

CEMETERY AS A PLACE OF CULTURAL COMMUNICATION

by

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DALHOUSIE UNIVERSITY
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DEDICATION

For my loving parents, who have instilled in me the value of hard work, and for their enduring sacrifices to afford me the opportunities they never had.

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ABSTRACT

Cemeteries serve as repositories of history and memories of the local community, as well as afford the living population an opportunity to connect and learn about a culture's past. Accordingly, the cemetery as a place and the rituals associated with death and remembrance that it holds, not only communicate and express the ideals of a collective identity, but also undergo modifications with time and geography.

Through the study of burial rituals and funerary traditions of the multicultural community in the City of Richmond in British Columbia, this thesis seeks unifying qualities within the diversity of practices that will offer strategies for the design of ritual spaces that not only communicate the cultural identity within each community, but also serve as a place in which new ritual practices are born and integrated for the greater community of Richmond.

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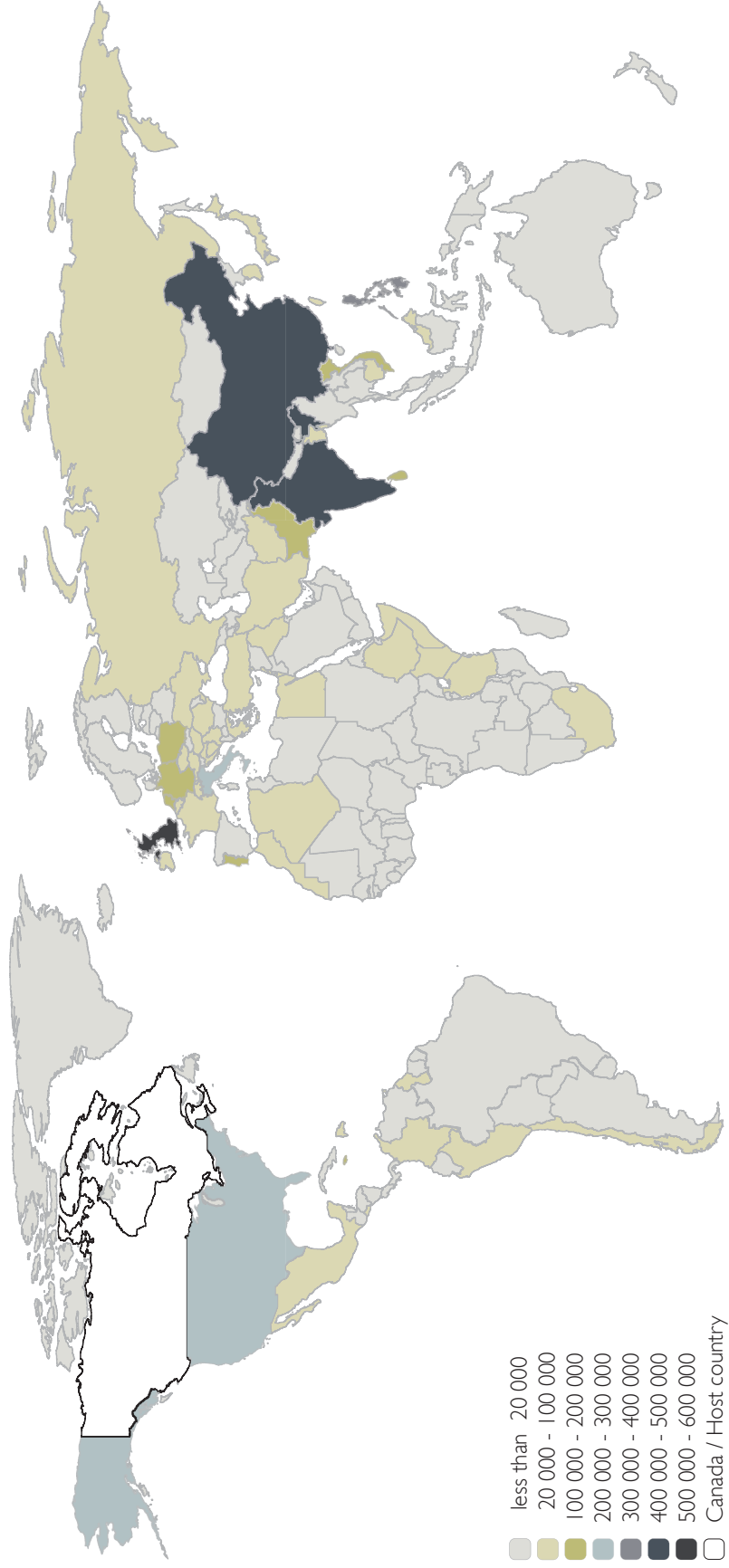
Susan Molesky, for your continuous support and guidance. Thank you for believing in me and allowing me to discover my voice through this work.

