

Natural Grieving, a Method of Preservation:

Implementing Natural Burials in Ontario's Greenbelt

by

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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
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Abstract

We experience an incredible amount of emotion when death touches our lives. With death comes the complexity of loss and grief. The spaces of death, from the morgue, the funeral home to the cemetery, are significant components of mourning practices. They are the physical realms that lead us from one moment of grief to another. The space of death is designed for the dead, yet it is more important for those that remain living. These spaces resonate within the human consciousness, becoming places and memories.

Identities and values all contribute to one's relation with mourning rituals and death practices. This thesis outlines the importance of acknowledging grief and its social implications while examining the evolving religious and cultural identities of Canada. While our knowing of death rituals continues to change, the thesis leverages natural burials to reconcile with the land we live on and preserve the ground that sustains us. Through recognizing the contribution of the Indigenous people who continue to share their land with Canadians, we can also begin to restore our place within the land.

Grounded on three inherent relationships:

1. the relation between our values and the way we mourn,
2. the relation between our sense of belonging and the landscape,
3. the relation between the deceased body and the burial site,

the design proposal, *Natural Burials in Ontario's Greenbelt*, will examine how burial spaces can be re-formulated in ways that reflect present-day values of increasingly multicultural cities of Ontario. From this, a new cemetery landscape emerges; reconciliation is made between the user's emotion and the environment in which they experience it. Central to the work is also how implementing natural burials in Ontario's greenspaces gives newfound meaning to land preservation and permanence.

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“And where do the dead go [...] ? Do they gather, as some believe, together, and ascend to an otherworldly level; or do they remain, watching; or disappear altogether? Do they wait to hear the stories we will tell?

The truth is, none of us knows what the dead do. But on earth, where we remain, the living become the keepers of their memory. This is an awesome and overwhelming responsibility. And it is simple: we must not forget them.

-Alice Sebold

Living with the Dead

Prologue

My grandfather passed away on December of 2018 in Kaohsiung, Taiwan. Our school term in Rome, Italy had just come to an end and I was fortunate enough to have flown back in time for his funeral proceedings at the local mortuary. Because he was a devout Buddhist, my grandfather's funeral ceremonies were carried out across five days. We accompanied him starting from the morgue to the wake, to the crematorium and ultimately to his final resting place inside a columbarium in the mountains.

My personal experience with loss within spaces of death have led me to question if all death spaces are created equal? In addition, while visiting Östra kyrkogården designed by architect Sigurd Lewerentz, in Malmö, Sweden, I began to consider if different landscape qualities can evoke certain associations with grief. What are the factors that determine how these spaces are designed? Are designers partly responsible for the emotional outcome of the death space user? Is it possible to find meaning and comfort in mourning practices? If so, can these rituals exist in the absence of religion? With these questions in mind, I decided to guide my research towards spaces of death, a diverse landscape close to our hearts, leaving marks far into our psychology. Designing the spaces of death is a sobering lesson on the permanent effects of architecture. Death spaces are physical records of human history, containing both the cultural conditions and societal values of a given period.

1 Introduction

[T]he sense of sacred has become less confined, more fluid, in contemporary society, so too have *forms* of memorial, remembrance *practices*, and their *location*. Thus, in addition to the act of dying and bodily disposal, it is this creation of performative as well as inscribed space/place of remembrance which transforms everyday landscape into deathscape.¹

Within a vast range of death spaces, the thesis focuses on in-ground body burials. The research begins with the combination of literature on grief, mourning, religious and cultural identities, and place-making. From the broad understanding of these fundamental themes, we then analyze current burial practices and formulates an argument for natural burials as an alternative burial method.

¹ Avril Maddrell and James D. Sidaway, *Deathscapes: Spaces for Death, Dying, Mourning and Remembrance* (Farnham, Surrey, England: Ashgate, 2010)4.

The designed space of natural burials encourages participation within after-death care and creates sites of meaning and place-making. From site arrival to departure, the proposal illustrates a physical and spiritual journey, from confronting the finality of death to the acceptance of loss. Finally, situating natural burials within the Greenbelt landscape can become a land practice that serves to protect the remaining ecologically diverse landscapes of Ontario.

Death practices in the burial landscape also extends into the conversation of sacred natural spaces and traditional sacred spaces that are no longer visible because of land that was stolen from Indigenous peoples. The term Indigenous used in this writing refers to First Nation, Inuit, and Métis peoples according to Canadian terminology. There are numerous ways natural burials are extensions of Indigenous traditions and their relationship to the land as they have been practitioners of sustainable in-ground burials and mound building since time immemorial. Advocacy for natural burials should also acknowledge the land we occupy and build on today is a result of the erasure of Indigenous traditions, identities, and land rights.

At the end of my research, I began to discover the risk of homogenizing the discourse of beliefs and death-care in multicultural North America where there are diverse versions of experiences and history. It is important to note that one death is not the same as another, and the experience of dying and death are determined by multiple factors not excluding race, ethnicity, gender, gender and sexual identity, class, geography, marginalized identity, and Indigenous status.

The writing does not intend to neglect the rituals, customs, traditions, and experiences of the vastly different communities in Ontario and dismiss their importance. There is no 'right' way of burial and natural burial practices may not be appropriate for every family or individual. The aim of the thesis is to create a comprehensive understanding of the factors that influence the ways we mourn and illustrate the dual land and human merits of natural burials for those searching beyond what is currently offered in the funeral industry.

As a researcher of grief, burial, and land practices, it is my responsibility to continue to educate myself and others on the diverse death practices that exist in Canada while being conscious of the different ways BIPOC and other marginalized communities experience death and access to death-care.

Through my own reflection, I hope to encourage the reader to define death-care according to their personal values and how it might be different for those still fighting for their identity and belonging. As opposed to concluding with a definite resolution, it is my intention that the thesis will open the discussion on the environmental and social issues regarding burials. Within the collective community, there are important conversations to be had regarding land practices, land stewardship as well as land ownership. The discourse of our relationship to the land can be the initial step towards the complex reconciliation work required between our settler identity and the traditional territory we occupy.

Ultimately, the natural burial design proposal is about body and site, facilitating remediation and healing of human and land in tandem.

The Social Implications of Grief

Grief is generally known as the pain and sorrow that accompanies loss.¹ In the context of death spaces, grief is associated with the loss of another human being. When people experience the death of a loved one, they suffer a multitude of losses. The loss of the relationship once had, loss of the world once shared and loss of the familiar 'normal'. Many would argue social conditions have significant influences on the experience of grief. Sociology professor and author, Lyn H. Loftland, develops the definition of grief further in the context of bereavement and explains the emotion of grief as “a response to involuntary loss through death of a human being who is viewed as significant.”² She suggests that grief is tied to the fundamentals of human attachment and social relations. The degree of grief we feel as an emotion is shaped by how deep the social connection was with the deceased.

Loftland continues to draw comparisons in the way relational patterns of human attachment evolve due to cultural and historical changes. She first illustrates human attachment as a network of threads or building blocks that form connectedness and interdependency:

We are linked to others by the *roles* we play, by the *help* we receive, by the wider *network* of others made available to us, by the *selves* others create and sustain, by the *comforting myths* they allow us, by the *reality* they validate us, and by the *futures* they make possible.³

The professor then points out a new trend of intimacy that emerged in the nineteenth century because of individualization and industrialization of the Western world. Where interdependent relationships were once a widely distributed network within a community (figure 1.1), social networks now include a smaller

1 “What is Grief?”, <https://www.psychologytoday.com/us/basics/grief>.

2 Lyn Loftland, “The Social Shaping of Emotion: The Case of Grief,” *Symbolic Interaction* 8, no. 2 (1985), 171-190.

3 Ibid.

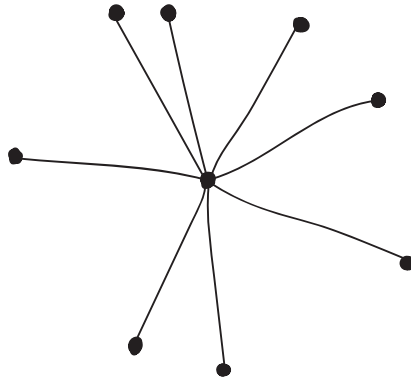


fig. 1.1 *Social Patterns of Human Attachment*
 Then: many widely distributed 'threads' or networks

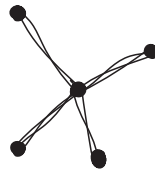


fig. 1.2 *Social Patterns of Human Attachment 2*
 Now: smaller number of highly significant others

number of relationships connected by multiple threads (figure 1.2). The depth and range of companionship that were previously held by a collection of different relationships are now dependent on fewer and more significant ties.⁴ Loftland concludes that as the size of our social circle decreases, the level of intimacy and significance of each person increases. Thus, "... the closer the living is bound to the deceased, the greater is the sense of loss."⁵ As a society that forms more intimate relationships, the emotional force of grief becomes more substantial.

⁴ Howard Gadlin, "Private Lives and Public Order: A Critical View of the History of Intimate Relations in the U.S." *The Massachusetts Review* 17, no. 2 (1976)310. <http://www.jstor.org/stable/25088636>.

⁵ Douglas James Davies, *Death, Ritual, and Belief: The Rhetoric of Funerary Rites* (London: Bloomsbury Academic, 2017)10.

When Great Trees Fall

Maya Angelou

When great trees fall,
rocks on distant hills shudder,
lions hunker down
in tall grasses,
and even elephants
lumber after safety.

When great trees fall
in forests,
small things recoil into silence,
their senses
eroded beyond fear.

When great souls die,
the air around us becomes
light, rare, sterile.
We breathe, briefly.
Our eyes, briefly,
see with
a hurtful clarity.
Our memory, suddenly sharpened,
examines,
gnaws on kind words
unsaid,
promised walks
never taken.

Great souls die and
our reality, bound to
them, takes leave of us.
Our souls,
dependent upon their
nurture,
now shrink, wizened.
Our minds, formed
and informed by their
radiance, fall away.
We are not so much maddened
as reduced to the unutterable ignorance of
dark, cold
caves.

And when great souls die,
after a period peace blooms,
slowly and always
irregularly. Spaces fill
with a kind of
soothing electric vibration.
Our senses, restored, never
to be the same, whisper to us.
They existed. They existed.
We can be. Be and be
better. For they existed.

Mourning and Rituals: The Expression of Grief

While grief is the emotion felt, mourning is the emotional display.¹ The mourning process is one of profound significance to those that are grieving. Psychiatrists define grieving practices as “grief work”. To examine the design of spaces where grief work occurs, there is a need to understand the reasons that give mourning rituals importance and the purposes they serve.

In the many processes of mourning and the countless differences in each individual’s grief, an essential element remains: the universal need for grief to be witnessed.² Grief worker David Kessler is the author of *Finding Meaning: The Sixth Stage of Grief*. Kessler’s experience with grief comes from working with thousands of people dealing with death, in addition to working closely with psychiatrist Elisabeth Kübler-Ross, who was the first to develop the theory on the five stages of grief. It is through his grief work with others that Kessler learned two necessities in the grieving process. Firstly, grief must be displayed and expressed, the suffering must be felt and articulated by the griever. The second is the importance of grief to be acknowledged and reflected by those around us. The grieving process requires others to share the severity of one’s loss. Death rituals have been set out to allow others to participate in someone’s grief, giving grief a collective expression and voice.³

However, in today’s fast-paced work environment and lifestyle, the normal grief process is distorted. According to social historian Philippe Ariès, there has been a decline of “effective public ceremonies” in the modern Western world.⁴ Kessler also observes this social shift and describes grief as “minimized and sanitized.”⁵ He states that there are increasingly less opportunities for grief to be witnessed.

1 Lyn Loftland, “The Social Shaping of Emotion: The Case of Grief,” *Symbolic Interaction* 8, no. 2 (1985), 171-190.

2 David Kessler, *Finding Meaning: The Sixth Stage of Grief* (New York: Scribner, 2019)29.

3 Robert Pogue Harrison, *The Dominion of the Dead* (Chicago: University of Chicago Press, 2003)62.

4 Philippe Ariès quoted in Loftland, “The Social Shaping of Emotion: The Case of Grief”, 171-190

5 Kessler, *Finding Meaning: The Sixth Stage of Grief* 30

Under the Canadian Labour Code, employees can take three days of bereavement leave with pay to a maximum of five days leave in total.⁶ Those who are mourning are suffering multitudes in the loss of ‘normal’ and yet their outward environment remains unchanged; the world carries on. The act of grieving is not a linear process. Time is needed for the bereaved to establish their new normal. In a survey asking how long the adjustment period was for individuals suffering loss, 45 percent stated it took a matter of days, for 23 percent it was weeks, for 18 percent it was months and for 15 percent it was years.⁷ Kessler recounts his encounter with a researcher in Australia who told him a notable anecdote:

I met a researcher who told me about the work she was doing to study the way of life in the northern indigenous villages of Australia. One of the villagers told her that the night someone dies, everyone in the village moves a piece of furniture or something else into their yard. The next day, when the bereaved family wakes up and looks outside, they see that everything has changed since their loved one died—not just for them but for everyone. That’s how these communities witness, and mirror, grief. They are showing in a tangible way that someone’s death matters. The loss is made visible.⁸

With a simple act of care, the burden of grief was shared, and individual loss became the collective loss. Without the rituals to commemorate mourning and the gathering of the community to bear witness to each other’s grief, mourning is far too isolating.

6 “Consolidated Federal Laws of Canada,” last modified April 09, <https://laws-lois.justice.gc.ca/eng/acts/L-2/index.html>.

7 Douglas James Davies, *Death, Ritual, and Belief: The Rhetoric of Funerary Rites* (London: Bloomsbury Academic, 2017)66.

8 Kessler, *Finding Meaning: The Sixth Stage of Grief* 30

Grief work, ceremonies, funerals and public rituals are all fundamentals in the expression of grief. History indicates that almost all human societies had some form of funerary rituals that have evolved and been passed down because of the social functions they serve.⁹ Funerary rites can be seen as “the defense of society against untamed nature” where the community gathers to recover and unite after suffering the loss of its member as a form of social continuity.¹⁰ Ritualized mourning works to normalize, objectify and depersonalize the individual grief.¹¹ A collectively shared language is established: “[i]n other’s grief I hear and see my own, for mortality makes brothers and sisters of us all.”¹²

Mourning rituals not only serve as means to cope with the death of others, they also have the capacity to help one cope with their own mortality. Death rites allow the living to acknowledge and understand what it means to be human, what it means to live as a temporal being.¹³ What bounds one person to another is the recognition of the human mortality and their ability to grieve. It is through this kinship in grief that human beings are connected.¹⁴

Through the realization of another’s death arises questions of one’s own mortality. For those experiencing loss, they begin a path of self-reflection, re-establishing ideas of who and what they are.

As Liz Stanley has noted, ‘the “work” of mourning has a resounding impact on the lives of those who experience the death of someone loved’, which she describes as ‘... that intense work of the soul, that gradual rearrangement of boundaries which must occur when a loved one is lost.’¹⁵

9 Davies, *Death, Ritual, and Belief: The Rhetoric of Funerary Rites*

10 Philippe Ariès, *The Hour of our Death* (New York: Oxford University Press, 1991)603.

11 Harrison, *The Dominion of the Dead* 56-59

12 Ibid, 70.

13 Brown and Brené, “David Kessler and Brené on Grief and Finding Meaning,” *Unlocking Us with Brené Brown* (31 Mar, 2020). <https://brenebrown.com/podcast/david-kessler-and-brene-on-grief-and-finding-meaning/>.

14 Harrison, *The Dominion of the Dead*, 71

15 Owain Jones and Joanne Garde-Hansen, *Geography and Memory: Explorations in Identity, Place and Becoming* (Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2012)58.

How individuals begin to understand their existence and the physical world around them can be seen under the complex definition of culture which includes “the framework of beliefs, expressive symbols and values in terms of which individuals define their world, express their feelings and make their judgments.”¹⁶ The many ways human societies carry out mourning rituals is inherently tied to their interpretation of mortality and existence. For this reason, death rituals hold deep ideas concerning culture, identity and the beliefs passed down.¹⁷ It is here that the thesis poses the question: if secularization and cultural diversity is a growing trend in globalized countries, is there a need for an alternative way of experiencing and expressing grief? The next chapters of the thesis will begin to cover how Canada’s religious and cultural identities have been changing throughout its history.

16 Loftland, “The Social Shaping of Emotion: The Case of Grief,” 171-190
17 Davies, *Death, Ritual, and Belief: The Rhetoric of Funerary Rites*

2 Evolving Religious & Cultural Identities

Weakening Religious Ties

The different ways one would relate to death and grief is very much affected by their surrounding social conditions. Death is a constant, but as cultural backgrounds change and evolve over multiple generations, so do attitudes towards death. Canada's religious landscape has undergone a significant shift in the past 40 years. The number of Canadians who identify as Christians which include Roman Catholic, Protestant, and Eastern Orthodox are decreasing while minority faiths are on the rise.

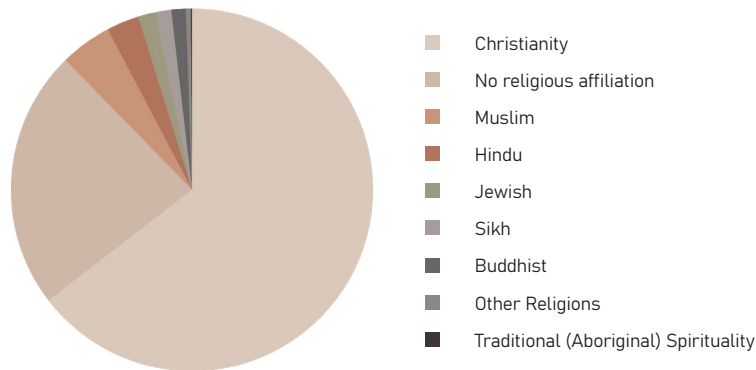


fig. 2.1 Population in Private Households by Religion, Ontario, 2011
Data Source: Statistics Canada, 2011 National Household Survey

According to the Canadian census and multiple surveys, 55 percent of Canadian adults identify as Christians in 2018¹, a decline from the 84 percent recorded in 2000². Canadians that are unaffiliated with a religion make up the second largest group, growing from 4 percent in 1971³ to 29 percent in 2018⁴. Specifically in Ontario, 65 percent belong to a Christian denomination while 23 percent have no religious affiliation (figure 2.1).⁵ In comparison to 20 years ago, around two-thirds of the population say religion is no longer an important influence in the public life of Canada.⁶

1 "5 Facts about Religion in Canada," last modified Jul 1, accessed Jan 18, 2021, <https://www.pewresearch.org/fact-tank/2019/07/01/5-facts-about-religion-in-canada/>.

2 Charles Lewis, "Finding Room for Rituals: Atheists Learning to Honour a Life in their Own Ways," *National Post (Toronto)*, sec. 15, Oct 26, 2013. <https://nationalpost.com/holy-post/rituals-of-death-atheists-learning-to-honour-a-life-in-their-own-ways>.

3 "Canada's Changing Religious Landscape," last modified Jun 27, accessed Dec 21, 2019, <https://www.pewforum.org/2013/06/27/canadas-changing-religious-landscape/>.

4 "5 Facts about Religion in Canada,"

5 "2011 National Household Survey Profile - Province/Territory," accessed Aug 18, 2020, <https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=35&Data=Count&SearchText=ontario&SearchType=Begins&Search-PR=01&A1=All&B1=All&Custom=&TABID=1>.

6 "5 Facts about Religion in Canada,"

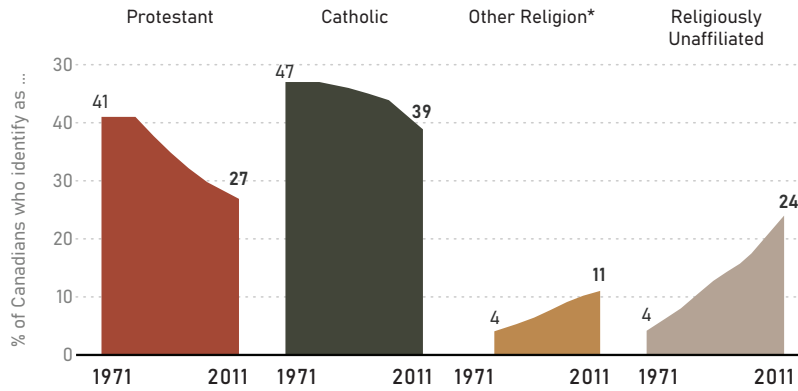


fig. 2.2 *Canada's Religious Composition, 1971-2011*
 Data Sources: Pew Research Center; 1971-2001 Canada census; 2011 National Household Survey

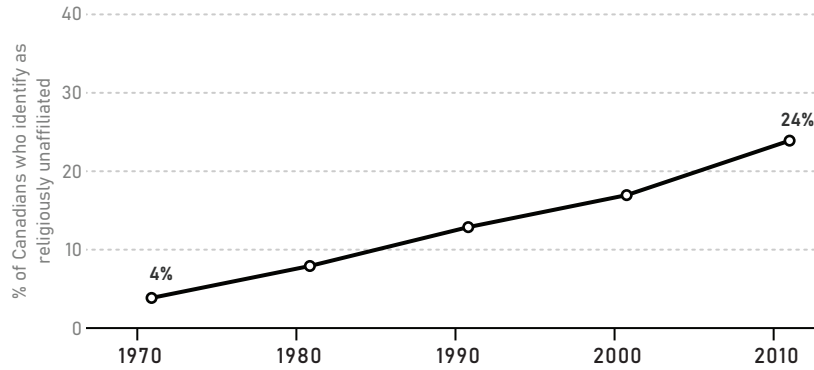


fig. 2.3 *Growth of the Religiously Unaffiliated in Canada*
 Data Sources: Pew Research Center; 1971-2001 Canada census; 2011 National Household Survey

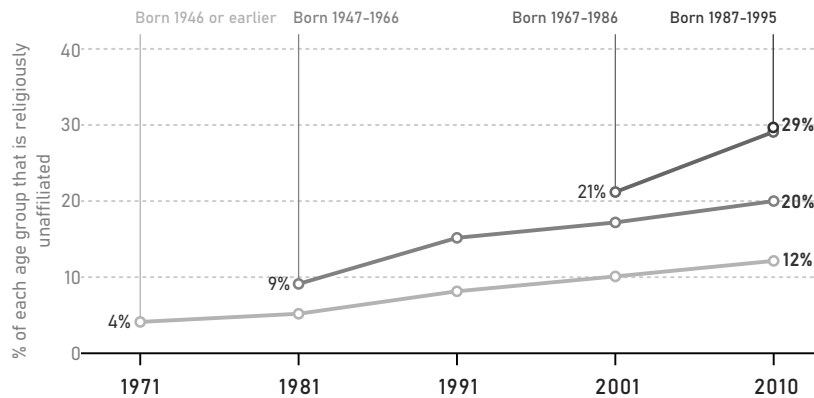


fig. 2.4 *Trend in Canadian Disaffiliation, by Generation*
 Data Sources: Pew Research Center; 1971-2001 Canada census; 2011 National Household Survey

A couple of decades ago people in the Western world either belonged to religious groups or lived in tight-knit communities which informed their relationship with death.⁷ The customs, the ceremonies and the period of mourning were all guided and supported by the social group that one belonged in.⁸ As Canadians become more secular, a common set of rules on how to conduct funerals and burials no longer exist. According to Gretta Vosper, an ordained minister and an atheist serving in Canada, the lack of religion is causing people to rethink ways to grieve.⁹ When a death occurs, atheists are missing the formal religious structures and conventional rituals that accompanies a common faith. However, despite the lack of guidance in the growing secular community, the intrinsic human need to commemorate the dead still exists. Without personal belief of a god or the possibility of an afterlife, how can Canadians define their own meaning in death ceremonies? In the absence of formal rituals and passed down traditions, could funerals and burials still be sacred and profound?

In the book *Death, Ritual and Belief: The Rhetoric of Funerary Rites*, author Douglas Davies, who studies anthropology, religion and beliefs regarding funerary rites, describes how rituals can still exist despite society's loss of faith:

The secular nature of some societies presents no bar to ritual. Ritual has come to be something which can stand alone, apart from traditional religion, as a part of basic human and social behavior with power to support and encourage individuals during difficult periods of life. In this sense, death rites are continuing to provide people with an opportunity to reflect upon themselves and upon the nature of life itself.¹⁰

7 Philippe Ariès, *The Hour of our Death* (New York: Oxford University Press, 1991)559.

8 Ibid.

9 Lewis, "Finding Room for Rituals: Atheists Learning to Honour a Life in their Own Ways,"

10 Douglas James Davies, *Death, Ritual, and Belief: The Rhetoric of Funerary Rites* (London: Bloomsbury Academic, 2017)265.

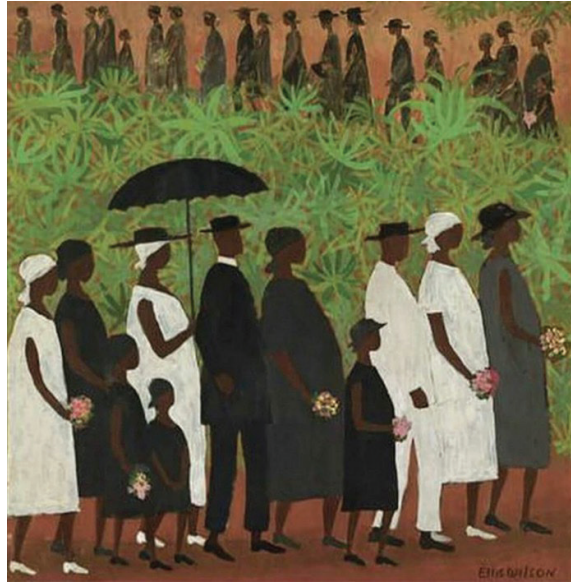


fig. 2.5 *The Funeral Procession* by Ellis Wilson

In Davies's chapter "Interpreting Death Rites", the author describes the distinctions between ideas, values, and beliefs in a fundamental approach. Davies proposes that when certain 'ideas' have emotional and meaningful attachments to a specific individual or community, they evolve into 'values'.¹¹ Furthermore, the notion of a 'belief' merges when a 'value' plays an important role in a person's sense of identity.¹² Regardless of religion, significant beliefs can be found in each person's sense of self, contributing to their understanding of the world around them. Just as how religious beliefs can contribute to an individual's identity, values that are pertinent to the environment and landscape can begin to impact one's everyday lifestyle choices. Attachment and association with a specific landscape further defines one's belief of their place within the world. Even in an increasingly secular generation, non-religious beliefs and rituals can still be purposeful to those experiencing loss.

11 Ibid, 6.
12 Ibid.

I carry two worlds within me
but neither one whole
they're constantly bleeding
the border runs
right through my tongue

-Zafer Senocak

Doppelmann

Cultural Identities in Canada

If meaningful beliefs and rituals can be informed by our personal sense of identity, I hope to discuss the implications of ‘the Canadian Identity’ and how landscape is inherently tied to the identities of Canada’s 38 million population. Since the arrival of the English and French, two main colonizing cultures, the Canadian identity has been a matter of dispute. From the time of the formation of the Dominion of Canada, the Indigenous population have been fighting to preserve and re-establish their cultural identities. The thousand of immigrants and refugees that enter Canada each year further contribute to the complexity of the Canadian Identity.

In 2016, Statistics Canada reported that immigrants make up 29 percent of the Ontario population, with up to 46 percent residing in the Toronto area.¹ As a part of that 29 percent, myself, much like others around me, question my own identity and place in our multicultural society. While the experience of displacement is varied, the feeling of place-lessness is echoed among the various ethnic groups. The notion of identity becomes much more complex when ‘home’ is no longer defined and restricted by physical boundaries. Due to our increasingly de-territorialized world, questions of similarities and differences becomes even more obscure as cultures and nationalities begin to overlap and merge. Disconnected by ancestral and cultural ties, identity becomes fluid and migratory²: a momentary reflection of the person you are in this current moment, “only partially connected to where you might have come from, and where you might be going.”³ Fragments of memories from the past carried into the present. In this context, the sense of self is constantly responding to change and uncertainty.

1 “Focus on Geography Series, 2016 Census,” accessed Feb 24, 2021, <https://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Facts-cma-eng.cfm?LANG=Eng&GK=CMA&GC=535&TOPIC=7>.

2 Judith Squires, James Donald and Erica Carter, *Space and Place: Theories of Identity and Location* (London: Lawrence & Wishart Ltd, 1993)10.

3 Christopher Tilley, “Introduction: Identity, Place, Landscape and Heritage,” *Journal of Material Culture* 11, no. 1-2 (2006)9. doi:10.1177/1359183506062990.

Genuine cultural identities can no longer be recovered, merely existing in nostalgic memories for most people. However, like a palimpsest, identity can be re-written while still bearing traces of the past. In the article *Introduction: Identity, Place, Landscape and Heritage*, author and archaeologist Christopher Tilley suggests that in modernity, identity is no longer informed by geographic and social boundaries but rather actively evolves based on experiences and choices:

Identity becomes, in part, something that may be chosen, constructed and manipulated. Reflections on identity thus carry within themselves a sense of possibility, of being different and making a difference, a potentiality for changing the self and changing society. Gone are the old certainties of knowing and accepting one's place. In modernity identities are no longer ascribed but are instead achieved.⁴

Recently in North America, we see this type of social re-identification in feminist, LGBTQ, Indigenous, environmental activism and Black Lives Matter, Asian American movements.⁵ The emergence of new collective values and beliefs have been shaping and redefining the boundaries of identities and communities. In the struggle between place and place-lessness, we continue to dwell and survive in this duality. "Our feet must learn to walk on both banks of the river at the same time."⁶ The authors of *No Place Like Heimat* argue that out from this place of in-between, more complex, and meaningful identities can be established.⁷

4 Ibid, 10.

5 Judith Squires, James Donald and Erica Carter, *Space and Place: Theories of Identity and Location* (London: Lawrence & Wishart Ltd, 1993)9.

