work. In hindsight, that was a terrible idea. I arrived late to a project kickoff meeting, fell asleep, and was inattentive throughout the day (and for many days after). I did not talk to anyone at work about what had happened, nor did I know what bereavement meant or that taking days off work to grieve was acceptable.

That evening, a few friends and I attended a memorial gathering organized by Cynthia's fellow air cadets. All were welcome. I knew only the few people I attended the event with. At this gathering, I had the opportunity to meet people from other walks of Cynthia's life; we shared stories and chatted. Unlikely bonds between different people were formed and some left feeling a tiny bit better. For me, I met a group of friends that would become the backbone of my healing from this traumatic event and we remain good friends.

There is something so beautiful about being able to learn more about a person after they have left our world.

Throughout the week leading up to the funeral, I spent most of my available hours with these new friends. Countless times, we visited the airport where Cynthia's final flight took off and they regaled me in the joys of flight. In some way, I think we helped to distract one another from our own grief. At some point during the weekend, a close mutual friend of mine and Cynthia's suggested the idea of folding a thousand cranes. He knew that I loved origami and always found wonder in how a simple sheet of paper could be transformed into a sculpture. I think the meticulous step-by-step process of origami was exactly what we needed during that time.

It calmed the turbulence we experienced within our minds and bodies.

It provided some structure in a time of chaos.

Folding a thousand cranes is a pretty large feat. Assuming it would take about three minutes per crane (I timed it), that would make approximately 3000 minutes or fifty hours of non-stop folding. With the funeral procession taking place in about a week, it seemed do-able. The task gave us something to do with our hands. It gave us the opportunity to make new memories and indulge in a momentary escape. It also allowed us to give our dear friend Cynthia one final gift. There was something about this physical act, as if we were folding and unfolding the stories we shared with Cynthia into every crease created.

The crane is a symbol of longevity and immortality.¹

¹ Chevalier, Jean, and Alain Gheerbrant. *A Dictionary of Symbols*. Oxford: Basil Blackwell Inc., 1994, 240.

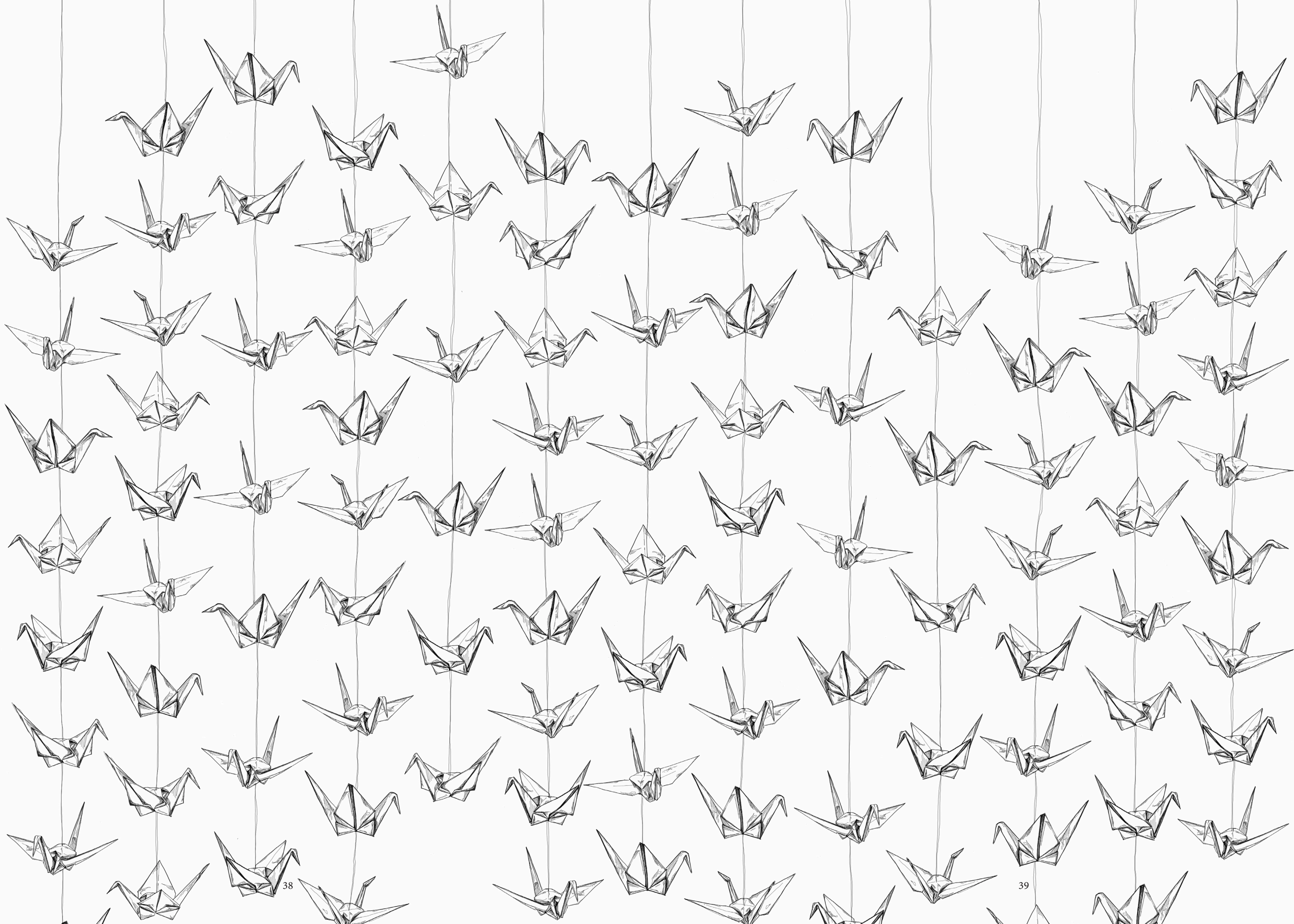
The folding of a thousand cranes takes place when one has a wish. It can be done with family and friends; the more people who participate, the luckier you will be. Together, my friends and I had completed the almost impossible, finishing the cranes the evening before the funeral. Never did I think that I would see a thousand cranes completed in my lifetime, let alone within a week. We strung them together so that they could be hung on a rod. At the end of my eulogy, I presented our gift and professed, "our wish is for Cynthia to live an eternal life of happiness through our memories, and I will ensure that happens, I promise."

It was the first time I wrote a eulogy. Overwhelmed and unable to put my thoughts onto paper, the eulogy did not come to me until the morning of the funeral. I cried while I wrote it, but stood strong as I presented it, so that others too could find strength in mine. *But why couldn't we just allow ourselves to cry?*

It was a closed casket funeral. *I guess that makes sense.* Everyone could remember her as Cynthia rather than Cynthia in pieces. Sometimes I wonder, though, if not seeing the body at the funeral has impacted my own healing process. Cynthia's mother was advised against seeing the body, or what was left of it. The investigators allowed her to touch one of her hands.

It was the first time I was a pallbearer. I don't really remember this part of the funeral procession or what came after it. We wore white gloves. There was no cremation. We each placed a single rose along with a handful of soil on top of the casket once it took its forever place in the ground.

Some of the cranes were placed inside the casket along with other memorabilia, such as medals won at dragon boat regattas. The other cranes were hung in her room, throughout the house, and around her altar.



Some feel that it is at the funeral where family and close friends need support the most, and that after the funeral procession, everyone can go back to their normal day-to-day routines. But what is normal after you've experienced the loss of a loved one?

It felt like another door was slammed shut, a second goodbye.

Trying to go back to "normal" was arguably the hardest. People were afraid to talk to me because of what I had experienced. I was not ready to talk about it. It did not feel like anyone could understand and I felt alienated from my friends and family who were not directly impacted by the event. I did not know what to do or how to grieve. I did not know what grief was. For many days and nights, I felt very much alone.

For months, I would wake up from the terror of my own nightmares, nightmares of being chased by darkness. I often woke up breathless. *Who knew sleeping could be so exhausting?* I vividly remember waking up one night, crying and shivering, but this time it wasn't because of a nightmare. I was stuck in a lucid state where I saw wisps and shadowy figures float throughout my room. A large weight planted itself on my chest, pushing down in rhythmic intervals. The more I tried to move, the harder it pushed. I desperately called out for help but not a single sound reverberated through the room. My body had seemingly forgotten how to work, I could not move a single muscle. After what felt like hours of an internal tug of war, I was finally able to break free.

I recalled a story my cousin told me when I was younger about a similar experience. She said it felt like someone or something was sitting on her chest, rendering her silent, and that no matter how much she tried to move, she remained paralyzed. She told me that this happened as a result of a close encounter with a spirit that had recently moved on from our realm to the next, opening a gateway that allowed an angry spirit to follow you home. Recalling this story did not help, nor a conversation with one of my friends, who told me that I had experienced a demon or the devil lying on top of me and holding me down. An online search led me to the conclusion that I had experienced sleep paralysis for the first time. I continued to have episodes of sleep paralysis over the next couple of years.

Figure 16 [opposite]: Nightmare



One day, the nightmares and sleepless nights suddenly stopped. It must have been around two or three years after the crash. I had a dream the night before, a vivid dream that I can still remember to this day:

It was a sunny summer day. Even before I opened my eyes, I could hear the birds singing and feel the warm hug of the sun as it enveloped me with its rays. I found myself standing in a park. It was covered in lush, green grass. Large, old trees were planted at the perfect spots and I paused at them momentarily as I meandered through the park. Birds soared joyously through the sky as if they were playing a game of tag.

As I soaked in the calmness of this particular dream, I heard a voice yell my name. *I know this voice*, I thought to myself, as a small tear formed in the corner of my right eye. Before I could turn around, I was tackled to the ground. I could not believe my eyes. Laughing her contagious laugh, Cynthia got up and extended her hand. We walked and talked endlessly about anything and everything, eventually planting ourselves on a bench under one of the large, beautiful trees. It was as if no time had passed.

Two figures appeared in the distance and began to walk towards us. Cynthia quickly waved at them and asked them to join us. She introduced me to her friends, and we continued to chat as if we had known each other all our lives. To document the moment, she asked me to take a photo. Taking out my phone, I quickly flipped the camera to the front camera and positioned it so that all four of us were perfectly framed in the shot. When I checked the photo to make sure it wasn't blurry, I noticed that I was the only one in it.

I did not understand. *Weren't we all in the photo when I took it?* I looked at Cynthia, confused.

"Oh silly! We don't show up on your cameras anymore." She quickly took a photo with her camera.

Unable to mask my emotions, she noticed the sudden sadness that covered my face and gave me a hug.

"Don't you worry. I made new friends who have shown me around and taken good care of me. I wanted to introduce them to you to let you know that I am ok. I am ok now..." she beamed with a smile.

This is actually the first time I've sat down and tried to remember the details of this life-changing loss. I had buried the pain into the deep depths of my being and left it there, not allowing myself the opportunity to grieve.

I realized that I never visited the crash site.

I need to visit the crash site.

Figure 17 [following pages]: Dream

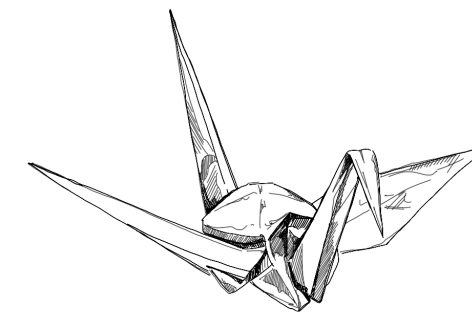


Figure 18: Origami crane

FLIGHT

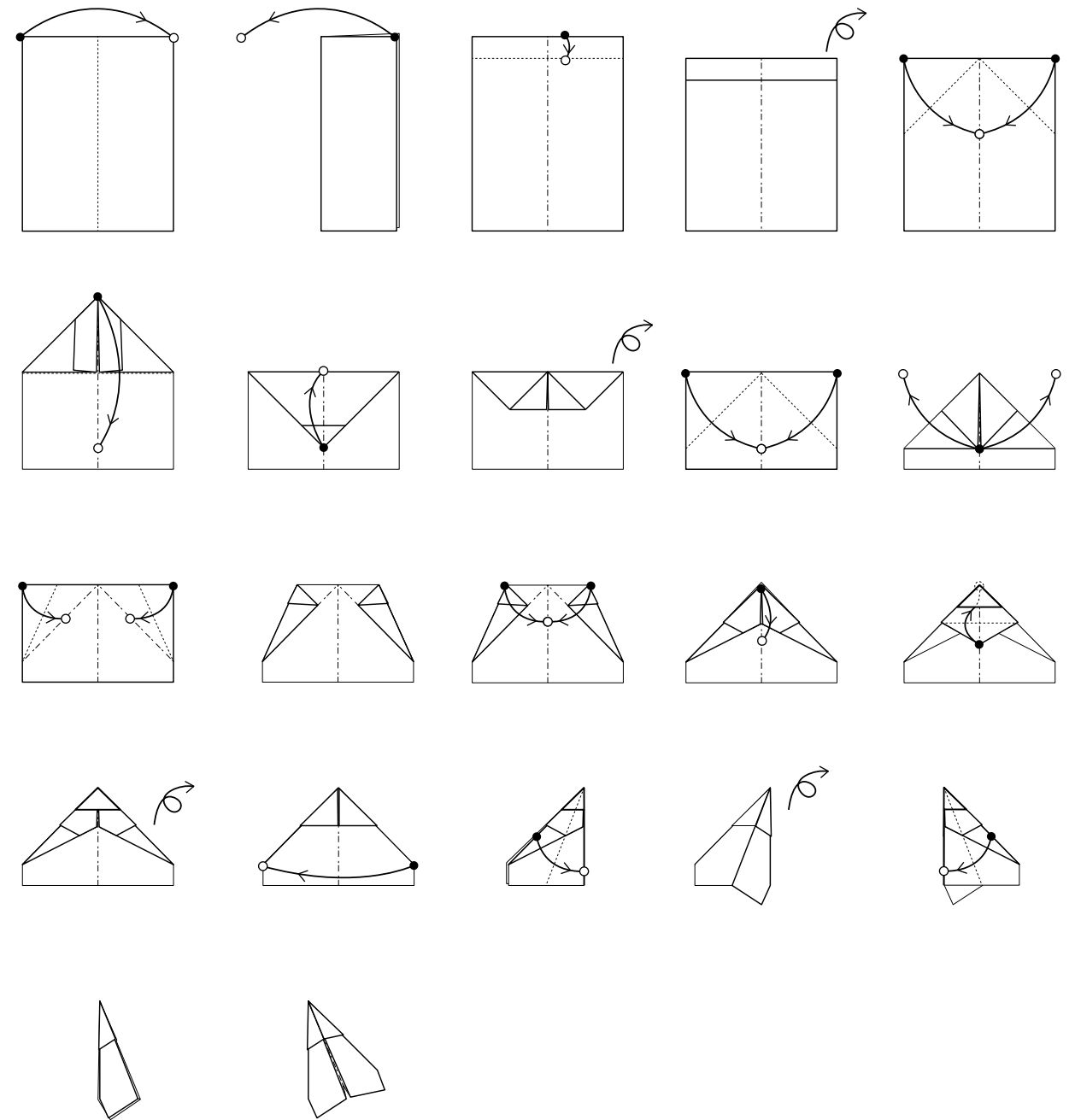


Figure 19: How to fold a plane

FLIGHT

The Greek myth of Icarus and Daedalus reveals more than just the liberation of flight. It also exposes the underbelly of flight: its hubris, dangers, and terrors. The story illustrates how death and its uncertain aftermath can take place in the blink of an eye.

As you can imagine, the fall of Icarus would have been very sudden. In the fleeting moments he had left, he was forced to confront the fall and the possible end of his life.

Did he cry?

Did he have regrets?

Did he even have time to think?

*Figure 20 [following pages]: Landscape with a farmer plowing
and the fall of Icarus*



IN THE BLINK OF AN EYE

Rain...
Snow...
Ice...

These environmental variables that we overcame in our pursuit of flight can also be the cause for terror. This may have been the case with the crash of the Seneca College Beechcraft Bonanza F33A C-GSCZ on November 18, 2010.

I remember it being a typical, chilly November night. Following rainfall, the temperature at Buttonville Airport measured one degree Celsius. We had not yet experienced the first snowfall of the season. It would take place on the day of the funeral and cascade upon us as the attendees moved towards the burial site.

Those closest to Cynthia always thought the accident had occurred because of weather and icing.

The Seneca C-GSCZ had a planned night flight that would depart from Toronto/Buttonville Municipal Airport (CYKZ) towards Kingston Airport (CYGK), Ontario. On arrival at CYGK, the plan was to return to CYKZ later in the evening. There were three people on board the aircraft: one instructor and two commercially qualified students.

None survived.