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CHAPTER I: INTRODUCTION

To dwell implies the establishment of a meaningful relationship between man and a given environment. [T]his relationship consists in an act of identification, that is, in a sense of belonging to a certain place. Man, thus, finds himself where he *settles*, and his being-in-the-world is thereby determined. On the other hand, man is also a wanderer. As *homo viator*, he is always on the way, which implies a possibility of choice. He chooses his place, and hence a certain kind of fellowship with other men. This dialectic of departure and return, of path and goal, is the essence of that existential "spatiality" which is set into work by architecture. (Norberg-Schulz 1985, 13)

The inherent nature of man to wander has been further articulated by the increased mobility of the modern world. Accordingly, migration offers opportunities to foster a rich diversity of cultures, ethnicities, and races in host countries, such as Canada. The motivations to migrate are varied. For some, migration offers a promise of a better life in education and employment opportunities, an escape from natural disasters or political turmoil; and for others, migration is motivated by the desire to reunite with family who have previously migrated. Although the reasons may vary, the process of migration often conjures up questions of identity, as individuals acclimatize to the host country. As identity is formed through an internalization of one's surrounding environment and the interpretation of self in such places, migration not only serves as an act of relocation, but also redefines one's cultural landscape. Accordingly, in the absence of familiar settings and social structures in foreign places, the preservation of traditions and culturally significant rituals serve as mechanisms to identify with and remain connected to one's cultural heritage.



Migration patterns in Canada: country of origin of immigrants who landed in Canada prior to Census Day, May 16, 2006. Data from Statistics Canada.

Thesis Question

How might the ritual spaces of a cemetery foster cultural continuity through communicating expressions of collective identities and a shared history?

Rituals as Communication

Rituals, as performative acts and expressions, communicate and enhance the identity of a collective (Bell 2007, 20). Engaging in the scripted repetitions of ritualized behaviours unite participants with one another, as well as with situations and individuals beyond themselves, including: ancestors, distant relatives and future descendants. The practice of ritual is thus an expression of self within the context of a greater consciousness that bridges the gap between generations. Accordingly, when individuals participate in ritual, it offers a forum for one to practice and embrace tradition, even if only for a short while; and in doing so, realizes such beliefs into existence and engenders the collective identity (Reimers 1999, 148).

Although the practice of rituals often involves performing prescribed acts and sequences, ritual scripts may undergo adaptations over time, as traditions are reevaluated and negotiated with successive generations. Migration may also introduce modifications to traditional practices in response to the pragmatic circumstances of new environments (Reimers 1999, 156). Furthermore, the process of migration may pose a sense of threat to the preservation of heritage as one acclimatizes to the dominant culture of the host country. Ritual practices are therefore binding,

especially during liminal celebrations of life and death, in which individuals are gathered for a collective purpose and removed from the social structures of the everyday, to share in the renewal and expression of common values and heritage (Bell 2007, 37).

Migration and Loss

Implicit to the migration process is the inevitable loss of the familiar, to leave behind a place that will constitute a memory. As such, grief serves as a natural reaction to the distress experienced by the loss of significant relationships, social structures, self-identity and cultural values (Furnham and Bochner 1986, 163). Such experiences of the uprooted person or group, referred to as cultural bereavement, offers an insight into the migrant experience, and considers the implications that such expressions of grief are to an extent culturally determined (Bhugra and Becker 2005, 22). Similarly, death elicits an analogous response, as the loss causes a disruption in the community and poses a threat to the constructs of enduring individual and collective identities. Burial traditions and funerary rituals enable the deceased and the bereaved to be united in the expression of a specific common culture and as such, death rituals may be regarded as tools for the construction and maintenance of individual and collective identities (Reimers 1999, 148). Ritualized burial practices may be traced back to the Neanderthals, as early as 150 000 years ago. Archaeological evidence indicates that the disposal of the dead consisted of repetitive social practices that consumed considerable time and resources (McCorkle 2010, 6).