6 Ibid, 27

7 Ibid, 26.



fig. 2.6 Climate Change Protest, 2019



fig. 2.7 Black Lives Matter Protest, 2020

Grounding Identity in Landscape

Furthermore, these experiences of death, dying and mourning are mediated through the intersections of the body, culture, society and state, and often make a deep impression on sense of self, private and public identity, as well as sense of place in the built and natural environment.¹

The composition of one's identity is further established by the landscape they inhabit. When one begins to develop ideas regarding places and landscapes relating to how they want to live and what kind of places they want to live in, landscape becomes grounded into their sense of belonging. From the perspective of human geographers such as Doreen Massey and Yi-Fu Tuan, place and place-identity are essential to the creation process of one's identity:² "Humanistic geographers have referred to sense of place as a personal connection with place, built-up over both years of residence and involvement."³ In Tilley's contribution, he states:

When we think about social or cultural identity we inevitably tend to place it, put it in a setting, imagine it in a place. Ideas and feelings about places and landscapes in what they actually look like or perhaps more typically how they ought to appear and how they feel, in the fullness and emotional richness of the synaesthetic relations of these places with our bodies which encounter them.⁴

This connection is evident in Indigenous landscapes where the significance of a sense of place and social identity is deeply tied to the land and water. In the book *Landscape and Power*, author W. J. T.

1 Avril Maddrell and James D. Sidaway, *Deathscapes: Spaces for Death, Dying, Mourning and Remembrance* (Farnham, Surrey, England: Ashgate, 2010)2.

2 Jody Stark and Jennifer Arcand, "Exploring an Imagined Canadian Identity.(Principal Themes)," *Canadian Music Educator* 60, no. 2 (2019)22.

3 Robert Hay, "Toward a Theory of Sense of Place," *The Trumpeter* 1988 (1988)160.

4 Christopher Tilley, "Introduction: Identity, Place, Landscape and Heritage," *Journal of Material Culture* 11, no. 1-2 (2006)14. doi:10.1177/1359183506062990.

Mitchell adds that landscape is “not [...] an object to be seen or a text to be read, but [...] a process by which social and subjective identities are formed”.⁵

Further, through human interventions, nature and its features can become psychological, political, and religious symbols. Landscape as symbolic forms are powerful tools to convey and express values; “a medium of exchange” and “a focus for the formation of complex network of political, social and cultural identities”.⁶ Tuan, a key contributor to humanistic geography, argues that it is through the human perspective and experience that landscape acquires meaning.⁷ Landscape is experienced both objectively through physical and sensory understanding, and subjectively through emotions and visual recollections. As a physical and multi-sensory medium, landscapes are encoded with cultural and historical values through the practices of imagining, seeing, historicizing and remembering.⁸ Through these processes, space becomes re-defined as place:

If places are no longer the clear supports of our identity, they nonetheless play a potentially important part in the symbolic and physical dimensions of our identifications. It is not spaces which ground identifications, but places. How then does space become place? By being named: as the flows of power and negotiations of social relations are rendered in the concrete form of architecture; and also, of course by embodying the symbolic and imaginary investments of a population. Place is space to which meaning has been ascribed.⁹

5 W. J. T. Mitchell, *Landscape and Power* (Chicago: University of Chicago Press, 1994)1.

6 Ibid, 2.

7 Paul C. Adams, Steven Hoelscher and Karen E. Till, “Place in Context: Rethinking Humanist Geographies,” in *Textures of Place*, eds. Paul C. Adams, Steven Hoelscher and Karen E. Till, New ed. University of Minnesota Press, 2001)9.

8 Kate Darian-Smith, Liz Gunner and Sarah Nuttall, *Text, Theory, Space: Land, Literature and History in South Africa and Australia* (Florence: Routledge, 1996)3. doi:10.4324/9780203992524.

9 Judith Squires, James Donald and Erica Carter, *Space and Place: Theories of Identity and Location* (London: Lawrence & Wishart Ltd, 1993)12.

The intimate experience of a place is personal, yet collectively informed.¹⁰ The learned social values toward a place can contribute greatly to one's identity formation. A sense of 'regional consciousness' can develop when a lifestyle "intertwines with the ecology and geography of a place".¹¹ Personal identification with a place takes time and effort. It involves repetitive actions and performances that work to establish connections between people and places.¹²

Intimate local knowledge of the place is maintained through regular travels, while human contacts are renewed through family, community, leisure and work involvements.¹³

Through the various ways individuals develop relations with their surroundings, their personal sense of belonging can become grounded in the landscape they inhabit.

Within a secular and diverse society, individuals are caught in this place of in-between. As Canadians endeavor to reconcile with the country's at times violent cultural history and embrace more than 200 ethnic groups at the same time, what it means to be Canadian has no singular definition. A collective, genuine national identity based on common cultural and ancestral ties is no longer possible. In response to dispersed cultural identities, Tuan argues in the book *Mapping American Culture*, that the physical, material place itself can provide coherence.¹⁴

The landscape in which Canadians collectively inhabit and interact with could be the common thread that grounds identities. In an exercise where different national anthems of several countries were examined, the authors of *Exploring an Imagined Canadian Identity* found that while most anthems sought to unite and protect the

10 Hay, "Toward a Theory of Sense of Place," 160

11 Ibid, 161.

12 Tilley, "Introduction: Identity, Place, Landscape and Heritage," 14-15

13 Hay, "Toward a Theory of Sense of Place," 160

14 Wayne Franklin and Steiner, Michael (Michael C.), *Mapping American Culture* (Iowa City: University of Iowa Press, 1992)29.

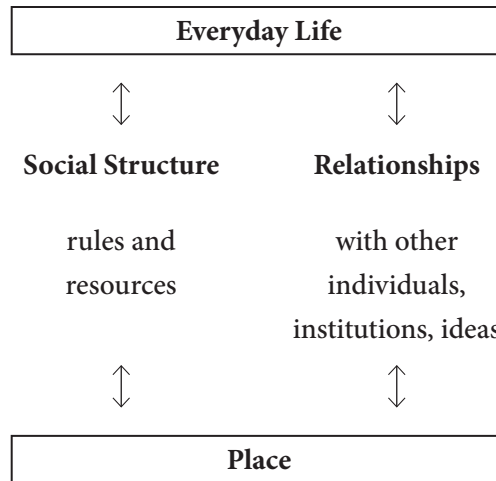


fig. 2.8 Structural Formations of Place

homeland, Canada and Finland’s anthems sing to the actual land.¹⁵ This suggests that the role of the Canadian landscape already has great importance to the national identity.

The notion that landscape can be the focus of identity formation is the reality of most Canadians. In Macgregor’s article titled “89% say the vast area defines the nation”, published in *The Globe and Mail*, he describes the attraction experienced by those who visit landscapes such as Algonquin Park:

The sensation is less one of staring at a landscape than of standing in one – and perhaps it is this singular Canadian experience that explains the continuing popularity of Tom Thomson.¹⁶

The interactions with the physical landscape whether individual or collective become a relatable experience with others. The notion of inclusiveness is reinforced by Tuan when he states “place helps us

¹⁵ Stark, “Exploring an Imagined Canadian Identity.(Principal Themes),” 22

¹⁶ Roy Macgregor, “89% Say the Vast Area Defines the Nation,” *The Globe and Mail* Jul 1, 2003. <https://www.theglobeandmail.com/news/national/89-say-the-vast-area-defines-the-nation/article1018531/>.

forget our separateness and the world's indifference."¹⁷ There is a greater possibility to create a more defined and inclusive Canadian Identity by giving value to natural landscapes.

In a world of differences in culture and religious identities, the emotional ability to grieve and mourn for the dead is a human commonality. In the interpretation of deathscapes, there is a deep emotional connection between the griever and sites of mourning.¹⁸ The broad term 'deathscapes' have become an outward and inward mapping of grief through the negotiating of position within specific spaces. In the book *Geography and Memory: Explorations in Identity, Place and Becoming*, 'mapping grief' is described as:

[T]he ways in which an individual's experience of bereavement changes their relation to spaces and places and how this becomes a dynamic internal map of shifting patterns of emotion and affect, both painful and comforting.¹⁹

In the same way 'spaces' transform into 'places' through engaging with a specific location; site of death, funeral homes, burial grounds and other spatiality's associated with death, dying and the deceased becomes 'sacred' places for the bereaved.²⁰ Therefore, through the performative practices, particular spaces of death such as burial sites have the capacity to hold meaningful values, re-shaping one's identity and sense of belonging within the burial landscape of multicultural Canada.

17 Franklin, *Mapping American Culture* 44

18 Avril Maddrell and James D. Sidaway, *Deathscapes: Spaces for Death, Dying, Mourning and Remembrance* (Farnham, Surrey, England: Ashgate, 2010)2-3.

19 Owain Jones and Joanne Garde-Hansen, *Geography and Memory: Explorations in Identity, Place and Becoming* (Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2012)58.

20 Ibid.



fig. 2.9 The West Wind by Tom Thomson

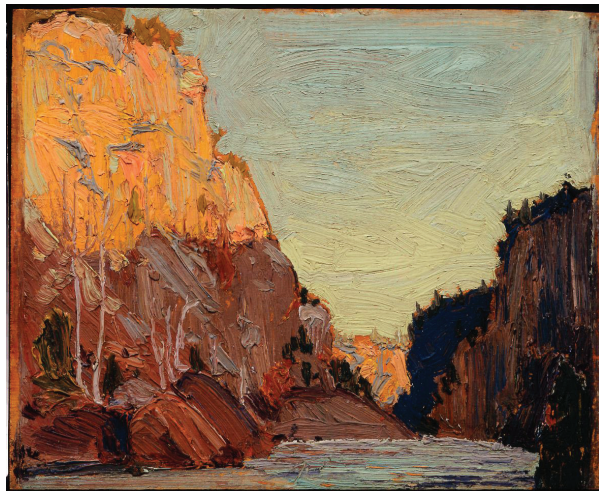


fig. 2.10 Petawawa, Algonquin Park by Tom Thomson

3 Rethinking the Burial Landscape

In the face of death, the need to reconnect with cultural ties is evident, the guidance on grieving once afforded by religion and deep ancestral ties no longer extant. As social conditions continue to evolve, so do social identities and personal beliefs. In this context, we need to consider alternative ways to grieve and care for the dead.

Together, these situations demonstrate the need for alternative burial methods. Looking at increased demand for cemeteries, decreased land resources as well as growing awareness for better environmental burial practices, the following chapters study the broader issues impacting contemporary burials and grieving.

Diminishing Land Resources

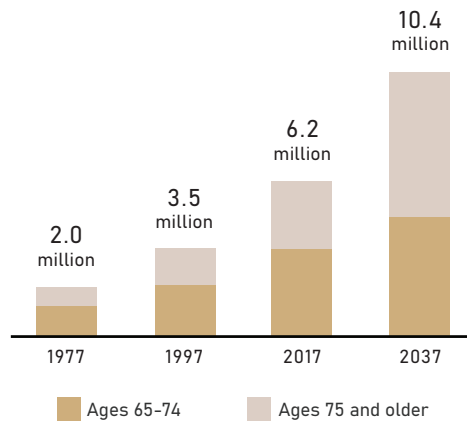


fig. 3.1 *Canada's Seniors Population Outlook*
Data Sources: Canadian Institute for Health Information

As Canada becomes a 'superaged' country like Italy and Japan, the lack of burial spaces will become a major issue in densely populated cities like the Greater Toronto Area. In the next 25 years, an estimated seven million Canadians will die.¹ Nicole Hanson, an environmental planner who specializes in cemetery planning said in 2016, "death is now an equity issue for those in the GTA and Toronto. We are going to be out of space in five to 10 years."² Erik Lees, principal of LEES+Associates with over 40 years of cemetery design and planning experience calls the space shortage a "looming crisis".³ Lees states that the rise in cremation as an end-of-life choice have helped ease the burden of space over the years, however Lees believes with Canada's cultural diversity, full-body casket burials should always be an option.⁴

As the baby boom generation becomes elderly, Canada will see a

1 "Would You Share a Grave? Vancouver Cemetery has Ground-Breaking Solution to Graveyard Real Estate Crunch," last modified Nov 2, accessed Mar 12, 2021, <https://www.cbc.ca/news/canada/british-columbia/grave-sharing-1.5341491>.

2 "What Happens when Cemetery Space Runs Out?" last modified Dec 12, accessed Jan 21, 2021, <https://www.cbc.ca/radio/thecurrent/the-current-for-december-12-2016-1.3889638/what-happens-when-cemetery-space-runs-out-1.3889836>.

3 "Looming Crisis' as Cemeteries Across Canada Run Out of Space," last modified Apr 12, <https://www.ctvnews.ca/canada/looming-crisis-as-cemeteries-across-canada-run-out-of-space-1.3365620>.

4 Ibid.

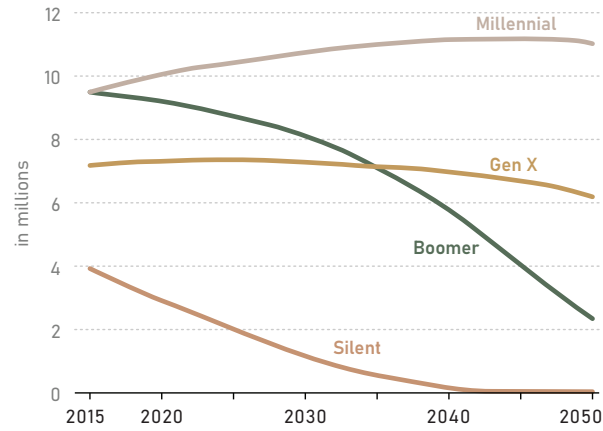


fig. 3.2 *Projected Population by Generation in Canada*
 Data Sources: Statistics Canada, Environics Analytics

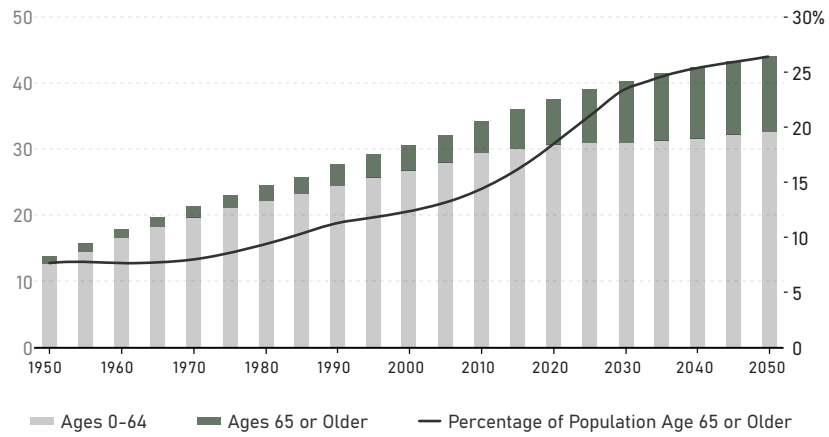


fig. 3.3 *Population by Age Group (in Millions) and Percentage of Population Age 65 or Older*
 Data Sources: UN Population Division, FP Analytics, AARP

significant increase in population aging. From 1977 to 1997, the older population increased from 2 million to 3.5 million⁵ (figure 3.1). Currently in 2020, 18 percent of the population is 65 years and older.⁶ By 2050, populations aged 65 and older are projected to rise to 26 percent (figure 3.3). Additionally, the senior demographic aged 75 and older is increasing at a faster rate in comparison to the growth rate of the general aging population⁷ (figure 3.1).

Not unlike the real estate market, the rising price of full-body burial spaces in major cities reflects the issue of diminishing grave plots. The following prices do not include interment (the act of burying a dead person) service fees, funeral services, memorial costs, caskets, monuments, or other miscellaneous charges. Vancouver's only graveyard, Mountain View Cemetery, had 600 gravesites remaining in 2017, each costing \$25,000 on average, a major surge from the \$110 per grave thirty years ago.⁸ In Toronto's Mount Pleasant Cemetery, the cost of burial for full body graves ranges from \$22,000 to \$33,000.⁹ The burial of cremation graves range from \$3,500 to \$4,100 while indoor and outdoor columbarium niches can go from \$8,000 to \$9,000.

In every cemetery, there is also a care and maintenance fee that is legally required under the Funeral, Burial and Cremation Services Act, 2002 and Ontario Regulation 30/11 which ensures the perpetual care of the grave sites.¹⁰ 40 percent of the price of every full-casket plot is placed in a secured trust to ensure future maintenance in Ontario, the rates of other provinces range from 15 percent to 35 percent.¹¹

Cemetery space shortages in Toronto are echoed by cemetery providers who encourage consumers to purchase grave plots before

5 "Infographic: Canada's Seniors Population Outlook: Uncharted Territory," accessed Feb 21, 2021, <https://www.cih.ca/en/infographic-canadas-seniors-population-outlook-uncharted-territory>.

6 "Demographic Estimates by Age and Sex, Provinces and Territories," last modified Jul 1, accessed Feb 27, 2021, <https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2020018-eng.htm>.

7 "Infographic: Canada's Seniors Population Outlook: Uncharted Territory,"

8 "Cemeteries Running Out of Room," last modified Apr 10, accessed Aug 6, 2020, <https://www.theglobeandmail.com/report-on-business/industry-news/property-report/cemeteries-running-out-of-room/article34656233/>.

9 "Price Lists," accessed Feb 21, 2021, <https://www.mountpleasantgroup.com/en-CA/Price%20Lists.aspx>.

10 *Funeral, Burial and Cremation Services Act, 2002, Ontario.ca* (2014).

11 "The Battle for Your Bones: Death Goes Corporate in Canada," last modified May 29, <https://www.theglobeandmail.com/report-on-business/rob-magazine/the-battle-for-your-bones/article18852856/>.

space becomes unavailable.¹² Urban cities in the United States are facing a similar situation where experts predict that while there is remaining space for the baby boom generation, it will be a challenge for millennials as they get older.¹³

However, developing new space for urban cemeteries is becoming increasingly challenging. Cemeteries were established from agricultural land in the past, but current zoning laws and land-use regulations in urban areas of Ontario prevent cemetery providers from obtaining land.¹⁴ While developing rural cemeteries is still possible, local authorities in North America are reluctant to set aside land for new cemeteries.¹⁵ Land designated as grave sites are exempt from property tax, taking up large areas of potentially profitable real estate. Every interment right is to be sold in perpetuity under Ontario law,¹⁶ resulting in the permanent land-use of every cemetery. For these reasons, municipalities tend to favour more lucrative developments such as residential or commercial projects.

Moreover, cemetery and funeral home proposals often face resistance from surrounding communities. The UBC hospice proposal saw objections from university students and nearby residents voicing their fear of living so close to spaces of death. Whether it was mental health concerns for the students or cultural beliefs fearing disastrous ramifications of locating Yin (night or death) and Yang (day of life) together; the idea of death was not welcomed in the UBC community.¹⁷ Further, an application for a modern, clean-burning crematorium in Mississauga was rejected by city councilors in 2013 due to the location's proximity to residential dwellings.¹⁸ Concerns of health,

12 "Cemeteries Running Out of Space," accessed Mar 11, 2021, https://www.mountpleasantgroup.com/Blogs/ViewBlog.aspx?sc_lang=en-CA&Id=99618a4d-8ed5-4989-8f93-1d2b6c09ebf0.

13 Jarred Schenke, "Urban Cemeteries Running Out of Space as Baby Boomers Enter Twilight Years," *Forbes* Nov 3, 2017. <https://www.forbes.com/sites/bisnow/2017/11/03/urban-cemeteries-running-out-of-space-as-baby-boomers-enter-twilight-years/>.

14 "The Battle for Your Bones: Death Goes Corporate in Canada,"

15 *Ibid.*

16 "Interment Rights FAQ," accessed Mar 12, 2021, <https://www.mountpleasantgroup.com/en-CA/FAQs/interment-rights-faq.aspx>.

17 "We can't have Dying People in our Backyard': In Vancouver, there's Little Room for the Dead, no Time for Death," last modified Oct 25, accessed Mar 17, 2020, <https://nationalpost.com/news/canada/in-vancouver-little-room-for-the-dead-no-time-for-death>.

18 "Mississauga Councilors Reject Crematorium," last modified Oct 17, accessed Mar 12, 2021, <https://www.toronto.com/news-story/4159943-mississauga-councillors-reject-crematorium/>.

safety, aesthetics and property values are all challenges new cemetery proposals must face.

According to a Neptis Foundation's 2013 analysis, there is no shortage of land in the Greater Toronto and Hamilton Area (GTHA) for housing and employment developments. Beyond existing urbanized towns and cities, there is 107,000 hectares of land reserved by municipalities in the Greater Golden Horseshoe¹⁹ (figure 3.4). The land supply, also called the designated greenfield area, is part of Ontario's Growth Plan for the Greater Golden Horseshoe, established to accommodate urban growth to 2031.²⁰ While there is a great effort in urban planning to preserve land for the living, the same does not hold true for the dead.

Quebec is the only province in Canada where interment rights are not sold in perpetuity. In 1995, Quebec's contract laws were amended, ensuring that contracts such as interment rights to burial plots do not exceed 100 years.²¹ As a result, cemetery plots are re-used after 100 years if contracts are not renewed by descendants. Besides Quebec, Mountain View Cemetery, owned and operated by the City of Vancouver, is the only other cemetery in Canada that allows the re-use of graves every 40 years. Beginning in January 2020, new amendments in Vancouver's bylaw permitted shared interment rights.²² The bylaw change will allow up to three individuals to acquire partial rights to a burial plot at Mountain View Cemetery. A single casket grave plot costs \$25,000 while a shared grave plot is half the price at \$12,500.²³

While Vancouver is the first city so far to have amended bylaws to address the space shortage issue and encourage more sustainable practices, it is evident that cemeteries and municipal bylaws in Canada have the capacity to change and adapt to present needs and demands.

19 "No Shortage of Land for Homes in the Greater Toronto and Hamilton Area," last modified Oct 4, accessed Mar 12, 2021, <https://neptis.org/publications/no-shortage-land-homes-greater-toronto-and-hamilton-area>.

20 Ministry of Municipal Affairs and Housing, "A Place to Grow Growth Plan for the Greater Golden," *Queen's Printer for Ontario* (2020).

21 "The Battle for Your Bones: Death Goes Corporate in Canada,"

22 "Three Strangers can Now Occupy Same Grave at Vancouver's Mountain View Cemetery," last modified Oct 22, accessed Mar 12, 2021, <https://vancouver.sun.com/news/local-news/three-strangers-can-now-occupy-same-grave-at-mountain-view-cemetery>.

23 City of Vancouver and Mountain View Cemetery, *Fee Schedule*, [2021].

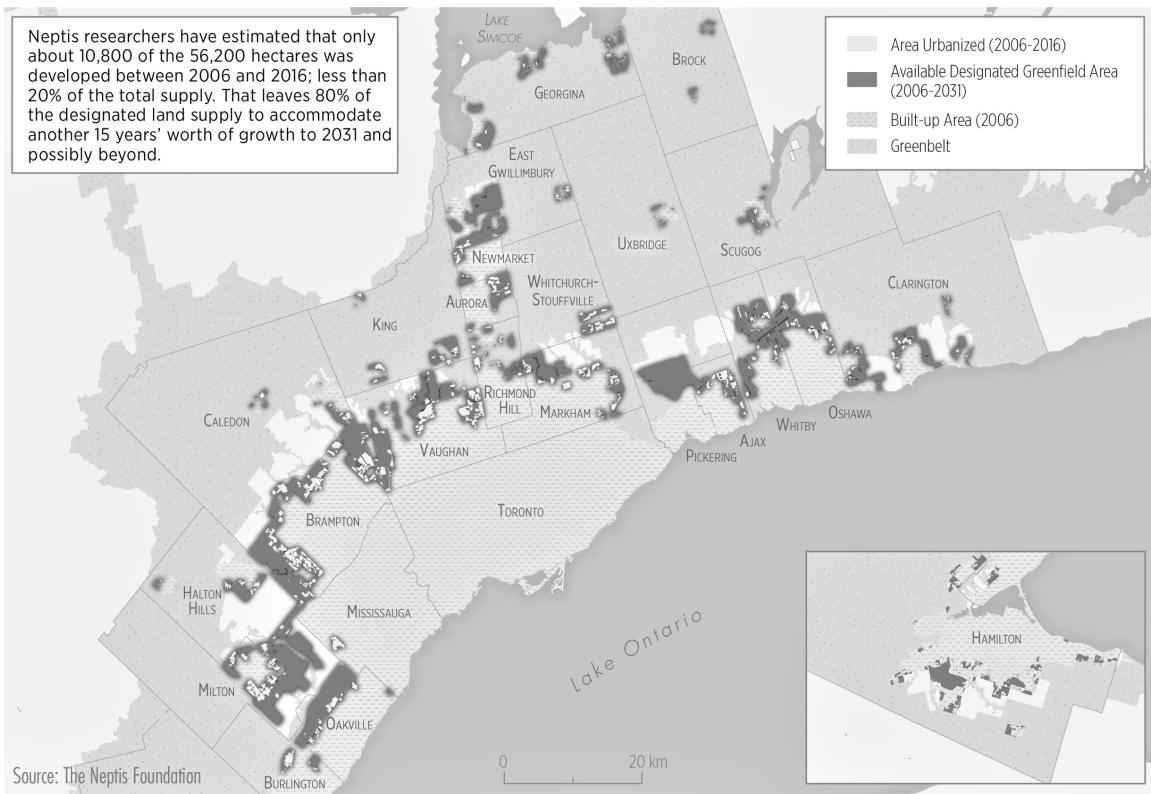


fig. 3.4 The Extent of Urbanization of the DGA in the GTHA between 2006 and 2016
Data Source: The Neptis Foundation

Common Practices in After-Death Care

The after-death care customs in Canada from the 1900s to the 1950s is described in the report *Family Perspectives: Death and Dying in Canada*:

Apart from deaths as a result of war and accidents, most people in this period died at home, cared for by family members and friends. Death was frequently a community event, with extended family, friends and neighbours attending to the dying person and then participating in rituals of visiting the family as the body lay at rest. Family members (primarily women) bathed and dressed the body, then laid it out in the parlour for friends and family to pay their respects. The body would then be placed in a wooden coffin, often made by a family member or local cabinetmaker and transported for burial in the local graveyard or on their own property.¹

¹ Katherine Arnup, "Family Perspectives: Death and Dying in Canada," *The Vanier Institute of the Family* (May 6, 2018). <http://vanierinstitute.ca/deathdying2018/>.



fig. 3.6 *The first family-owned funeral home in Canada, Niagara County, 1826*



fig. 3.5 *Funeral parlours resembling family homes*

With advances in Canada's healthcare and medical sciences, families no longer witnessed death occurring in their homes.² As a result, people have become defamiliarized and uncomfortable with after care of a deceased body. Historian Philippe Ariès describes death in the twentieth century where:

[S]ociety has banished death. In the towns, there is no way of knowing that something has happened [...] Society no longer observes a pause; the disappearance of an individual no longer affects its continuity. Everything in town goes on as if nobody died anymore.³

The preparation of the dead that was once a personal experience executed by those close to the deceased began to transition into a payable service. In place of family and friends, funeral directors became the professionals, offering their services to the community. The authors of *Dying and Death in Canada* state that the bureaucratization of death has taken control of dying and death away from families and communities.⁴ Rather, those that have agency over dying and death are professional strangers that perform services based on "bureaucratic culture" instead of the pertinent values and beliefs of the individual.⁵ Professional death care has filled the void that secularization has left on rituals.⁶ As a result, whenever death occurs, society now relies on funeral services to transport, store, prepare and bury the dead.

Local and family-owned funeral homes have since been replaced with large corporations across Canada. As an effort to alleviate the burden of care from grieving families, funeral homes now offer multiple all-inclusive packages, catering to families varying in culture, religion, and income. In an article published in 2014 by CBC titled '*Corporatization*' of funeral industry drives quest for alternatives, a

2 Ibid, 11.

3 Philippe Ariès, *The Hour of our Death* (New York: Oxford University Press, 1991).

4 Herbert C. Northcott and Donna M. Wilson, *Dying and Death in Canada, Third Edition* (Toronto: University of Toronto Press, 2016)93.

5 Ibid.

6 Ibid, 95.

notable funeral home was quoted saying “we don’t sell funerals, we sell packages”.⁷ It is worth noting the emotional state of the grieving families while they are purchasing funeral services, it is easier to follow what is commonly practiced when there is no specific burial plan left by the deceased.⁸ As funeral homes began to sell more elaborate services, high-priced products, and premium packages, it has steadily grown into a multibillion-dollar industry in Canada.⁹ The success of the funeral service industry reflects how little of a role families play in the after-death care process and how heavily the public rely on social institutions.

In the twenty-first century, the ‘traditional funeral’ is a widely accepted narrative promoted by the funeral service industry.¹⁰ In the article “What’s traditional about “the traditional funeral”?” published in the *Journal of the Canadian Historical Association*, the author, Gillian Poulter, describes the after-death care that is commonly practiced today:

A traditional funeral includes the transportation of the body to a funeral home where it is embalmed, washed, dressed, placed in a casket, enhanced with cosmetics, and made available for viewing by family and friends. A funeral service is held at the funeral home chapel or in a church, and the deceased is either cremated or transported in procession to a cemetery for interment. At a later date, a memorial service may be held, a gravestone or marker put in place, or the ashes disposed of in a variety of ways.¹¹

7 “‘Corporatization’ of Funeral Industry Drives Quest for Alternatives,” last modified May 7, accessed Mar 12, 2021, <https://www.cbc.ca/news/canada/corporatization-of-funeral-industry-drives-quest-for-alternatives-1.2626007>.