Figure 21: Seneca crash memorial



Figure 22: Seneca C-GSCZ

BEECHCRAFT F33A BONANZA

Private plane, single-engine

MAX TAKE OFF WEIGHT : ~1542 KG

EMPTY WEIGHT : ~1015 KG = 1/5 OF AN ELEPHANT

WINGSPAN : ~10.2 M

HEIGHT : ~2.5 M



CABIN WIDTH : ~1.1 M

RANGE : ~1002 KM

CRUISE SPEED : ~319 KM/H

TOP SPEED : ~363 KM/H

STALL SPEED FLAPS RETRACTED: ~117 KM/H

STALL SPEED FLAPS EXTENDED: ~94 KM/H

*specifications may differ based on individual aircraft and year

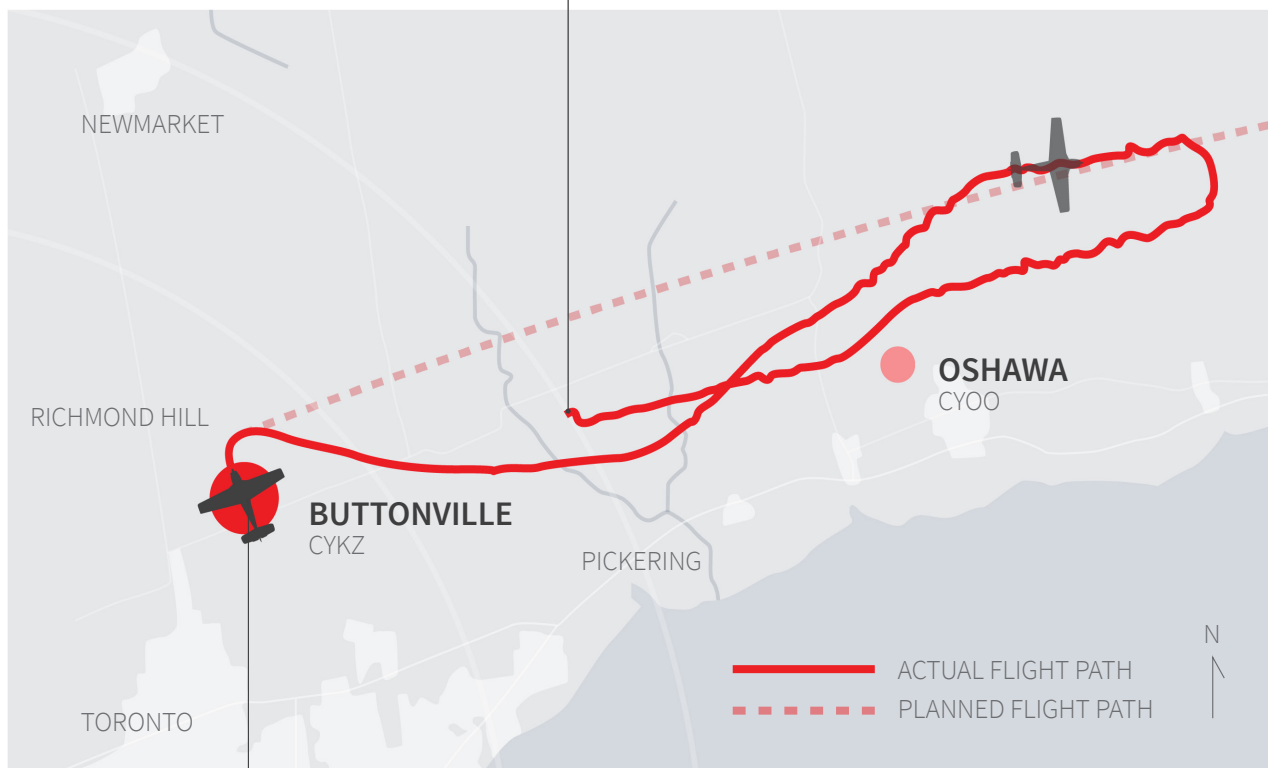
This Beechcraft F33A was a four seat, low-wing monoplane equipped with dual flight controls. At Seneca College, this plane was used for cross-country and instrument training.¹ It was not designed or certified to fly in icing conditions. It did not have the necessary protection.²

1 VideoSeneca. "Seneca College - Aviation Fleet." VideoSeneca. December 14, 2010. Accessed May 10, 2020. <https://youtu.be/bktWuER3f9E>.

2 Transportation Safety Board of Canada. "Aviation Investigation Report A10O0240." Transportation Safety Board of Canada. Accessed April 15, 2020: 5. <https://www.tsb.gc.ca/eng/rapports-reports/aviation/2010/a10o0240/a10o0240.html>.

Figure 23: Beechcraft F33A Bonanza specifications

ACCIDENT
6:44 PM EST



DEPARTURE
6:19 PM EST

KINGSTON
CYGK

Figure 24: Seneca C-GSCZ flight information map

As the weather began to deteriorate near Toronto/Oshawa Municipal Airport (CYOO), the flight crew decided to return to CYKZ. Approaching their destination, the instructor requested and received clearance to perform a simulated area navigation (RNAV) approach. Instead of reading back or acknowledging the clearance as per standard protocol, the instructor responded with one final word:

“Standby.”

A1000240, the Aviation Investigation Report published for this crash by the Transportation Safety Board of Canada, states that the plane was likely trying to maneuver away from poor weather conditions. In the process of doing so, it stalled. It is very possible that icing on the wings could have caused the stall and made the recovery harder. Although weather was a suspected player, it was difficult to determine the actual weather conditions at that specific moment in time.³ At one degree Celsius, any rain or cloud encountered while flying would be suitable to cause icing of the aircraft.

Last contact with the radar indicated that the plane was at an altitude of 2,100 feet or 0.64 kilometers above sea level and descending rapidly at 9,600 feet per minute or around 176 kilometers per hour.⁴

The accident occurred in darkness.

There was no fire.

The wreckage was located in a level ploughed field in a non-residential area... the aircraft struck the ground right side up, nose down at an angle of 40 degrees creating a shallow crater. The wings also struck the ground and left ground scars which indicate the aircraft was in a near wings-level attitude.⁵

- Aviation Investigation Report A1000240

3 Transportation Safety Board of Canada. “Aviation Investigation Report A1000240.” Transportation Safety Board of Canada. Accessed April 15, 2020: 12. <https://www.tsb.gc.ca/eng/rapports-reports/aviation/2010/a10o0240/a10o0240.html>.

4 Ibid, 8.

5 Ibid, 4.



Figure 25: Seneca crash debris

Although the wings were in a near level attitude, suggesting that recovery had been initiated, “[t]here were approximately 8 seconds between the loss of control and when the aircraft struck the ground, assuming a constant rate of descent of 9,600 feet per minute.”⁶

Eight seconds.

Eight seconds was all the time they had to recover the plane, the amount of time it took for the plane to fall from the sky, and the approximate amount of time it took to read this sentence.

Eight seconds.

That’s like...two blinks.⁷

Blink, two, three, four, blink, two, three, four.

Eight seconds.

⁶ Transportation Safety Board of Canada. “Aviation Investigation Report A10O0240.” Transportation Safety Board of Canada. Accessed April 15, 2020: 13. <https://www.tsb.gc.ca/eng/rapports-reports/aviation/2010/a10o0240/a10o0240.html>.

⁷ Stromberg, Joseph. “Why Do We Blink So Frequently?” *Smithsonian Magazine*. December 24, 2012. Accessed April 15, 2020. <https://www.smithsonianmag.com/science-nature/why-do-we-blink-so-frequently-172334883/>.

Figure 26 [following pages]: Night sky

FROM PERSONAL TO GLOBAL

After experiencing the loss of my friend aboard this flight, I was drawn to topics of crashes, mortality, and our cultural responses to death. I wanted to learn more about flight disasters around the world, to bridge this personal experience with a more global understanding of how and why this happens.

I began to learn more about local and national aircraft incidents, such as the Air India Flight 182 (1985) and Swissair Flight 111 (1998). Next, I moved on to international crashes, like Adam Air Flight 574 (2007) and Air France Flight 447 (2009):

The vanishing of Flight 447 was easy to bend into myth. No other passenger jet in modern history had disappeared so completely — without a Mayday call or a witness or even a trace on radar... and when, in the middle of the night, in the middle of the ocean, Flight 447 seemed to disappear from the sky, it was tempting to deliver a tidy narrative about the hubris of building a self-flying airplane, Icarus falling from the sky. Or maybe Flight 447 was the Titanic, an uncrashable ship at the bottom of the sea.⁸

- Wil S. Hylton

⁸ Hylton, Wil S. "What Happened to Air France Flight 447?" *The New York Times Magazine*. May 4, 2011. Accessed April 23, 2020. <https://www.nytimes.com/2011/05/08/magazine/mag-08Plane-t.html>.

Figure 27 [opposite top]: Piece of Air India Flight 182
Figure 28 [opposite middle]: Partially reconstructed cockpit of Swissair Flight 111
Figure 29 [opposite bottom]: Adam Air Flight 574

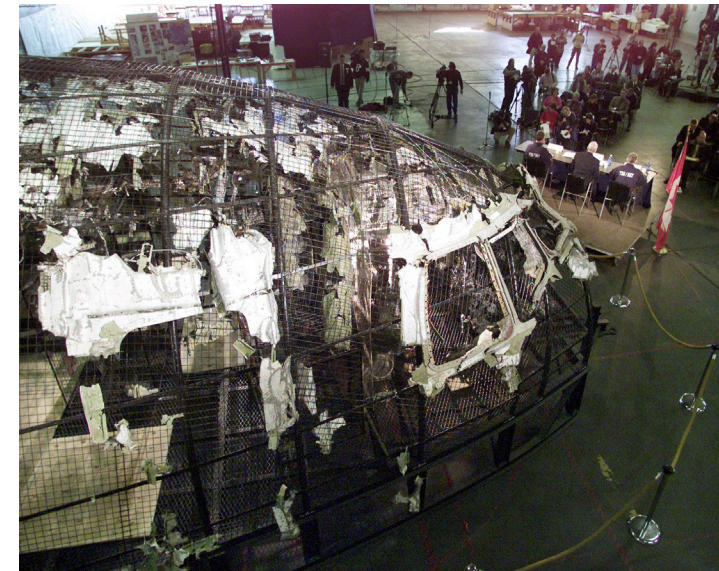




Figure 30: Air France Flight 447 debris

Every day, some twelve million people around the world board a scheduled flight and arrive at their destination safely.⁹ Those on board these flights I researched did not. Each incident had a dedicated team of investigators, Search and Rescue operation (SAR), recovery operation, and timeline of events. What is consistent across these incidents, and indeed for any plane crash, is the importance of recovering the black box recorders, the bodies, and the wreckage.

Commercial aircrafts are fitted with two black box recorders, a cockpit voice recorder and a flight data recorder, both containing vital information that could help investigators determine the cause of the crash. Time is of the essence to recover these recorders if the plane disappeared over a large body of water as the batteries typically only last thirty to forty days. Once the battery depletes, the black boxes no longer emit radio signals, making them untraceable. *If you have watched the final season of Homeland, you will most definitely understand the importance of recovering the black box recorders.*

Recovering the bodies is not only important for the families of the deceased and for post-mortem rituals, but it also helps serve as crucial evidence in the investigation. Through a thorough examination of the victims, their clothes, and their injuries, pathologists and medical examiners are able to establish details pertaining to how they might have died. Locating the wreckage and recovering fragments of the plane is also critical in helping experts piece together the cause of a crash.

Although they varied in length, all of these investigations were eventually solved. The airlines, the families, and the world at the very least had answers, alleviating them from the torture of the unknown.

⁹ DW Documentary. "Flight MH370: Five years of uncertainty." DW Documentary. March 11, 2019. Accessed May 1, 2020. <https://youtu.be/YhxJ4hLth64>.

Figure 31 [following pages]: In the clouds



My search continued.

When I came upon the stories and articles in regards to Malaysia Airlines Flight 370 (2014), I was immediately captivated by the event and its encompassing mystery. It is bewildering that in this day and age, with all our technology, it is possible for a plane to simply...disappear.



Figure 32: Missing plane

THE EVENT: MH370

... Big passenger planes do not just fall out of the sky.

- Guy Gratton

When I first read about Malaysia Airlines Flight 370 (MH370) in March, 2014, I was at work. A few of my fellow coworkers, who were born in Malaysia or had family there, sent the articles my way. The news hit close to home, as more than half of my extended family resides in Malaysia. The disappearance of the plane quickly became the topic of conversation and we continued to follow the case over the next couple of weeks. As the plane remained missing, it quickly became a global event, an event that impacted all. Air travel is a relatable activity, making it easy for anyone to imagine the missing passengers as a mother, uncle, sister, son, partner, friend, family, etc.



Figure 33: MH370 reporting

Flight MH370 bound for Beijing goes missing



NATION

Saturday, 08 Mar 2014 8:27 AM MYT

SEPANG: Malaysia Airlines (MAS) confirms that flight MH370 is missing. MAS says Subang Air Traffic Control lost contact with the aircraft at 2.40am, Saturday.

In a statement issued by the airline, flight MH370, operated on the B777-200 aircraft, departed Kuala Lumpur at 12.41am on 8 March 2014. It was expected to land in Beijing at 6.30am the same day.

The flight was carrying 227 passengers (including 2 infants) and 12 crewmembers.

Malaysia Airlines is currently working with the authorities who have activated their Search and Rescue team to locate the aircraft.

Malaysian Airlines vice president of operations, Fuad Sharuji during an interview with CNN said that the aircraft should have run out of fuel by 8.30am Saturday morning as it only had seven hours of fuel on board.

In the interview with Anderson Cooper, Fuad explained that the flight which departed 41 minutes after midnight from Kuala Lumpur was supposed to have arrived in Beijing at 6.20am.

“However the plane carrying 239 passengers, of which 227 were passengers while 12 were crew members lost contact with the Subang Air Traffic Control at 2.40am.

“We have tried to track the flight down by getting in touch with nearby aircrafts and other radars along the route, but there is no luck as of now,” he said.

A report by CCTV news said 160 out of the 227 passengers were Chinese nationals and that China authorities are also in the process of searching for the missing flight.

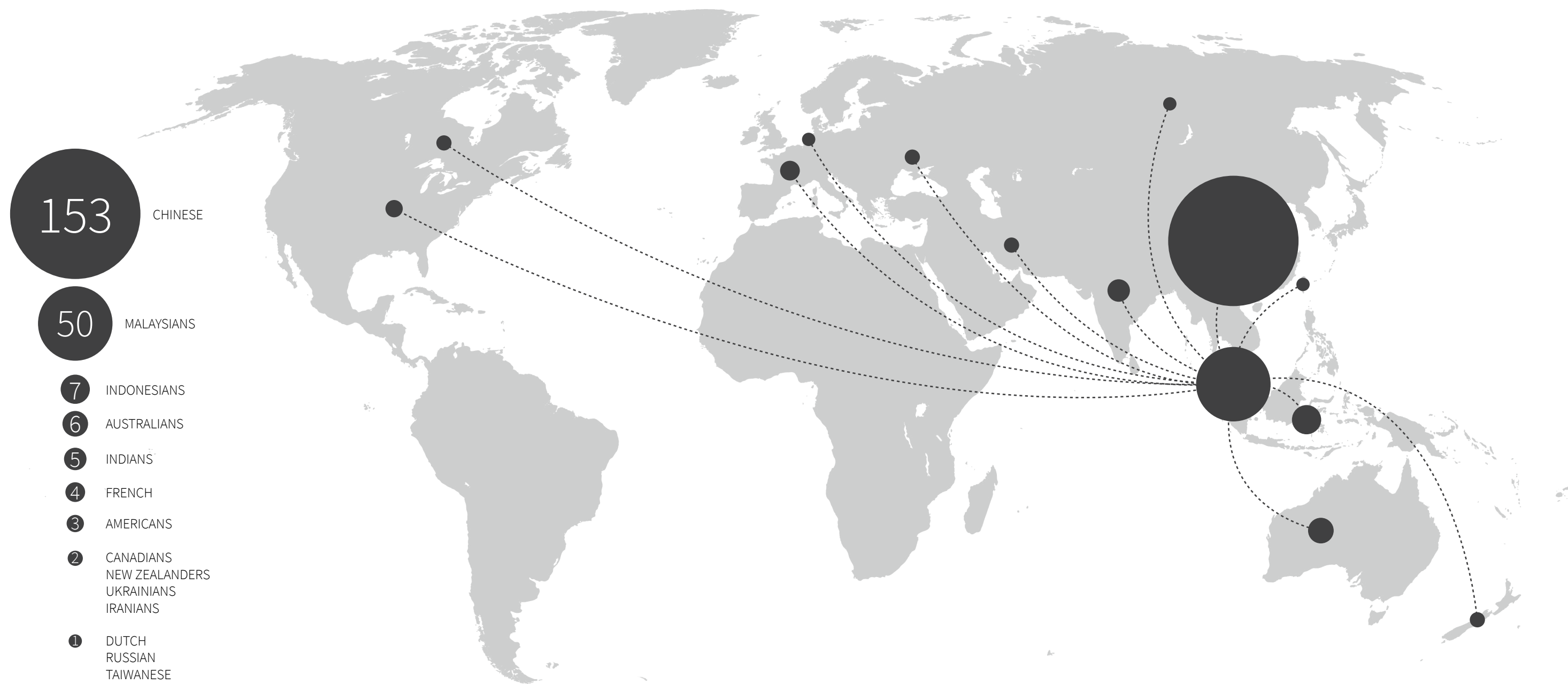
MAS will provide regular updates on the situation.

The public may contact +603 7884 1234 for further information.