Cemeteries and Death Rituals

...the places of the dead are pivotal landscapes, where past and future values and beliefs are held in balance or negotiated (as such, the cemetery exerts a moral power within the wider culture); a reminder of the importance of funerary architecture in creating 'libraries in stone', in which beliefs and identities of past individuals and cultures are inscribed for future generations... (Worpole 2003, 11)

Cemeteries are places where people assemble and are assembled, both dead and alive, across generations and in recent development, cross-culturally. As described by Aldo Rossi, "the city itself is the collective memory of its people, and like memory it is associated with objects and places" (Rossi 1982, 130). As repositories of history and memories, cemeteries are places in the city that serve as landscapes of silent narratives for the dead and as products of ritual performances for the living. As such, the rituals that take place within the cemetery may elucidate both boundary-maintaining and boundary-reducing expressions, particularly in instances of blended cultural practices (Reimers 1999, 155). Furthermore, cemeteries are places of learning. Through material and symbolic expressions of personalized gravestones to the unique burial practices and the treatment of the deceased, cemeteries communicate the shared values and expressions of a collective identity. Accordingly, "[i]n and through rituals, the deceased and the bereaved become anchored in a specific common culture, in a specific value system and world-view, which is expected to persist, regardless of the demise of its singular constituents" (Reimers 1999, 148).

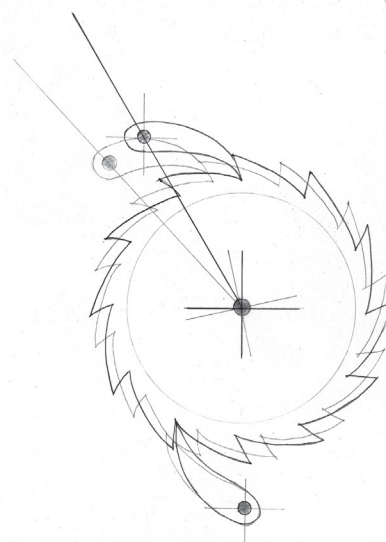
boundary-maintaining: expressions and practices that reinforce/enhance an ethnic or cultural identity.

boundary-reducing: the establishing of new practices that negotiate between the migrant heritage and the cultural constructs of the host country

Learning Through Ritual

Cultural Learning

The notion of culture is a uniquely human approach to social organization as characterized by the nature of its products, including: material artefacts, social institutions, behavioural traditions, and language. These products, along with a system of values and beliefs, are shared among individuals within a social collective and serve as a cultural lens that guide and influence one's perception of self relative to others in a given environment. Cultural knowledge is therefore learned and inherited by successive generations, and in the process, products undergo continual reinvention and accumulate modifications over time. The forward motion of this accumulation process is referred to as the *ratchet-effect*, as each modification remains in place for a given period until a successive adaptation is found to be better suited to the changing needs of the group. The transmission of information through the learning processes ensures retention of information (ratchet and pawl mechanism) within the collective. In conjunction with the increasing complexity of cultural products through cumulative individual and collaborative contributions, cultural evolution takes place over historical time (Tomasello et al. 1993, 495). Accordingly, cultural products such as ritual behaviours, gesture to a collective history and serve as an adaptive expression of shared values and beliefs.



Ratchet and pawl mechanism: allows for the continuous movement in one direction, and prevents the backwards movement in the opposite direction.

Moreover, the transfer of cultural information within and across generations may be attributed to the uniquely human ability to “take the perspective of others in a manner and to a degree that allows them to participate more intimately” (Tomasello et al. 1993, 495) with one another.

In cultural learning, learners do not just direct their attention to the location of another individual's activity; rather, they actually attempt to see a situation the way the other sees it – from inside the other's perspective, as it were. (Tomasello et al. 1993, 496)

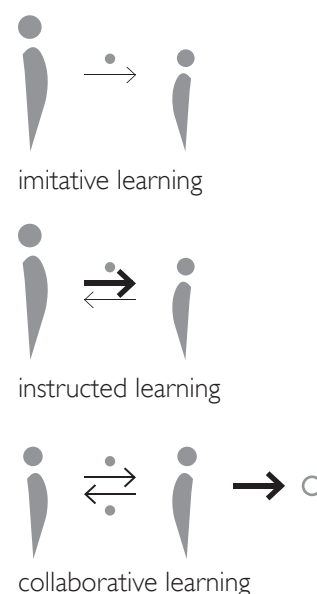
Therefore, cultural learning may be understood as a social interaction in which the learner acquires knowledge through understanding the perspective of the other rather than directly from another. Thus, the ability to internalize the acquired information must be understood based on the social context of the point of view of the other person (Tomasello et al. 1993, 495-6). Furthermore, as individuals have the capacity to internalize more than one cultural meaning system, the process of assimilating to a dominant culture does not necessitate the root culture being displaced and neglected. Migration may therefore result in the development of a multiplicity of cultural identities, a phenomena that also resonates among second-generation individuals born and/or raised in Canada. However, even if such cultural systems offer conflicting theories, the extent to which each influences the thoughts and behaviours of an individual is relative to the accessibility of the culture. The cues of the immediate social environment, such as symbols and context, thus prompts an individual to switch between cultural identities (Hong et al. 2000, 710).