8 A. A. Bouverette, “Green Burials: The Deinstitutionalization of Death,” *The Hilltop Review* 10, no. 1 (2017)50. <https://scholarworks.wmich.edu/hilltopreview/vol10/iss1/14>.

9 “Death is a Booming \$1.6-Billion Industry in Canada,” last modified Mar 15, <https://www.theglobeandmail.com/globe-investor/personal-finance/household-finances/death-is-a-booming-16-billion-industry-in-canada/article34282988/>.

10 Gillian Poulter, “What’s Traditional about “the Traditional Funeral”?” Funeral Rituals and the Evolution of the Funeral Industry in Nova Scotia,” *Journal of the Canadian Historical Association / Revue De La Société Historique Du Canada* 22, no. 1 (2011), 133-159. doi:<https://doi.org/10.7202/1008960ar>. <https://id.erudit.org/iderudit/1008960ar>.

11 Ibid.

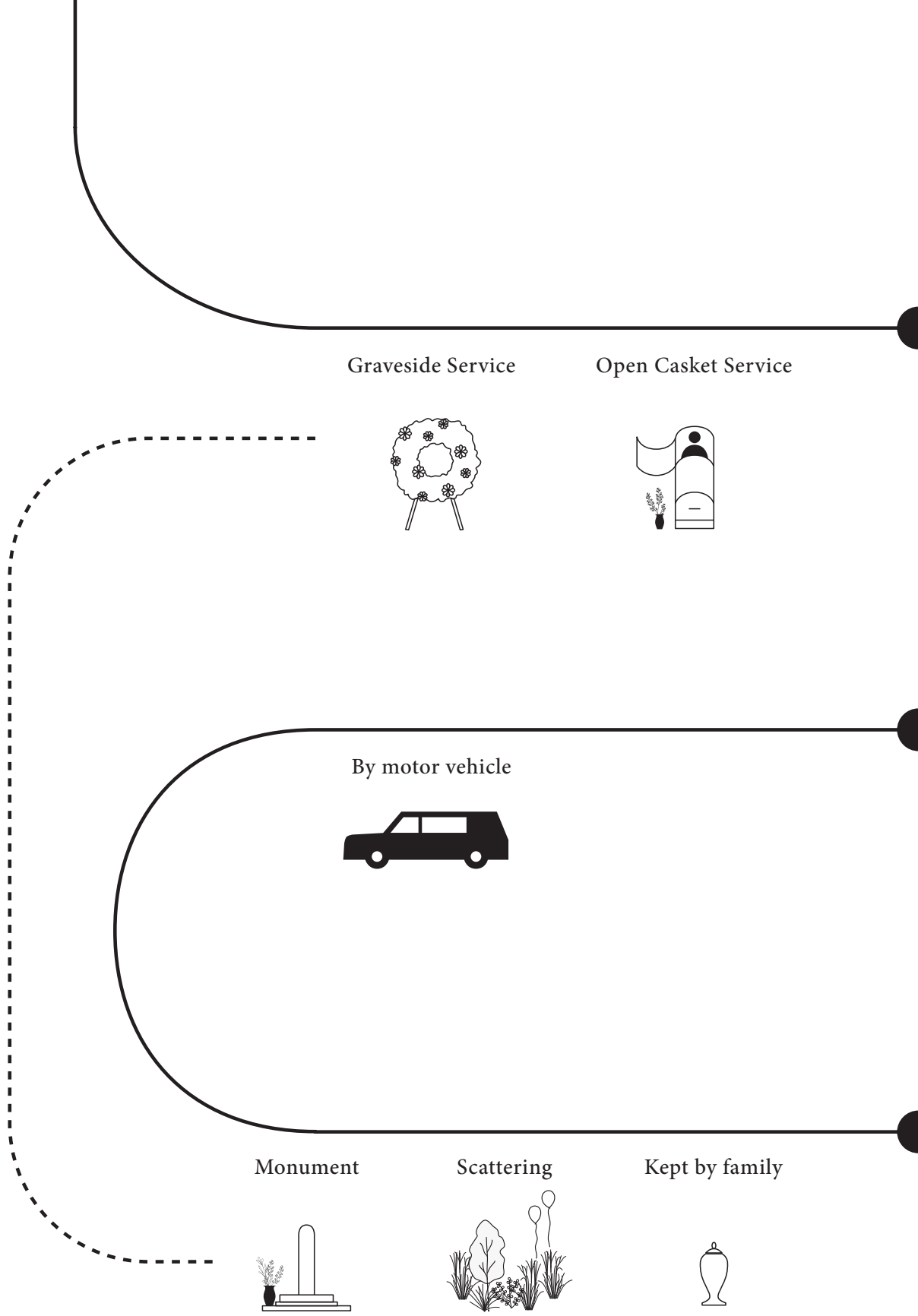
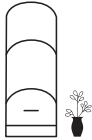


fig. 3.7 Mapping of 'traditional' funerals

Ceremony

Closed Casket Service



Memorial Service



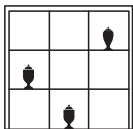
Procession

By foot



Final Resting Place

Columbarium



Special Memorials



Remembrance

The practice of embalming began in North America 160 years ago during the American Civil War as a temporary method to preserve the bodies of soldiers during transportation.¹² However, when Abraham Lincoln's embalmed body was displayed to the American public in a presidential funeral train across multiple states in 1865, embalming became sensationalized.¹³ Subsequently, morticians began holding fairs on embalming and chemical companies held contests for the 'best preserved body'.¹⁴ As a result of its association with elite social status and high public demand, embalming became a government regulated practice.¹⁵ Along with replacing body fluids with formaldehyde-based chemicals, morticians also promote additional services such as utilizing cosmetic techniques to achieve a 'natural' or 'peaceful' appearance.¹⁶ Poulter argues that the 'life-like' presentation of the deceased has removed the evidence of death from the narrative: "families and friends no longer 'visited' the deceased but 'viewed' the deceased".¹⁷ Although embalming is not required by law in Canada, it is a common practice offered by funeral homes.

Through the establishment of bureaucratic institutions like hospitals and funeral homes, families and communities are no longer participants but rather bystanders in the after-death care.¹⁸ The promotion of embalming practices, air-tight caskets, and concrete vaults are all efforts to preserve deceased bodies for as long as possible.¹⁹

12 Bouverette, "Green Burials: The Deinstitutionalization of Death," 48-56

13 "When You Die, You'll Probably be Embalmed. Thank Abraham Lincoln for That," last modified Nov 1, accessed Mar 12, 2021, <https://www.smithsonianmag.com/science-nature/how-lincolns-embrace-embalming-birther-american-funeral-industry-180967038/>.

14 Joan Meiners, "Life After Death," *Discover Magazine*, Aug 6, 2020.

15 Bouverette, "Green Burials: The Deinstitutionalization of Death," 49

16 Poulter, "What's Traditional about 'the Traditional Funeral'? Funeral Rituals and the Evolution of the Funeral Industry in Nova Scotia," 152

17 Ibid.

18 Northcott, *Dying and Death in Canada, Third Edition* 94

19 Bouverette, "Green Burials: The Deinstitutionalization of Death," 48-56



fig. 3.8 Abraham Lincoln's funeral procession traveling through Buffalo, New York, 1865

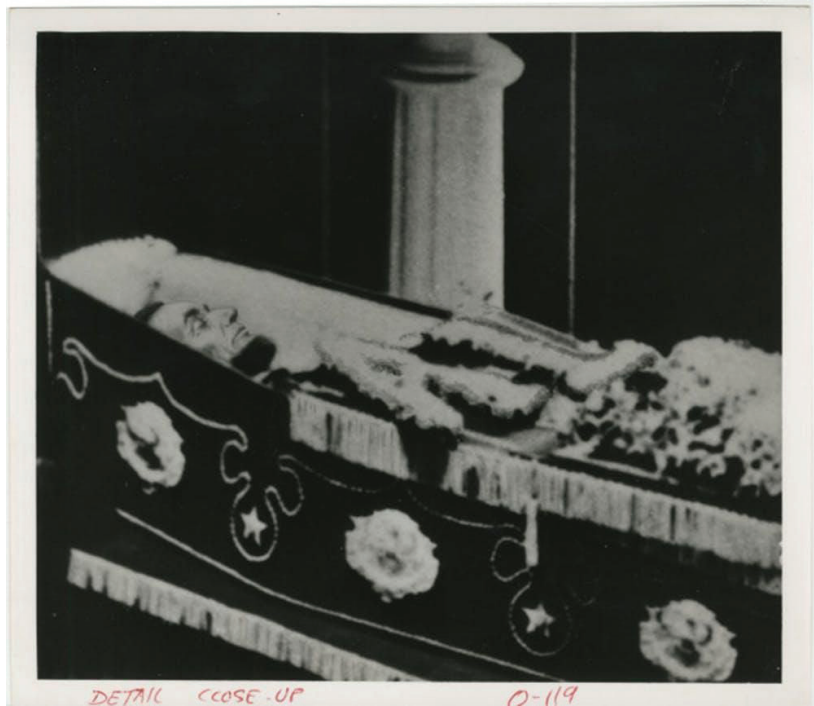


fig. 3.9 Artist's conception of Abraham Lincoln's body laid out in New York's City Hall, 1865

While this research gives an overview of what most Canadians view as ‘typical’ funerary practices, it does not encompass all the different death norms practiced by other minority groups in Canada. Literature available regarding North American death norms may unconsciously omit the narratives and perspectives of marginalized people. In the North American history, disenfranchisement and prejudice extends into the funeral industry.²⁰

For instance, the need to look ‘natural’ and ‘life-like’ may also be an important display of respect and honor for families that are grieving for victims of injustice and brutality. In an article called *Race and The Funeral Profession: What Jessica Mitford Missed*, the author discusses the ways the best-selling book *The American Way of Death* failed to acknowledge the African American’s experience with the death industry. In the context of the African American experience, ornamentation and appearance was a way for the community to challenge and participate in material culture that was once denied to them.²¹ According to Ann-Ellice Parker, a death educator and counselor who works closely with her African American community:

[H]olding strong to these traditions in spite of their polluting ways has been central to speaking out against the injustice wrought against African American bodies, against the idea that African American lives don’t matter.²²

In addition, jobs in the funeral industry also afforded African American communities access into the economy and financial support.²³

Furthermore, Chinese Americans were prohibited to work as funeral directors until the 1930s, indicative of a lack of agency in the Chinese American death-care experience.²⁴ As a country comprised of citizens

20 Suzanne Kelly, *Greening Death: Reclaiming Burial Practices and Restoring our Tie to the Earth* (Lanham, Maryland: Rowman & Littlefield, 2015)61.

21 “Race & the Funeral Profession: What Jessica Mitford Missed,” last modified Dec 2, accessed Mar 19, 2021, <https://www.talkdeath.com/race-funeral-profession-what-jessica-mitford-missed/>.

22 Kelly, *Greening Death: Reclaiming Burial Practices and Restoring our Tie to the Earth*, 62

23 “Race & the Funeral Profession: What Jessica Mitford Missed,”

24 Kelly, *Greening Death: Reclaiming Burial Practices and Restoring our Tie to the Earth*, 61

varying in “race, ethnicity, class, nation of origin and religion”, not one experience of death-care is the same as another.²⁵ However, most cemeteries in Canada only offer two primary forms of disposition: interment and incineration. According to Arbour Memorial Inc, one of the largest funeral and cemetery providers in Canada, 43 percent of Canadians prefer full body ‘traditional’ burials while 57 percent prefer cremation.²⁶ Since in-ground burials and cremation are the two most common methods of disposition, they have the largest impact on the environment. The next section of this chapter will outline the harmful consequences of these burial methods.

25 Ibid, 36.

26 “Here’s how much it’ll cost you to get buried during Vancouver’s housing crisis,” last modified May 29, <https://www.vancouverisawesome.com/vancouver-news/cemetery-pricing-metro-vancouver-1937817>.

Environmental Consequences

The idea that corpses can harbour infectious diseases, embalmed or not, has since been discredited by multiple health organizations including the World Health Organization (WHO), Pan American Health Organization (PAHO) and the Center for Infectious Disease Policy and Research (CID).¹ This is because most contagious agents cannot survive in a non-living host.² Regardless, strict protocols exist to ensure the safety of individuals handling certain infectious bodies. Rare diseases such as Ebola and Creutzfeldt-Jakob are examples in which specific burial guidelines must be followed.³ Through careful cemetery site selection, appropriate setbacks from groundwater sources and wells, and proper handling, the average deceased body poses no threat to public health.⁴ It is not dead bodies that are harmful, but rather modern ‘traditional’ funeral practices that have steep environmental costs. From an ecological standpoint, current practices of embalming, concrete vaults, varnished caskets as well cremation are all sources of toxin release and leaves large carbon footprints.

Through the growth of consumerism since the 19th century, increased sales of elaborate caskets and expressive monuments have introduced many foreign chemicals and materials into North American burial landscapes.⁵ In every acre (4,047 square metres) of a conventional cemetery, an average of the following is buried into the ground:

4,500 litres of formaldehyde-based embalming fluid,
97 tonnes of steel, 2,000 tonnes of concrete and 56,000
board feet of tropical hardwood.⁶

An average of 2.2 million gallons of formaldehyde, a probable human

1 Green Burial Council and Lee Webster, *The Science Behind Green and Conventional Burial*, [2016].

2 Ibid.

3 World Health Organization, *How to Conduct Safe and Dignified Burial of a Patient Who has Died from Suspected Or Confirmed Ebola Or Marburg Virus Disease*, [2017].

4 Lee Webster, *The Science Behind Green and Conventional Burial* Green Burial Council, [2016].

5 Keith Eggener, “Building on Burial Ground,” *Places Journal* (Dec 9, 2010). doi:10.22269/101209. <https://placesjournal.org/article/building-on-burial-ground/>.

6 “Green Burial Nova Scotia,” accessed Mar 12, 2021, <https://ecologyaction.ca/greenburial>.



fig. 3.10 Burial vault / liner

Commonly made out of concrete or fiberglass, burial vaults are buried in the ground to prevent grave sinking over time and ease of lawn maintenance when driving heavy machinery



fig. 3.11 Caskets available for sale

Cherry, mahogany, walnut and metal are all common materials used



fig. 3.12 Burial vaults lined up

During cemetery construction, the site is first excavated, then concrete vaults are lined up before the ground is backfilled again

carcinogen, is exposed to Canadian morticians every year.⁷ Casket manufacturers are among the top 50 hazardous waste producers according to the U.S. Environmental Protection Agency due to the use of chemicals like methyl and xylene.⁸ Not only are the mentioned materials buried in the ground, the use of exotic wood, steel and concrete also require large amounts of energy to harvest and transport. Today's cemeteries have become silent landfills.⁹

Cremation's lower cost and presumed lower environmental impact are the two main reasons for the increasing trend of cremation in Canada. Canada's cremation rate has seen an increase from 48 percent in 2000 to 72 percent in 2018,¹⁰ and is expected to rise to 77 percent by 2023.¹¹

However, the common misconception is cremation's standing as a more environmentally sustainable alternative to conventional burials. An individual cremation must burn at 800 - 1,000 degrees Celsius for 90 minutes, whilst consuming 92 cubic metres of natural gas, equivalent to heating an average Canadian home for 12.5 days¹² or driving for 800 kilometres¹³. The crematorium furnaces' combustion process also releases numerous toxins into the atmosphere. A single cremation emits an average of 330 pounds of carbon dioxide.¹⁴ In comparison, in-ground burials release about 86 pounds of carbon dioxide.¹⁵ In addition to other toxins, mercury is also released into the air from dental fillings. Around 20 percent of Britain's mercury emissions can be attributed to cremations.¹⁶

7 Ibid.

8 Dale Murray, *The Global and the Local: An Environmental Ethics Casebook* (Leiden, The Netherlands: Brill, 2017)225. doi:<https://doi.org/10.1163/9789004339996>. <https://brill.com/view/title/33106>.

9 Tony Rehagen, "Decompose the Green Way with an Eco-Friendly Funeral," *Bloomberg* Oct 27, 2016. <https://www.bloomberg.com/features/2016-green-burial/>.

10 "The Cost of Dying: How a Spike in Cremation Rates is Changing the Funeral Industry," last modified Feb 16, accessed Mar 17, 2021, <https://www.cbc.ca/radio/costofliving/where-we-live-where-we-die-and-the-romances-we-read-in-between-1.5462205/the-cost-of-dying-how-a-spike-in-cremation-rates-is-changing-the-funeral-industry-1.5462235>.

11 "Would You Share a Grave? Vancouver Cemetery has Ground-Breaking Solution to Graveyard Real Estate Crunch," last modified Nov 2, accessed Mar 12, 2021, <https://www.cbc.ca/news/canada/british-columbia/grave-sharing-1.5341491>.

12 Gary May, "The Green Final Frontier: Eco-Burial," *The Globe and Mail* Mar 3, 2010. <https://www.theglobeandmail.com/report-on-business/small-business/sb-growth/the-green-final-frontier-eco-burial/article4309322/>.

13 "Green Burial Nova Scotia,"

14 Murray, *The Global and the Local: An Environmental Ethics Casebook* 226

15 Ibid.

16 Ibid.

Furthermore, upkeep of artificially created landscapes in conventional cemeteries poses further environmental harm. The display of manicured lawns, well-maintained gardens and tidy headstones involve “both fossil fuel use in mowing and the application of fertilizers/pesticides”.¹⁷ The maintenance of these landscapes can emit up to ten times more nitrous oxide compared to agricultural grasslands.¹⁸

It is evident that current urban burial plots cannot support Canada’s aging population. Increased demand for more burial spaces in densely populated areas has not been supported due to several social and political factors. Simultaneously, as concerns of the environmental impacts of current burial methods continue to increase, it becomes necessary to establish better land practices of disposition and burial. The following chapter will outline how natural burials can be used as a conservation strategy for future land practices.

17 Andy Clayden et al., “Cutting the Lawn – Natural Burial and its Contribution to the Delivery of Ecosystem Services in Urban Cemeteries,” *Urban Forestry & Urban Greening* 33 (2018)100. doi:10.1016/j.ufug.2017.08.012.

18 Ibid.

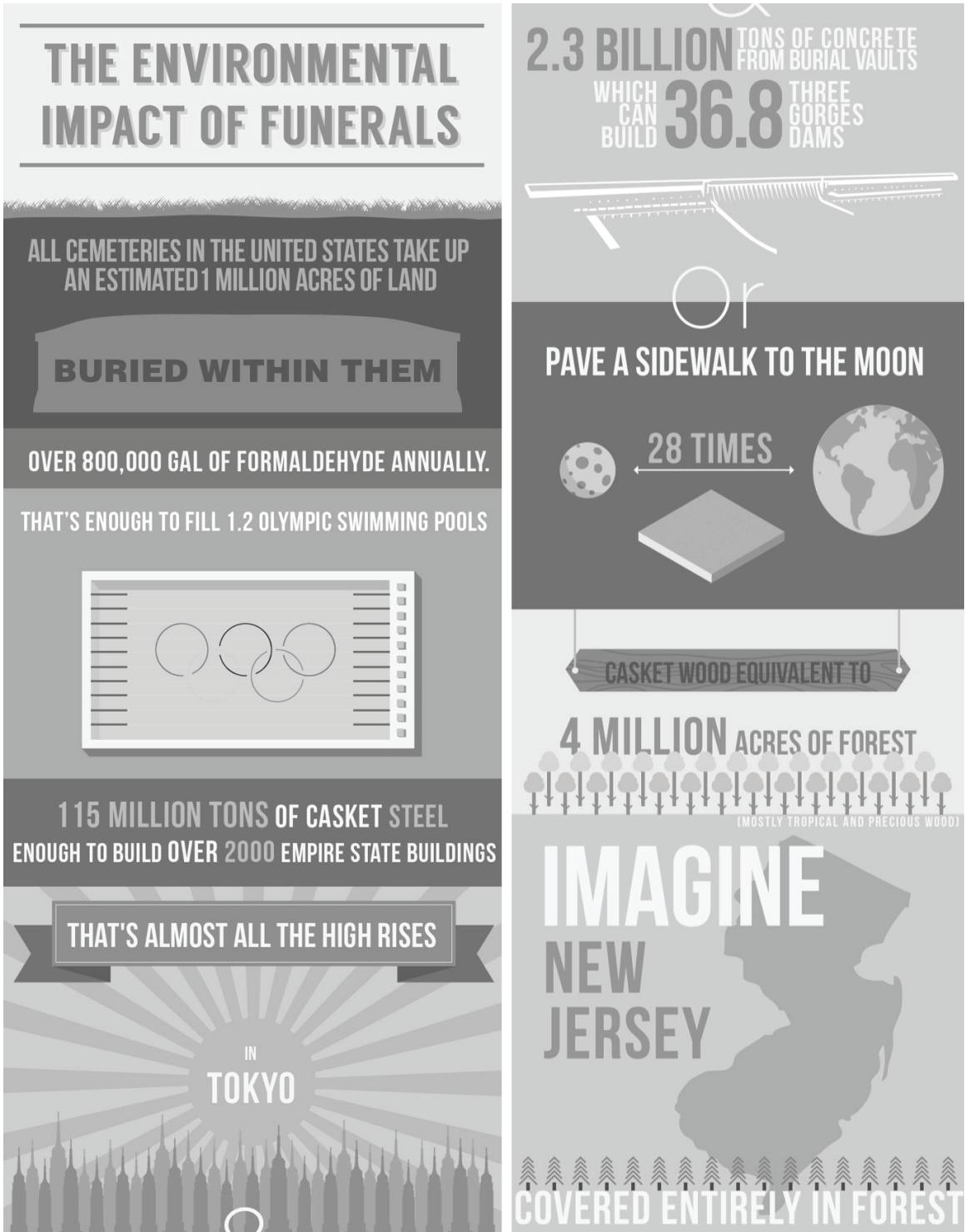


fig. 3.13 Environmental Impacts of North American Funerals
 Data Source: The Science Behind Green and Conventional Burial by the Green Burial Council

ALL THAT WOOD
COULD BUILD **4.6** MILLION

SINGLE -FAMILY HOMES



THAT'S
OVER



REMEMBER ALL THAT CONCRETE?
IT'S ENOUGH TO BUILD A SWIMMING POOL FOR EACH HOUSE



NORTH AMERICA USES ENOUGH FOSSIL FUEL
FOR CREMATION TO DRIVE YOU
HALFWAY TO THE SUN

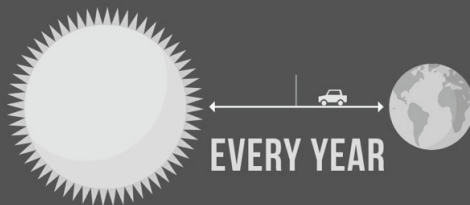


fig. 3.14 Environmental Impacts of North American Funerals 2

Don't lay me in some gloomy churchyard shaded by a wall
Where the dust of ancient bones has spread a dryness over all
Lay me in some leafy loam where, sheltered from the cold
Little seeds investigate and tender leaves unfold.
There kindly and affectionately, plant a native tree
To grow resplendent before God and hold some part of me.
The roots will not disturb me as they wend their peaceful way
To build the fine and bountiful, from closure and decay.
To seek their small requirements so that when their work is done
I'll be tall and standing strongly in the beauty of the sun.

-Pam Ayres

Woodland Burial

4 Natural Burials: Returning Back to the Land

Natural Burials as a Land Practice

It is here that the thesis proposes natural or green burials within the Greenbelt as a land practice for preservation. In addition to addressing the need for burial space, diverse burial options as well as better environmental practices, the research also acknowledges that it is the Indigenous peoples that have been practicing sustainable burials since time immemorial¹ and understood the sacredness of natural spaces. Not only can the land practice of natural burials encourage respect for human's place within the land; it has the capacity of advocating respect for Indigenous traditions, their awareness of the earth and their dialogue with land and place. To some cultures and religions, such as the Jewish and Muslim faith, natural burials are not new, and require no re-introduction. However, for the purpose of this thesis, the following section will examine the main principles that encompass natural burials.

¹ "Not all indigenous peoples of North America practices whole-body earth burial. For example, the Lakota, practices scaffold burial, whereby the dead were placed in a box and elevated in a tree or scaffold seven to ten feet high. Once the body had been there for some time, the remains were taken down and buried. For many Lakota, scaffold burial is not a thing of the past." Suzanne Kelly, *Greening Death: Reclaiming Burial Practices and Restoring our Tie to the Earth* (Lanham, Maryland: Rowman & Littlefield, 2015)158.

Natural or green burial focuses on caring for the dead and returning the body back into the earth in the most natural way possible. Sustainable whole-body burial principles include minimal environmental impact, natural decomposition, family participation in the care for the dead, ecological restoration or preservation as well as communal memorials. Physically, the body becomes a part of the natural landscape over time. Spiritually, families and friends take a step toward acceptance and letting go.

Instead of formaldehyde-based embalming, other preservation methods include refrigeration, dry ice, and plant-based embalming fluid. Families may also choose to omit the need for preservation altogether by holding the funeral or memorial service and burying the deceased within one or two days. The material used to wrap or hold the body must be biodegradable; namely cotton, linen or wool shrouds, or caskets built from locally sourced wood, cardboard, wicker, or bamboo.



fig. 4.1 A burial shroud



fig. 4.2 Earthbound Coffins made in Lanark County, Ontario



fig. 4.3 Local timber, plywood base, handmade sisal rope and pine shavings

In Canada, graves must be at least 2 feet deep by law.² While conventional burials bury at an average depth of 5 to 6 feet, shallow graves at 2 to 4 feet in natural burials allow for higher oxygen flow in the soil which promotes efficient decomposition. A recommended 18 to 24 inch is a sufficient smell barrier which shields the smell and prevents animals from digging at the grave. Over the years, bodies buried directly into the ground decompose through moisture absorption through the soil. The top organic soil layer acts as a natural filtration system where soil binds to organic matter from the body and microorganisms break down remaining chemical compounds.³ Full-body decomposition rates are dependent on soil type, pH, oxygen flow, moisture available, and temperature. Through burying at optimal depth, in an average of 6 weeks, most of the soft tissue is absorbed and in 2 years, all soft organic matter is gone. Depending on the soil conditions, bones may decompose within 20 years.

Graves are left mounded, as the body decomposes and feeds the surrounding soil, the grave eventually settles, and native plants begin take over. Some cemeteries will use trees or shrubs as grave markers while others allow flat stones or plaques. However, in most natural burial cemeteries, individual gravesites eventually become inaccessible and locally sourced communal markers are used.⁴

As grave plots fill up, the ground is no longer maintained. The eventual objective is for native vegetation to grow over burial sites creating a woodland or meadow landscape. Plantings varying in heights and form can achieve multiple spatial complexities and diverse ecosystems that are not possible in conventional cemeteries.⁵ In lieu of manicured lawns that require endless upkeep, a natural landscape is left alone for perpetuity.

2 Andre Mayer, "Back to the Land," *CBC News* May 16, 2018. <https://newsinteractives.cbc.ca/longform/death-burial-green-recycling>.