TAGS / KEYWORDS:

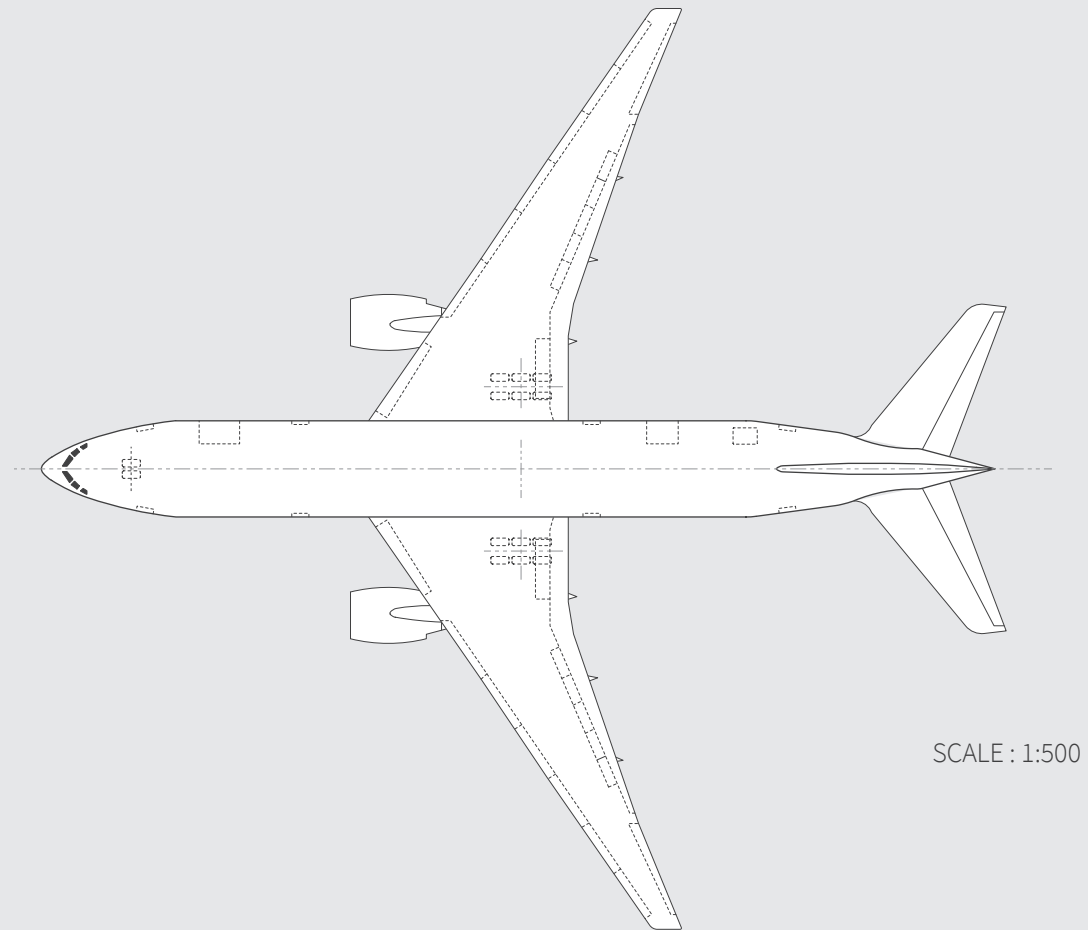
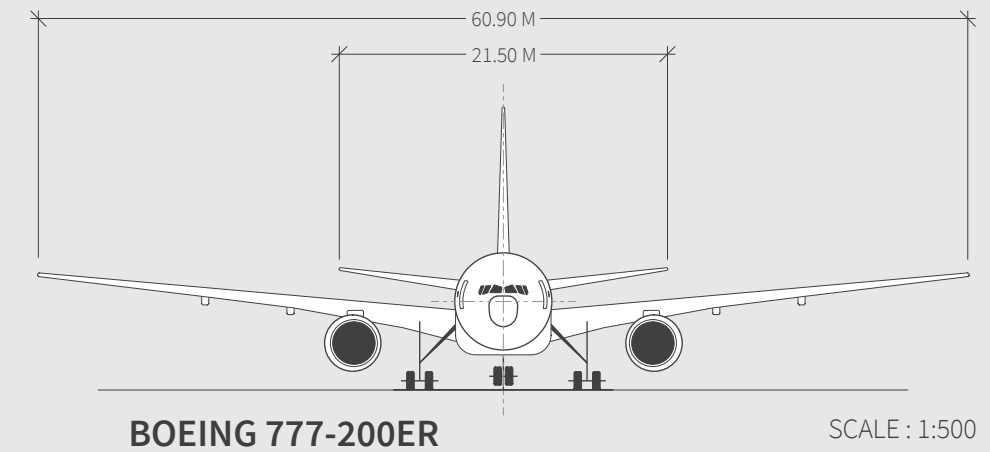
Flight , MAS Missing , MH370

Figure 34: MH370 article



MH370 was a scheduled international flight from Kuala Lumpur, Malaysia to Beijing, China that disappeared on March 8, 2014. There were 239 people of fourteen nationalities on board: twelve crew members and 227 passengers. None would survive.

Figure 35: Map of missing persons



Long-range, wide-body, two-engine

MAX TAKE OFF WEIGHT : ~297 550 KG

EMPTY WEIGHT : ~138 100 KG = 25 ELEPHANTS

WINGSPAN : ~61 M

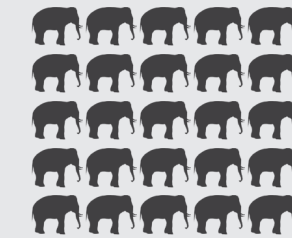
HEIGHT : ~18.8 M

CABIN WIDTH : ~5.86 M

RANGE : ~9700 KM

CRUISE SPEED : ~905 KM/H

TOP SPEED : ~950 KM/H



*specifications may differ based on individual aircraft and year

The aircraft was a Boeing 777, “one of the most popular long haul airliners in the world,”¹⁰ traversing almost every continent on a daily basis. If you have ever flown internationally, it is likely that you have been on board a Boeing 777, too.¹¹

¹⁰ Pallini, Thomas. “Boeing’s enormous new 777X jet just took its first flight - take a look back at the history of the company’s largest twin-jet airplanes.” Insider. January 31, 2020. Accessed May 14, 2020. <https://www.businessinsider.com/boeing-777-history-2017-6#also-known-as-the-worldliner-the-200lr-can-carry-301-passengers-nearly-11000-miles-33>.

¹¹ Martin, Swayne. “11 Things You Didn’t Know About The Boeing 777.” Boldmethod. May 13, 2015. Accessed May 15, 2020. <https://www.boldmethod.com/blog/lists/2015/05/11-things-you-didnt-know-about-the-boeing-777/>.

Figure 36: Boeing 777-200ER specifications



Figure 37: Intended flight path

“Good night. Malaysian three seven zero.”

These were the captain’s final words and the final voice contact from MH370.

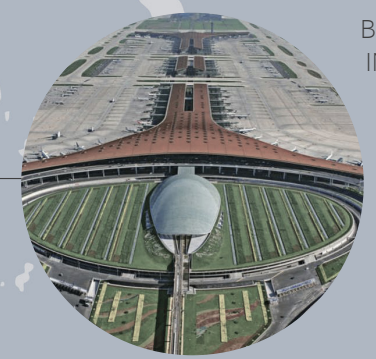
The aircraft would then disappear from Air Traffic Control radar screens and, eventually, the military radar. According to the final report released in 2018 by the Malaysian Safety Investigation Team, “[a] review of available radar and satellite communications indicated that the aircraft flew back across the Malaysian Peninsula and subsequently travelled to the southern Indian Ocean.”¹²

¹² Ministry of Transport Malaysia. “MH370 Safety Investigation Report.” Ministry of Transport Malaysia. Accessed May 14, 2020: xiv. <http://mh370.mot.gov.my/MH370SafetyInvestigationReport.pdf>.

Figure 38 [following pages]: MH370 flight and search information map



BEIJING
CHINA



BEIJING CAPITAL
INTERNATIONAL
AIRPORT

PLANNED FLIGHT PATH TO BEIJING
DEPARTURE : 12:41 AM, MARCH 8, 2014
ARRIVAL : 06:30 AM, MARCH 8, 2014

ACTUAL FLIGHT PATH

LAST CONVERSATION WITH
MALAYSIAN AIR TRAFFIC CONTROL
01:19 AM

02:15 AM

01:19 AM

KUALA LUMPUR
MALAYSIA

12:41 AM

KUALA LUMPUR
INTERNATIONAL
AIRPORT



LAST CONTACT WITH MALAYSIAN AIR
FORCE RADAR
02:15 AM

INMARSAT
SATELLITE
RECEIVED
PINGS
UNTIL
08:11 AM



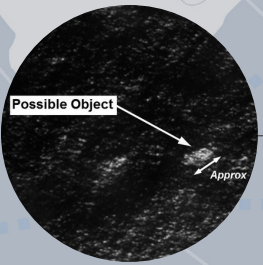
PRIMARY OCEAN SURFACE CURRENTS

POSSIBLE FLIGHT PATHS

FIRST MH370
DEBRIS
FOUND
ON
REUNION
ISLAND
JULY 29,
2015



DEBRIS
SIGHTED
IN THE
SOUTH
INDIAN
OCEAN



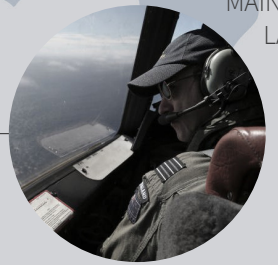
INDIAN OCEAN

MOZAMBIQUE
CHANNEL
MAURITIUS
DEBRIS FOUND ON
REUNION ISLAND

SEARCH
AREA

AUSTRALIA

MAIN SEARCH AREA,
LAST RECORDED
'PING' WAS
SOMEWHERE
ALONG THIS
ARC



PRIORITY SEARCH
AREA



When I began my research into the plane's disappearance in early 2016, there was only one confirmed piece of debris: the right flaperon, found on the beach of Reunion Island on July 29, 2015. Up until this point in time, the families of those on board the plane, and really everyone else, could only ever theorize about where the flight of MH370 ended. "... This was when it hit home for a lot of us because until the 29th of July 2015, we had no idea whether MH370 vanished into the sky," stated Grace Nathan, a daughter of one of the passengers, when recounting a brief history of MH370 during her presentation, *Six Years On, The Journey*, at the 6th remembrance event. This piece of debris became the first physical evidence that MH370 ended in the Indian Ocean.¹³

By late 2016, a total of roughly twenty six pieces of debris washed ashore on coastlines throughout the Indian Ocean. Some confirmed, some suspected. Despite having found so many pieces of debris, only three pieces have been confirmed, without a doubt, to be from the missing plane. The remaining pieces have since been analyzed and classified as likely, highly likely, or almost certain from MH370, or simply not identifiable.

On January 17, 2017, nearly three years after the airliner vanished, the underwater search for the missing plane was suspended, leaving families in a sea of unanswered questions. A survey of approximately 120,000 square kilometers of the southern Indian Ocean was headed by the governments of Australia, Malaysia, and China.¹⁴ As no new evidence had been found, many theories as to what happened were thrown around, including that the plane was subjected to the first ever remote hijack.

¹³ BBC. "MH370: Reunion debris is from missing plane, says Najib." BBC News. August 5, 2015. Accessed April 20, 2016. <https://www.bbc.com/news/world-asia-33794012>.

¹⁴ BBC. "MH370: Families say search suspension for Malaysian plane 'irresponsible.'" BBC News. January 17, 2017. Accessed May 10, 2020. <https://www.bbc.com/news/world-asia-38647365>.



Figure 39 [top]: Right flaperon found on Reunion Island
Figure 40 [bottom]: Debris found in Mozambique

Without any solid evidence to shed light on the demise of the aircraft, such as locating a crash site, large remnants of the plane, or the recovery of bodies, it is difficult for the families of the missing passengers to believe that their loved ones have passed away. There is still the hope and possibility that passengers may have swam ashore to some island, and will someday return home. The unsettling ambiguity, the unknowing, gives these families space for hope, while simultaneously preventing them from moving on. There is no closure, not even momentary closure. They are frozen in time, unable to let go.

After public outcry, the Malaysian Government began negotiating with a private US-based company, Ocean Infinity. Ocean Infinity pledged to locate MH370 on a no-find, no-fee basis and the search resumed a year later on January 23, 2018; however, it only lasted a few months, ending in May, 2018, with no new evidence found.

This Ocean Infinity search raises more questions than it answers. If this amazing new state-of-the-art tech can't find it, do we need to go back to the drawing board? The current status is that MH370 vanished. That's not something you can say is an acceptable conclusion in this day and age.¹⁵

- Grace Nathan

As of March, 2020, six years after the plane vanished, around thirty two pieces of debris have been recovered but the location of MH370 still remains a mystery. Although Ocean Infinity has since offered to resume the search on the same no-find, no-fee basis, no new underwater search missions have taken place since 2018. Families still grapple with thoughts and theories of what happened to MH370. What happened to their loved ones? Why are there more questions than there are answers?

15 Zhou, Naaman. "‘MH370 is not history’: families of missing demand answers as search nears end." *The Guardian*. May 28, 2018. Accessed May 12, 2020. <https://www.theguardian.com/world/2018/may/29/mh370-is-not-history-families-of-missing-demand-answers-as-search-nears-end>.

Every year, the families of the missing passengers come together and hold a remembrance event in Malaysia. The event is typically open to the public, but an exception was made this year, 2020, due to the ongoing COVID-19 pandemic. With the travel and crowd restrictions, 2020 marked the first time that Chinese relatives were unable to attend the event in person.¹⁶

The not knowing of where or what happened to our loved ones causes us unimaginable pain.¹⁷

- Danica Weeks

At these gatherings, families are able to share their grief, their pain. Through the expressive outlets of music and dance, slideshows, speeches, and poetry, they are able to share their experience of loss with each other. They spend time remembering their loved ones together and light candles in their memory. To them, March 8th is a day full of ambivalence. "On the one hand, it serves as a chance to express our feelings while drawing attention, but on the other, we fear it will tear open everyone's wounds again..."¹⁸ explains Jiang Hui whose mother was on board MH370. This year, instead of the ritual of lighting a candle, the next of kin put together a board consisting of 239 stars. Each star carried the name of one of the 239 souls still lost. The families also named a new star in memory of their missing loved ones, a star that is to be a symbol of hope—hope that MH370 will be found.

16 Hu, Yuwei. "Families of MH370 missing passengers struggle to keep hope alive amid epidemic." *Global Times*. March 8, 2020. Accessed May 14, 2020. <https://www.globaltimes.cn/content/1181913.shtml>.

17 DPA. "Six Years On, MH370 Flight Mystery Stirs 'Unimaginable Pain.'" *Aviation Pros*. March 2, 2020. Accessed May 12, 2020. <https://www.aviationpros.com/airlines/news/21127671/six-years-on-mh370-flight-mystery-stirs-unimaginable-pain>.

18 Hu, Yuwei. "Families of MH370 missing passengers struggle to keep hope alive amid epidemic." *Global Times*. March 8, 2020. Accessed May 14, 2020. <https://www.globaltimes.cn/content/1181913.shtml>.



Heaven has received another angel,
The night sky another star.
Your life has become a loving memory,
I know you will never be far.
I know you are watching over me,
As my life goes on.
I will treasure the memories
I have of you,
I can't believe you're gone...



An excerpt from a poem read out by the grandson of Patrick Gomes at the 6th remembrance event. Patrick was an in-flight supervisor on MH370.

Figure 41 [top]: Remembering loved ones, 2019
Figure 42 [bottom]: Lighting candles, 2014

A lot of people tell us to let go and move on. But we cannot move on because we don't know what happened. All we can do is go on with our lives, taking one step at a time.¹⁹

- Grace Nathan

As families slowly regain the fragmented pieces of their lives without the finality of knowing what happened to their loved ones, there is always a sliver of hope that the missing may one day return home. After six years, “the pain is still the same, the fact that the plane is still missing is still the same, and the fact that we don't know what happened to the plane is still the same.”²⁰

To this very day, MH370 remains one of the world's greatest aviation mysteries.

The mystery. The unknowing. The ambiguity. The lack of closure, even momentary closure.

These are the aspects that I became drawn to. I realized that the loss these families were and are still experiencing is notably different from my experiences and I want to understand more.

#SearchOn

¹⁹ Gartland, Annette. “MH370: six years on, next of kin call for the search to resume.” *Changing Times*. March 7, 2020. Accessed March 14, 2020. <https://changingtimes.media/2020/03/07/mh370-six-years-on-next-of-kin-call-for-the-search-to-resume/>.

²⁰ Ibid.



Figure 43 [top]: Pray for MH370
Figure 44 [bottom]: Board of messages

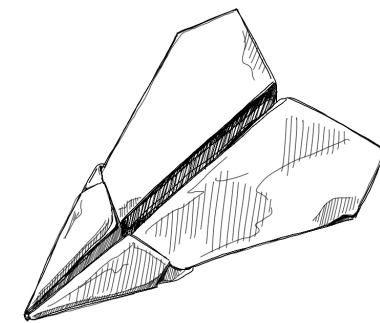


Figure 45: Origami plane

LOSS

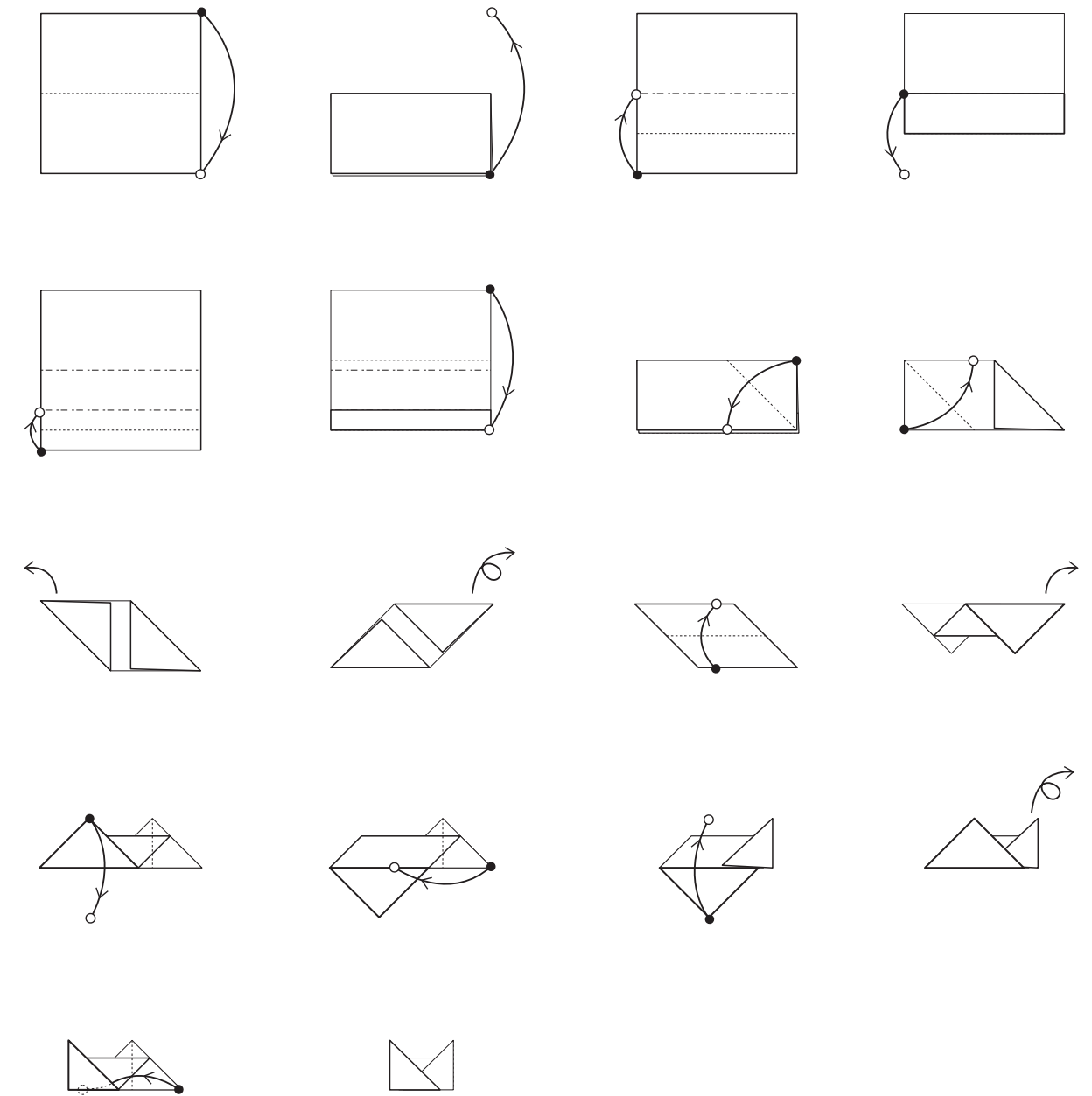


Figure 46: How to fold an ingot

LOSS

We are wired for attachment in a world of impermanence.