Modes of Learning

It is not the educator, but the authentic situation... that educates, by inviting the learner to go beyond the limits of previous knowledge. This authentic situation comprises more than skill, more than research, more than practice; it also comprises mystery, and an invitation to the unknown possibilities of inquiry. That is the best invitation to learn: to participate in a situation where questions are present, and in a process of inquiry that we may barely understand at its start. (Carr 2003, 69)

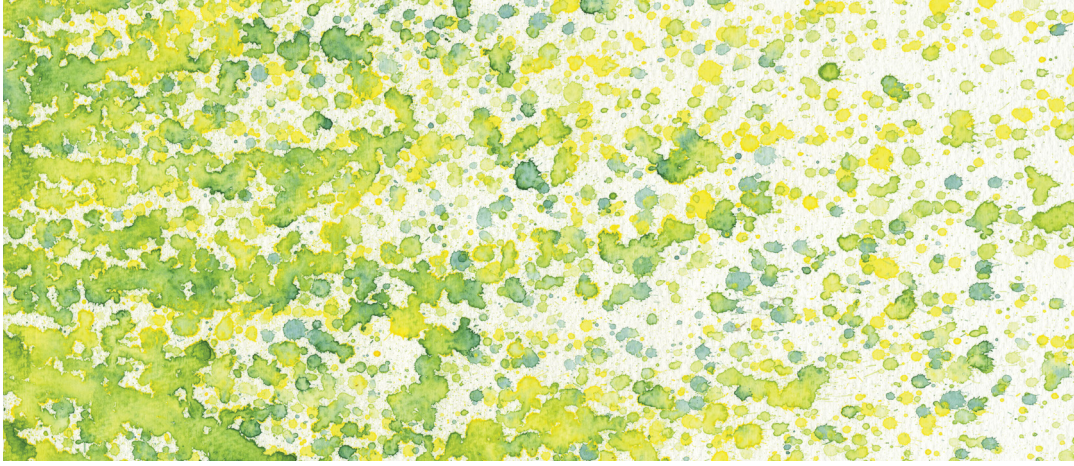
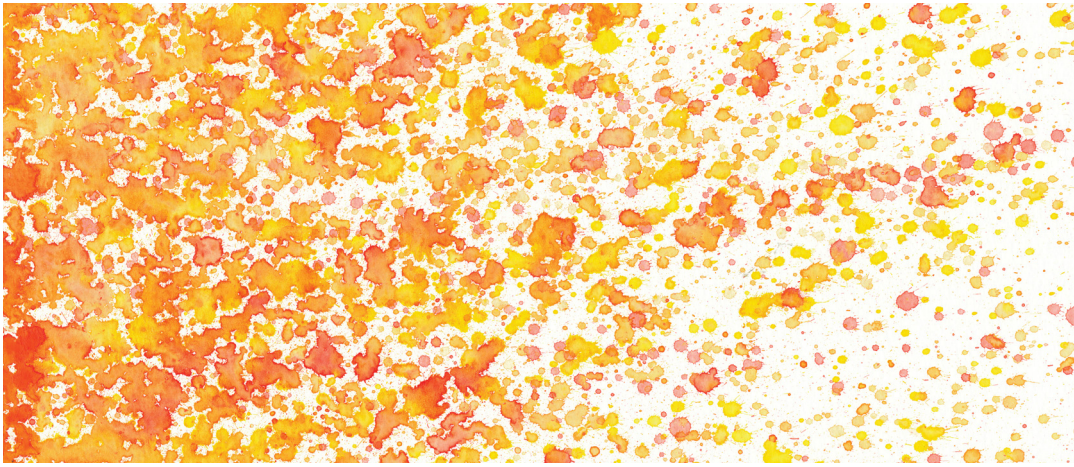
Three modes of cultural learning namely, imitative, instructed and collaborative, consider the significance of understanding intention in the intergenerational exchange of cultural knowledge.