3 Lee Webster, *The Science Behind Green and Conventional Burial* Green Burial Council, [2016].

4 As way to mark exact locations of the body most green cemeteries bury GPS transmitters along with the deceased.

5 Andy Clayden et al., "Cutting the Lawn – Natural Burial and its Contribution to the Delivery of Ecosystem Services in Urban Cemeteries," *Urban Forestry & Urban Greening* 33 (2018)101. doi:10.1016/j.ufug.2017.08.012.



fig. 4.4 A completed hand dug grave



fig. 4.5 A mounded grave

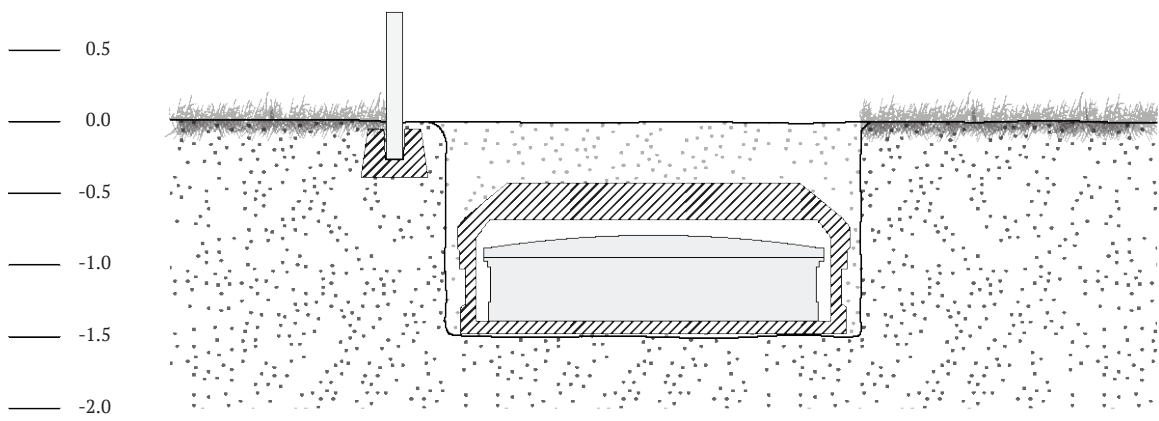


fig. 4.6 Section of a traditional burial in metres

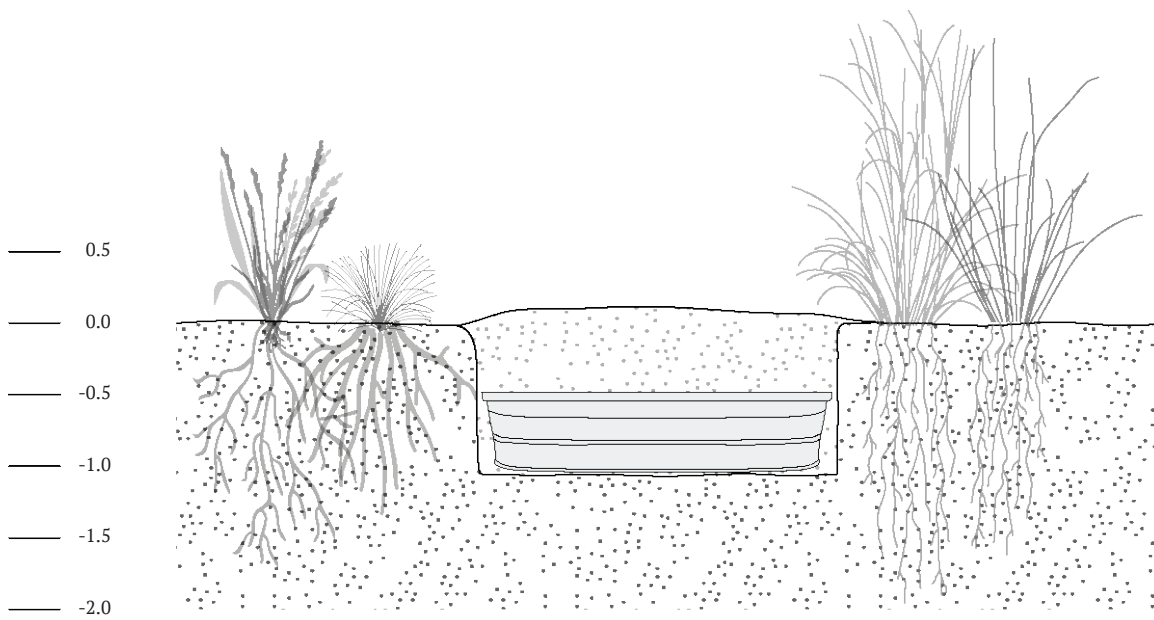


fig. 4.7 Section of a natural burial in metres



fig. 4.8 Westall Park Natural Burial Ground, Worcestershire, UK



fig. 4.9 Eloise Woods Community Natural Burial Park, Texas, US

Sites of Place-making

The ontological moorings of social and personal identities rest in the minutiae of day-to-day life, the embodied practices, material forms and routines through which we find and see ourselves in relation to others, places and landscapes.¹

Alongside rising climate change awareness, the desire to reconcile with nature by pursuing green death practices has become more prevalent.² The author of *Green Death: Reclaiming Burial Practices and Restoring our Tie to the Earth*, Suzanne Kelly, argues that the call for better environmental burial practices is not a disapproval of the cultures and customs that already exist today; but rather natural burials can add meaning to new or existing highly ritualized funerals.³ For some individuals that choose natural burials, it is a spiritually fulfilling act knowing they are giving back to the earth and will eventually become a part of the natural landscape.⁴ For others, it is a statement of personal values, a final display of value and care for the environment.⁵

“Rituals fortify who we are, what we believe and how we are to live.”⁶ In a heterogeneous society, natural burials have allowed for complex and meaningful rituals in the absence of religious and cultural traditions. The holistic experience of natural burials has encouraged families to reclaim agency in after-death care processes; from dressing and wrapping the body, carrying the body to the grave, hand digging the grave, lowering the body to burying their loved one.⁷ While these acts of care are not prohibited in Ontario, they are not commonly practiced except in Jewish or Muslim religions. However, funeral planners

1 Christopher Tilley, “Introduction: Identity, Place, Landscape and Heritage,” *Journal of Material Culture* 11, no. 1-2 (2006)20. doi:10.1177/1359183506062990.

2 Tony Rehagen, “Decompose the Green Way with an Eco-Friendly Funeral,” *Bloomberg* Oct 27, 2016. <https://www.bloomberg.com/features/2016-green-burial/>.

3 Suzanne Kelly, *Greening Death: Reclaiming Burial Practices and Restoring our Tie to the Earth* (Lanham, Maryland: Rowman & Littlefield, 2015)62.

4 Erik Lees, “Green Burial: From Concept to Reality,” LEES and Associates, July 15, 2020, video, 58:41, <https://www.youtube.com/watch?v=q4JvkF2MXXE>.

5 Ibid.

6 Kelly, *Greening Death: Reclaiming Burial Practices and Restoring our Tie to the Earth* 70

7 “My Thoughts on Green Burial in Canada,” last modified Oct 16, accessed Mar 22, 2021, https://www.dyingwithdignity.ca/green_burial.

have experienced an increase in family involvement throughout the entire process because of the emotional closure that is afforded by such experiences.⁸ Natural burials provide families the possibility to tend to their loved one and others the occasion to witness and participate in these acts of mourning. A deep bond is formed when family and friends perform these acts of care and labour with their own hands. As opposed to the individuality of singular headstones and monuments, natural burial grounds create a sense of communal effort. Regardless of faith or beliefs, families are united through their grief. The experience of loss and suffering is shared within these spaces of collective remembrance and perseverance.

Through these ritualistic acts of performance with the land, anonymous spaces transform into places laden with meaning and significance.

[A] set of shared historical experiences and attitudes which define and bond a community. Public memory is then part of the symbolic foundation of collective life and often lies at the heart of a community's sense of identity. The question of 'who we are' becomes an issue of what we share and do together as a community and, more often than not, this sharing involves locating history and its representations in space and landscape.⁹

Ultimately, these rituals work to restore the human relation with others as well as to the natural world. Through these works of place-making, natural burial grounds become sites of meaning and memory, each unique to the landforms they occupy.

8 Lees, "Green Burial: From Concept to Reality"

9 Avril Maddrell and James D. Sidaway, *Deathscapes: Spaces for Death, Dying, Mourning and Remembrance* (Farnham, Surrey, England: Ashgate, 2010)184



fig. 4.10 Family led journey to the earthen grave



fig. 4.11 Where the cart cannot go, family and friends carry on by foot



fig. 4.12 When it's time, the body is lowered into the earth by the hands of family and friends



fig. 4.13 One last act, the grave is filled by hand



fig. 4.14 'Last Fold' Step 1
The 'Last Fold' is designed by iefke.com in the Netherlands
The first layer is cotton / silk and the second is natural wool



fig. 4.15 'Last Fold' Step 2 and 3
'Last Fold' is a ritualistic, step-by-step method of wrapping the body



fig. 4.16 'Last Fold' Step 4
Replacing the experience of sealing a coffin with the act of folding



fig. 4.17 'Last Fold' Step 5
A designed folding ritual, the body is gradually swaddled



fig. 4.18 'Leaves' a sustainable coffin designed by Shaina Garfield, NY



fig. 4.19 Materials: woven rope laced with fungal spores, natural cotton wrap and a pine wood surface



fig. 4.20 Designed to aid in organic decomposition
'Leaves' hopes to be an active participant in the cycle of life and death

There's no vault to impede the view of dirt,
its attributes, its hues and contours, even its smells.

The mound of dirt is openly waiting nearby.

-Suzanne Kelly

*Greening Death: Reclaiming Burial Practices and Restoring Our Tie to
the Earth*



fig. 4.21 The exposed soil of a new grave

The Earthen Mound

Natural burial challenges the notion of graves as the final resting place and speaks to a profound human relation to the land. Bodies are not buried and sealed in concrete vaults for all eternity. Rather, the burial site becomes a transitory space where the site and the body both undergo processes of change and re-definition. In the processes of decomposition, the body breaks down and begins releasing nutrients. Over time, the body becomes sustenance for other organisms and nourishes the ground. Simultaneously, the site also experiences transformation. In the act of digging and burying, the soil is first displaced and then restored in its original location. The presence of the body in the ground consequently leaves a raised mound of soil.

The mounding of the grave is not necessarily about anticipating subsidence, but about restoring the location and origin of the dirt. The return of the dirt that space leaves [...] an elevated spot, a mound that is as long and wide as the hole that was dug.¹

Regardless of practice variation in natural burials, the mound is the sub-sequential result. For the bereaved, every aspect of their life has undergone change and transformation. Similarly, the ground material, the soil chemistry and the topography of the burial site have all changed as well. The mound is a story of a shared experience of displacement and restoration between body and land. Through the act of burial, the land is marked in a physical and symbolic way, reconstructed from anonymous space to a place inscribed with meaning. The presence of the body placed in the ground establishes a spiritual and spatial territory.

¹ Suzanne Kelly, *Greening Death: Reclaiming Burial Practices and Restoring our Tie to the Earth* (Lanham, Maryland: Rowman & Littlefield, 2015)81.



fig. 4.22 The resulting mound as a consequence of natural burials

When we find a mound in the woods,
six feet long and three feet wide,
raised to a pyramidal form by means of a spade,
we become serious and something in us says:
someone was buried here. **That is architecture.**

-Adolf Loos

Architecture, 1910



fig. 4.23 Burial mounds are Canada's largest pre-European structures

Unearthed

While current natural burial mounds are respected as a method of land preservation, the same did hold true for the Indigenous burial grounds and territories that are no longer visible. In an article published in 2011, titled *Sacred and Secret: The GTA's hidden burial sites*, there have been “76 combined burial sites for aboriginal and Euro-Canadian remains within the GTA” reported by archaeologists which included:

graves, cemeteries, ossuaries and burial grounds. [...] 80 percent of all archeological sites are aboriginal, including villages, longhouses, hunting camps, portage areas and artifacts like pottery shards, arrow and spear points.¹

In Montreal, authorities have been unable to determine the final burial location of eight sets of Indigenous remains due to the difficulty of tracing its origins over 6,000 years ago. However, a council chief at the Mohawk Council of Kahnawà:ke, Ratsénhaienhs Ross Montour, highlights a more important issue: their ancestors belong in the earth, not in museums and archives.² There is a need for “museums and institutions [...] to change their outlook on viewing

¹ Mary Ormsby, “Sacred and Secret: The GTA's Hidden Burial Sites,” *The Toronto Star* May 21, 2011. https://www.thestar.com/news/gta/2011/05/21/sacred_and_secret_the_gtas_hidden_burial_sites.html.

² Ká'nhehs:io Deer and Rhiannon Johnson, “When Multiple First Nations Lay Claim to Ancient Indigenous Remains, how does Repatriation Get Sorted?” *CBC News* Mar 7, 2020. <https://www.cbc.ca/news/indigenous/indigenous-remains-repatriation-consensus-1.5488750>.



fig. 4.24 Serpent Mounds, Indigenous burial grounds dating back more than 2000 years ago

remains as artifacts, and rather view issues around repatriation as a responsibility to reconciliation.”³ Rick Hill, a member of the Beaver Clan of the Turscarora Nation of the Haudenosaunee at Grand River, explains that there is a deep connection between the people and the soil. He illustrates that ancestral ties to the land are formed through the bones that are planted into the earth⁴ therefore, “unmolested graves are necessary for strong spiritual bones to remain intact over generations.”⁵

The challenge of delayed relocation and re-internment is the reality of many Indigenous remains that have been unearthed. This is the case that is widely known as the Serpent Mounds found on the north shore of Rice Lake, in the Otonabee-South Monaghan Township, Peterborough County, Ontario. One of its kind known in Canada, the complex cluster of mounds is estimated to date back to the period between 50 BCE to 300 CE. Built with soil and rock, construction was likely to have taken place periodically over different timeframes.⁶ The earthen structure is comprised of ten mounds with six separate burial sites. Shaped like a serpent, the largest elongated mound is approximately 70 metres long, 7.5 metres wide and up to 1.8 metres high. There are four smaller surrounding mounds that are 11 to 14 metres long. The site was excavated from 1955 to 1969 under the direction of the Royal Ontario Museum. Archeology investigations found evidence consistent with the occupation, rituals, and culture of Point Peninsula life in the Middle Woodland period. The Hiawatha First Nation have been the stewards and caretakers of these sacred burial mounds, and they continue to work towards the repatriation of all the buried remains from the site.

3 Ibid.

4 Rick Hill, “What is spirituality and what role does it play in Indigenous philosophy?” Different Knowings, October 26, 2013, video, 2:25, <https://www.youtube.com/watch?v=3CwaoFUIWL4>.

5 Ormsby, “Sacred and Secret: The GTA’s Hidden Burial Sites,”

6 Thomas Dudgeon et al., “Ontario Archaeology Faunal Analysis of the Middle Woodland Rice Lake Serpent Mounds (BbGm-2) Midden Assemblage, Ontario,” *Ontario Archaeology*, no. 98 (2018), 84-108.

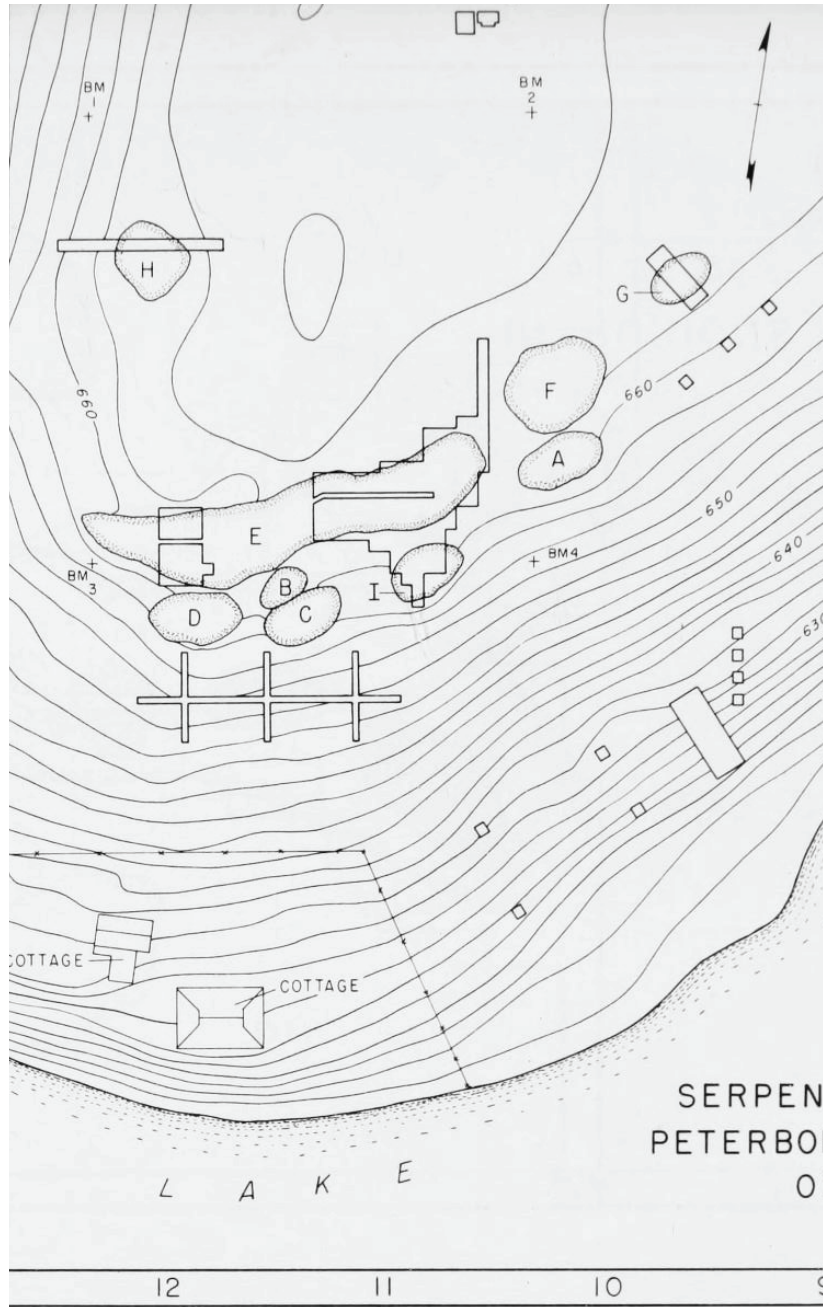


fig. 4.25 Topographical site plan of the Serpent Mounds

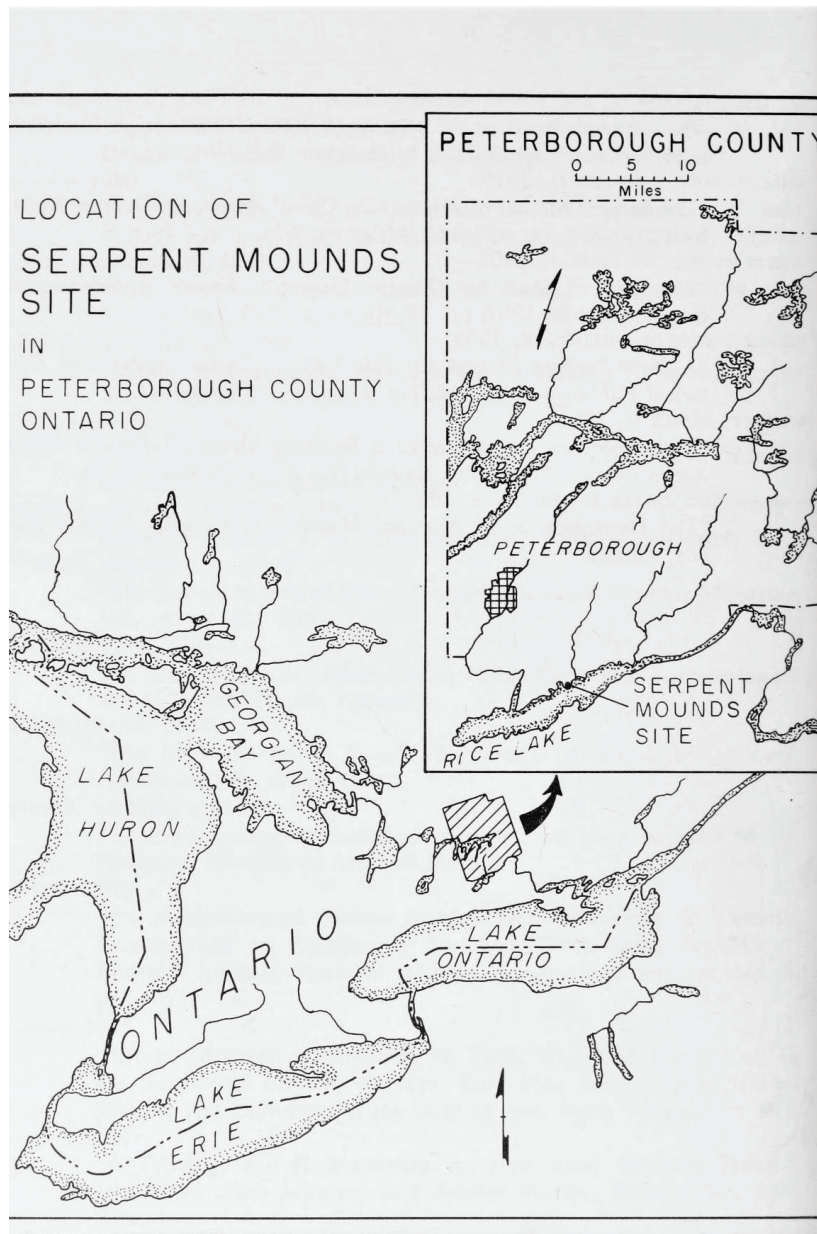


Figure 1

fig. 4.26 Location plan of the Serpent Mounds



fig. 4.27 Excavation of the central serpentine mound (Mound E)



fig. 4.28 The conditions of the serpent mounds today

Another example of ancient burial mounds that have remained in Canada is called Kay-Nah-Chi-Wah-Nung in Ojibwe, meaning the Place of the Long Rapids. Also called the Manitou Mounds, the site is apart of a network of 20 burial mounds along the banks of Manidoo Ziibi or Spirit River (Rainy River). Comprised of 15 burial mounds and 30 village sites, the land has recorded 8,000 years of living and habitation. Approximately from 800 to 2,000 years ago, the people of the Laurel Complex inhabited the land. They were the first mound builders recorded in the Rainy River area. The Laurel mounds in this region are 18 to 24 metres in diameter and up to 7 metres high.

Some of the mounds on site were constructed by digging a shallow pit, where the remains of ancestors who had passed would be placed and then covered with earth. Some mounds were continually added to overtime, possibly over the course of hundreds of years. This layering process created the mounds as we see them today.⁷

The Rainy River First Nations have persevered and protected this area of scared land that they have called home since ancient times.

Earthen mounds remaining in the Ontario region allow Indigenous cultures to continue forming ancestral ties with inhabitants from thousands of years ago. The land has the ability to store as well as reflect the values across generations of human history. Rituals enacted with the land in the natural burial process advocates for awareness and respect for the natural landscape, transcribing meaning into distinct places. The Indigenous practice of continual stewardship and care for these lands and their belief in the power of place provide a solid foundation for the thesis design proposal that follows.

⁷ "History & Culture, Manitou Mounds," accessed Mar 25, 2021, <https://manitoumounds.com/history-culture/>.

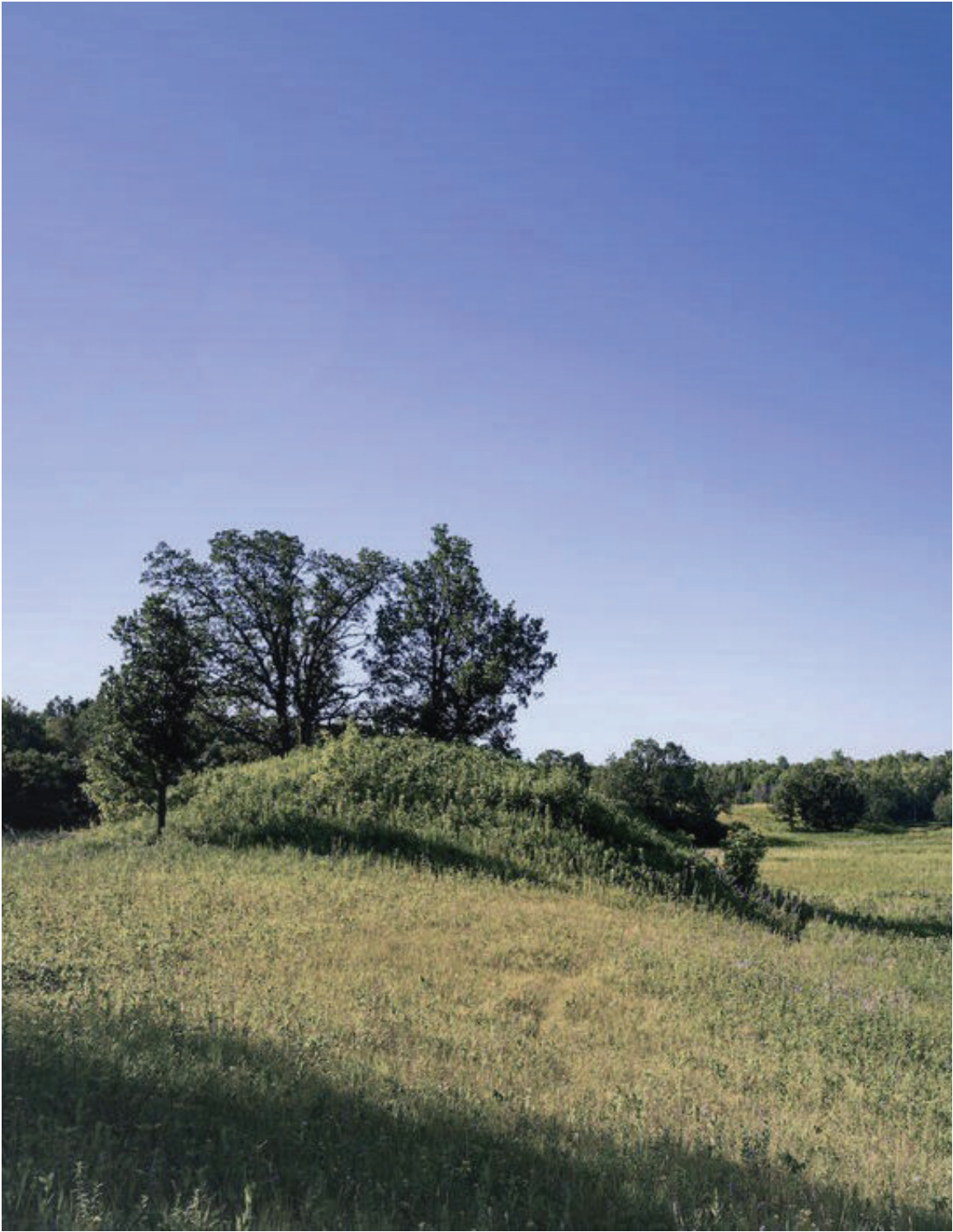


fig. 4.29 Kay-Nah-Chi-Wah-Nung or Manitou Mounds in Northwest Ontario

5 The Site: The Milton Outlier

Site History and Land-use

The design proposal, *Natural Burials in Ontario's Greenbelt*, is grounded in a former limestone quarry in the town of Milton, located within the Niagara Escarpment. Through the mapping of the site, designed site interventions and a building proposal, the final part of the thesis will narrate a story of digging and burying, scarring and healing throughout the passage of time.

The Outlier within the Giant's Rib

It is said that the name "Giant's Rib" was given to the Niagara Escarpment by the First Nations peoples to describe its appearance of a sleeping giant. Also known as the backbone that defines Southern Ontario, the massive ridge stretches 725 kilometres from Niagara River to Manitoulin Island on the Canadian side. The ancient fossil-rich landform is a result of millions of years of sedimentary deposition and compression processes. The resulting rock formations were carved by erosion from melting and receding glaciers. Layers of shale, sandstone and dolostone of the Escarpment became visible in many exposed cliff-faces and caves today. As a prime source of high-quality aggregate, brick and building material in Southern Ontario, many quarries and mines have established along the escarpment region.

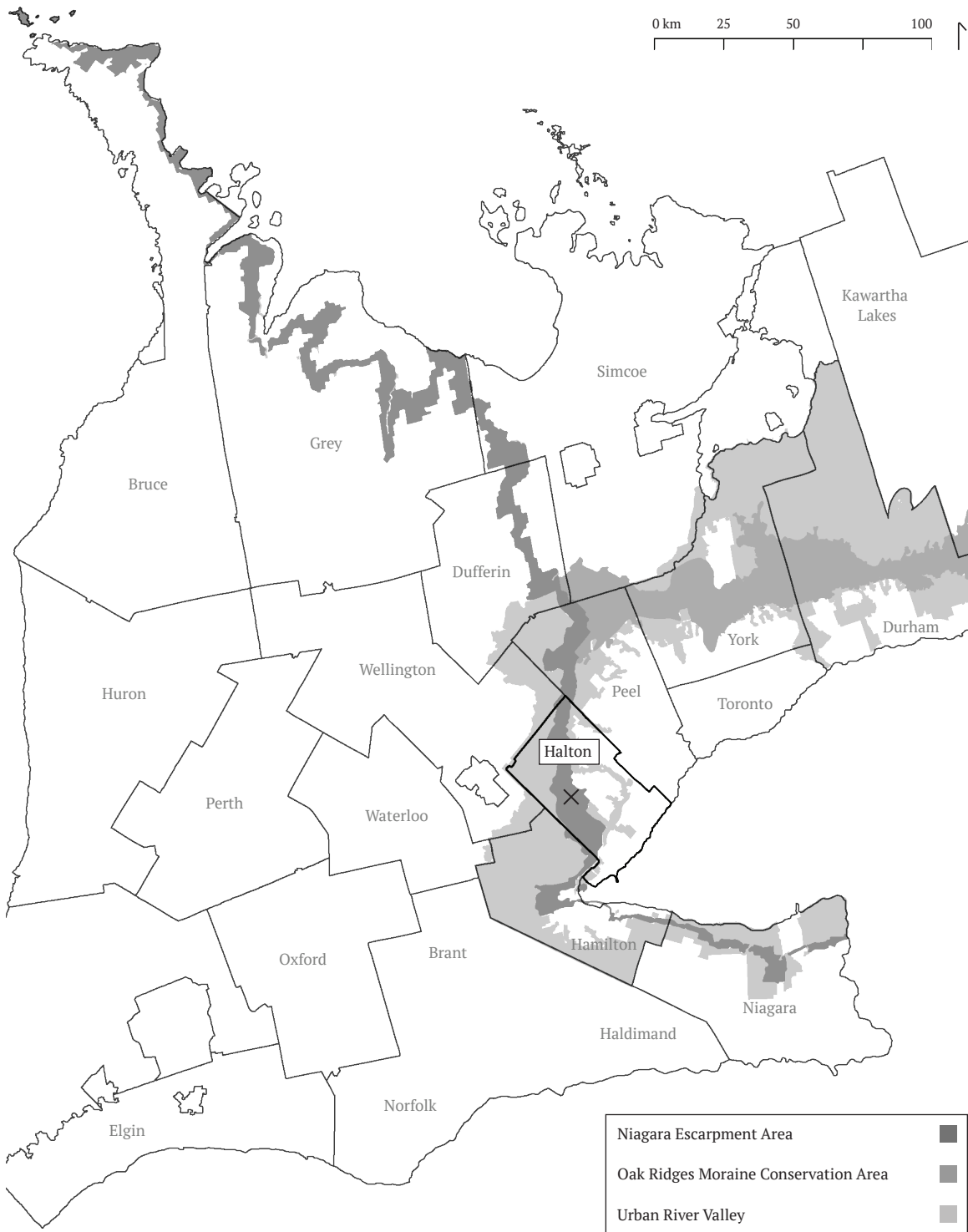


fig. 5.1 Natural area systems that make up Ontario's Greenbelt Plan

The Milton Outlier

The Milton Outlier is a natural physio-graphical feature locally known as Milton Heights. Located west of the Town of Milton, it is within the region of Halton Country. The Milton Outlier is an extruded plateau within the Niagara Escarpment and was formed when melting glaciers caused an entire section of bedrock to be broken off from the main Escarpment. The carving of meltwater channels resulted in today's Nassagaweya Canyon. The exposed bedrock is raised over 91 metres above the surroundings, visible to all who drive through the area on the Highway 401.