- *Counting Our Losses*, Robert A. Neimeyer

Everyone has experienced loss. It is probably one of the most natural aspects of our lives.

Each loss is different. No matter how many times a person experiences it, each loss has a unique impact.

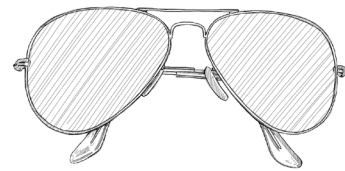
Loss is complex.

Have you ever paused for a moment and thought about how you have dealt with a loss?

How did you feel when you established the reason for the loss and that it was absolute? How about when you lost something or someone without knowing where or why?

Personally, I did not have an answer to these questions—not until recently.

For as long as I can remember, I have hated losing or misplacing things. Something as simple as a pair of sunglasses, or the thought, “*where is my fountain pen?*”, can send me into a whirlwind. If I am not already at home, the search for this missing object begins the moment I return. I cannot stand not knowing where it is and have to keep searching. Non-stop searching...



The continuous search is absolutely aggravating. The unknown is uncomfortable. The object must be found even if it means turning my room upside down.

When I'm able to recall where I've placed the object and retrieve it, I feel an immediate wave of relief.

Even when I can remember where I lost the object but cannot find it, I still feel okay because at least I can stop searching and instead, focus on the loss. Moments where I have no recollection whatsoever of where, when, why, or how I lost the object are the ones I find agonizing. I'll spend days and nights trying to remember. For especially important objects, I lose sleep over the not knowing.

The different levels of ambiguity in each scenario will define my resultant emotions. When we compare the feelings of anxiety, frustration, and discomfort of loss around a beloved object to a beloved person, they naturally intensify.

We do not do well with uncertainty.

The losses we experience fall into two broad categories: *defined* and *ambiguous*.

Figure 47: Sunglasses

DEFINED LOSS

How does something that no longer exists be so heavy? How can emptiness have weight?

- *The Librarian of Auschwitz*, Antonio Iturbe

DEFINED LOSS

(*compound noun*)

a loss that occurs with understanding and certainty. It is a clear loss. It is finite. It is a loss that is validated by society.



Figure 48: Caribbean Sea, Jamaica, 1980 [Neg. #301]

Death dances silently in everyone's shadow.

Of the many losses that we experience in a lifetime, death is the most permanent and arguably most extreme form of loss.¹ The death of a loved one is followed by an absolute sadness and emptiness that cannot be matched.² Although the world around you continues to spin at the same rhythm, your personal world comes to a grinding halt. That very moment becomes frozen in time. You can remember the exact date of death, you can remember the exact time of death, and you can remember the exact moment you were told. This type of loss is called *defined* or *ordinary*.

After experiencing such a loss, it is common for us to reach out to loved ones for support and resilience. Communities often become closer in these moments. Friends and family become one of our key support systems in the healing process. We take time off from our daily lives and mourn together.

Spirituality and rituals can also be sources of comfort and guidance, like a gathering at a funeral parlour, a memorial service, the final disposition of the body in a burial or cremation, or the scattering of ashes. These cultural customs are a normalized series of actions and act as milestones or markers in time to help with the grieving process.³ They provide us with closure, even if it is only momentary.

Our culture and society comprehends *defined loss* and has established processes and structure to move through it.

1 Keyes, Katherine M et al. "The burden of loss: unexpected death of a loved one and psychiatric disorders across the life course in a national study." *The American journal of psychiatry* vol. 171,8 (2014): 864-71. doi:10.1176/appi.ajp.2014.13081132.

2 Kübler-Ross, Elisabeth, and David Kessler. *On Grief and Grieving: Finding the Meaning of Grief through the Five Stages of Loss*. New York: Scribner, 2005, 29.

3 Mendoza, Marilyn A. "Ambiguous Loss, How to live with the pain of uncertainty." *Psychology Today*. September 5, 2017. Accessed May 31, 2020. <https://www.psychologytoday.com/us/blog/understanding-grief/201709/ambiguous-loss>.

AMBIGUOUS LOSS

Absence and presence are not absolutes.

- *Trauma, and Resilience*, Pauline Boss, Loss

With every loss, there is some form of ambiguity.⁴ Oftentimes we actually experience ambiguity without realizing it. Regarding a death, we may have all the details such as cause, time, and location, but we might not know for certain what happens to the soul. An ambiguous loss is even more intense as in the case of a missing person, there is no body and, therefore, no finality.

AMBIGUOUS LOSS

(compound noun)

a loss that occurs without certainty or understanding, leaving a person searching for answers. It is an uncanny loss. It is confusing and incomprehensible. It is incomplete.

⁴ Boss, Pauline. *Loss, Trauma, and Resilience: Therapeutic Work with Ambiguous Loss*. New York: W.W. Norton & Co., 2006.

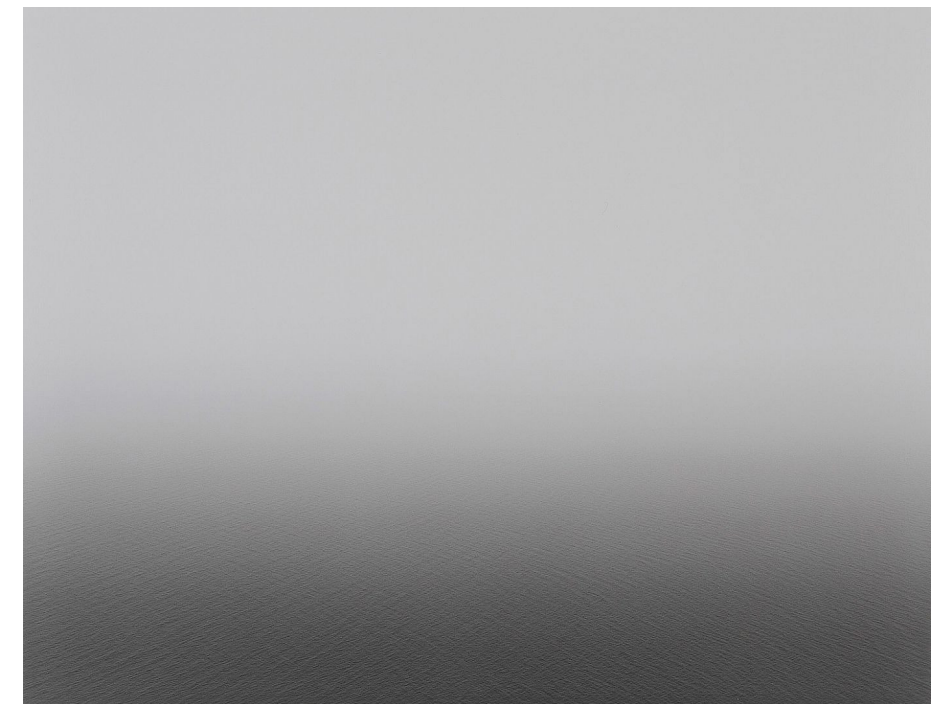


Figure 49: Aegean Sea, Pilon, 1990 [Neg. #350]

Although the term *ambiguous loss* was not used until the 1970s by Pauline Boss, a therapist and the principal theorist of the concept of ambiguous loss, it is a phenomenon that has always existed. Throughout history, ambiguous loss, with its distinctly vague and uncertain qualities, has been a subject of fascination in literature, opera, and theatre.⁵ In Homer's *Odyssey*, Penelope is immobilized by her grief while waiting for her missing husband. Puccini's *Madama Butterfly* explores Butterfly's longing hope that her beloved husband will one day return and Arthur Miller's *All My Sons* portrays a mother unwilling to believe her missing son has died after a fatal air crash.⁶ In the first two examples, both husbands do eventually return, defying what is typical of reality.

As much as the unknown can induce anxiety, we seem to find pleasure in experiencing it through stories. Perhaps the ambiguity adds a layer of mystery or intrigues us because it is something we do not fully understand. Or maybe, our subconscious finds a companion through the fictional experience of shared uncertainty.

There are two types of *ambiguous losses*.

The first is *physical absence with psychological presence*. An example of this is when it is unclear whether the loved one is dead or alive.⁷ Though they are absent physically, the deceased may be kept alive in the minds of their mourning family, in hopes that they might reappear. Everyday examples of this loss include adoption, migration, and divorce. Tragic examples of this loss are a person lost at sea, a missing soldier, or a missing child, and in each of these cases, there is no physical body.

The second is *physical presence with psychological absence*. In other words, the body is present but the mind is not, which might occur in health-related events like brain injuries, addictions, or Alzheimer's disease.⁸ It can even include an overcommitment to work or other interests, resulting in limited emotional and cognitive interactions with loved ones.

5 Boss, Pauline. *Ambiguous Loss : Learning to Live with Unresolved Grief*. Cambridge, MA: Harvard University Press, 1999, 5.

6 Ibid.

7 Boss, Pauline. *Loss, Trauma, and Resilience : Therapeutic Work with Ambiguous Loss*. New York: W.W. Norton & Co., 2006, 7.

8 Boss, Pauline. "The Trauma and Complicated Grief of Ambiguous Loss." *Pastoral Psychology* 59, no. 2 (2009): 137-45. <https://doi.org/10.1007/s11089-009-0264-0>.

There is also the possibility to experience both types of ambiguous loss simultaneously.

Physical absence with psychological presence is what I will be focusing on, with an emphasis on catastrophic events.

Watch all the busy people
Stride boldly past on
Bright city sidewalks
While I stand frozen -
Unseen.⁹

- "Sticky Time," Donna Carnes

If what I experienced through the loss of my friend Cynthia falls under the category of defined loss, I can only begin to imagine what those experiencing ambiguous loss are going through.

Because the lost loved ones are not here physically but remain present psychologically, those experiencing ambiguous loss find themselves stuck, frozen in time. Life is put on hold. There is no certainty as to whether the loss will be temporary or final.

Everything is confusing.

It is exhausting.

9 Boss, Pauline, and Donna Carnes. "The Myth of Closure." *Family Process* 51, no. 4 (2012): 456-69. <https://doi.org/10.1111/famp.12005>.

The experience of the families of the missing passengers and crew on board Malaysia Airlines Flight 370 fall into this category.

Many people struggle to grasp that MH370 was not just like any accident, which though tragic, allows for family members to make peace with and move on. It's a complex trauma in which the mind pendulums back and forth from harsh reality to the faint hope of seeing their missing family member again one day.¹⁰

- Author Unknown

From an outside point of view, the mystery surrounding the missing plane may seem alluring but for those experiencing the loss personally, it is anything but. The constant unknowing offers no clear ending. Families continuously search for more facts, more information, more certainty in details to grasp onto. Without definitive answers, their hope is always active. This hope is a double-edged sword as it may turn into despair, leaving them in an endless cycle of contrasting emotions.¹¹

As we previously explored, markers like an official death certification or a traditional ritual give the opportunity for the loss to be experienced and processed communally. In the case of an ambiguous loss, these markers do not exist.¹² There is no wake, no funeral, and no body. There is no opportunity to say goodbye.

As human beings, we need to see the body of our loved one, to have remains, in order to know that our loved one has been transformed into another state.¹³

- Pauline Boss

10 Astroulagam. "“We Never Moved On” - Families Still in Pain Years After MH370 Tragedy." Astroulagam. Accessed May 12, 2020. <https://astroulagam.com.my/community/we-never-moved-families-still-pain-years-after-mh370-tragedy-89243>.

11 Furnham, Adrian, and Raj Persaud. "Coping With Not Knowing What Happened to a Missing Loved One." *Psychology Today*. June 17, 2017. Accessed May 31, 2020. <https://www.psychologytoday.com/us/blog/slightly-blighty/201706/coping-not-knowing-what-happened-missing-loved-one>.

12 Boss, Pauline. *Loss, Trauma, and Resilience : Therapeutic Work with Ambiguous Loss*. New York: W.W. Norton & Co., 2006, xvii.

13 Pinsker, Joe. "All the Things We Have to Mourn Now." *The Atlantic*. May 1, 2020. Accessed May 22, 2020. <https://www.theatlantic.com/family/archive/2020/05/grief-mourning-death-pandemic/610933/>.

Few ceremonies exist to comfort us through an ambiguous loss.¹⁴ Opportunities for religious or spiritual support are also absent, as mourning is designed around defined loss.¹⁵ Because there is no verification or engagement in the loss at a communal level, there is little validation of one's grief and no definitive recognition of there being a real loss. As ambiguous loss is not a loss that we, as a society, readily understand, dealing with the constant fluctuation of emotions can be utterly exhausting. Those who witness such a loss tend to withdraw rather than provide support.

The traumatizing experience and lack of goodbye often haunts those experiencing ambiguous loss for years and possibly a lifetime.¹⁶ They are devoid of the ability to collectively mourn and heal. They are left without the usual support for grieving that could aid in moving forward with life.¹⁷ They cannot move on.

Of course, life is going on, but we never really moved on. I count my years in 'plane years'. If you ask me when you graduated, I will say 'the year the plane disappeared' and if you ask me when you started working, I will reply 'the year after the plane disappeared'. Because for a lot of us, time has stood still since that day.¹⁸

- Grace Nathan

Ambiguous loss complicates the grieving process and renders momentary closure completely unobtainable.

14 Boss, Pauline. *Ambiguous Loss : Learning to Live with Unresolved Grief*. Cambridge, MA: Harvard University Press, 1999, 49-50.

15 Ibid, 49.

16 Ibid, 29.

17 Boss, Pauline. "Ambiguous Loss." Accessed April 20, 2016. <http://www.ambiguousloss.com/>.

18 Astroulagam. "“We Never Moved On” - Families Still in Pain Years After MH370 Tragedy." Astroulagam. Accessed May 12, 2020. <https://astroulagam.com.my/community/we-never-moved-families-still-pain-years-after-mh370-tragedy-89243>.



GRIEF, THE UNIVERSAL HEALER

The absent are always present.

- *The Stone Diaries*, Carol Shields

Regardless of the category, loss is almost surely accompanied by grief.

When I first started researching loss and all the experiences that come with it, I was confused by the terminology. It appears that I was not alone. Grief/grieving, bereavement, mourning—these three terms have been used inconsistently (and sometimes interchangeably) conversationally and in literature.¹⁹ As such, I think it is important to define the three terms before we move forward.

¹⁹ Zisook, Sidney, and Katherine Shear. "Grief and bereavement: what psychiatrists need to know." *World psychiatry : official journal of the World Psychiatric Association (WPA)* vol. 8,2 (2009): 67-74. doi:10.1002/j.2051-5545.2009.tb00217.x.

GRIEF

(noun)

a cause of deep sadness; deep and poignant distress caused by or as if by bereavement.²⁰

As an amalgamation of the definitions from different pieces of literature, I have come to understand grief as the *internal part of loss* or how we feel.²¹

It is a psychological, emotional, functional, and behavioral response to the loss.²² It is an experience that follows a loss of any kind.²³

²⁰ Merriam-Webster.com Dictionary. s.v. "grief." Accessed June 7, 2020. <https://www.merriam-webster.com/dictionary/grief>.

²¹ Kübler-Ross, Elisabeth, and David Kessler. *On Grief and Grieving : Finding the Meaning of Grief through the Five Stages of Loss*. New York: Scribner, 2005, 115.

²² Zisook, Sidney, and Katherine Shear. "Grief and bereavement: what psychiatrists need to know." *World psychiatry : official journal of the World Psychiatric Association (WPA)* vol. 8,2 (2009): 67-74. doi:10.1002/j.2051-5545.2009.tb00217.x.

²³ Meek, Will. "Real Stages of Grief, Moving from Kubler-Ross to Sidney Zisook." *Psychology Today*. October 18, 2012. Accessed June 7, 2020. <https://www.psychologytoday.com/ca/blog/notes-self/201210/real-stages-grief>.

BEREAVEMENT

(noun)

the state or fact of being bereaved or deprived of something or someone.²⁴

While grief extends to how we feel and react as a result of any kind of loss, bereavement can be understood as a type of grief specific to someone dying.²⁵

24 Merriam-Webster.com Dictionary. s.v. "bereavement." Accessed June 7, 2020. <https://www.merriam-webster.com/dictionary/bereavement>.

25 Meek, Will. "Real Stages of Grief, Moving from Kubler-Ross to Sidney Zisook." *Psychology Today*. October 18, 2012. Accessed June 7, 2020. <https://www.psychologytoday.com/ca/blog/notes-self/201210/real-stages-grief>.

MOURNING

(noun)

the act of sorrowing; an outward sign (such as black clothes or an armband) of grief for a person's death; a period of time during which signs of grief are shown.²⁶

Mourning can be understood as the *external part of loss* or the physical actions we take.²⁷

It refers to "the behavioral manifestations of grief, which are influenced by social and cultural rituals, such as funerals, visitations, or other customs."²⁸

26 Merriam-Webster.com Dictionary. s.v. "mourning." Accessed June 6, 2020. <https://www.merriam-webster.com/dictionary/mourning>.

27 Kübler-Ross, Elisabeth, and David Kessler. *On Grief and Grieving: Finding the Meaning of Grief through the Five Stages of Loss*. New York: Scribner, 2005, 115.

28 Zisook, Sidney, and Katherine Shear. "Grief and bereavement: what psychiatrists need to know." *World psychiatry: official journal of the World Psychiatric Association (WPA)* vol. 8,2 (2009): 67-74. doi:10.1002/j.2051-5545.2009.tb00217.x.

Grief is not a new phenomenon. Throughout history, human cultures have developed myths, spiritual beliefs, and rites around death to help in processing it; albeit they were mostly designed and connected to specific groups of people. It was not until the 20th century that grief was studied scientifically.²⁹ When coping with loss, people are often directed towards the five stages of grief as a tool to help them frame and identify their feelings.³⁰ These five stages (denial, anger, bargaining, depression, and acceptance) were introduced in 1969 by Elisabeth Kübler-Ross, a Swiss-American psychiatrist and author of the ground-breaking publication *On Death and Dying*.

Since its introduction, the five stages have garnered criticism and discussion not simply in the world of psychology but by society in general. The criticism itself could be a whole psychology thesis on its own, but instead I would like to focus on how the stages have the power to encourage conversation and discussion about grief, and how beautiful this is.