Imitative learning refers to the ability to model or imitate an observed behaviour to achieve the understood intention in the appropriate context. The absence or the misunderstanding of the underlying intention may therefore result in the blind mimicry of the action or the devising of an alternative process to emulate the resulting outcome (Tomasello et al. 1993, 497). The cemetery's role as a ritual product is to facilitate in the expressions of a collective identity, and to communicate the underlying intentions that motivate culturally unique ritualized behaviour. Thus, a cemetery serves as a place in which one acquires valuable cultural knowledge through observation and understanding of funerary performances as well as material and symbolic expressions that communicate boundary-maintaining or boundary-reducing intentions of a social group. In moments of bereavement and silence, one may learn, through observation and imitation, the ritualized expressions of shared intentions and a collective past.



Analogous to imitative learning, *instructed learning* also serves as a means of cultural transmission of valued knowledge to successive generations. Alternatively, instructed learning engages a level of intersubjectivity, in which the learner refers to the instructions of the teacher to compare and to self-regulate their own understanding and performance of the task (Tomasello et al. 1993, 499). As such, cemeteries are places in which individuals are assembled to communicate a shared loss through actions in common. Participation in novel funerary rituals therefore affords the opportunity to learn through performative action, the cultural values of one's own heritage or that of an adjacent culture. The practice of ritualized behaviour not only serves to affirm a personal and collective identity, as well as offers an occasion to share in cultural knowledge.

Conversely, *collaborative learning* is the process in which cultural creation or evolution occurs as a result of collaborative actions amongst peers. In the absence of unidirectional instruction and modeling, in which no individual acts as the expert, the reciprocal exchange of knowledge thus enables the innovation of a cultural product that would otherwise not be realized by any one person (Tomasello et al. 1993, 500-501). Thus, identity construction is not only accomplished through reiteration of old funerary practices, but new customs are incorporated into the old. Particularly in new environments that present structural, institutional or economic constraints to ritualized scripts, the inclusion of local adaptations and modified expressions thereby facilitate in the process of cultural evolution.



Representations of the capacity to possess a multiplicity of cultural identities within each individual, yet sharing in the cultural knowledge of the host country (shown in yellow).

Representation of cultural evolution over historic time through collaborative innovation and new environments.

CHAPTER 2: AN URBAN REPOSITORY

An Island City

Situated within Metro Vancouver, in the province of British Columbia, is a collection of seventeen islands that comprise the City of Richmond. The fifty square miles of naturally forming land mass, at the mouth of the Fraser River, was once a habitat of wetlands and peat bogs for various species of wild life, birds, and vegetation. During the 1860's, early settlement by European migrants took place along the periphery of the two major islands, namely, Sea Island and Lulu Island. Along the South Arm shore of Lulu Island was one of the first areas of the island to be inhabited, as its intricate system of sloughs and inlets offered an ease of transport, by boat or canoe, into the fertile lands directly from the Fraser River (Keen 2005, 2).