Situated atop the Outlier, the design proposal is a site with a history of over 40 years of mineral extraction. The site was quarried for its shale and dolostone of the Amabel Formation and the Reynales Formation (figure 5.6). The former Milton Limestone Aggregate quarry's mining activities left a vertical depression in the raised Escarpment landform that is more than 30 metres deep.¹ The resulting cavity was 710,000 square metres (71 hectares).² More than 60 years later since the quarry opened, the site is now called Kelso Quarry Park, a public parkland belonging to the local environmental agency, Conservation Halton. The former quarry's adjacency to conservation areas such as Kelso and Rattlesnake Point resulted in years of effort to rehabilitate the gravel pit. The next section will map the site's history of transformation from farmland, quarry and present parkland.

¹ R. R. Wolf, *An Inventory of Inactive Quarries in the Paleozoic Limestone and Dolostone Strata of Ontario* (Ontario: Ministry of Northern Development and Mines,[1993]).

² Nigel Finney and McIsaac. Chelsea, *Twenty Years of Restoration at Kelso Quarry Park* Conservation Halton,[2016].

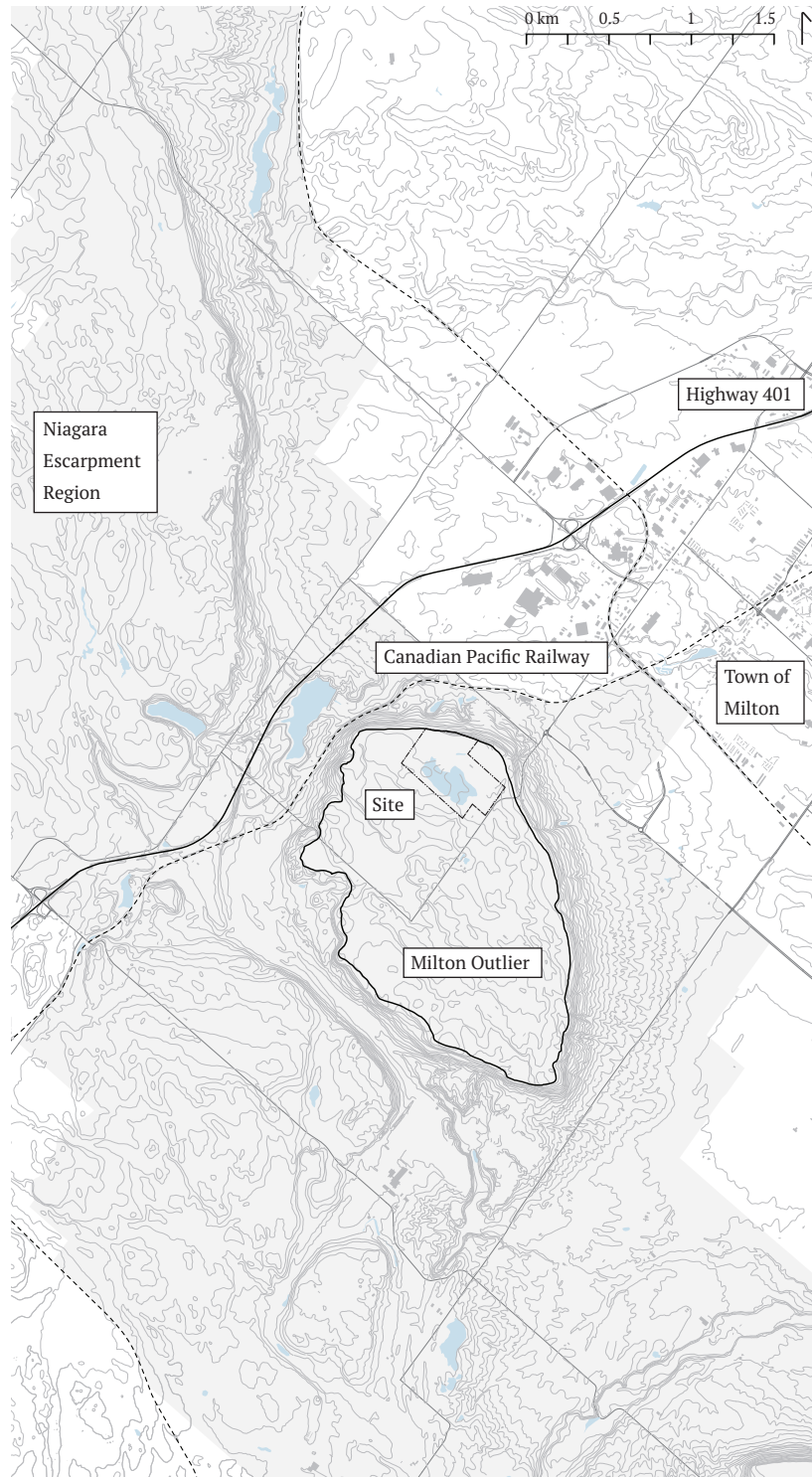


fig. 5.2 Milton Outlier Context Plan



fig. 5.3 Photograph of the Milton Outlier Escarpment cliff-face



fig. 5.4 The extruded plateau can be seen from afar



fig. 5.5 Aerial Photograph of the Outlier

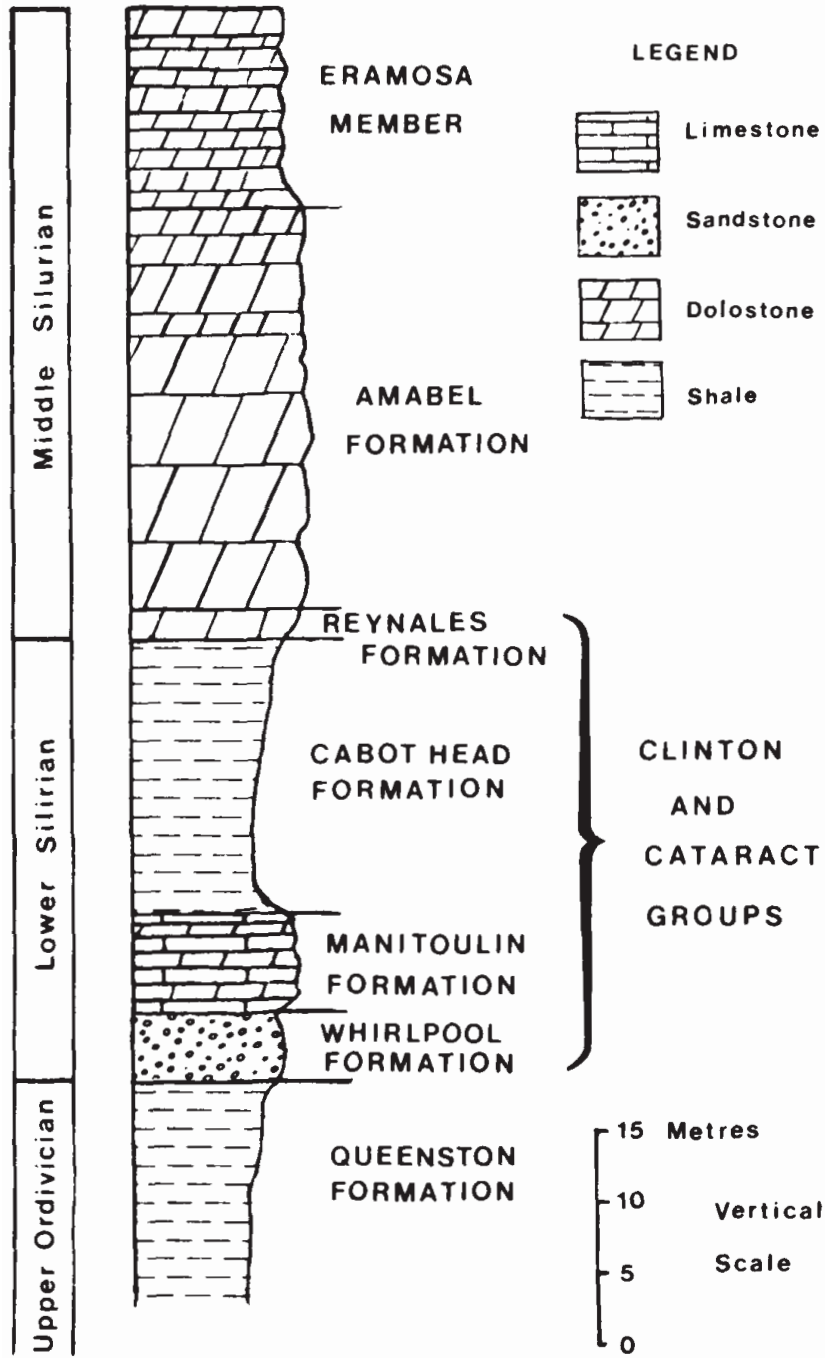


fig. 5.6 Typical stratigraphy of the Niagara Escarpment in the Milton area

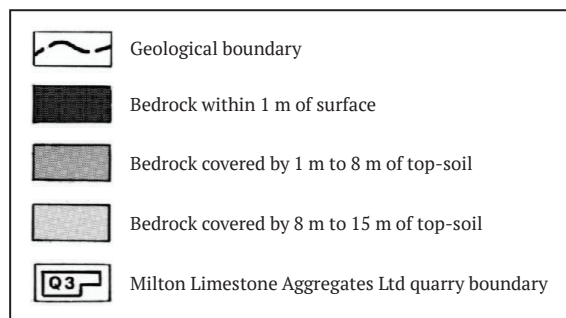
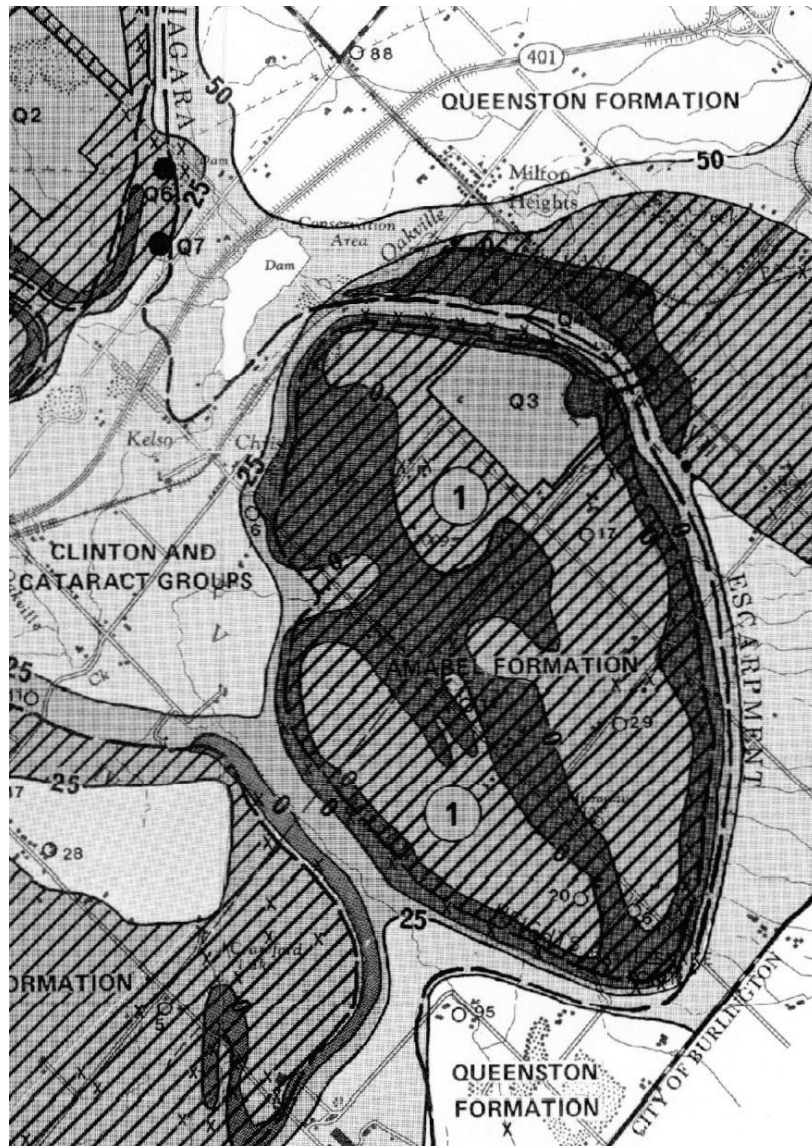


fig. 5.7 Geological Mapping of Bedrock Resources of the Milton Outlier

Site Land-use: Pre-quarry

The 1954 aerial photograph of the site (figure 5.8) reveals its land-use as primarily farmland. While Milton Limestone Aggregates was the largest in production, there are signs of other quarry establishments that began as early as the 1880s.¹ Clay and Medina shale found in the region resulted in many brick manufacturing companies in Milton. The one revealed in the 1934 aerial photograph (figure 5.10) located below the escarpment edge was called the Toronto Pressed Brick and Terra-cotta Company in 1888, later renamed to Milton Pressed Brick Co. Plant No. 2 in 1925.² Its location close to the previous Credit Valley Railway, now Canadian Pacific Railway allowed efficiency in the transportation of brick to Toronto and other cities. During its operation, the historic brick works company and shale quarry supplied bricks to numerous buildings and homes in southern Ontario, most notably the Confederation Life Building and the Gooderham Building in Toronto. Abandoned lime production silos and kilns near the Escarpment edge are all evidence of the region's historic industrial landscape.

1 "Kelso's Kilns," last modified Nov 8, <https://hikingthegta.com/2015/11/08/kelsos-kilns/>.

2 "The Broadview Hotel's Terracotta Panels have a Story to Tell," last modified Dec 21, <https://www.eraarch.ca/2017/the-broadview-hotels-terracotta-panels-have-a-story-to-tell/>.



fig. 5.8 Aerial photograph, Milton, 1954

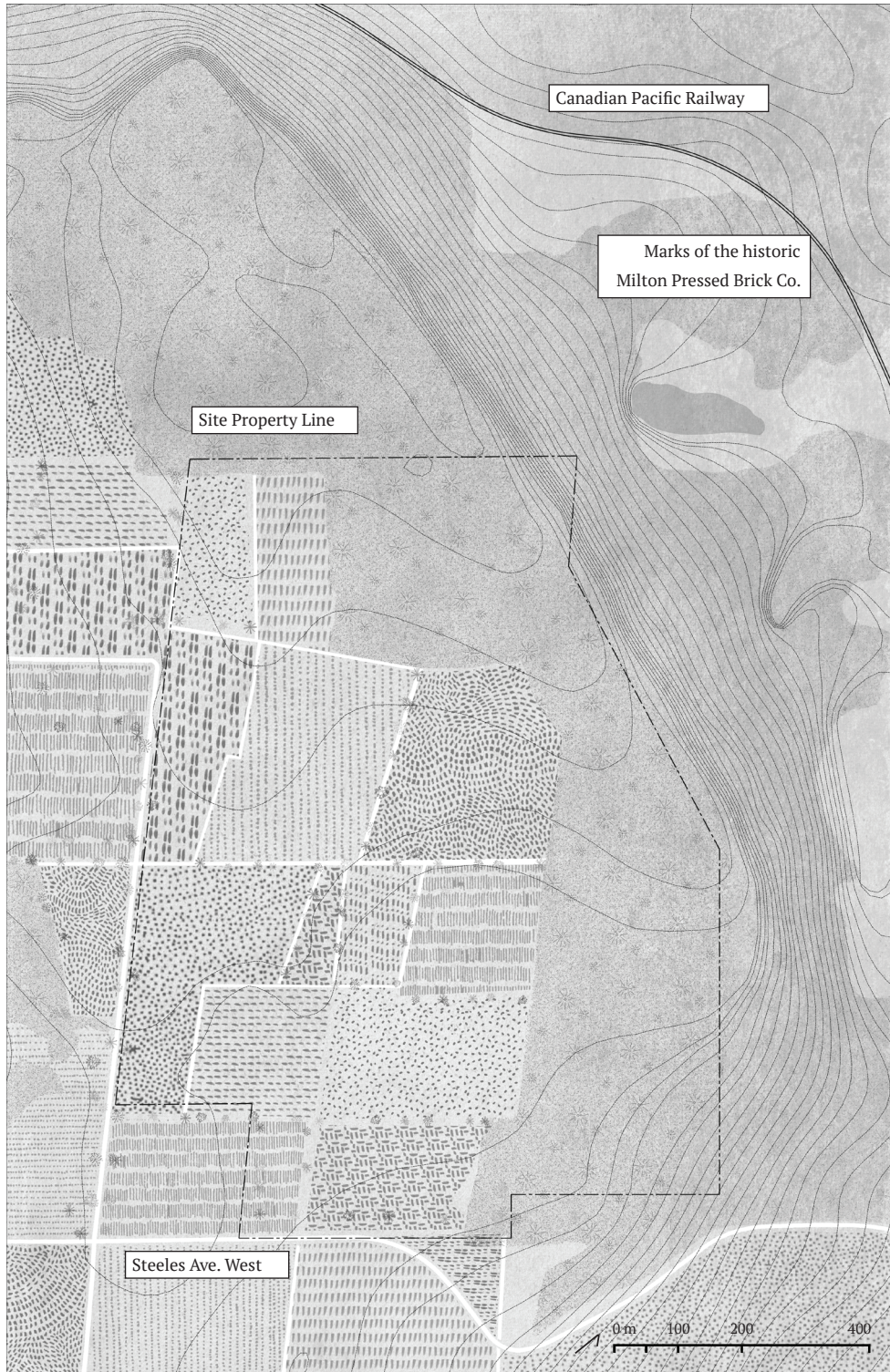


fig. 5.9 Pre-quarry Site Plan

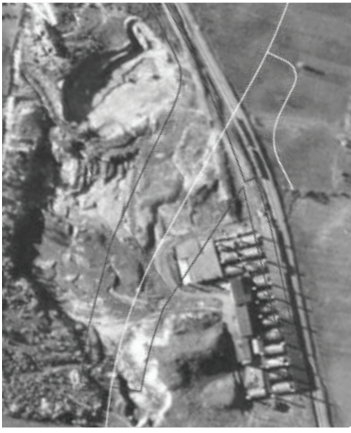


fig. 5.10 A: Aerial of Milton Pressed Brick, 1934



fig. 5.14 A: Buried bricks found 5m below ground



fig. 5.17 A: Postcard of Milton Pressed Brick Co., 1925



fig. 5.11 A: Milton Pressed Brick Co. excavator



fig. 5.15 B: Photograph of Gypsum Lime and Alabaster Limited, 1957



fig. 5.12 B: Remaining concrete silos of Gypsum Lime and Alabaster Limited



fig. 5.18 C: Inside the Christie lime kiln built in the 1880s



fig. 5.13 C: Furnace of the Christie lime kiln



fig. 5.16 C: Remaining Christie lime kilns

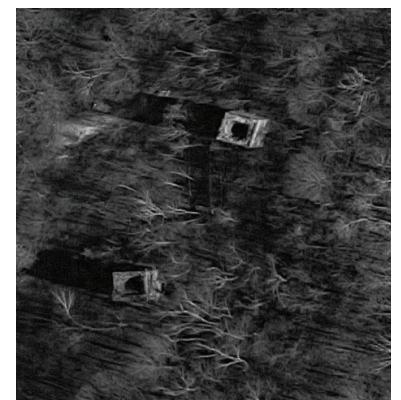


fig. 5.19 C: Aerial of the kilns, 2021

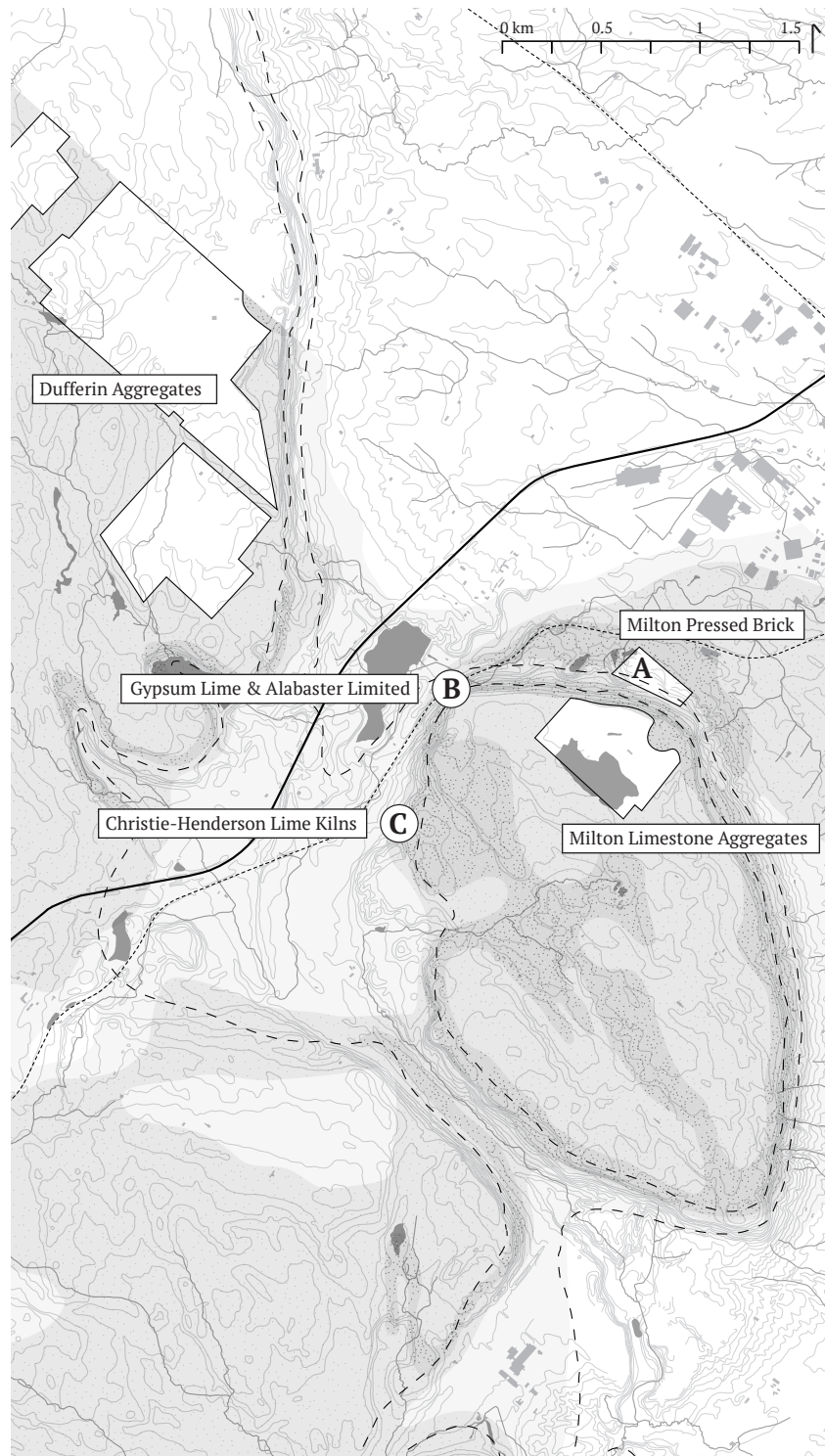


fig. 5.20 Mapping of the site's industrial history

Site Land-use: Operating Quarry

Situated about 50 kilometres from Toronto, Milton Limestone Aggregates was one of the largest aggregate suppliers in Canada. Established in 1958, the quarry produced more than one million tonnes of crushed stone annually, supplying construction materials for the new provincial Highway 401, 407 and Toronto Pearson Airport.¹ In dolostone and limestone quarry operations, sections of bedrock are first blasted into smaller fragments, then crushed and screened in a centrally located processing plant. During mineral extraction, excess water is removed with de-watering pumps. Stream flow augmentation and holding ponds are required to mitigate adverse effects on nearby water sheds. According to geology reports, a total depth of 20.7 metres of bedrock was extracted at Milton Limestone Quarry, including 18.7 metres of the Amabel Formation and 2.0 metres of the Reynales Formation.² When the quarry reached its extraction limit in 1995, the quarry owner began collaborations with Halton Conservation to restore the ecological landscape of the site. This was the beginning of a long and extensive plan to rehabilitate the quarry.

¹ Nigel Finney and McIsaac. Chelsea, *Twenty Years of Restoration at Kelso Quarry Park* Conservation Halton,[2016].

² R. R. Wolf, *An Inventory of Inactive Quarries in the Paleozoic Limestone and Dolostone Strata of Ontario* (Ontario: Ministry of Northern Development and Mines,[1993]).

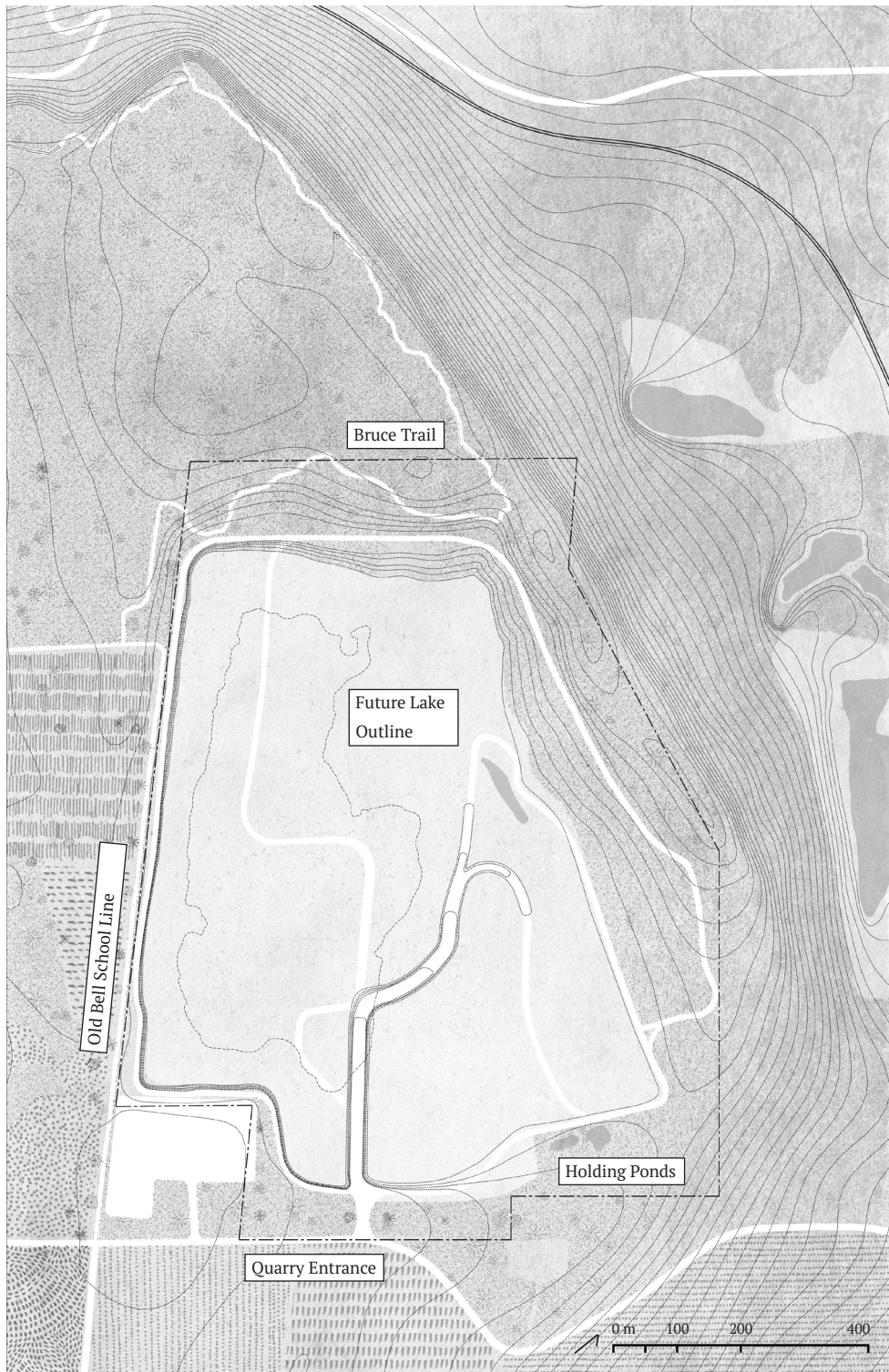


fig. 5.21 Operating Quarry Plan

Site Land-use: Post Extraction

Since the end of the site's quarry life, multiple projects to restore the park's ecosystem have been conducted by Halton Conservation and many community volunteers. Slope reconstruction was completed through backfilling the quarry pit with native soil. Other projects also included the construction of new wetland habitats, additional walking trails connecting to the existing Bruce Trail as well as extensive tree and shrub planting to stabilize slopes and quarry faces. In 2001, Milton Aggregates extracted its final rock on the quarry floor according to the planning of a 450,000 square metres (45 hectare), five metres deep man-made lake. In August of 2006, the quarry pit and the adjacent 700 metres of natural forest preserved from extraction was officially donated to conservation authorities. Cliffs and slopes left by blasting and extraction activities of the former quarry left deep impressions in the landscape which produced a variety of landforms and topography, adding to the existing dynamic Escarpment elevation. According to Conservation Halton, the Kelso Quarry project is currently in Phase one of its Master Plan Process, not yet open to the public.¹

¹ "Kelso Master Plan," <https://conservationhalton.ca/kelso-master-plan>.