I think the beauty of these named stages is that Kübler-Ross has succeeded in establishing a general framework for grief that could apply to anyone, regardless of our religious differences or where we are in the world. It gives a tangible reality to the experience and aids in slowing things down. United in these stages, we are reminded of how we are not alone. The five stages marked the beginning of a universal experience of belonging while experiencing grief.

“There is no correct way or time to grieve.”³¹

Grief is a process,
a journey,
a time of transition that is as unique as the individual.

It is not linear.

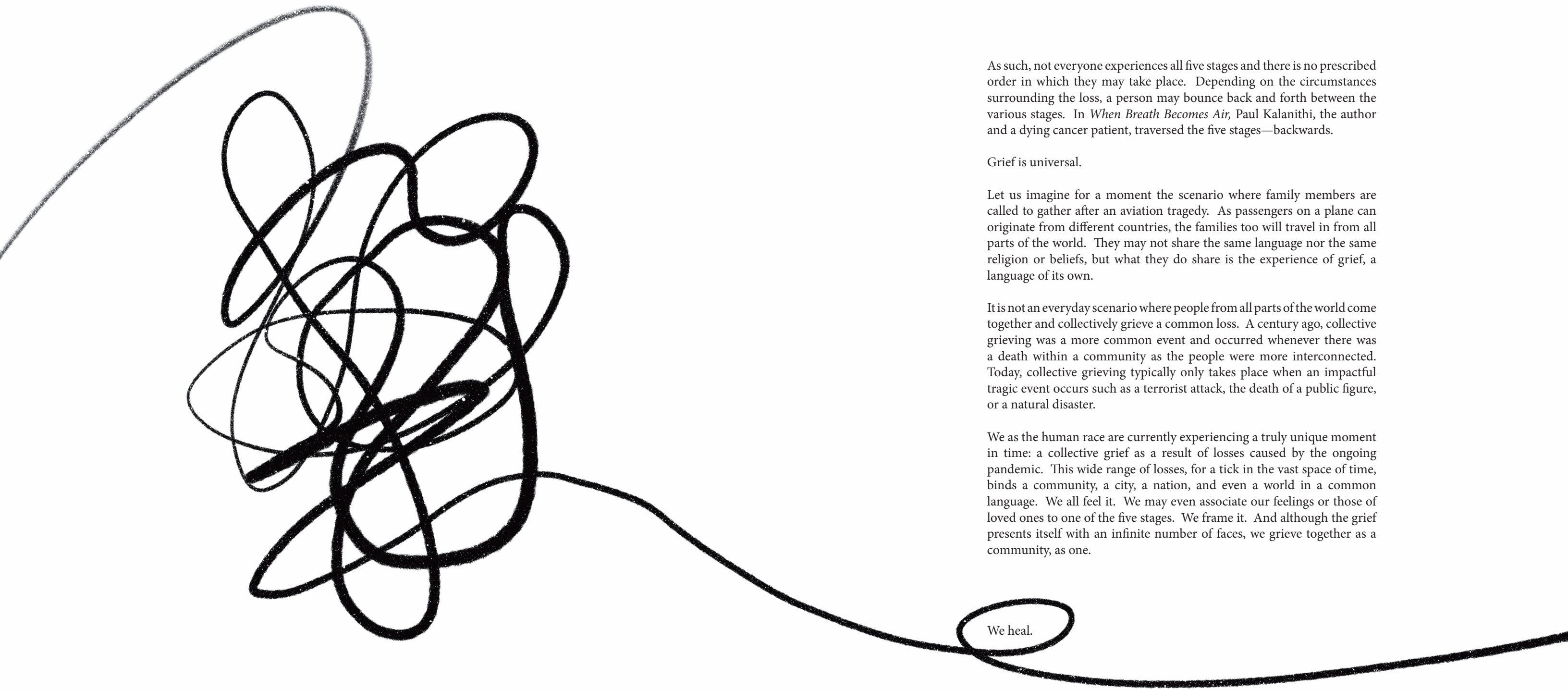
It is not a series of events.

It is not a ladder with a final destination.

29 O'Rourke, Meghan. "Good Grief, Is there a better way to be bereaved?" *The New Yorker*. January 24, 2010. Accessed December 16, 2017. <https://www.newyorker.com/magazine/2010/02/01/good-grief>.

30 Kessler, David. "A message from David Kessler." *GRIEF.com*. Accessed December 16, 2017. <https://grief.com/the-five-stages-of-grief/>.

31 Kübler-Ross, Elisabeth, and David Kessler. *On Grief and Grieving : Finding the Meaning of Grief through the Five Stages of Loss*. New York: Scribner, 2005, xi.



As such, not everyone experiences all five stages and there is no prescribed order in which they may take place. Depending on the circumstances surrounding the loss, a person may bounce back and forth between the various stages. In *When Breath Becomes Air*, Paul Kalanithi, the author and a dying cancer patient, traversed the five stages—backwards.

Grief is universal.

Let us imagine for a moment the scenario where family members are called to gather after an aviation tragedy. As passengers on a plane can originate from different countries, the families too will travel in from all parts of the world. They may not share the same language nor the same religion or beliefs, but what they do share is the experience of grief, a language of its own.

It is not an everyday scenario where people from all parts of the world come together and collectively grieve a common loss. A century ago, collective grieving was a more common event and occurred whenever there was a death within a community as the people were more interconnected. Today, collective grieving typically only takes place when an impactful tragic event occurs such as a terrorist attack, the death of a public figure, or a natural disaster.

We as the human race are currently experiencing a truly unique moment in time: a collective grief as a result of losses caused by the ongoing pandemic. This wide range of losses, for a tick in the vast space of time, binds a community, a city, a nation, and even a world in a common language. We all feel it. We may even associate our feelings or those of loved ones to one of the five stages. We frame it. And although the grief presents itself with an infinite number of faces, we grieve together as a community, as one.

We heal.

Figure 51: Grief

RITUALS

When the water had come to a boil in the shining bronze, then they washed the body and anointed it softly with olive oil and stopped the gashes in his body with stored-up unguents and laid him on a bed, and shrouded him in a thin sheet from head to foot, and covered that over with a white mantle.

- *The Iliad*, Homer

Where grief is the internal emotions and feelings associated with a loss, a ritual is its outward expression. It is one of the ways in which we mourn. Mourning differs greatly from grieving in that it has a structure, a designated moment in the vast realm of time with a clear beginning and end. Rituals are time-based, as opposed to grieving, which can be potentially infinite.

While the focus of this chapter is not to go into depth about mourning, I do think it is important to mention the importance of rituals within the healing process. For more in depth readings on mourning and rituals, please refer to my bibliography.

Rituals surround us.

Rituals have always been heavily connected to culture and religion, though they can also be derived from personal values, beliefs, and experiences.³²

³² King, Katherine. "The Four R's of Handling Grief." Psychology Today. May 31, 2020. Accessed July 21, 2020. <https://www.psychologytoday.com/ca/blog/lifespan-perspectives/202005/the-four-rs-handling-grief>.

They can be taught or self-created, communal or individual, organic or structured. They range in scale from our day-to-day rituals, such as the sharing of a meal or a simple handshake, to more elaborate rituals like weddings and funerals.

It is not what the ritual is or how it came to be that provides meaning. The power in a ritual exists in its ability to act as a tool for helping us understand our life events, whether dramatic, traumatic, or life changing. In many ways, rituals are absolutely architectural in the way they provide us with a space to process our emotions and house our experiences.³³

RITUAL

(noun)

the established form for a ceremony; a ceremonial act or action; an act or series of acts regularly repeated in a set precise manner.³⁴

For such a culturally-rich word, the dictionary provides a rather vague and simple definition for ritual. A quick search for the definition of ceremony, shows that these two words are synonymous. According to Victor Turner, an anthropologist and author of *The Ritual Process*, a ritual is "the action that reintegrates a disturbed social group after a crisis."³⁵

³³ King, Katherine. "The Four R's of Handling Grief." Psychology Today. May 31, 2020. Accessed July 21, 2020. <https://www.psychologytoday.com/ca/blog/lifespan-perspectives/202005/the-four-rs-handling-grief>.

³⁴ Merriam-Webster.com Dictionary. s.v. "ritual." Accessed July 21, 2020. <https://www.merriam-webster.com/dictionary/ritual>.

³⁵ Ashenburg, Katherine. *The Mourner's Dance: What We Do When People Die*. Toronto: Macfarlane Walter & Ross, 2002, 55.

Rituals and ceremonies surrounding death are vast. They can take place over a long period of time, some immediately after a loss, some much later. From washing and preparing the body to holding a wake and erecting a tombstone, these rituals amongst others are remarkably common across cultures and religions. Some details may be different, but the core purposes remain the same.

The funeral is another such ritual.

Like all rituals, the funeral ritual is ever-evolving, changing alongside our values and beliefs. In the last few years, I've heard of post-death gatherings that did not include the body, which is rather curious as, historically, no body meant no funeral. The funeral experience could definitely be improved upon, perhaps with less pressure of time, less rushing through the ceremony, the sharing, the grieving, to allow for more compassion and healing. Although the funeral, like any other ritual that includes more than a handful of people, does not always satisfy everyone, without it mourners could find themselves "wandering in an emotional limbo where mourning can neither begin nor end."³⁶ The funeral ritual or a derivative is an important aspect of the healing process. It "provides meaning, message, group support, and total involvement, all of which allow attendees to act out feelings that are too deep to put into words."³⁷ It allows participants to find solace in company as well as share stories, memories, and tears. It can knit a broken community back together.

For a family that does not speak much about death and loss, we perform an abundance of rituals surrounding the subject. Beyond the funeral, visiting the cemetery, and the immediate cleansing of oneself after one of these events, I grew up with a deep roster of cultural traditions. Family gatherings to celebrate and remember our ancestors occur on important dates, including every festival in accordance with the lunar calendar. This includes the Dragon Boat Festival, Mid-Autumn Festival, and Tomb Sweeping Day as well as death, marriage, and birth anniversaries.

36 Ashenburg, Katherine. *The Mourner's Dance: What We Do When People Die*. Toronto: Macfarlane Walter & Ross, 2002, 75-76.

37 Van Beck, Todd. "A Look At Rituals." *Development for Funeral Futurist*. June 18, 2017. Accessed July 25, 2020. <https://www.todddvanbeck.com/a-look-at-rituals/>.

At these gatherings, we rarely talk about the life of the deceased or share memories; instead, we go through a series of actions ingrained in us since childhood. The actions are like second nature, yet we perform them without real explanation or knowledge of their purpose.

As kids, we simply enjoyed these gatherings as opportunities to spend more time with our extended family. Growing up, I continuously wished that stories would be shared of the lives lost. There is just so much richness and wonder in learning about the unique lives of our ancestors and who they were. I wished my elders would discuss their experiences of loss so that we can learn from them and know that we are not alone in ours. I wished that they would explain our rituals and traditions so that we could understand them and continue to teach them to future generations.

In time, I have come to realize that though we do not know the purpose of all the rituals and traditions we perform and do not talk about the deceased, the simple sharing of time with family and loved ones is key. Through these gatherings and rituals, we can find momentary closure. The rituals are an act of remembering and allow us to keep our ancestors a part of our daily lives. Above all, they have shown us that life can continue without the deceased physically by our side and that through death, we have been gifted with time, connection, and stronger familial bonds.



Fold.

Figure 52: Joss paper



Joss paper, also known as spirit money or ghost money, is folded into specific shapes that bring good luck. This offering allows our ancestors to live a comfortable and prosperous life in the afterlife.

Figure 53: Folded joss paper



Prepare.

Figure 54: My mother preparing curry puffs



These family gatherings always include a potluck. The food is an offering and invitation for our ancestors to dine upon us. No food is to be eaten until a succession of rituals are to pass.

Figure 55: A potluck for my maternal grandfather's death anniversary, March 2019



Pray.

Figure 56: My uncle saying his prayers



We pray to our ancestors in succession of the eldest child followed by their family to the youngest. Prayers can include words of gratitude, updates on our lives, or even requests for assistance and blessings. The joss sticks are then brought outside where the smoke can bring our prayers up into the heavens.

Figure 57: Burning joss sticks



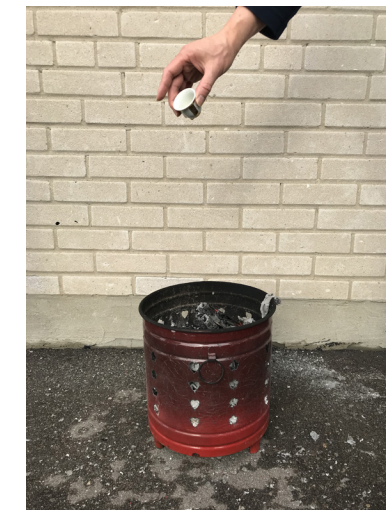
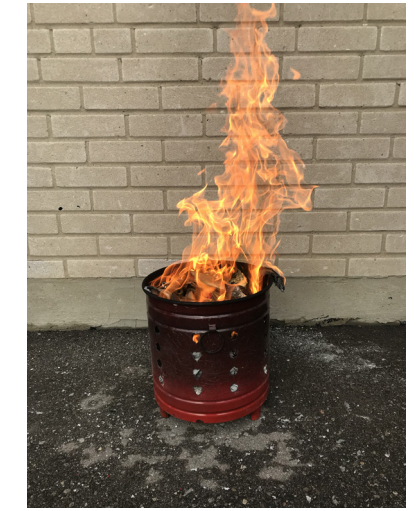
Toss.

Figure 58: Conversing with our ancestors



Two clams linked by a red string are tossed after a series of prayers are said. The way the clams land define the outcome. Double up or double down means that our ancestors are still partaking in the feast and we must wait and try again. Alternate up and down (as pictured) means we can proceed to the next stage.

Figure 59: Clams alternate up and down
Figure 60 [following page]: Burning joss paper



Burn.

The final step before we indulge on the impressive spread of food is the burning of the folded joss paper. It is then sealed with a shot of wine to ensure the money is received by the intended recipients, our ancestors.

Figure 61-63 [top left to right]: Burning joss paper series:
image 1-3

Figure 64-66 [bottom left to right]: Burning joss paper series:
image 4-6



Every time we burn joss paper, I am brought back to the memory of a trip to Malaysia when I was six years old. Although not fully understanding the purpose of the trip nor the rituals that took place, the one thing that resides in my memory is the image of a huge paper house: taller than my house, vibrant as a bouquet of tulips, and just completely out of this world.

The huge paper house that was burned and soon engulfed in flames.

I am grateful to have had the opportunity to revisit this ritual in 2019 when a large portion of my extended family returned to Malaysia to commemorate the life of my late aunt. As part of a disappearing ritual, I was able to document this three-day event and learn more about our culture and traditions.

Beyond the experience of seeing another paper house (larger than that in my memory), one of the most notable parts of this trip was the fact that the entire community, including family, friends, and surrounding neighbours, came together to fold spirit money. Over the course of months prior to this celebration and especially during the three-day ceremony, thousands upon thousands of pieces of joss paper were folded. It was such a heartwarming experience to sit at round tables and fold together while getting to know more about the people who shared a relationship with the deceased. It reminded me of the time when my friends and I got together and folded cranes for Cynthia. Having originally thought that the rituals I performed were much different from those I grew up with, I was surprised to learn how this was so similar to what my ancestors would have done in the same situation.

Individuals intuitively recreate traditional rituals of mourning, even those of which they are ignorant.³⁸ This statement could not ring more true.

38 Ashenburg, Katherine. *The Mourner's Dance: What We Do When People Die*. Toronto: Macfarlane Walter & Ross, 2002, 3.

Figure 67 [previous pages]: Paper house, 1996



Figure 68 [top]: Folding paper cranes, Toronto, Canada, 2010
Figure 69 [bottom]: Folding joss paper, Muar, Malaysia, 2019
Figure 70 [following pages]: Paper house, 2019





Figure 71 [opposite]: Burning paper house
Figure 72-74 [top left to right]: Burning paper house series:
image 1-3
Figure 75-77 [bottom left to right]: Burning paper house series:
image 4-6

Although the rituals mentioned thus far in this chapter were mainly ones that consisted of more than the self, there is a time for rituals that allow for gathering and communal healing as well as those that offer individuality and personal healing.

In 2014, researchers Michael I. Norton and Francesca Gino at Harvard Business School performed a study analyzing how mourners overcame grief and what determined the time period required to do so. They found that those who performed “rituals” experienced an accelerated process and overcame their grief more quickly. These “rituals” were not the typical mourning rituals or public displays of bereavement, such as funerals and wearing black, but rather, these “rituals” were private, personal, and performed alone. Through these private rituals, the bereaved might regain their footing in the world and feel like they are in control.³⁹ Often, private rituals are created in the hopes of finding closure or momentary closure. Below is a recount of specific rituals designed by individual mourners to help with their grieving process.

For fifteen years, a man continued to go to the hairdresser on the first Saturday of every month as he had done with his wife when she was still alive.⁴⁰ One woman remembers her father through the creation of new traditions and by sharing stories about him with her children and husband.⁴¹ Four years after the death of his wife, a retired woodworker began to design and build his own casket.⁴²

39 Smith, Emily. “In Grief, Try Personal Rituals.” *The Atlantic*. March 14, 2014. Accessed April 20, 2016. <http://www.theatlantic.com/health/archive/2014/03/in-grief-try-personal-rituals/284397/>.

40 Ibid.

41 Zorn, Alissa. “Family Traditions – Remembering a Loved One Who Died.” *Bounceback Parenting*. Accessed April 20, 2016. <https://bouncebackparenting.com/family-tradition-remembering-a-loved-one-who-died/>.

42 Watson, Denise. “A 95-year-old Woodworker Builds his Culminating Piece – His Own Casket.” *The Virginian Pilot*. August 14, 2015. Accessed April 20, 2016. https://www.pilotonline.com/life/article_2818aab0-bc09-5e49-9072-1315d7ee0498.html.

As the aforementioned examples of rituals have extended over the duration of many years, there also exist rituals of closure that occur before or immediately after the event of loss. Below are some such rituals.

Sons of a woodworker got together on the night of their father’s death to build his casket. In another story, a sister had passed away suddenly and, in response, the brother and cousins got together to design her tombstone. A son built his dying father a plain, pine casket and organized his funeral.⁴³

Rituals proffer comfort through the familiar.⁴⁴

With disasters, the creation of rituals become a bit more complex, even more so when the disaster is accompanied by uncertainty.