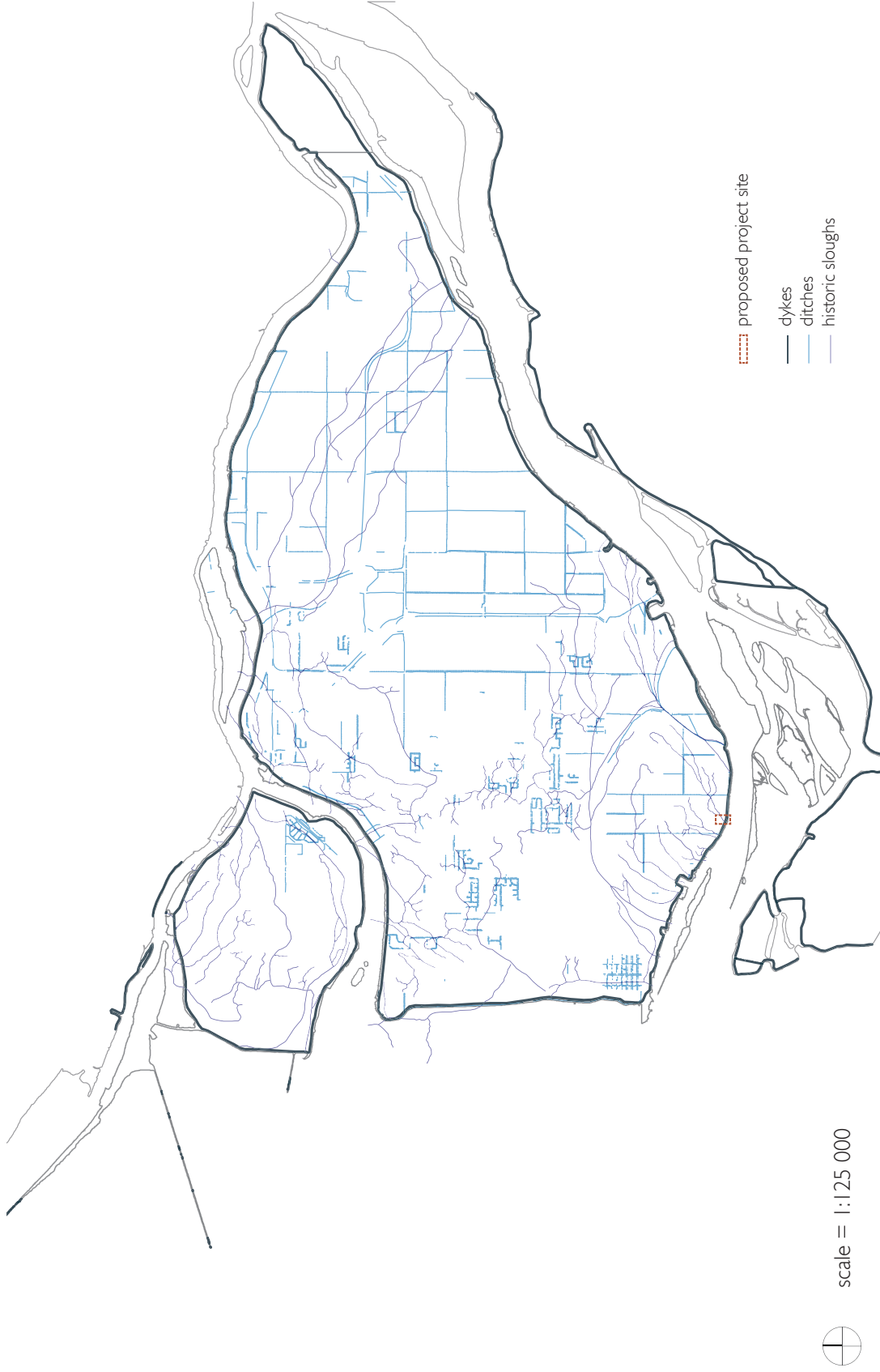
The low-lying delta land of Lulu Island, with an average elevation of one meter above sea level and high water table, was swamped every year when the full moon tides coincided with spring floods. In an effort to control the annual flooding, early settlers began to drain the land by building a ditching system, and constructed a dyke along the riverbanks. Today, an elaborate system of fortified dykes and ditches protect the city from possible flooding due to high tides or river floods. Constructed from a base of clay and covered in rocks and gravel, the dyke stretches along the perimeter edge of Lulu Island and has become an integral part of the city as a system of hiking and biking trails along the Fraser River (Keen 2005, 4-5).



The City of Richmond situated at the mouth of Fraser River within the province of British Columbia, Canada.



The City of Richmond as a natural occurrence of the Fraser River Delta Formation (at 10 000 years ago; 5000 years ago; today). Data from Vernon Secondary School, Rivers Mind Map.



Dykes, ditches and historic sloughs located in the City of Richmond. Data from British Columbia Ministry of Environment, Lower Mainland Dyke Inventory Maps(dykes), City of Richmond, Geographical Information System (ditches), and City of Richmond Archives, Government Publication 316 (historic sloughs).

A Growing Mosaic

The growth of Richmond may be attributed to the contributions of the various immigrant populations throughout the history of the city's development. The Coast Salish Aboriginal peoples were the first to inhabit the land as transient dwellers, moving through the network of sloughs to access the abundance of vegetation and salmon migrating the Fraser River (Ross 1979, 3). The first farmers to settle during the 1860's were of European descent namely, immigrants originating from Ireland, Scotland, Britain, Finland, New Zealand and Germany. As the pattern of early European settlement was also oriented towards the river, Chinese migrant labourers were hired to construct dykes and ditches by hand to protect the farmland from the annual flood (Keen 2005, 4).

Along with agriculture, fishing also became a major industry for Richmond along the North and South Arms of the Fraser River. In the early days of the salmon fishing industry, people of the First Nations often travelled by canoe from the coast to fish and work at the canneries. The growth of the cannery and boat building industries was subsequently supported by a wave of immigrants, most notably Japanese and Chinese workers. Japanese fishermen were drawn to the vitality of the fishing industry in Richmond. Concurrently, Chinese migrant workers travelled to fulfill the labour shortages in the various canneries in the city, following their unemployment upon completion of the trans-continental railway in 1885 (Keen 2010, 11-14).