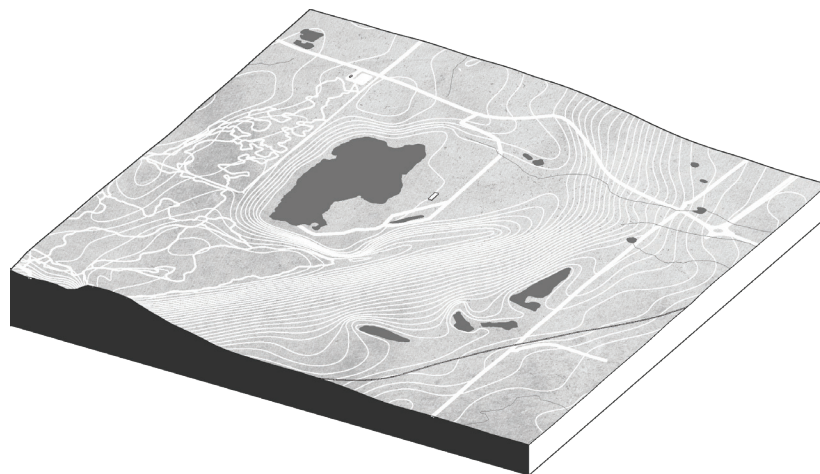


fig. 5.22 Post Extraction Site Axonometric

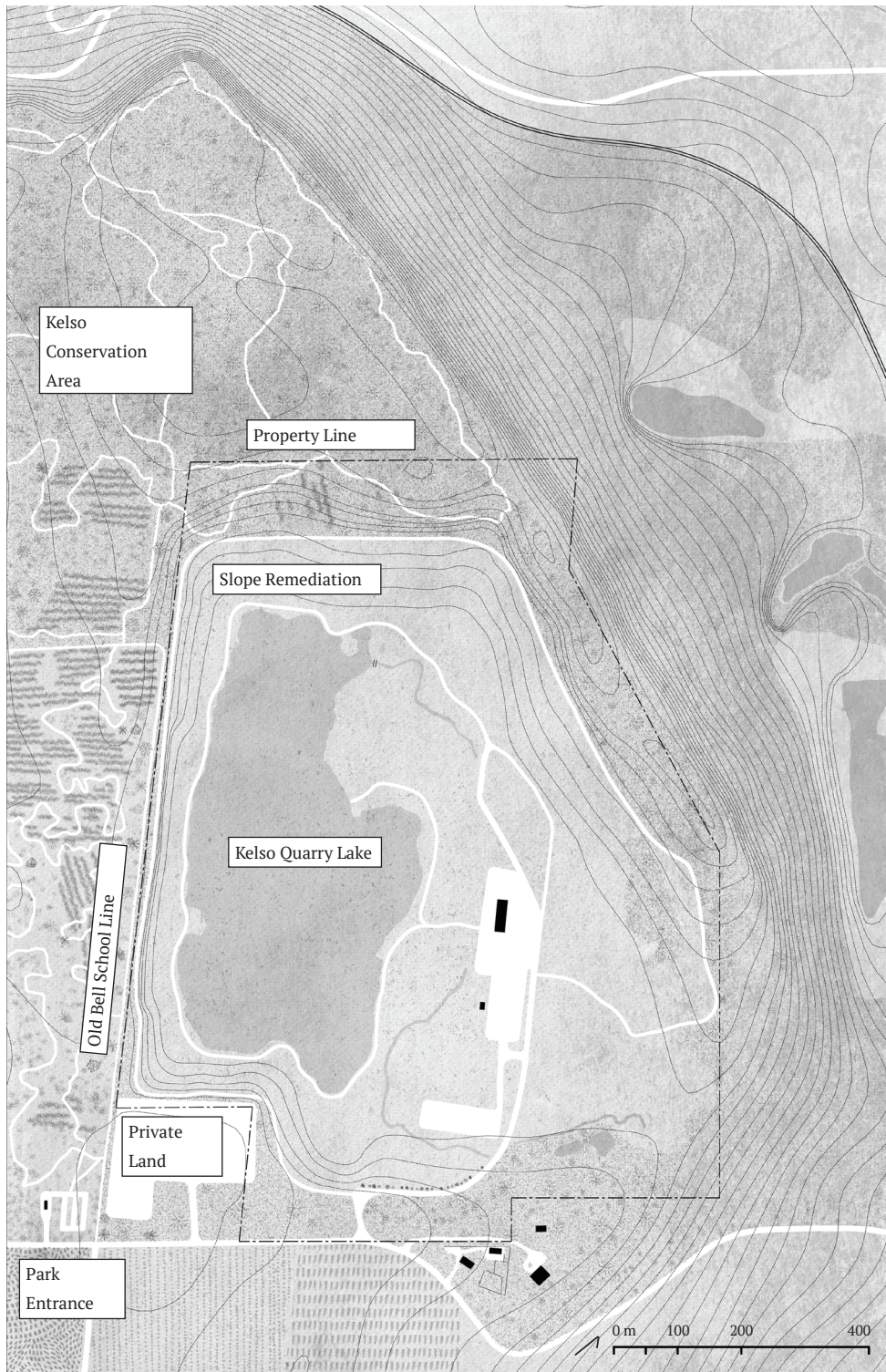


fig. 5.23 Post Extraction Site Plan

Timeline of the Quarry Landscape

Aerial photograph of the operation Milton Limestone Quarry, 1980s



fig. 5.24 Aerial Photograph, Milton Quarry, 1980s

1958

Establishment of Milton Limestone Aggregates Ltd. quarry

Final stages of quarry floor extraction in preparation of the future lake, 2000



fig. 5.25 Aerial Photograph, Milton Quarry, 2000



fig. 5.26 Late stages of quarry extraction, 2000

2001

The last rock extraction was complete

Slope reconstruction and restoration in 1999, 2009 and 2019



fig. 5.27 20 Years of Change

2006

Rehabilitation conditions were met and the land was officially donated to Halton Conservation

Aerial photograph of Kelso Quarry Park, 2016



fig. 5.28 Aerial Photograph, Kelso Quarry Lake, 2016



fig. 5.29 Vertical cliffs left by blasting



fig. 5.30 Kelso, Summer 2020

2020

The future park is still under rehabilitation phases, not yet opened to the public

Analysis of Site Conditions



fig. 5.32 Outlier view from the 401



fig. 5.34 Hiking Kelso Park 1



fig. 5.33 Exposed bedrock layers



fig. 5.35 Hiking Kelso Park 2

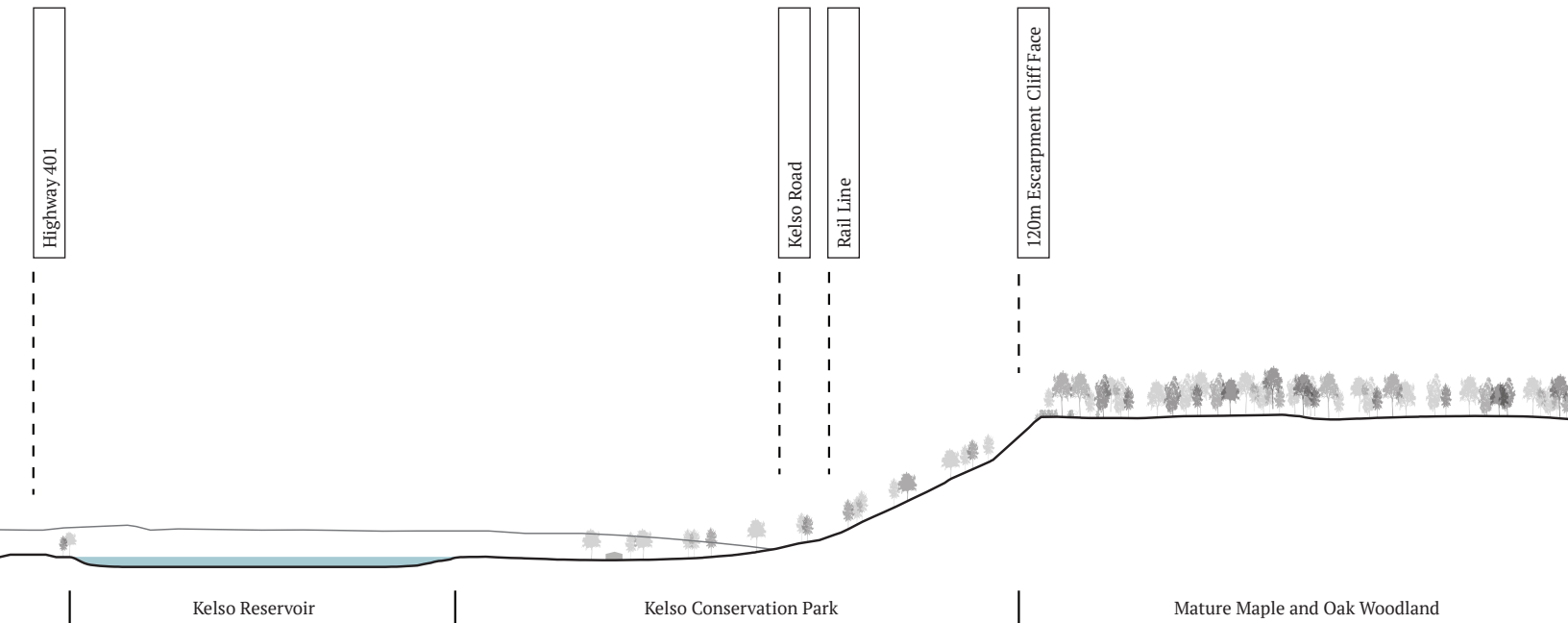


fig. 5.31 Site section of elevation changes and site relation to landmarks



fig. 5.36 Hiking Kelso Park 3



fig. 5.38 Hiking Kelso Park 5



fig. 5.40 Quarry Lake edge



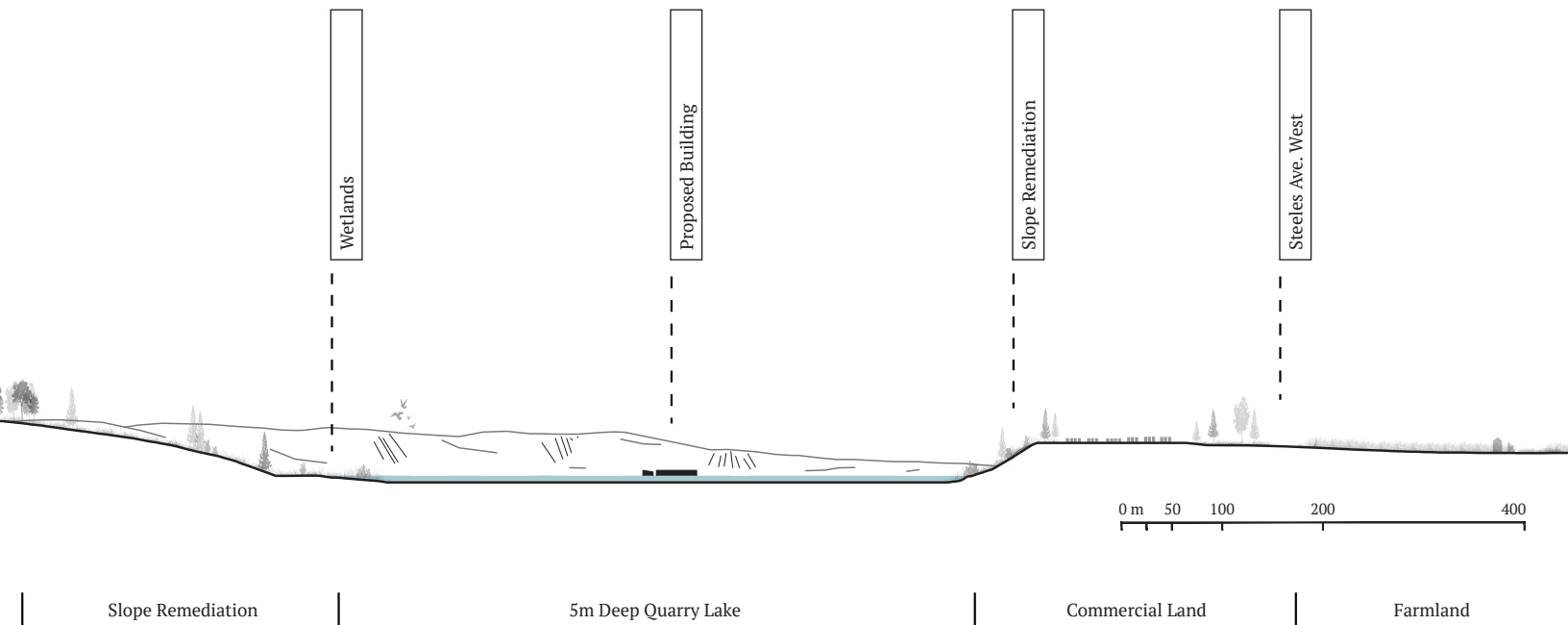
fig. 5.37 Hiking Kelso Park 4



fig. 5.39 Remnant of quarrying



fig. 5.41 Remnant of quarrying



Site Elements

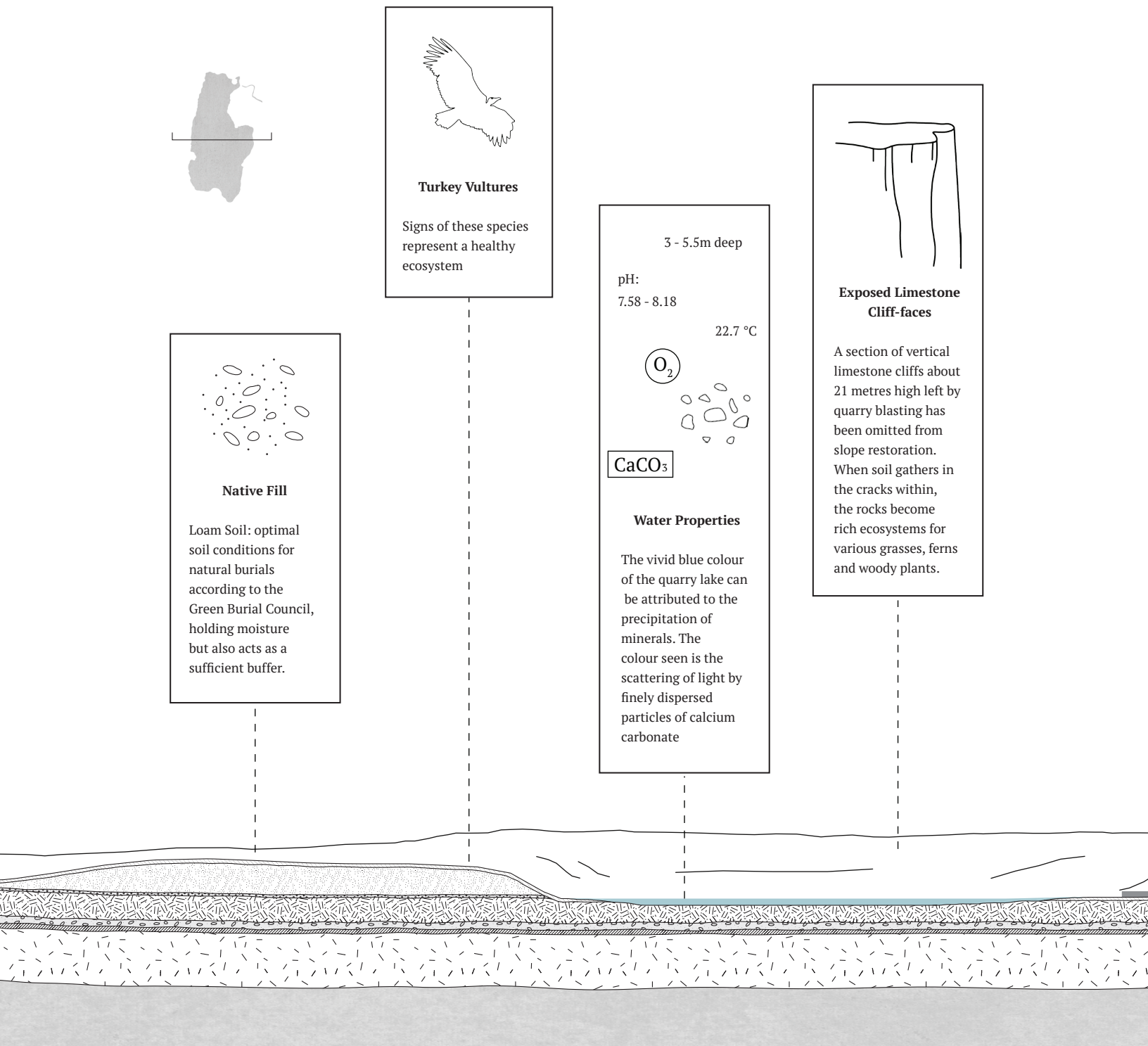
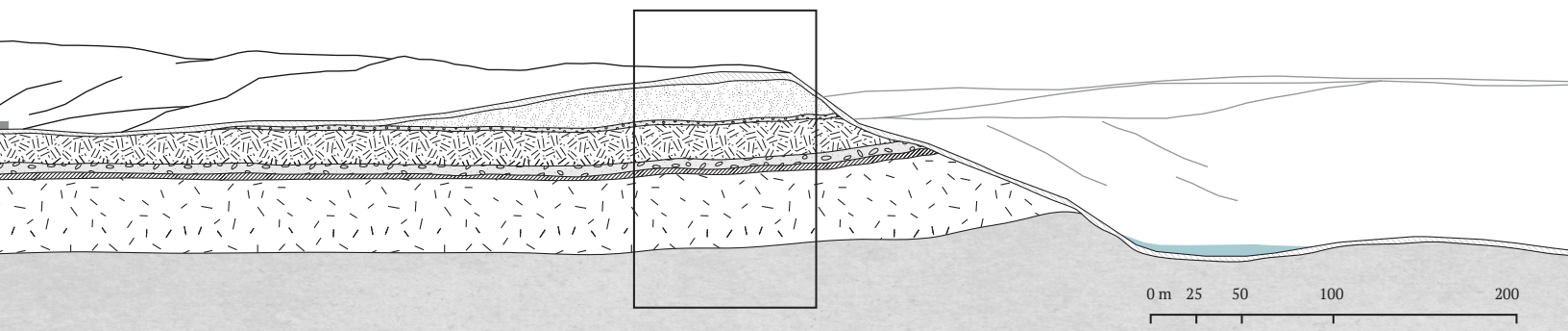
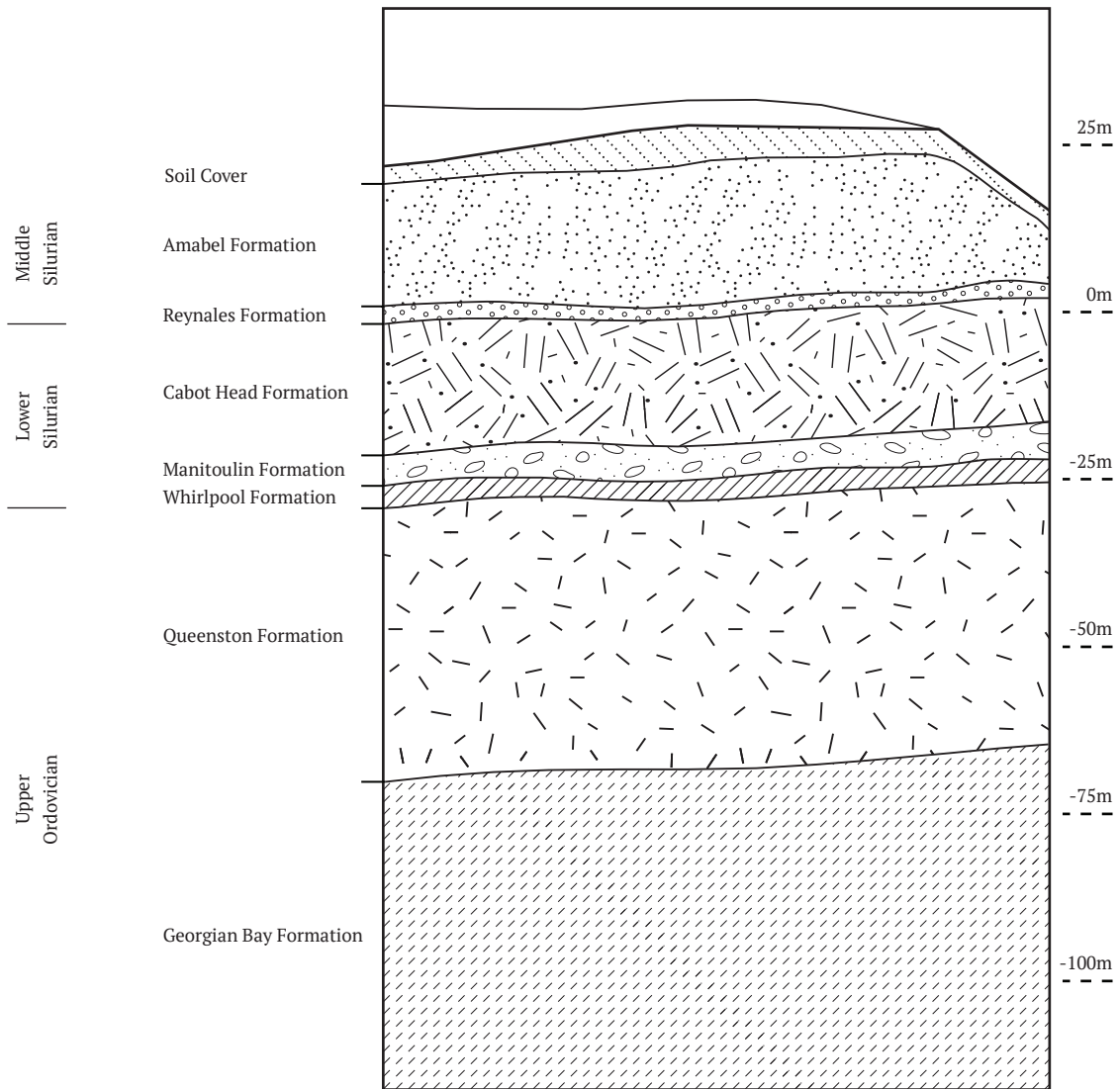


fig. 5.42 Site section of physical properties of the site below ground



6 Design: Proposed Interventions

The Kelso region is a land that has undergone over 60 years of physical transformation. Contributing 30 metres deep of its former landform, the site has played a crucial role in development of urban infrastructure in the Greater Toronto Area. Social and economical influences have all shaped the resulting landscape that exists today. The proposal re-imagines natural burial as a potential re-use of the site. Without overlooking the history of the site, the proposed cemetery will refine the site's landscape. Through the opening and closing of each burial site, meaning is engraved into the land.

Site Design Strategies

In the site design exercise, there is a necessary sensitivity to the found conditions of the former quarry pit, utilizing existing car and foot paths where possible. Watercourse, well locations as well as topography angles are all important factors determining where burial sites can occur and paths can be added. Physical reminders of the site's industrial heritage are preserved through former circulation paths and quarry holding ponds.



fig. 6.1 Proposed Site Burial

Proposed Burial Area

Existing site conditions and new circulation paths have informed the location of the proposed burial ground.



fig. 6.2 Proposed Site Watercourse

Proposed Watercourse

Holding ponds from previous quarry activities informs the proposed watercourse which serves to control lake levels. The design also proposes wetlands within the watercourse as a filtration strategy that reduces level of contaminates in surface runoff. According to the Green Burial Council, green cemeteries in Canada, the U.S., Australia and the U.K. have had no reports of nearby water contamination since their establishment in 2003.

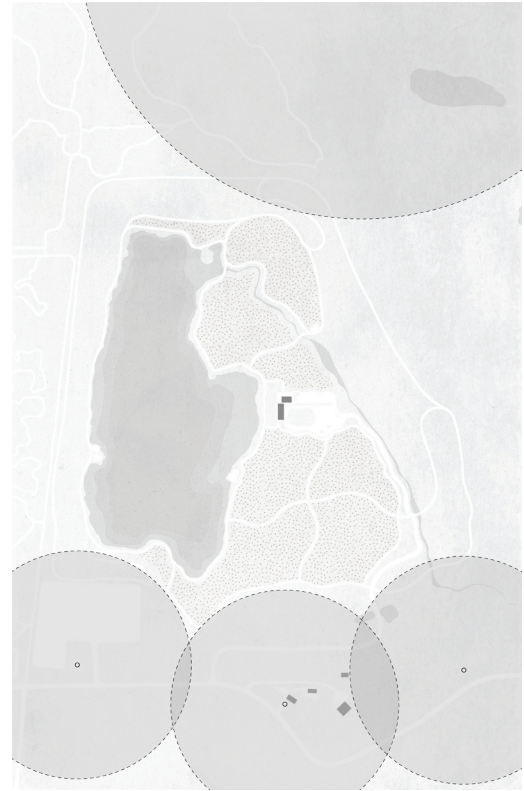


fig. 6.3 Proposed Burial Setbacks

Setback Distances

In accordance with the National Collaborating Centre for Environmental Health's general guideline, burial sections are located from appropriate setback distances to prevent surface water contamination. Existing municipal and private well heads have been located in the site plan and a minimum setback distance of 250 metres were implemented in the design proposal. There is also a 10 metres setback from the quarry lake and streams.

Site Design Elements

- Ⓐ cemetery entrance
- Ⓑ parking
- Ⓒ centralized ceremony amenities
- Ⓓ loading zone
- Ⓔ burial grounds
- Ⓕ collective memorial spaces
- Ⓖ connection to existing trail network
- Ⓗ reflection trails / future woodland burials
- Ⓘ former holding ponds
- Ⓝ Kelso quarry lake
- Ⓚ wetland areas

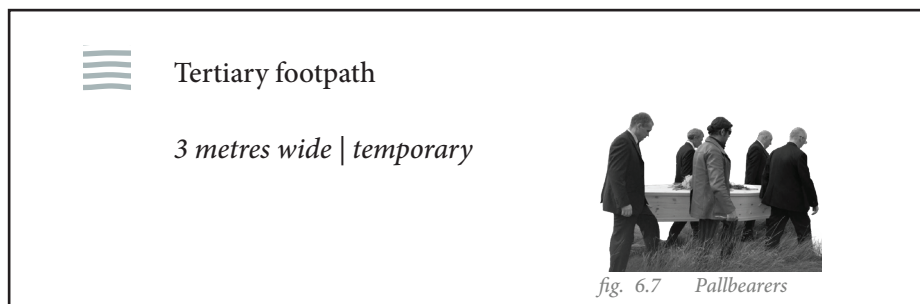
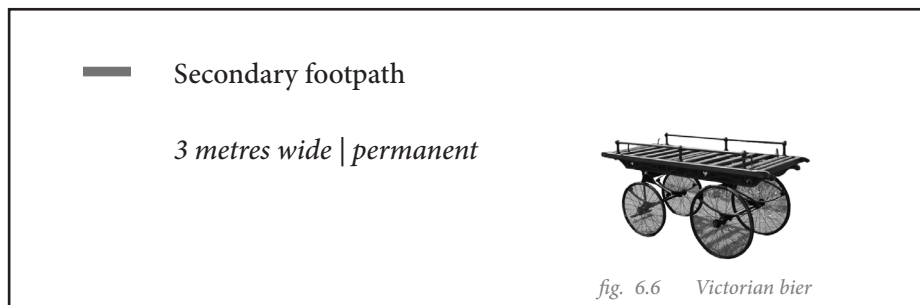
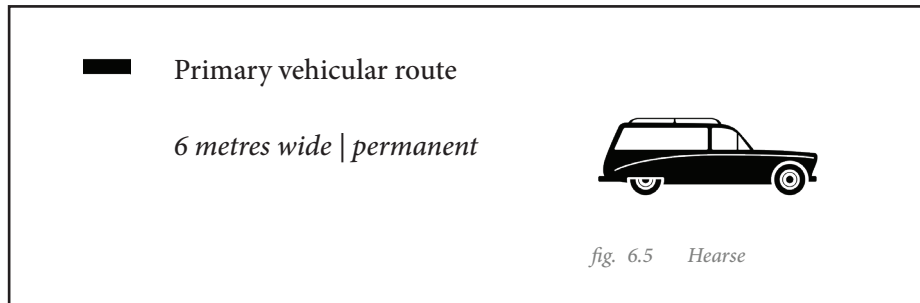
The cemetery entrance is on the southeast side of the site. Ceremony buildings and parking are centrally located. Pathways are created for various experiences of the site: from driving down into the site, between the small ponds, to walking in between tall prairie grasses, to crossing the over small streams on boardwalks, to walking beside the large vivid blue lake, to walking within wooded paths where trees open and views to the lake, building and burial grounds before are visible from above. The fine scoring of each burial section represents the temporary paths that will allow for burials and these pathways will be maintained until the burial section is full. Communal memorialization spaces are off the main pathways, varying from small glades within trees to small areas of land next to the lake. Large limestone rocks left on site will serve as communal markers where names and dates are sand-blasted onto these stones.

As families revisit the site through the seasons and witness the landscape transform, the cemetery becomes a space where reconciliation is negotiated in the conflicting threshold of life and death. The site has moments of commotion and quietness, togetherness and seclusion, disorder and clarity. All these spaces serve as sites of mourning and place-making, foraging a relationship and understanding between the user and the landscape. Through enhancing the site's natural properties, the design seeks to evoke a spiritual dimension within the landscape and provides the medium in which the user formulates their own meaning and interpretations. While these moments may be personal, they also become a collectively shared experience between the users of the site.



fig. 6.4 Proposed Site Plan

Designed Movement



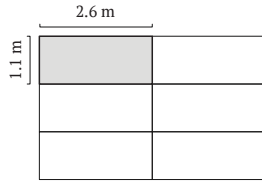
In the hierarchy of pathways, there are three main circulation routes that exist on the site. Three pathways exist for three different ways of carrying the body. The hearse is driven from the entrance to the building through the main vehicle road. After the ceremony, the body is carried out into the fields with a pulled cart or wagon through the secondary pathways. Temporary tertiary pathways lead to specific burial sites. The body is carried by hand by six family members or professional pallbearers to their resting place.