For those who lost someone in an airline disaster over the ocean, the individuals and families may visit the closest shore, they may visit a memorial erected in memory of the lives lost, or they may return to the crash site on a boat to have a yearly memorial.⁴⁵ Many take yearly pilgrimages in memory of their lost loved one. This act makes the loss more real and provides the mourners an opportunity to grieve. If the ritual is completed as a group, the gathering allows participants to support one another through an event that cannot be understood by anyone else. If the site of the loss is unavailable, one’s only option may be to visit the loss in their mind. It is interesting to note that in the Chinese culture, it is unequivocally disrespectful to erect a memorial or monument before a person is confirmed to be dead. The monument would be seen as a curse on those who have not yet been found.⁴⁶

43 Bernotas, Adolphe. “Son Builds His Dad’s Coffin in Labor of Love: Mortality: New Hampshire man crafts a pine box to comply with father’s wishes.” *Los Angeles Times*. January 16, 1994. Accessed April 20, 2016. <http://latimes.com/archives/la-xpm-1994-01-16-mn-12459-story.html>.

44 Ashenburg, Katherine. *The Mourner’s Dance: What We Do When People Die*. Toronto: Macfarlane Walter & Ross, 2002, 63.

45 Kübler-Ross, Elisabeth, and David Kessler. *On Grief and Grieving: Finding the Meaning of Grief through the Five Stages of Loss*. New York: Scribner, 2005, 180.

46 Mao, Frances. “MH370 four years on: Why relatives say it’s too soon for a memorial.” *BBC News*. March 6, 2018. Accessed October 29, 2020. <https://www.bbc.com/news/world-australia-42867742>.

After World War I, a new ritual was born as a result of the sudden mass experience of ambiguous loss. The Tombs of the Unknown Soldiers, situated in nations across the globe, typically contain the unidentifiable remains of a sole soldier. These memorials and monuments serve as a symbol for all of the nation's soldiers who died in war and whose remains have not been identified. Each monument is unique in design but provides a common place to commemorate those who sacrificed their lives for freedom and peace. In Canada, the tomb represents the more than 116,000 lost in combat as well as all branches of the Canadian Armed Forces "who died, or may die for their country in all conflicts - past, present, and future."⁴⁷ The anonymity of the soldiers within the tombs remains key to its symbolism.

"The absence or diminution of rituals creates the repression of the emotion of grief."⁴⁸

Throughout history, rituals in all forms have been a prominent act of closure within our society. Dispersed over time, they embody a dimension of memory and create a link between different times and spaces, allowing us to make connections with absent individuals by bringing them into the present.⁴⁹ With its transformative qualities, they represent a transition, a passage from one stage to another and symbolize the death of the old self followed by the birth of the new.⁵⁰ This rebirth is not something that can be observed but, instead, embodied and experienced.

There is not one sole ritual, tradition, or ceremony that produces a better result than the other. Rather, it is the existence of such a phenomenon that aids in the healing from loss. As such, it can be understood that those who experience defined loss are able to find closure in a shorter period of time. Because of the certainty of the loss, they are able to develop personal grieving rituals that counteract the chaos. Comparatively, those who experience ambiguous loss will suffer a prolonged grieving period.

47 Veterans Affairs Canada. "Tomb of the Unknown Soldier." Veterans Affairs Canada. October 23, 2014. Accessed October 29, 2020. <https://web.archive.org/web/20141107022632/http://www.veterans.gc.ca/eng/remembrance/memorials/canada/tomb-unknown-soldier#>.

48 Van Beck, Todd. "A Look At Rituals." Development for Funeral Futurist. June 18, 2017. Accessed July 25, 2020. <https://www.todddvanbeck.com/a-look-at-rituals/>.

49 Hallam, Elizabeth, and Jennifer Lorna Hockey. *Death, Memory and Material Culture*. Oxford: Berg, 2001, 179-181.

50 Tresidder, Jack. *Symbols and Their Meanings*. London: Duncan Baird Publishers, 2006, 34.

With the lack of existing ceremonies and traditions coupled with the uncertainty of such a loss, it is difficult to perform rituals or even decide whether a ritual is relevant.

Memorials, cemeteries, funerals.

Architecture, site, ritual.

There is an architecture, site, and ritual for defined loss and through these ceremonies and spaces, one can find moments of healing, moments of momentary closure.

With this said, the following questions come to mind:

What can we as designers provide, through the medium of architecture, in the healing process of those experiencing ambiguous loss?

With no cemetery to return to for momentary closure, could architecture provide a space and place for ambiguous loss?

As many rituals of loss revolve around the physical presence of the body and the confirmation of death, is there a ritual that can be designed to invoke and house memories?

Can I design a ceremony that is elastic enough to be continuously meaningful, even when the meaning changes?⁵¹

Can the design be transient enough to house all losses?

51 Ashenburg, Katherine. *The Mourner's Dance : What We Do When People Die*. Toronto: Macfarlane Walter & Ross, 2002, 12.



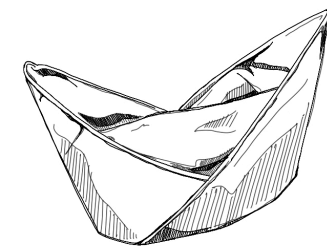


Figure 79: Origami ingot

REMEMBERING

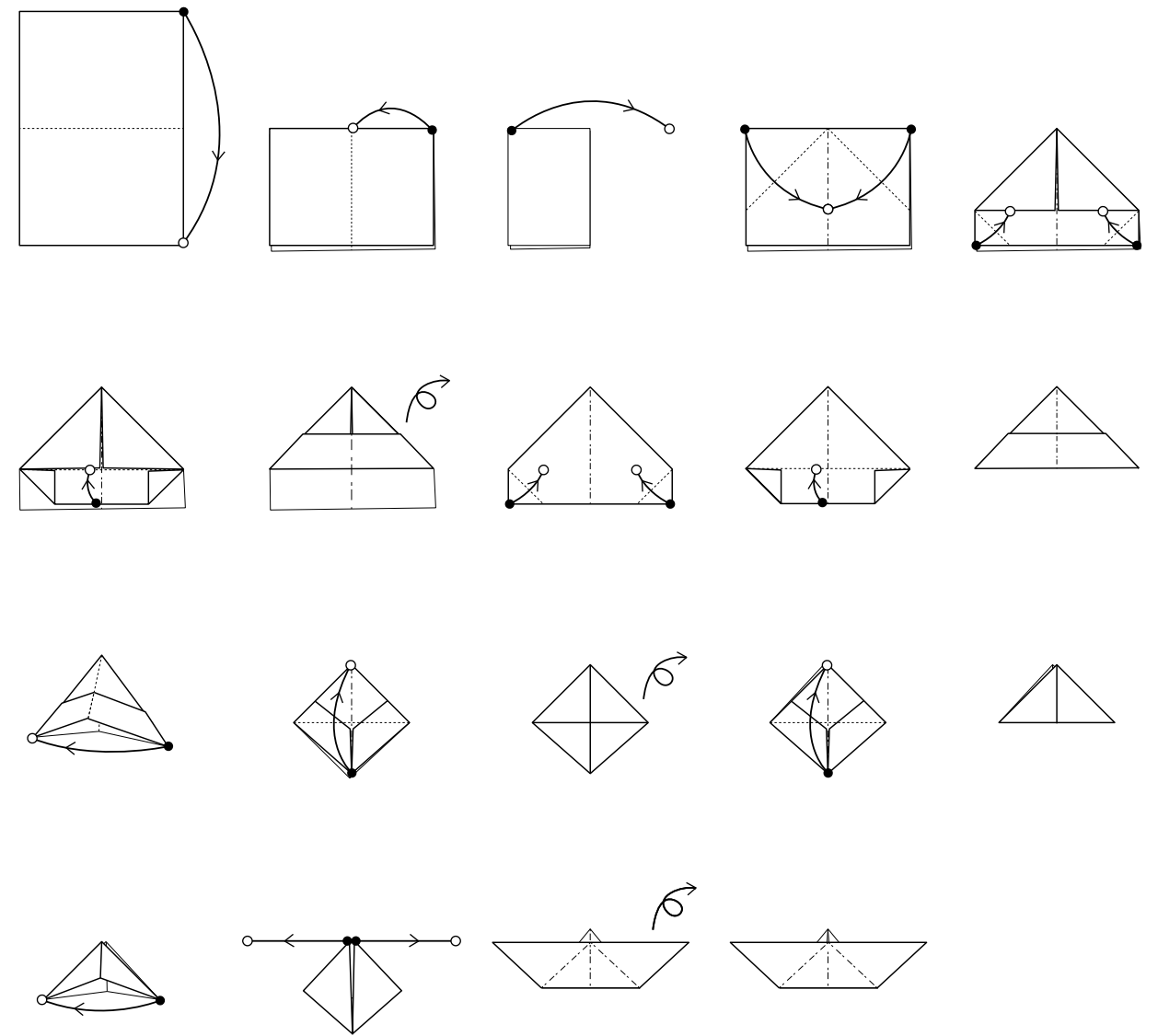


Figure 80: How to fold a boat

REMEMBERING

As a designer, I grapple with the questions at the end of the last chapter and whether or not they have tangible answers. I seek these out through two parallel methods: a design proposal, as well as portraying intangible concepts through physical means.

In the early stages of my thesis development, I explored the phenomena of nesting and flight through a series of ambience studies. Models and drawings were produced to depict the experiential and atmospheric qualities I hoped to achieve in my final design, though it has since diverged. Themes of nesting and flight, however, continued to be present in the design.

I questioned how the human experience of loss, which is quite ephemeral in nature, can be represented in built form. *How can we navigate loss through the lens of architecture? How can architecture be universal? How can I express concepts and emotions through visuals and built form?* I felt compelled to see what we, as designers, can do to make this intangible thing called loss, tangible.

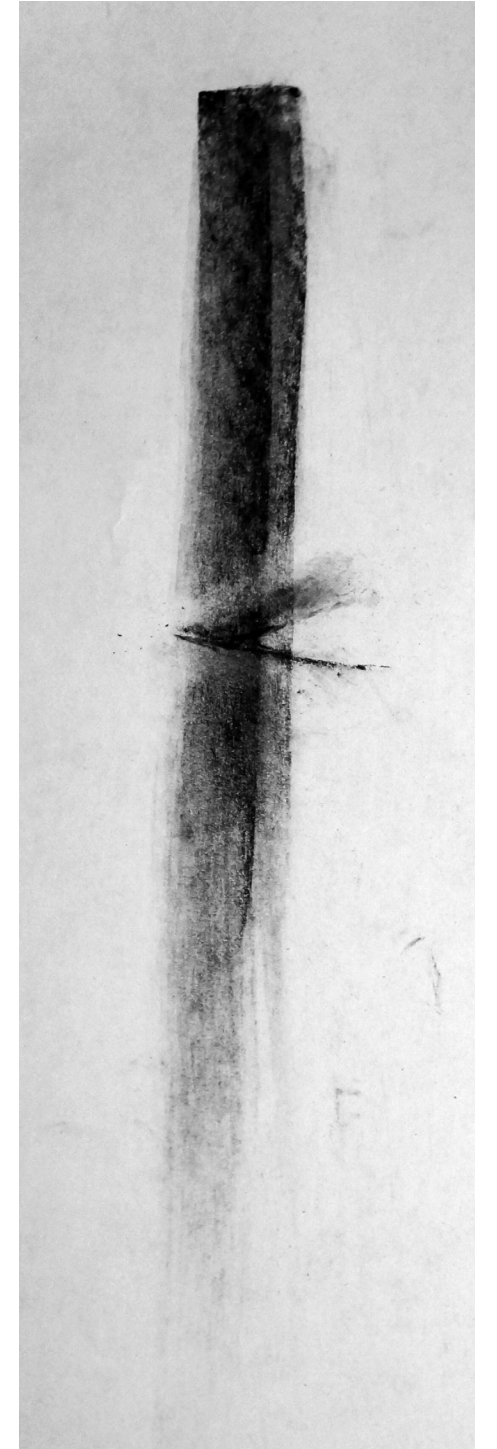
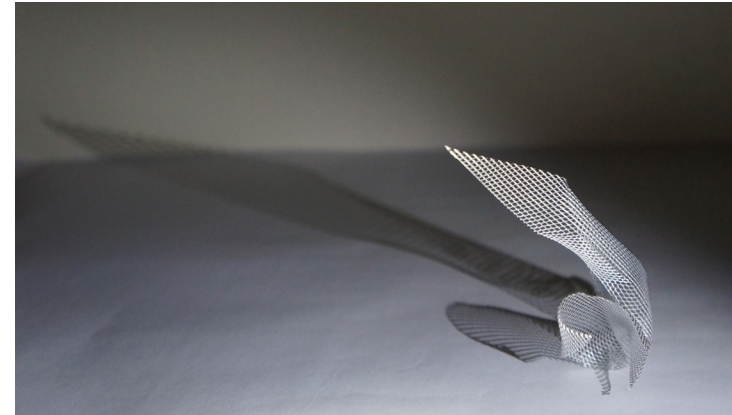
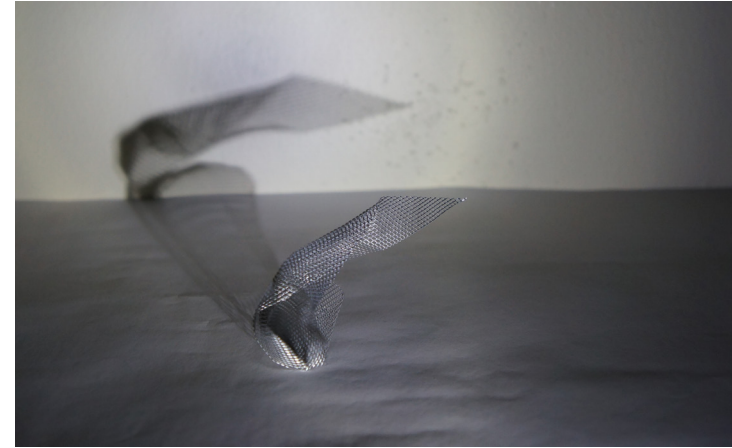
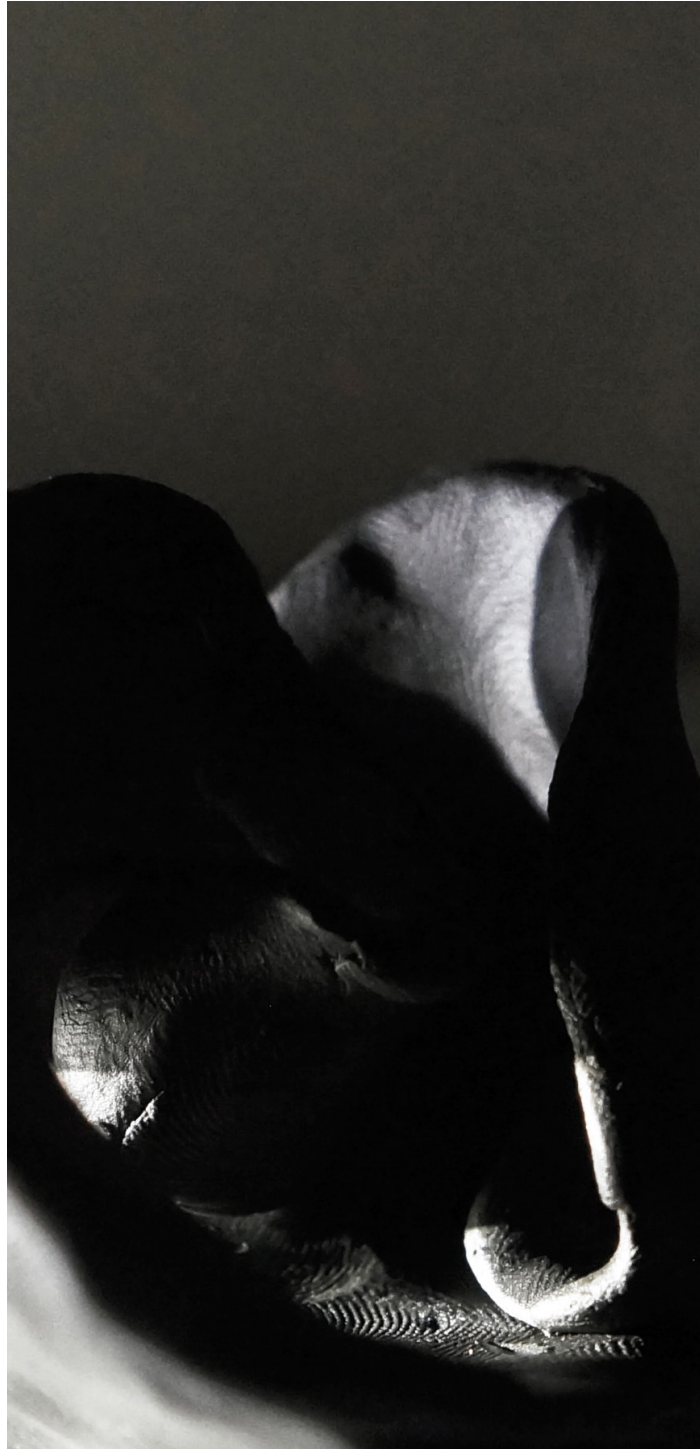


Figure 81 [left]: Nest ambience study
Figure 82 [top]: Nest shadow study
Figure 83 [bottom]: Flight study image 1

Figure 84 [top]: Flight study image 2
Figure 85 [middle]: Flight study image 3
Figure 86 [bottom]: Nest and flight
Figure 87 [right]: Flight into...

THE VESSEL

Using the MH370 tragedy as a catalyst for design, this proposal is both a ritual and a vessel. The ritual is a journey of healing and an emotional exploration, while the vessel proffers a place to go to and to return to when seeking closure. Suspended between life and death, it is a nest and haven, a place of celebration for those lost not on land. It is a place that sanctifies the missing, a place to go to when there are no earthly remains to behold.

This floating place of remembrance has an itinerary of travels. As MH370 has no confirmed crash site, the vessel will travel around the world in international waters, from destination to destination. Its travel is dependent on a tugboat representing the dependency of those experiencing ambiguous loss. Once it reaches each destination, it stays for a few days, or perhaps a few weeks. The visitors do not proceed to the next destination with the vessel. Instead, they pilgrimage from land to the vessel, from the known to the unknown, imprinting the mark of transition with every step.