Coast Salish dwelling and canoe on the Fraser River. From Ross, 1979.



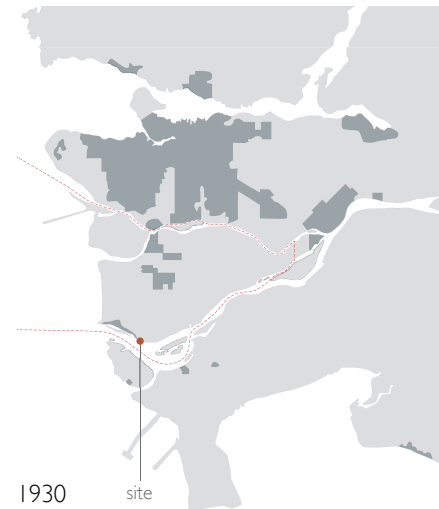
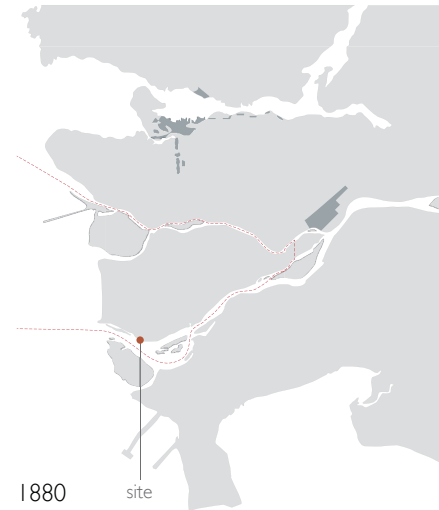
Early European (Blair family) residence, 1890. From City of Richmond Archives, image1978 25 2.



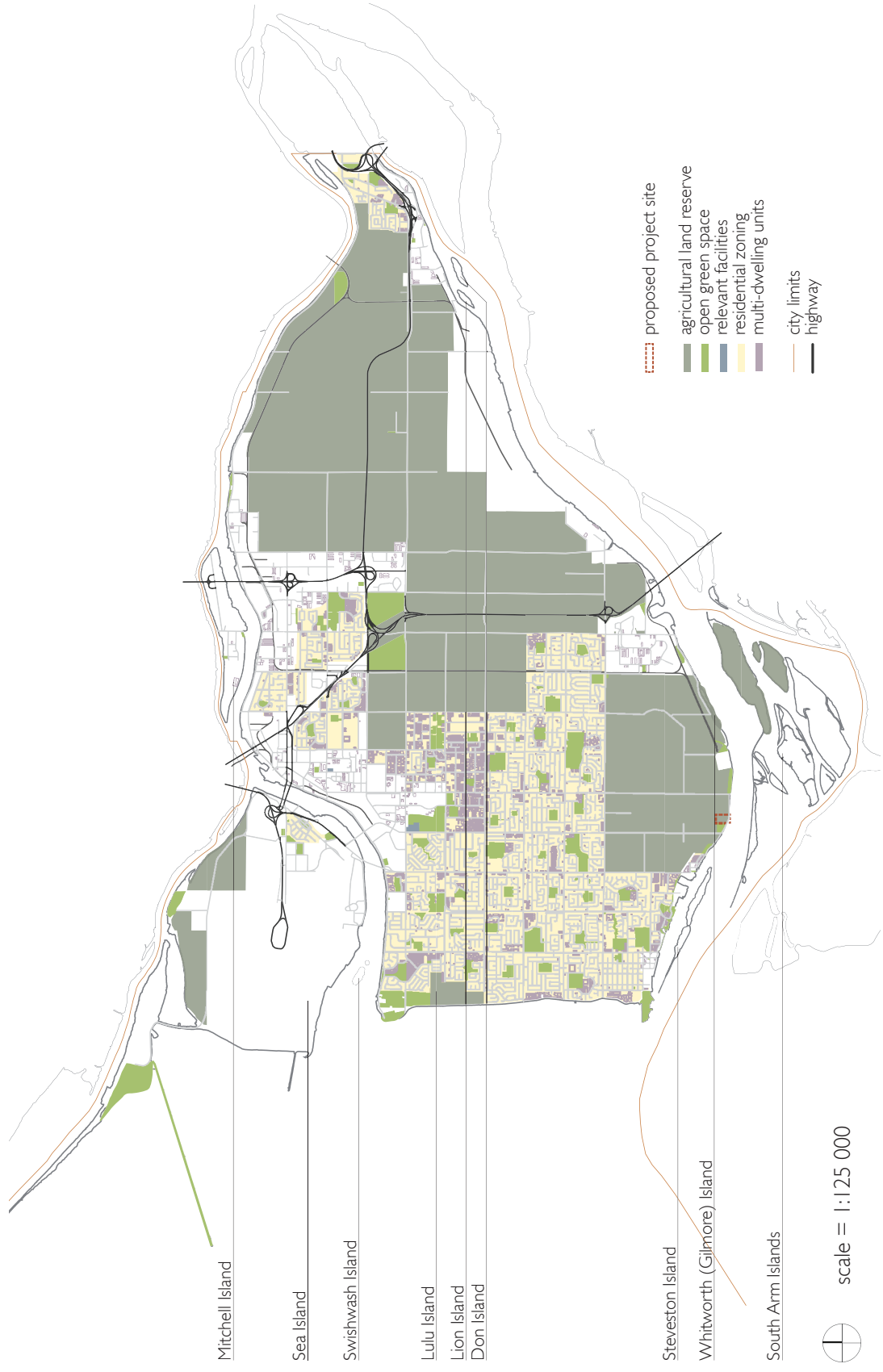
Chinese workers at Imperial Cannery, 1960s. From City of Richmond Archives, image 1985 4 670.