0 m 25 50 100 200 400

fig. 6.8 Site Plan Circulation

Estimated Grave Plots Available



1 acre = 4,047 square metres = 750 grave plots

Plot size estimate is according to the Royal Oak Burial Park in Victoria, BC.¹

Total site burial area = 196,100 sm

Total available grave plots = 36,340



fig. 6.9 Total Burial Area Diagram

Year of operation	Total Plots Sold
1	10
2	25
3	45
4	70
5	100
6	135
7	175
8	220
9	270
10	325
⋮	⋮
⋮	⋮
120	36,900

$$y = 7.5x + 2.5x^2$$

In 2014, it was reported that Toronto's Mount Pleasant Cemetery sold 100 burial plots every year.² In 2019, Vancouver's only city cemetery, Mountain View Cemetery reported a selling rate of 75 burial plots annually.³ Ontario's first natural burial site which opened in 2009, Cobourg Union Cemetery sold 19 plots in 5 years, an average of 3.8 plots per year. If the design proposal predicts a steady rise in the demand for natural burials, an increasing rate of 5 plots sold per year is used in the estimation exercise. Beginning with 10 burial plots sold in the first year, 15 in the second, 20 in the third and so on, the site is capable of accommodating burials for 120 years. If Ontario interment contract laws begin to allow the re-sale of burial plots, it is then possible for burial plots to be reused after 40 - 50 years, making burials a permanent program on the site.

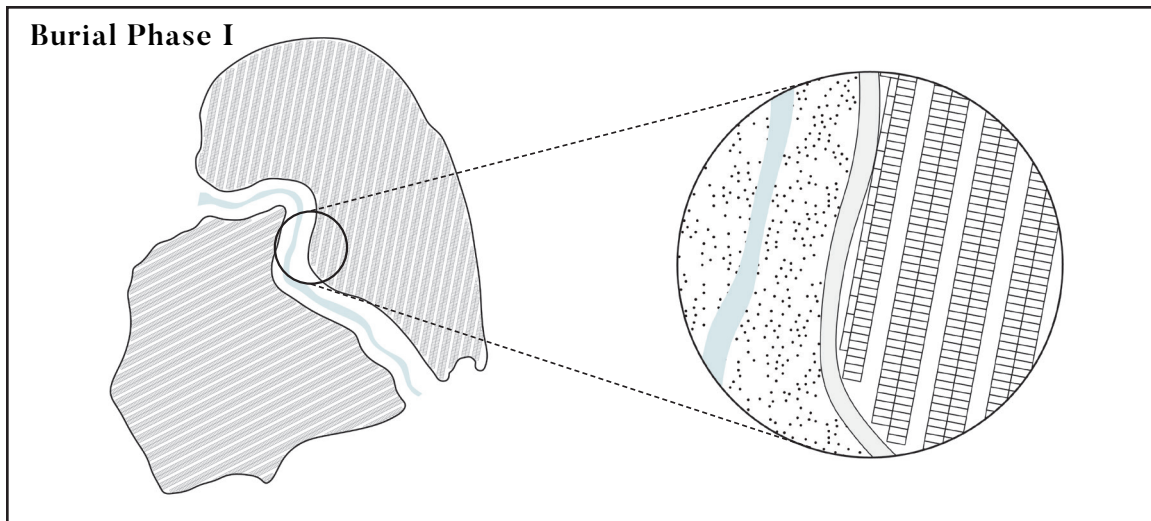


fig. 6.10 Burial Phase I Diagram

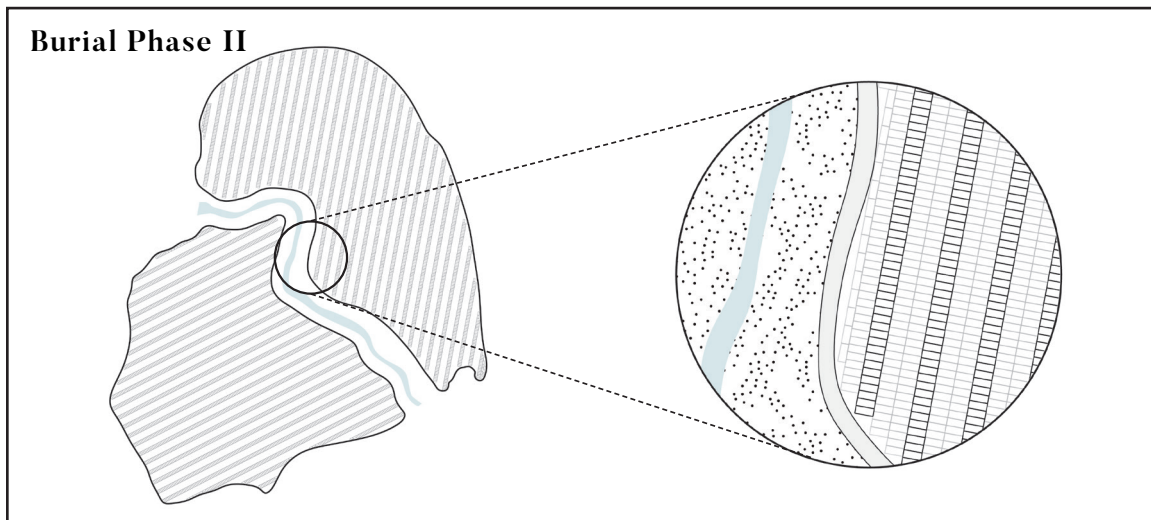


fig. 6.11 Burial Phase II Diagram

Establishing burial phases can ensure efficient use of the site as seen in the cemetery operation of Royal Oak Burial Park's natural burial section in British Columbia. As burial plots fill up, the temporary pathways used in Phase I become burial spaces in Phase II.

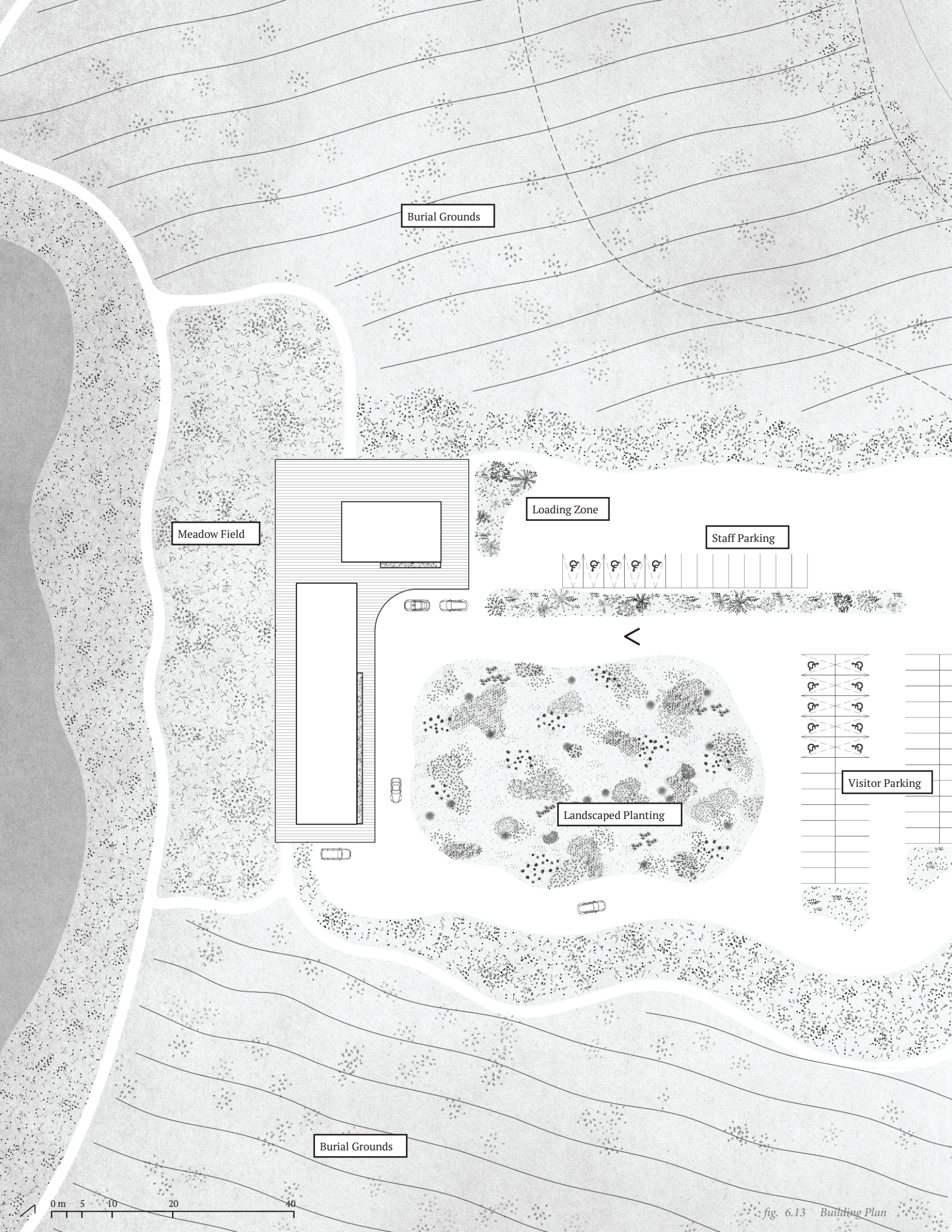
1 Theresa Piorowski, "Natural Burials in HRM A Sustainable Alternative to the Modern Cemetery" Dalhousie University, 2009), 11.
 2 "The Battle for Your Bones: Death Goes Corporate in Canada," last modified May 29, accessed Mar 12, 2021, <https://www.theglobeandmail.com/report-on-business/rob-magazine/the-battle-for-your-bones/article18852856/>.
 3 "Would You Share a Grave? Vancouver Cemetery has Ground-Breaking Solution to Graveyard Real Estate Crunch," last modified Nov 2, accessed Mar 12, 2021, <https://www.cbc.ca/news/canada/british-columbia/grave-sharing-1.5341491>.

Planting Strategy



fig. 6.12 Root System of Prairie Plant Species

Figure 6.12 illustrates the deep root growth of meadow plant species in comparison to lawn grass. Deeper plant roots encourage nutrient absorption and water infiltration, requiring minimal maintenance. While these plant species are essential to ecological systems, it is estimated that 99 percent of meadow land have been removed from the southern Ontario landscape. Implementing a meadow planting management plan in the site will allow these dense root system to take over the upper soil layer and eliminate weeds and invasive species. In the design proposal, tall native grasses and wild flower species are re-introduced to the landscape, ensuring the resilience of the site over time.



Burial Grounds

Meadow Field

Loading Zone

Staff Parking

Landscaped Planting

Visitor Parking

Burial Grounds

0 m 5 10 20 40

fig. 6.13 Building Plan

Building Proposal

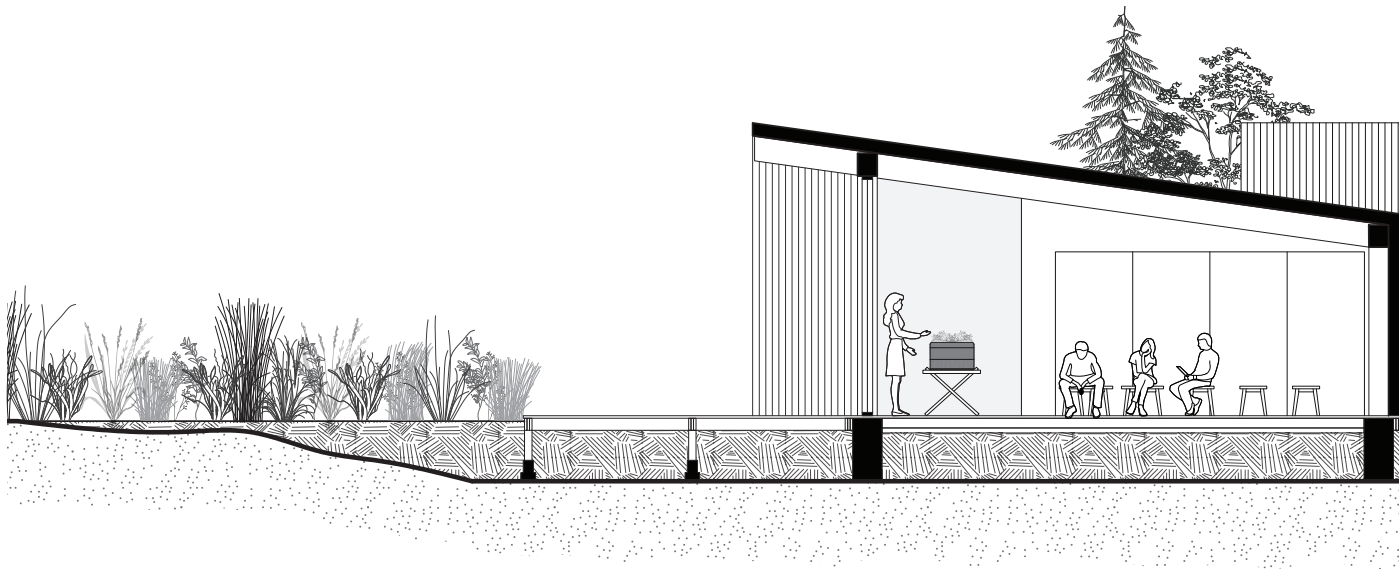
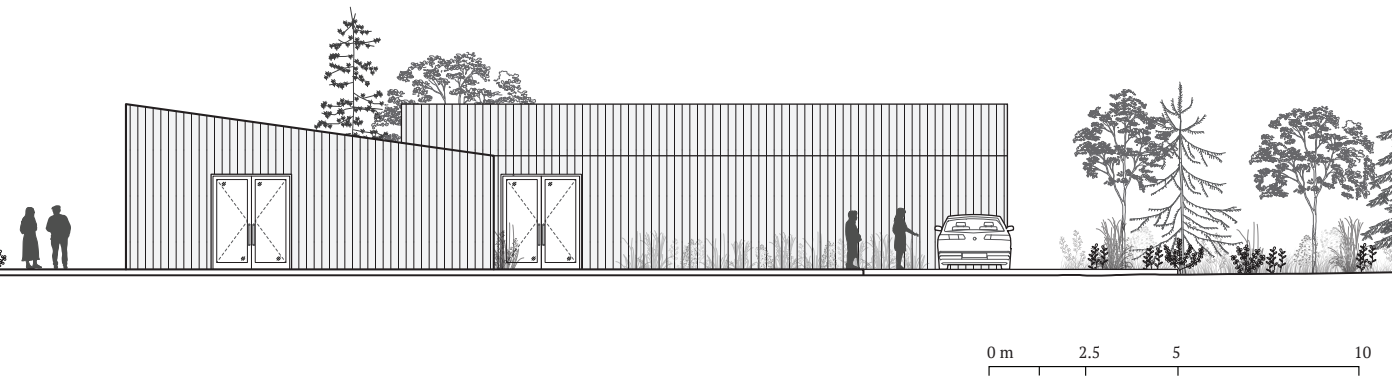
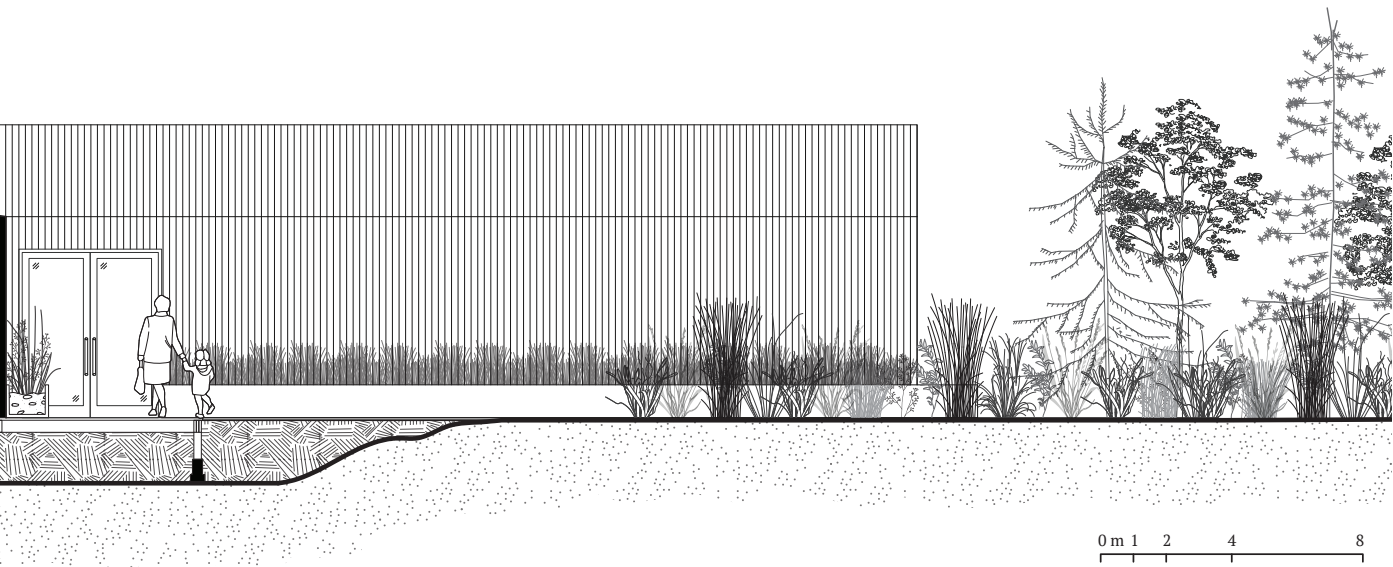


fig. 6.14 Building Section



fig. 6.15 Building Elevation



Building Program

- Ⓐ one-way driveway
- Ⓑ loading zone
- Ⓒ building entrances
- Ⓓ office
- Ⓔ building lobby
- Ⓕ kitchen
- Ⓖ large ceremony space
- Ⓗ secondary ceremony space
- Ⓘ spaces for outdoor ceremonies

In design proposal, there are two separate buildings located on the site. The main building holds the larger ceremony space and appropriate amenities while the other serves as a secondary ceremonial building. One ceremony space orient vistas to the lake while the other faces the meadow landscape. The large deck surrounding the buildings allow for ceremonials to be extended or fully outdoors. Unlike the wild meadow field throughout the site, the large planter in front of the building will be the only landscaped portion.

There are two main ways of entry and movement in both buildings, one for guests and visitors while the other one for transferring the deceased.

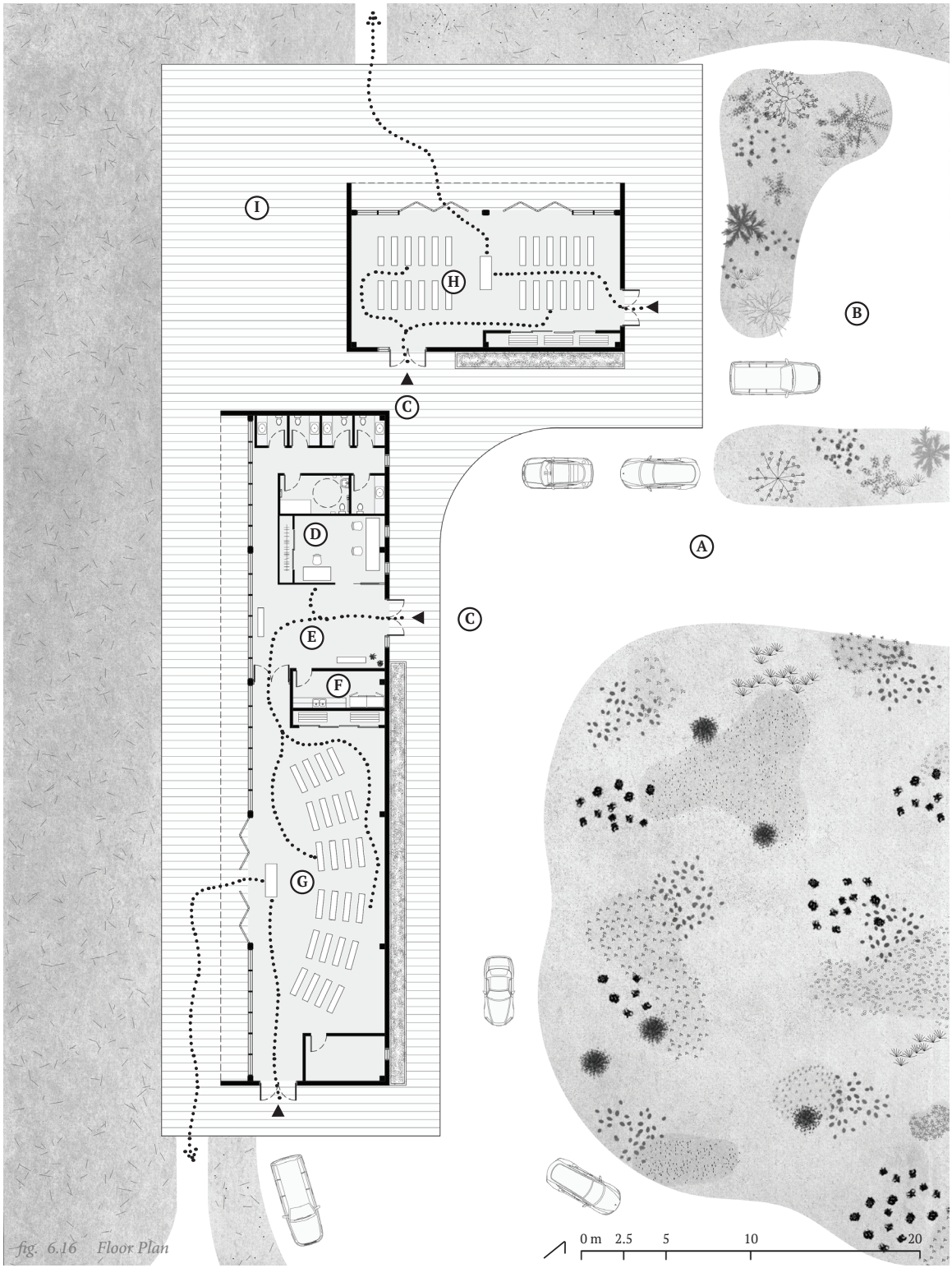


fig. 6.16 Floor Plan



fig. 6.17 *Arrival: Family and friends may be greeted by a funeral director or cemetery staff who is responsible for guiding them throughout the entire process.*



fig. 6.18 *The Beginning:* As family and guests begin the memorial ceremony, cemetery staff prepares to assist in the transportation of the deceased after the service and waits at the exit with a burial cart.



fig. 6.19 *The Service:* Regardless of tradition or religion, the ceremony space accommodates for various forms of ceremony, allowing families to commemorate their loved one according to their preference.





fig. 6.20 *The Procession:* After the service, family members and cemetery staff lead the procession, carrying the deceased from the building to the burial site.





fig. 6.21 Re-visitation: The following year, family and friends revisit the burial site and walk through the fields.



fig. 6.22 Re-visitation: Families visit the communal markers where names and dates are sand-blasted onto the large limestone rocks.

Burial Site Timeline

Digging | 8 am | 4 - 5 hours | Fall

The cemetery staff begins in the morning and prepares the ground for burial in the afternoon. Any saplings, ferns, shrubs and ground cover found are moved elsewhere until they are ready to be replanted. It can take 4 - 5 hours for two experienced cemetery staff to dig a grave by hand. The displaced soil is left beside the grave, ready for re-burial. Wooden boards are placed around the cavity to allow participants to stand near the grave without moving the soil underneath. A shoring device may also be used to ensure the stability to the grave. Rails or slats are placed across the grave to support a casket or shrouding board.

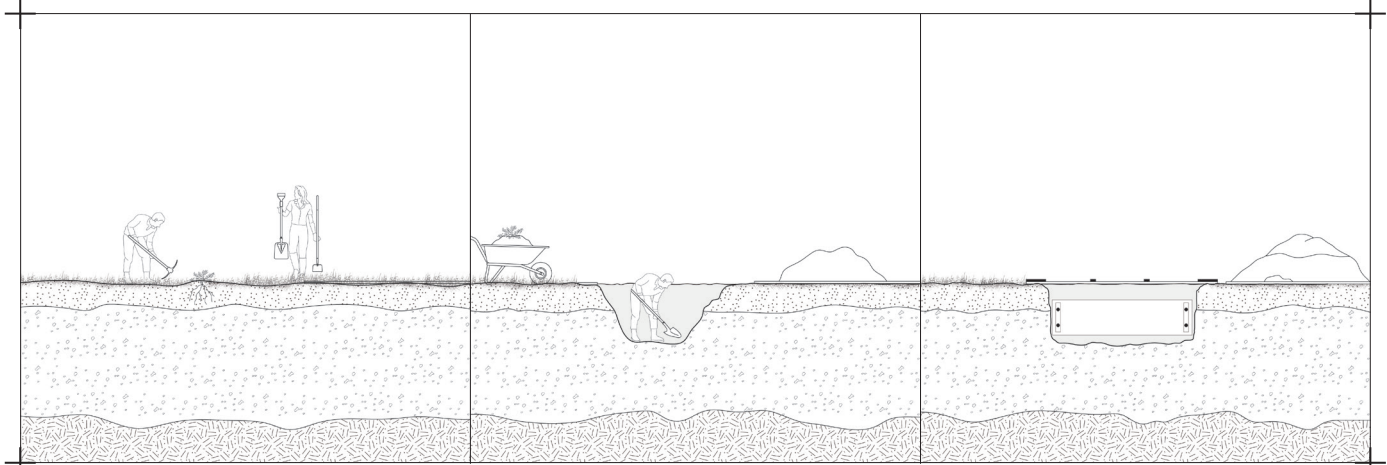


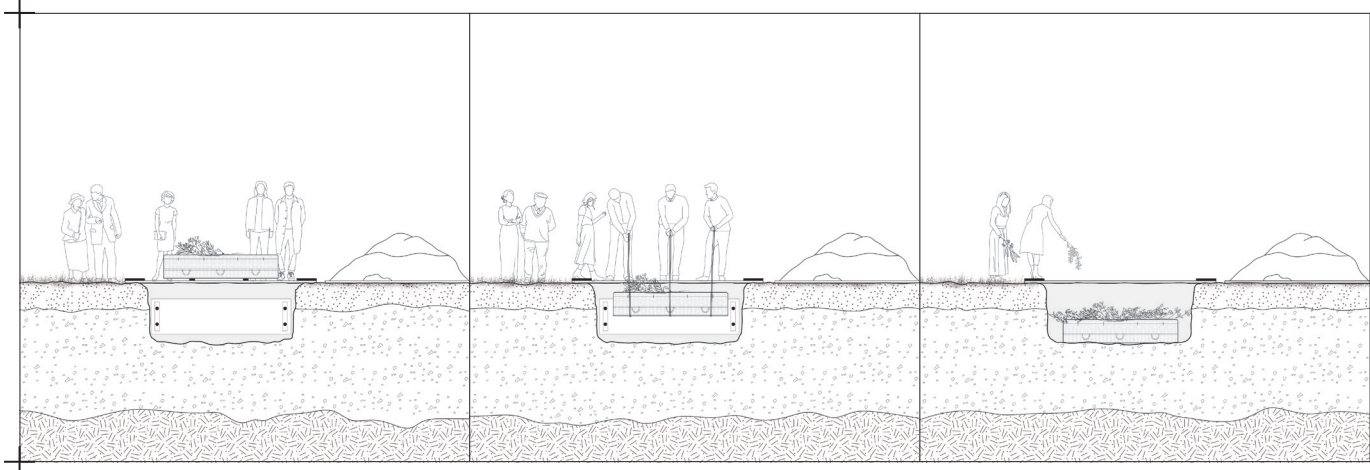
fig. 6.23 Digging

Day 1
Death

Day 2
Ritual
4 am

Burying | 2 pm | 1 - 2 hours | Fall

Families may choose to have a ceremony by the burial site. The body is then lowered into the grave with ropes or straps by the family if they are physically able. The family is encouraged to participate by filling the grave as a part of their ceremony. A dime-sized, plastic covered location tracker may be sewn into or attached to clothing or a shroud, or a transmitter diskette the size of a hockey puck may be buried with the body to mark the exact location of the grave. Meadow plant seeds are also planted while burying. Greens, leaves or pine needles may be re-purposed to cover the grave mound as a final step once the grave has been filled.



The Service | 12 pm | 1 -2 hours | Fall

Family and friends arrive at the site with the body of the deceased. A funeral service may be held at the ceremony spaces on site. After the service, the procession follows the body to the freshly dug grave for burial.

Decomposition

The disturbance of soil through digging and burying aerates the soil and allows sufficient oxygen exchange for decomposition. Elements such as carbon, nitrogen, calcium and phosphorus are released as bacteria, insects and fungi in the soil begin to break down organic tissue which provide the necessary nutrients for plant growth.

Within an average of 6 weeks, the body loses the majority of soft tissue through moisture absorption by soil. Decomposition rate also depends on soil type, the presence of oxygen, moisture as well as temperature.