The vessel never touches the shore; it floats in the distance on the horizon. It can be seen, but one does not know what it is without experiencing it, and to experience it is to give up the security of the earth. A place of calm in the midst of rough seas, the vessel is anchored allowing it to move with the water. Those aboard the vessel move with it, sacrificing full control. The spaces within the vessel are flexible in order to house the various rituals that visitors may perform.

Visitors begin their journey toward the vessel via a smaller boat, connecting land and vessel like a bridge. This voyage itself is a ritual:

an opportunity for transformation, marking the transitions between life, death, and rebirth.

Those who have experienced loss and are not at peace with the lack of certainty they are left with may find momentary closure through this journey. Private reflection, rituals, and the opportunity of a social gathering space allow families to come together, share stories, and remember.

Though the idea of the vessel began as a response to the MH370 tragedy, it is meant to be a transient space for any and all experiences of loss, where visitors can find common ground in rituals of mourning.

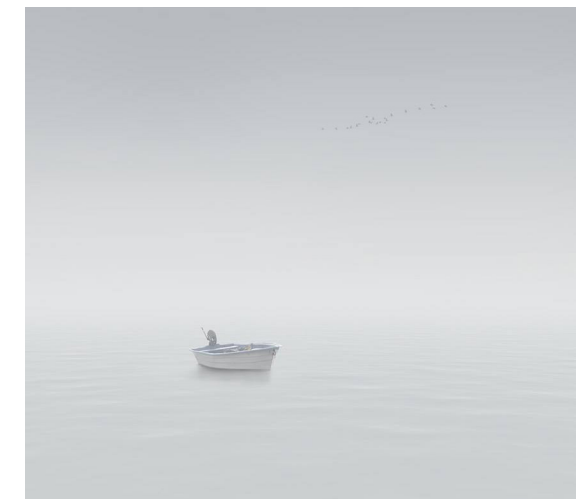


Figure 88: Nest on the water

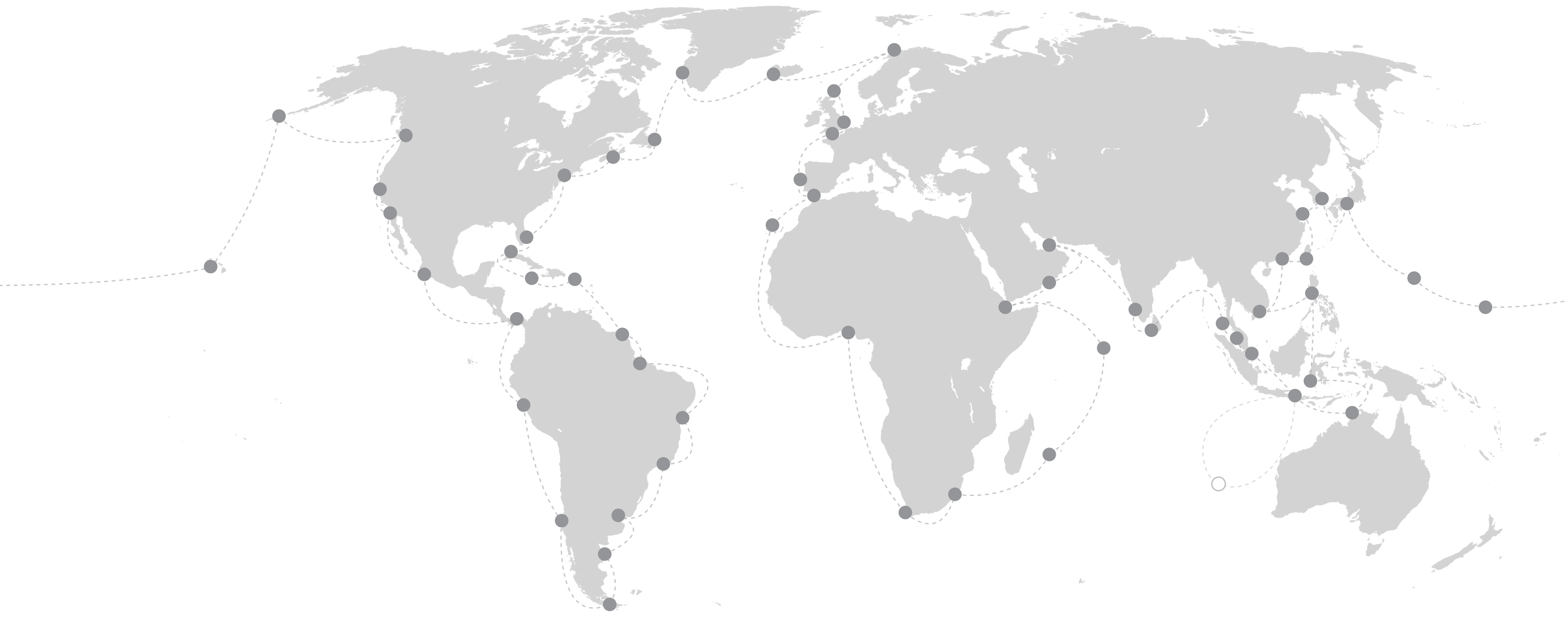


Figure 89: Potential itinerary of travels

THE POETICS OF REMEMBERING

The vessel is a container for ceremony.
A place to go when you have lost someone near and dear.
A place that can host many types of losses.

It is a place for anyone and everyone who has experienced loss, who is grieving, or who is seeking a moment of closure.
It is a place of contemplation and reflection.
A place where one can bring unfinished emotions.

The vessel and the voyage to it, within, and beyond is a metaphor for loss and the emotions that accompany it.

This design is a search, not an answer. It is positioned between the unbelievable reality of loss and the dream-like state it forces us into, aiming to balance these ambiguous and concrete realities. Through a curated selection of moments, architecture itself becomes a medium to portray real experiences of loss and death, and the memories attached to them.

I now invite you, reader, to go on this poetic pilgrimage with me—one of death, loss, and rebirth.

Imagine you are at one of the destinations, whether on the waters between Malaysia and Singapore, at Pearl Harbor, or somewhere closer to home. I implore you to imagine what each space could be used for, to wonder what rituals it could house, to sit, view, feel, and participate. I hope that each moment will instil something within you and encourage you to question how each makes you feel.

I welcome you to journey inwards, to think about and inhabit your own experiences of loss.

Figure 90 [following pages]: Vessel on the horizon



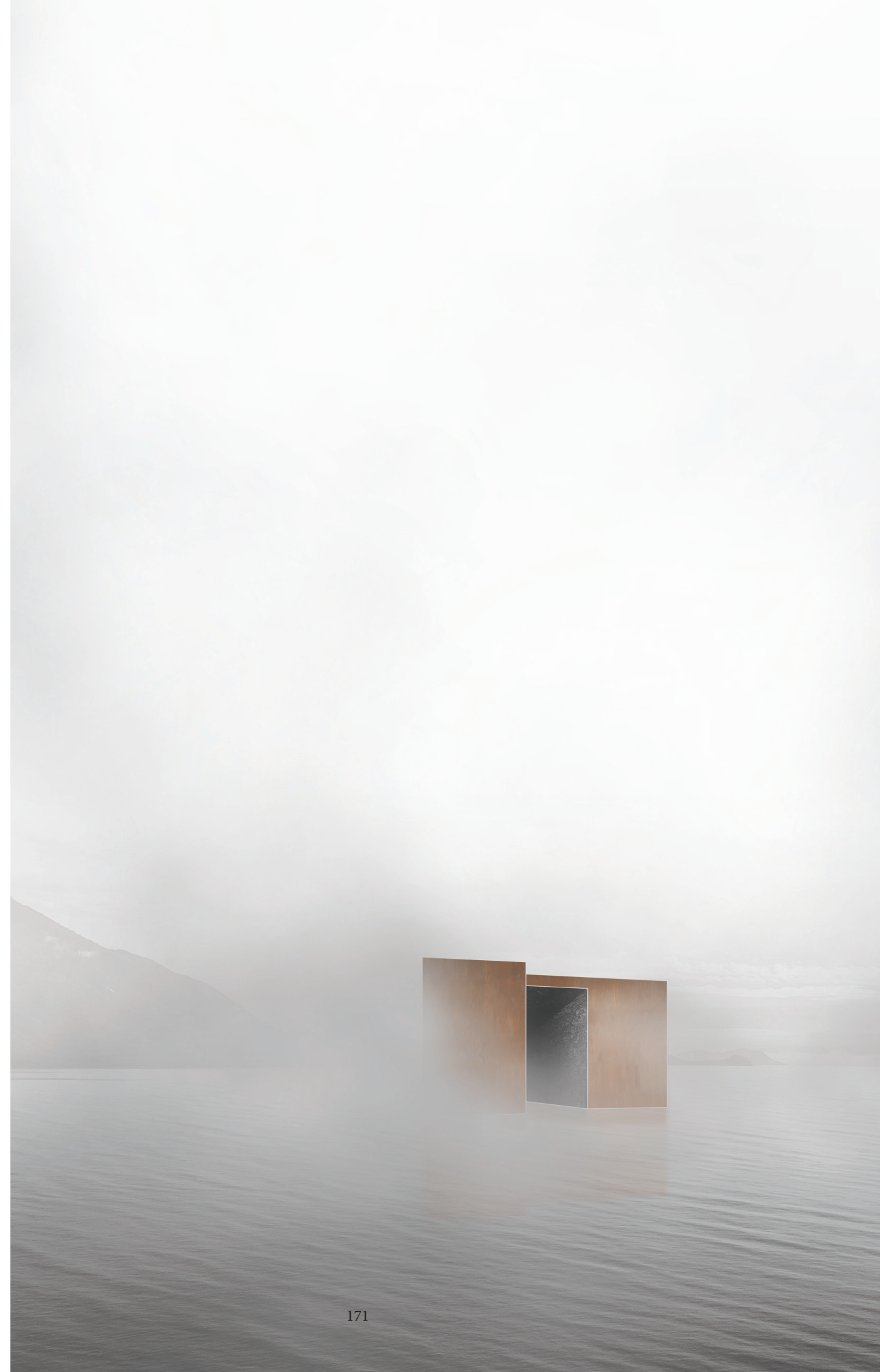
Choosing to leave the security of the land, we embark on our journey by climbing into a small boat, venturing onto the waters towards the faint vessel on the horizon. This passage from land to vessel can be direct and quick or a slow meander.

Figure 91 [opposite]: Land to water



Upon reaching the entrance of the vessel, we are confronted with a dark opening. The experience beyond is still unknown. *Do we continue through the threshold or do we turn back?* As we ponder this question, the water gently pushes us into the canal.

Figure 92 [opposite]: Entrance





In the canal, we are removed from our contextual surroundings and immediately faced with the dark, quiet void. With every paddle forward, the space compresses and the water beyond fades. It is dark and rough. The canal begins to feel suffocating. And yet, there is a comfort in knowing that the space is more personal in scale, more human.

Figure 93: The canal



Leaving the boat and the cadence of the waves behind, we find ourselves in the womb: the hearth of the vessel. The space is smooth, glowing with a central fire filling it with warmth. Another source of light penetrates the space from above. Looking up, we are mesmerised by an oculus, an opening to the sky that leads beyond the darkness. We feel safe here. We can always come back here.

Figure 94: The womb

From here on, the sequence of experiences is no longer prescribed. Analogous to the unique nature of the journey through loss, we are all authors of our own voyage.

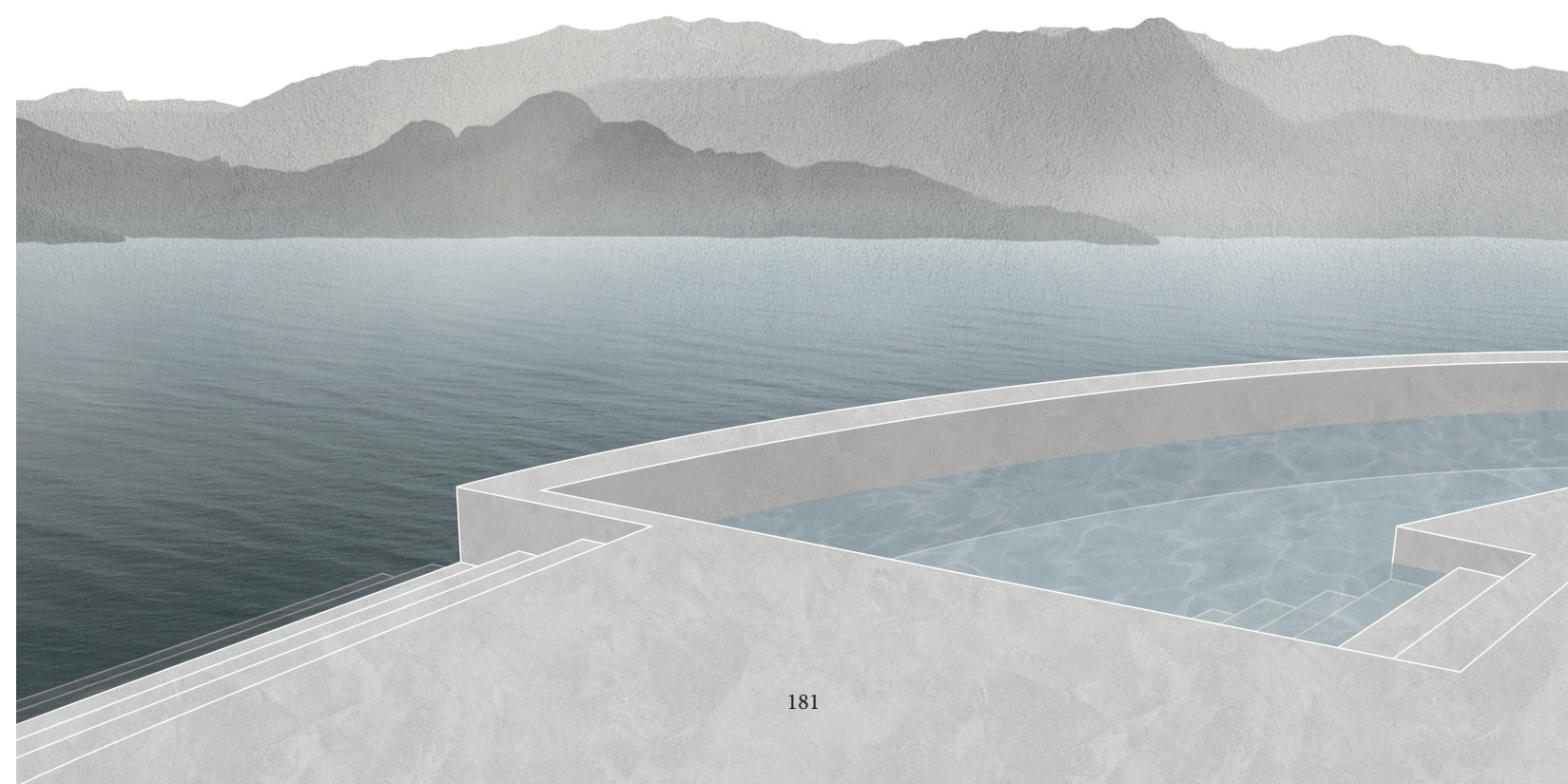
A bright space with framed views and a place to sit.

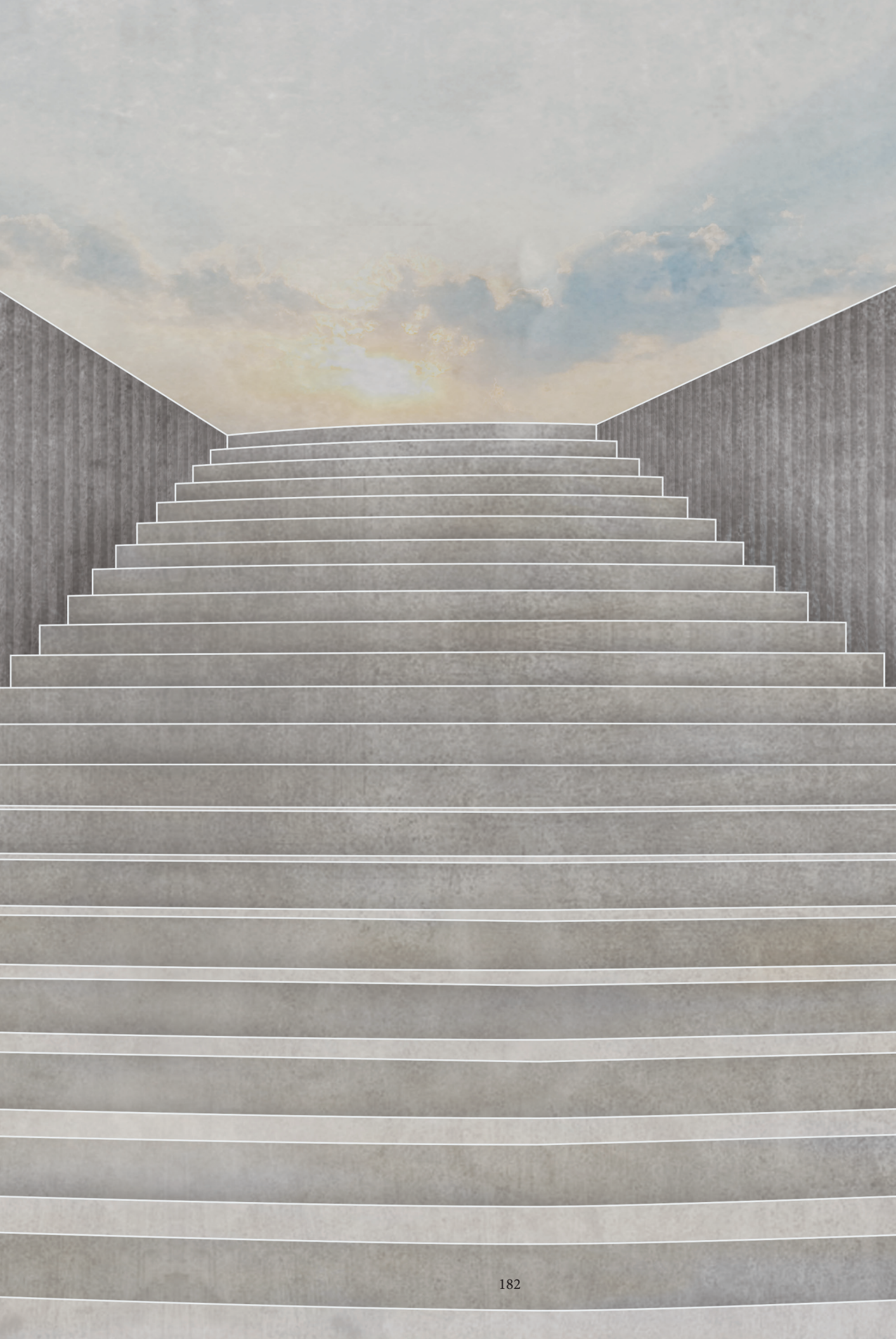
Figure 95 [opposite]: Contemplation



Pools, open and enclosed, exposed to the air.

Figure 96 [opposite]: Water





A long, unforgiving path upwards.

Figure 97 [opposite]: Stairs

A winding, spiral path towards the sky.

Figure 98 [opposite]: Spiral



A total exposure to the beyond. How did we get up here? Where do we go next?

Figure 99: Flight



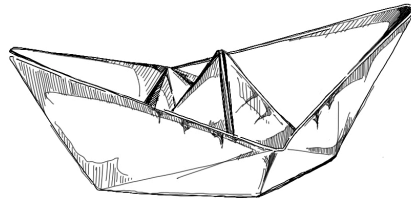


Figure 100: Origami boat

MOMENTARY CLOSURE

MOMENTARY CLOSURE

Nature does nothing uselessly.

- *Politics*, Aristotle

Fold up. Fold left. Fold right. Rotate. Repeat.

Origami is the art of paper folding. It is a step-by-step process that transforms a mundane sheet of paper into a finished artefact. This transformation, this rebirth, this satisfying finality is what one searches for when hunting for closure.

Closure is a transitional place, a threshold that is neither here nor there, a process of healing. It is a waiting period that should not experience the pressure of time. It needs to be embraced and tended to with gentleness. It is indispensable and a direct result of loss. Closure comes in many forms.

Although I do not believe that closure, or rather definitive, absolute closure can be found, I have come to understand that this is a momentary closure, my momentary closure. I have finally found the courage to be vulnerable, to stop pushing my experiences and emotions into the shadows and to honour them instead. I hope that in sharing these parts of myself, you too might find the courage and inspiration to do the same.

Through my research, I have been afforded the wonderful opportunity of speaking with people from all walks of life. There were times where the focus of my study, taboo in nature, was questioned, often referred to as dark or heavy. "How does death and loss relate to architecture?" was always the immediate question that followed.

Architecture has the ability to bring people together. The places and spaces we are surrounded by on a daily basis are so integral to our lives, but we often forget the influence they have on us, and the way they can transform us. Loss is universal. It is one of the most natural and certain parts of our life. Whether privately or communally, we are all affected by it. If we, the designers of our built, inhabited, lived world are not designing for the experience of loss, who will?

I had previously thought of my thesis as a story and the design proposal as an exploration of ambiguous loss and loss in general, but I have come to realize that it is more than that. This thesis, as a whole, is an expression of the raw emotions that loss evokes. I understood that storytelling through text was an expression of this sentiment, but it wasn't until writing my conclusion that I realized how each drawing I produced and each image I selected to pair with the text represented a metaphysical concept in a physical, tangible way. The skill set I have acquired as an architecture student has been the tool used to deal with and digest those raw emotions.

In this process of healing, I have again found my passion within architecture. I hope to continue researching and exploring the intersection of architecture and loss as well as the methods of storytelling, art, and design as an expression of intangible concepts. I will keep an open ear to listen, to truly listen, to the experiences of those around me. And I hope that by doing so, I can create a safe, comforting space in which they can share their stories of trauma and loss.

We do not have control over a lot of things and that is okay. Let us take back control by being open and vulnerable, and let us take comfort in having conversations about every aspect of life, even the goodbyes.



Figure 101: Searching for the crash site, November 1, 2020

Loss is like a scar on a tree.

It does not fade,
it does not go away,
and it does not disappear.

We, like that tree, grow bigger and become stronger.

Though the scar remains,
over time, it becomes smaller.



Figure 102: The crash site, November 18, 2020

BIBLIOGRAPHY

Ariès, Philippe. *Western Attitudes Toward Death : from the Middle Ages to the Present*. Baltimore: Johns Hopkins University Press, 1975.

Ashenburg, Katherine. *The Mourner's Dance : What We Do When People Die*. Toronto: Macfarlane Walter & Ross, 2002.

Astbury, Jon. "As good as grief gets: architecture, loss and resurrection at Highgate Cemetery." *The Architectural Review*. November 24, 2016. Accessed January 10, 2017. <https://www.architectural-review.com/essays/as-good-as-grief-gets-architecture-loss-and-resurrection-at-highgate-cemetery>.

Astroulagam. ""We Never Moved On" - Families Still in Pain Years After MH370 Tragedy." Astroulagam. Accessed May 12, 2020. <https://astroulagam.com.my/community/we-never-moved-families-still-pain-years-after-mh370-tragedy-89243>.

Bachelard, Gaston. *Air and Dreams : an Essay on the Imagination of Movement*. Dallas: Dallas Institute Publications, 2011.

Bachelard, Gaston. *The Poetics of Space*. Boston: Beacon Press, 1994.

Bailey, Spencer. *In Memory of : Designing Contemporary Memorials*. London: Phaidon Press Limited, 2020.

BBC. "MH370: Families say search suspension for Malaysian plane 'irresponsible.'" *BBC News*. January 17, 2017. Accessed May 10, 2020. <https://www.bbc.com/news/world-asia-38647365>.

BBC. "MH370: Reunion debris is from missing plane, says Najib." BBC News. August 5, 2015. Accessed April 20, 2016. <https://www.bbc.com/news/world-asia-33794012>.

Béliveau, Richard, and Denis Gingras. *Death : the Scientific Facts to Help Us Understand It Better*. Buffalo, N.Y.: Firefly Books, 2012.

Bernotas, Adolphe. "Son Builds His Dad's Coffin in Labor of Love: Mortality: New Hampshire man crafts a pine box to comply with father's wishes." Los Angeles Times. January 16, 1994. Accessed April 20, 2016. <http://latimes.com/archives/la-xpm-1994-01-16-mn-12459-story.html>.

Boss, Pauline. "Ambiguous Loss." Accessed April 20, 2016. <http://www.ambiguousloss.com/>.

Boss, Pauline. *Ambiguous Loss : Learning to Live with Unresolved Grief*. Cambridge, MA: Harvard University Press, 1999.

Boss, Pauline. *Loss, Trauma, and Resilience : Therapeutic Work with Ambiguous Loss*. New York: W.W. Norton & Co., 2006.

Boss, Pauline. "The Trauma and Complicated Grief of Ambiguous Loss." *Pastoral Psychology* 59, no. 2 (2009): 137–45. <https://doi.org/10.1007/s11089-009-0264-0>.

Boss, Pauline, and Donna Carnes. "The Myth of Closure." *Family Process* 51, no. 4 (2012): 456–69. <https://doi.org/10.1111/famp.12005>.

Brennan, Samantha, and Robert Stainton. *Philosophy and Death: Introductory Readings*. Peterborough, Ont.: Broadview Press, 2010.

Chevalier, Jean, and Alain Gheerbrant. *A Dictionary of Symbols*. Oxford: Basil Blackwell Inc., 1994.

CNN. "Timeline of MH370 disappearance." CNN. 2014. Accessed April 23, 2016. <https://www.cnn.com/2017/01/17/world/asia/malaysia-airlines-flight-370-timeline/index.html>.

Curl, James Stevens. *Death and Architecture : an Introduction to Funerary and Commemorative Buildings in the Western European Tradition, with Some Consideration of Their Settings*. Stroud: Sutton Publishing Limited, 2002.

Doughty, Caitlin. *From Here to Eternity : Traveling the World to Find the Good Death*. First edition. New York: W.W. Norton & Company, 2017.

Doughty, Caitlin. *Smoke Gets in Your Eyes : and Other Lessons from the Crematory*. First edition. New York: W. W. Norton & Company, 2014.

DPA. "Six Years On, MH370 Flight Mystery Stirs 'Unimaginable Pain.'" Aviation Pros. March 2, 2020. Accessed May 12, 2020. <https://www.aviationpros.com/airlines/news/21127671/six-years-on-mh370-flight-mystery-stirs-unimaginable-pain>.

DW Documentary. "Flight MH370: Five years of uncertainty." DW Documentary. March 11, 2019. Accessed May 1, 2020. <https://youtu.be/YhxJ4hLth64>.

Furnham, Adrian, and Raj Persaud. "Coping With Not Knowing What Happened to a Missing Loved One." *Psychology Today*. June 17, 2017. Accessed May 31, 2020. <https://www.psychologytoday.com/us/blog/slightly-blighty/201706/coping-not-knowing-what-happened-missing-loved-one>.

Gartland, Annette. "MH370: six years on, next of kin call for the search to resume." *Changing Times*. March 7, 2020. Accessed March 14, 2020. <https://changingtimes.media/2020/03/07/mh370-six-years-on-next-of-kin-call-for-the-search-to-resume/>.

Gennep, Arnold van. *The Rites of Passage*. Chicago: University of Chicago Press, 1960.

Hallam, Elizabeth, and Jennifer Lorna Hockey. *Death, Memory and Material Culture*. Oxford: Berg, 2001.

Heathcote, Edwin. *Monument Builders : Modern Architecture and Death*. Chichester, West Sussex: Academy Editions, 1999.

Hu, Yuwei. "Families of MH370 missing passengers struggle to keep hope alive amid epidemic." *Global Times*. March 8, 2020. Accessed May 14, 2020. <https://www.globaltimes.cn/content/1181913.shtml>.

Huntington, Richard, and Peter Metcalf. *Celebrations and Death : the Anthropology of Mortuary Rituals*. Cambridge: Cambridge University Press, 1979.

Hylton, Wil S. "What Happened to Air France Flight 447?" *The New York Times Magazine*. May 4, 2011. Accessed April 23, 2020. <https://www.nytimes.com/2011/05/08/magazine/mag-08Plane-t.html>.

Jenkins, Tiffany. "Modern society's jaded view of life." *Spiked*. March 2, 2009. Accessed December 17, 2017. <http://www.spiked-online.com/newsite/article/6313#.WjqiIN-nGUk>.

Kalanithi, Paul, and Abraham Verghese. *When Breath Becomes Air*. New York: Penguin Random House, 2017.

Kessler, David. "A message from David Kessler." *GRIEF.com*. Accessed December 16, 2017. <https://grief.com/the-five-stages-of-grief/>.

Kessler, David. *Finding Meaning : the Sixth Stage of Grief*. New York, NY: Scribner, 2020.

Keyes, Katherine M et al. "The burden of loss: unexpected death of a loved one and psychiatric disorders across the life course in a national study." *The American journal of psychiatry* vol. 171,8 (2014): 864-71. doi:10.1176/appi.ajp.2014.13081132.

Kinch, Ashby. "How the dead danced with the living in medieval society." *The Conversation*. October 29, 2017. Accessed December 17, 2017. <https://theconversation.com/how-the-dead-danced-with-the-living-in-medieval-society-85881>.

King, Katherine. "The Four R's of Handling Grief." *Psychology Today*. May 31, 2020. Accessed July 21, 2020. <https://www.psychologytoday.com/ca/blog/lifespan-perspectives/202005/the-four-rs-handling-grief>.

Kübler-Ross, Elisabeth, and David Kessler. *On Grief and Grieving : Finding the Meaning of Grief through the Five Stages of Loss*. New York: Scribner, 2005.

Langewiesche, William. "What Really Happened to Malaysia's Missing Airplane." *The Atlantic*. June 17, 2019. Accessed January 20, 2022. <https://www.theatlantic.com/magazine/archive/2019/07/mh370-malaysia-airlines/590653/>.

Leming, Michael R., and George E. Dickinson. *Understanding Dying, Death, and Bereavement*. Fort Worth: Holt, Rinehart and Winston, 1990.

Levitt, Andrew. *Listening to Design : a Guide to the Creative Process*. London: Reaktion Books Ltd., 2018.

Lin, Maya. *Boundaries*. New York: Simon & Schuster, 2000.

Long, Thomas G. *The Good Funeral : Death, Grief, and the Community of Care*. First edition. Louisville, KY: Westminster John Knox Press, 2013.

Mao, Frances. "MH370 four years on: Why relatives say it's too soon for a memorial." *BBC News*. March 6, 2018. Accessed October 29, 2020. <https://www.bbc.com/news/world-australia-42867742>.

Martin, Swayne. "11 Things You Didn't Know About The Boeing 777." *Boldmethod*. May 13, 2015. Accessed May 15, 2020. <https://www.boldmethod.com/blog/lists/2015/05/11-things-you-didnt-know-about-the-boeing-777/>.

Meek, Will. "Real Stages of Grief, Moving from Kubler-Ross to Sidney Zisook." *Psychology Today*. October 18, 2012. Accessed June 7, 2020. <https://www.psychologytoday.com/ca/blog/notes-self/201210/real-stages-grief>.

Mendoza, Marilyn A. "Ambiguous Loss, How to live with the pain of uncertainty." *Psychology Today*. September 5, 2017. Accessed May 31, 2020. <https://www.psychologytoday.com/us/blog/understanding-grief/201709/ambiguous-loss>.

Merriam-Webster. www.merriam-webster.com/dictionary.

Ministry of Transport Malaysia. "MH370 Safety Investigation Report." Ministry of Transport Malaysia. Accessed May 14, 2020. <http://mh370.mot.gov.my/MH370SafetyInvestigationReport.pdf>.

O'Rourke, Meghan. "Good Grief, Is there a better way to be bereaved?" *The New Yorker*. January 24, 2010. Accessed December 16, 2017. <https://www.newyorker.com/magazine/2010/02/01/good-grief>.

Pallini, Thomas. "Boeing's enormous new 777X jet just took its first flight - take a look back at the history of the company's largest twin-jet airplanes." *Insider*. January 31, 2020. Accessed May 14, 2020. <https://www.businessinsider.com/boeing-777-history-2017-6#also-known-as-the-worldliner-the-200lr-can-carry-301-passengers-nearly-11000-miles-33>.

Pastan, Linda. *The Fives Stages of Grief*. Canada: George J. McLeod Limited, 1978.

Pinsker, Joe. "All the Things We Have to Mourn Now." *The Atlantic*. May 1, 2020. Accessed May 22, 2020. <https://www.theatlantic.com/family/archive/2020/05/grief-mourning-death-pandemic/610933/>.

Robinson, Sarah. *Nesting : Body, Dwelling, Mind*. Richmond, California: William Stout Publishers, 2011.

Schama, Simon. *Landscape and Memory*. First edition. New York: Alfred A. Knopf, 1995.

Scott, Brian. "How does one cope with ambiguous loss? The case of the disappeared Malaysian Airlines Flight MH370." *Psychology Matters*. March 24, 2014. Accessed April 19, 2016. https://www.psychologymatters.asia/view_article.php/212/how-does-one-cope-with-ambiguous-loss-the-case-of-the-disappeared-malaysian-airlines-flight-mh370.html?art_id=212.

Smith, Emily. "In Grief, Try Personal Rituals." *The Atlantic*. March 14, 2014. Accessed April 20, 2016. <http://www.theatlantic.com/health/archive/2014/03/in-grief-try-personal-rituals/284397/>.

Solomon, Robert, and Jeff Malpas. *Death and Philosophy*. New York: Routledge, 1998.

Stromberg, Joseph. "Why Do We Blink So Frequently?" *Smithsonian Magazine*. December 24, 2012. Accessed April 15, 2020. <https://www.smithsonianmag.com/science-nature/why-do-we-blink-so-frequently-172334883/>.

Sugimoto, Hiroshi, Takaaki Matsumoto, and Munesuke Mita. *Hiroshi Sugimoto : Seascapes*. Bologna: Damiani, 2019.

Transportation Safety Board of Canada. "Aviation Investigation Report A10O0240." Transportation Safety Board of Canada. Accessed April 15, 2020. <https://www.tsb.gc.ca/eng/rappports-reports/aviation/2010/a10o0240/a10o0240.html>.

Tresidder, Jack. *Symbols and Their Meanings*. London: Duncan Baird Publishers, 2006.

Truong, Kimberly. "How 5 Different Religions Deal with Grief." *Refinery29*. October 27, 2016. Accessed February 6, 2020. <https://www.refinery29.com/en-us/2016/10/127725/religious-death-rituals-grieving-process#slide-1>.

Van Beck, Todd. "A Look At Rituals." *Development for Funeral Futurist*. June 18, 2017. Accessed July 25, 2020. <https://www.todddvanbeck.com/a-look-at-rituals/>.

Veterans Affairs Canada. "Tomb of the Unknown Soldier." *Veterans Affairs Canada*. October 23, 2014. Accessed October 29, 2020. <https://web.archive.org/web/20141107022632/http://www.veterans.gc.ca/eng/remembrance/memorials/canada/tomb-unknown-soldier#>.

VideoSeneca. "Seneca College - Aviation Fleet." *VideoSeneca*. December 14, 2010. Accessed May 10, 2020. <https://youtu.be/bktWuER3f9E>.

Watson, Denise. "A 95-year-old Woodworker Builds his Culminating Piece – His Own Casket." *The Virginian Pilot*. August 14, 2015. Accessed April 20, 2016. https://www.pilotonline.com/life/article_2818aab0-bc09-5e49-9072-1315d7ee0498.html.

Zhou, Jianping. "Grief Without End. The Legacy of MH370." Sixth Tone. March 20, 2017. Accessed February 6, 2020. <https://www.sixthtone.com/news/2062/grief-without-end-legacy-mh370>.

Zhou, Naaman. "MH370 is not history': families of missing demand answers as search nears end." The Guardian. May 28, 2018. Accessed May 12, 2020. <https://www.theguardian.com/world/2018/may/29/mh370-is-not-history-families-of-missing-demand-answers-as-search-nears-end>.

Zisook, Sidney, and Katherine Shear. "Grief and bereavement: what psychiatrists need to know." *World psychiatry : official journal of the World Psychiatric Association (WPA)* vol. 8,2 (2009): 67-74. doi:10.1002/j.2051-5545.2009.tb00217.x.

Zorn, Alissa. "Family Traditions – Remembering a Loved One Who Died." Bounceback Parenting. Accessed April 20, 2016. <https://bouncebackparenting.com/family-tradition-remembering-a-loved-one-who-died/>.