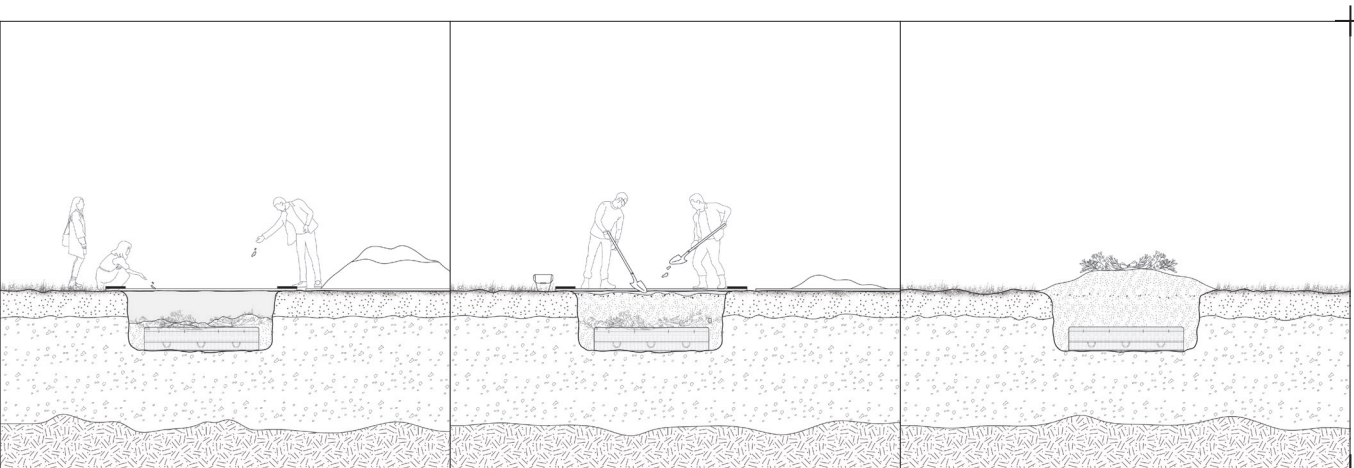
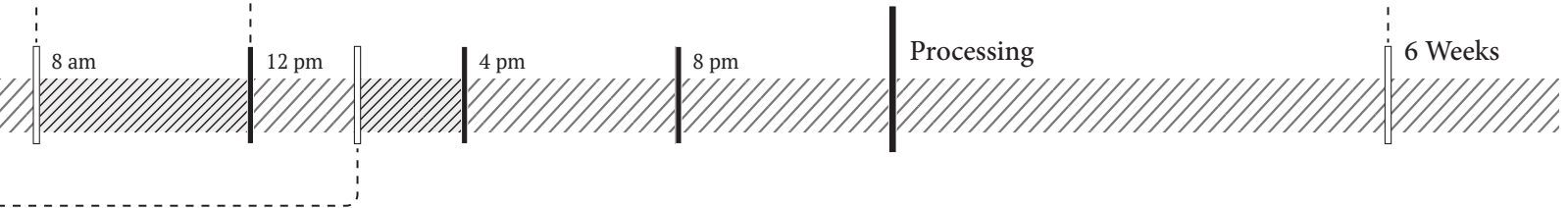


fig. 6.24 Burying

Re-visitation | 1 Year | Fall

A year after burial. Temporary paths may still be maintained and family members revisit the grave and their loved ones. Planted tall grasses and wildflowers seeds have begun establishing roots underground.

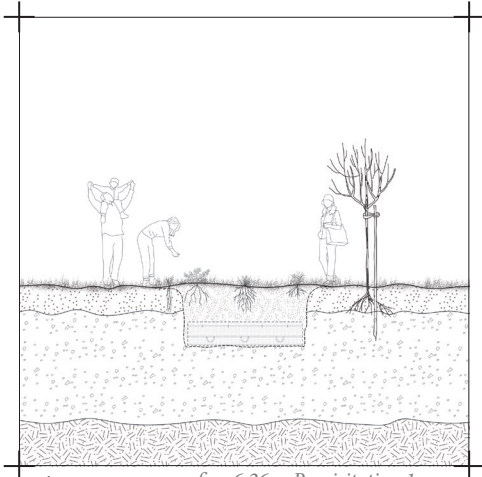


fig. 6.26 Re-visitation 1 year

Re-visitation | 10 Years | Summer

Temporary paths are no longer maintained and the grave is inaccessible. Family may visit the grave from afar. The burial site may be surrounded by other graves. Meadow species have established a dense ground cover allowing bees and other pollinators to prosper.

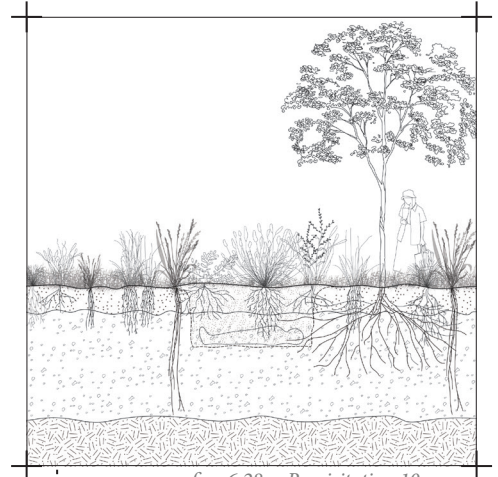


fig. 6.28 Re-visitation 10 years

2 Years

10 Years

6 Months | Spring

Within 6 months after burial, the mound will settle. At this time, cemetery staff may replant shrubs or saplings that were previously removed for burial.

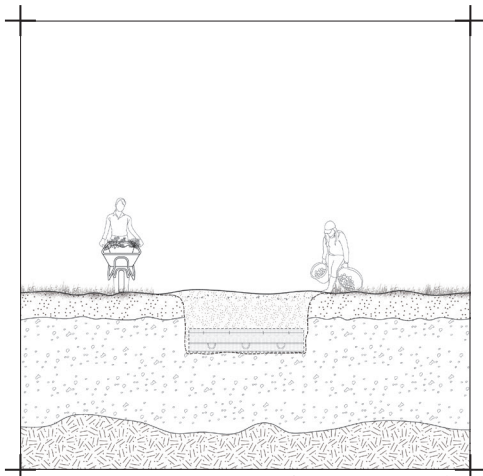


fig. 6.25 6 Months

Re-visitation | 2 Years | Fall

2 years after burial, the grave site is still accessible to re-visit. Within an average of 2 years, the body has completed the process of decomposition of soft tissue in the soil.

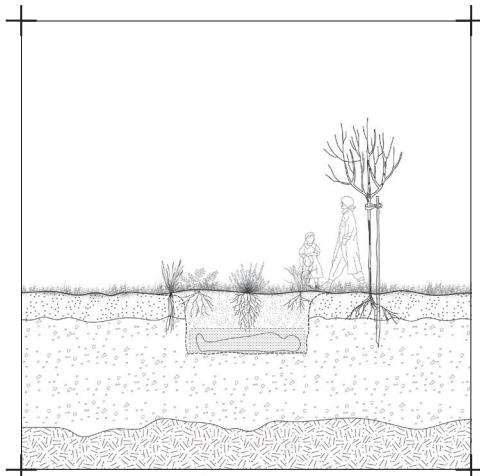


fig. 6.27 Re-visitation 2 years

Site in Perpetuity

Through human death and the presence of the body, the former quarry site within the Escarpment is permanently preserved. In consequence of organic decomposition happening in the soil, the ground that was once depleted entirely is restored, capable of sustaining complex habitats for plant and animal life. Site maintenance may include occasional mowing of pathways. Some green cemeteries may utilize grazing sheep or goats rotationally as an alternative approach to site management.

Stewardship

The conservation burial ground acting as stewards of the land will seek partnership with local municipalities and Conservation Halton to manage and preserve the site. As practiced by other green cemeteries, 40 percent of all burial plot fees will be reserved for the establishment of a Perpetual Care Fund that will go towards the protection, restoration, and management of the land.

30 Years

30 Years | Fall

Plantings will have completely taken over the grave. Depending on the moisture in the soil, remaining bones may be completely absorbed within 20 years while others take longer.

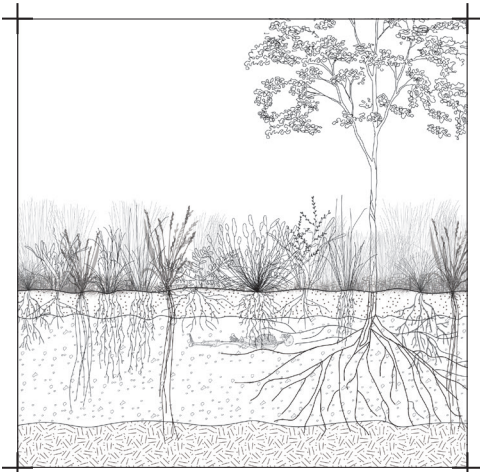


fig. 6.29 Re-visitation 30 years

Secondary Programs

When the grave plots eventually fill up, and burials and funerary ceremonies are no longer the primary use of the site; secondary uses include leisure and recreational activities similar to other conservation parks. Secondary site planning can incorporate existing pathways into hiking trails and bicycle paths that connect to the Bruce Trail. The remaining buildings on the site are capable of holding programs such as wedding ceremonies, community gatherings and educational events.



fig. 6.30 Wedding ceremony: Celebrations of both death and life are common in many natural and woodland cemeteries in the UK.



fig. 6.31 *View from the deck: As tall grasses and wildflowers grow over the site, the wood deck surrounding the buildings remain accessible as a space for outdoor events or simply as a space for contemplation.*



fig. 6.32 Trails: Designated pathways become trails and bike paths that are open to the public and connect to Kelso's existing hiking trails.



Place supports the human need to belong to a meaningful and reasonably stable world, and it does so at different levels of consciousness, from an almost organic sense of identity that is an effect of habituation to a particular routine and locale, to a more conscious awareness of the values of middle-scale places such as neighborhood, city and landscape to an intellectual appreciation of the planet earth itself as home.

- *Yi-Fu Tuan*

Place and Culture: Analeptic for Individuality and the World's Indifference.

Conclusion

Earth mounds have been one of the earliest methods of ceremonial burial in Canadian history; it is necessary to recognize and learn from this source of Indigenous heritage in the discourse of natural burials. For thousands of years, they have recognized the ability of the natural landscape to ground identity, sense of belonging and spiritual values which have transcended across generations. While educated in 'sustainable' land practices, we as designers are still learners of Indigenous relationships with land and their continued practices of stewardship.

Identities and values all contribute to one's relation with mourning rituals and death practices. While Canadian's understanding of death rituals continues to change, the thesis leverages natural burials to reconcile with the land we live on and preserve the ground that sustains us. Reconciliation comes through recognizing the contribution of the Indigenous people who continue to share their land with Canadians. As Canadian identities work towards better understandings of cohabitation on shared territory, we can also start learning how to be in dialogue with the land as stewards of the Earth. When the site of mourning becomes our collective commonality, it has the capacity to ground our belonging and bind our identity into the land.

The chosen site of previous quarrying activities experiences the act of digging once again in the design proposal, however the resulting landscape is enriched rather than displaced. The incorporation of the organic body and the return of soil become important contributions to the land. Not only is the landscape rehabilitated and protected, but it also becomes a sacred site marked with meaning and care for those that mourned their loss within this specific landscape.

With Kelso Quarry Lake as a testing ground, the cemetery landscape is no longer static but rather fluid and constantly evolving. The first chapter of the thesis quotes grief worker David Kessler in his

discussion of important elements in the grieving process which includes a necessary acknowledgment and reflection of grief. Just as how the Indigenous villages of northern Australia witness and mirror each other's grief by changing their outward surrounding, by the same token, when families revisit the burial ground, they experience the witnessing and acknowledgment of their grief when the landscape undergoes a transformation because of their buried loved one.

In the same manner that ecological processes re-shape the landscape across seasonal cycles, the griever's emotions, values, boundaries, and identity continues to be redefined as they navigate the dynamic stages of grief. The designed site proposal illustrates the parallel connection of co-healing across time and space between the land and the bereaved.

While walking through the burial site, the meaning of space continues to be negotiated between the transformations of the landscape and the overlapping experiences and memories of the users. From a site of mourning to a site of remembering and forgetting, the site remains as the medium in which users establish and re-establish their knowing with the dead and with death itself.

When burial activities end on the site, the meadow land and pathways remain and extend into an endless existence. As the organic remains of the dead disappear underground and vegetation overtakes the engravings, will their descendants remember who was buried there?

While names and dates may be forgotten, the preserved and untouched natural landscape itself is a continual record of the past. It is a site of permanence and importance, encompassing the contributions of all those that came before.

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Appendix

The Garden Cemetery

Mount Hope Cemetery | 305 Erskine Avenue, Toronto

Arrangement: garden / rural cemetery layout

Date opened: 1900

Operation Status: Full

Number of graves: 76,000

Buildings on site: one office, one service building

Cemetery size: 199,000 sm

Mount Hope Cemetery opened at the end of the 19th Century when Toronto was faced with capacity issues. The cemetery was full by the end of the 20th Century. A columbarium houses the remains of those cremated. This is a type of cemetery that is most common today, designed to serve large city populations.

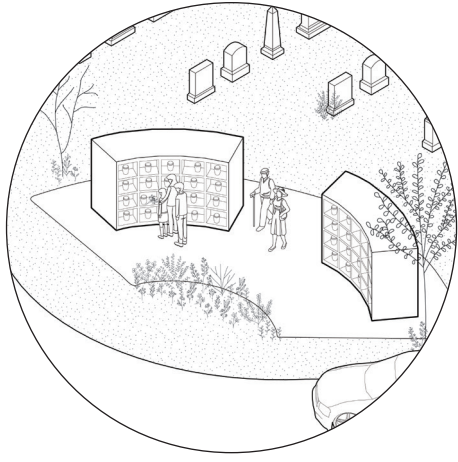


fig. 6.33 Columbarium Visitation

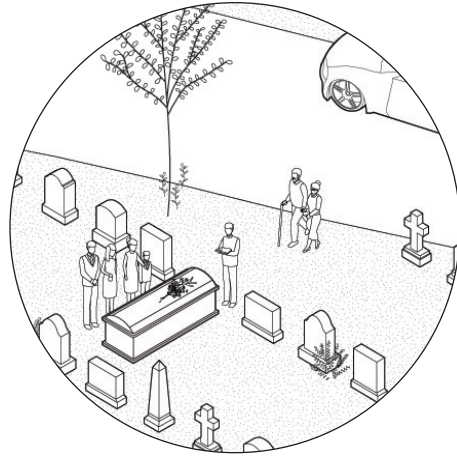


fig. 6.34 Graveside Service



fig. 6.35 Office Building at Entrance

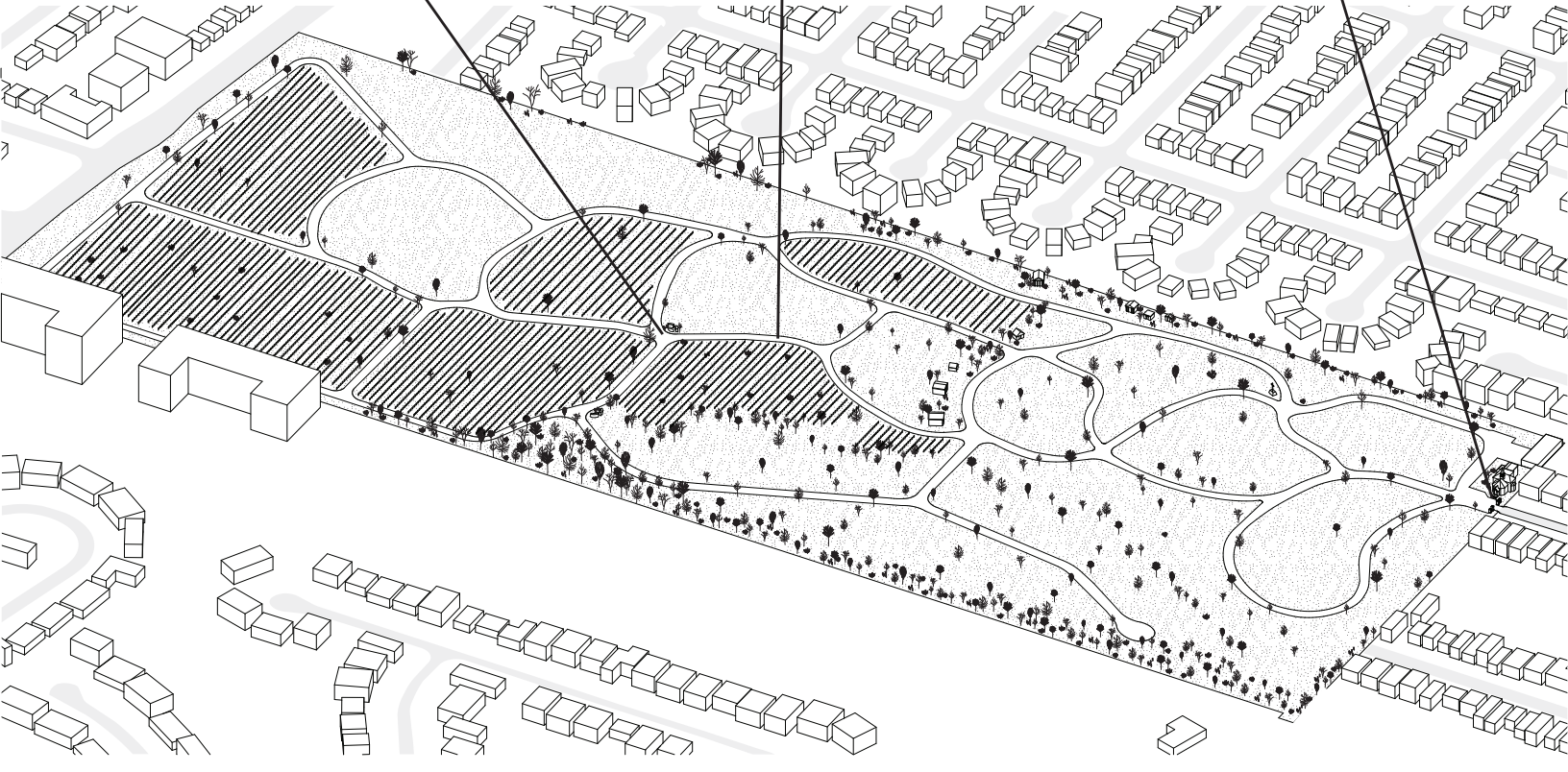


fig. 6.36 Mount Hope Cemetery Axo

The Lawn Cemetery

**Roselawn Lambton Cemetery | 1293 Royal York Rd,
Etobicoke**

Arrangement: lawn cemetery layout

Date opened: 1909

Operation Status: Active

Number of graves: 3,200

Buildings on site: one service building, two winter vaults

Cemetery size: 25,600 sm

Lambton Hills Cemetery was established in 1909 and it comprises of 14 sections for various synagogues and societies. The cemetery follows a uniform and orderly layout. Two Winter Vaults are located on the grounds of the cemetery, which were used to store bodies in during the winter until graves could be dug again in the spring.

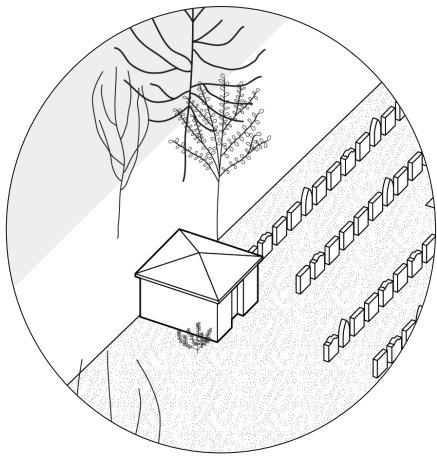


fig. 6.38 Winter Vault

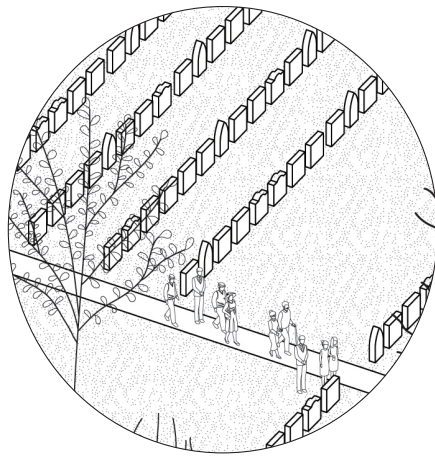


fig. 6.39 Visitation

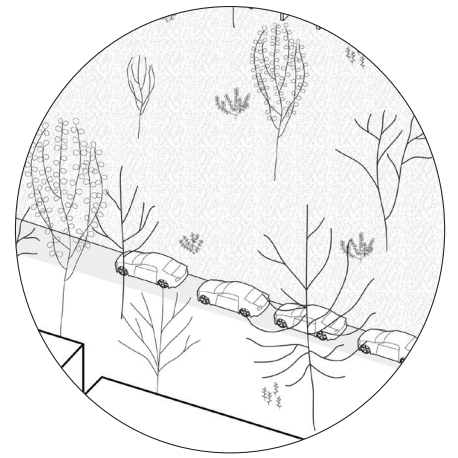


fig. 6.40 Parking along cemetery laneway

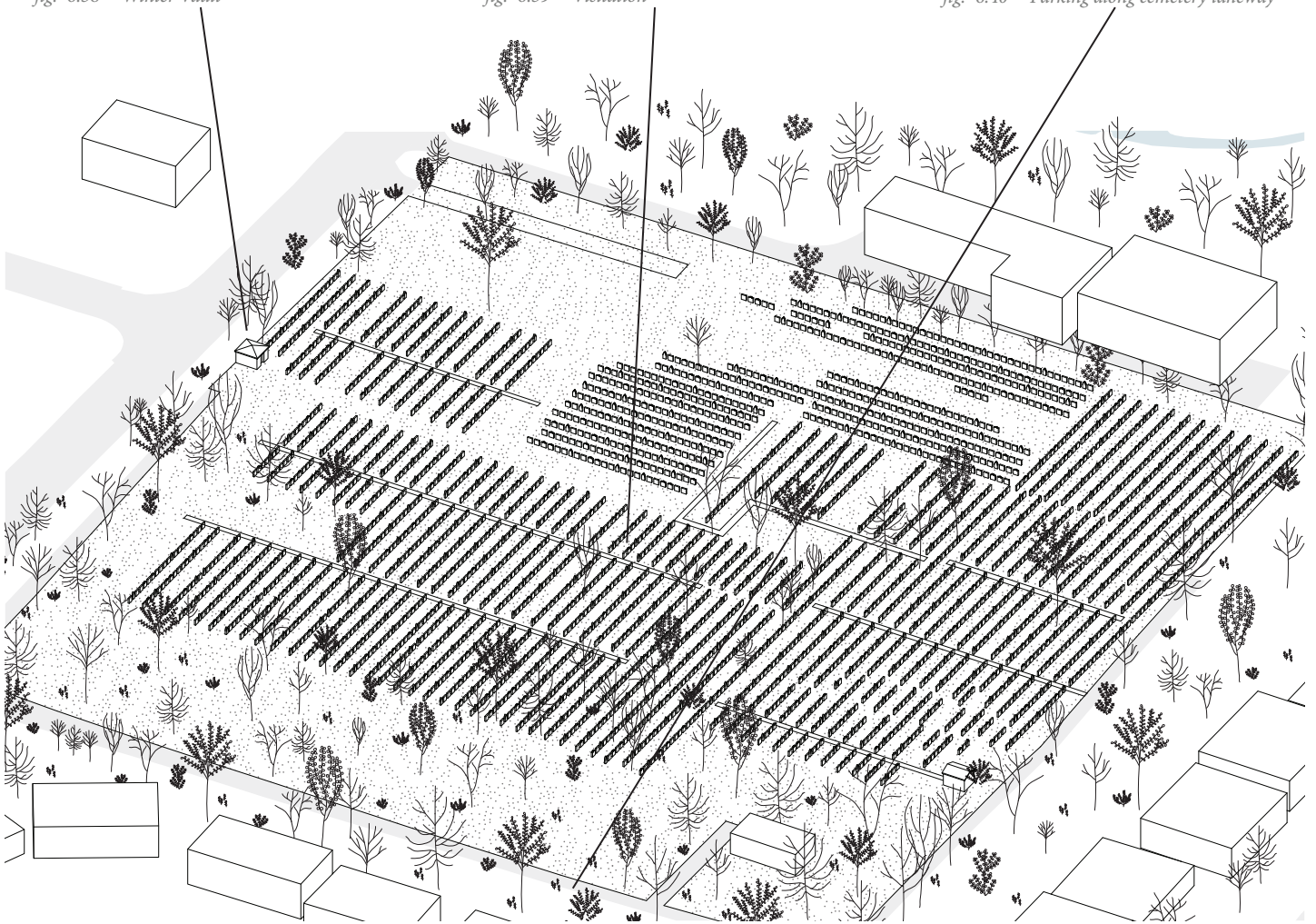


fig. 6.37 Roselawn Cemetery Axo

The Churchyard Cemetery

Hillside Cemetery | 361 Old Finch Ave, Scarborough

Arrangement: churchyard cemetery

Date opened: 1877

Operation Status: Closed

Number of graves: unknown

Buildings on site: small church

Cemetery size: 1960sm

This small church and cemetery sits in a secluded area in Scarborough, Ontario. The church served as the community place of worship and gathering for over 50 years and has been part of the Scarborough Historical Society since 1977. The people that have been buried here are families that used to live in the Hillside community.

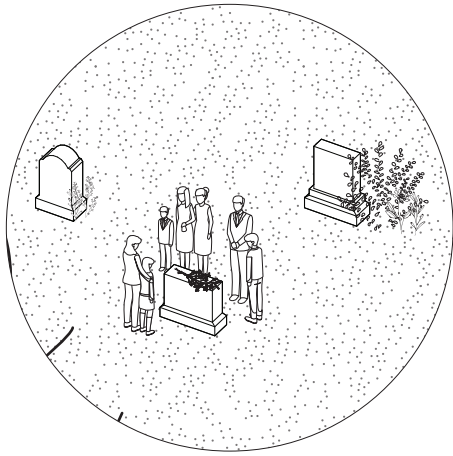


fig. 6.41 Churchyard visitation

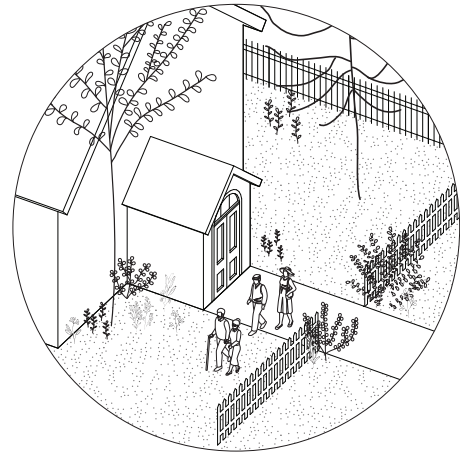


fig. 6.43 Churchyard arrival

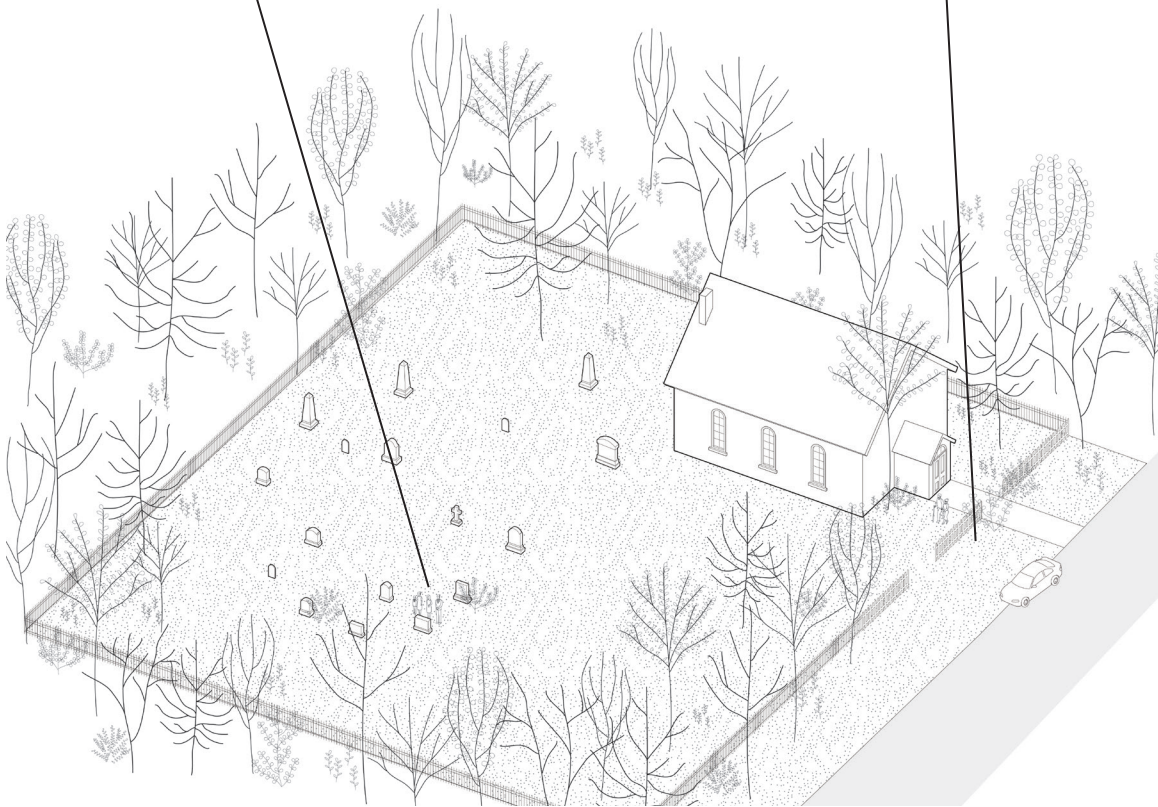


fig. 6.42 Churchyard Cemetery Axo