Following the Second World War, the landscape of the city began to change as the prosperous postwar years led to a growth in industrial development and urbanization. A growing infrastructure of roads within Lulu Island, new transportation routes via railway lines, and connection to adjacent cities via bridges and tunnels was the basis for Richmond's growth and expansion (Keen 2005, 38-42). Once predominantly farmland settlement, the City of Richmond has transformed into a markedly suburban district. In 1930, half of Richmond's 8000 residents lived on farms, with two-thirds of the municipality's land reserved for agricultural use. Today, almost all of the nearly 200,000 residents occupy Richmond's suburban core, and less than forty percent of the city's land has remained farmland, as protected by the agricultural land reserve (Wynn and Oke 1992, 84-85).

The past several decades have brought a substantial demographic growth in the City of Richmond. Reflective of the changes in the Canadian immigration policy, which favoured immigrants of European origins prior to 1967, a subsequent point system was adopted to offer all applicants equal merits regardless of nationality or ethnic background. The once predominately European population has been joined by an influx of Asian and South Asian immigrants (Wynn and Oke 1992, 250). Richmond now boasts an immigrant population of sixty percent, the highest in any Canadian city. More than half of the city's population is of Asian descent, many of whom immigrated in the early 1990's, most notably from Hong Kong, Taiwan and Mainland China (Richmond, 2007).



Urban development in the City of Richmond (outlined in red) within Metro Vancouver. Data from Wynn, and Oke, 1992.

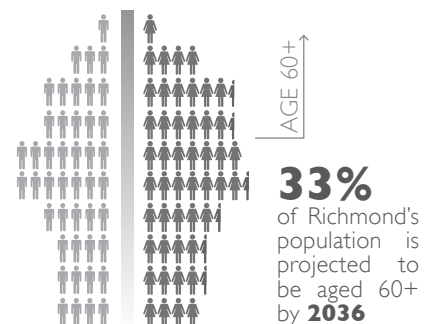
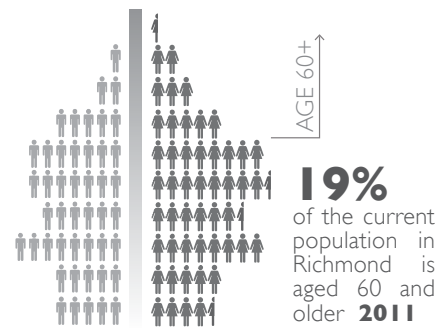


Composition of the City of Richmond. Data from City of Richmond, Geographic Information System.

A Collective Memorial

Throughout the recent growth in the City of Richmond, a collective desire for a place of memory and interment is echoed by an aspiration to commemorate the local history and the pioneering ancestors that gave way to the now thriving urban centre (LEES + Associates 2003, 2). Moreover, the aging population of the city, owing in part to the 'Baby Boom' generation (those born between 1947 and 1960) serves as an additive motivation to establish a local site of memorialization (LEES + Associates 2003, 18). Presently, all interment options are and have been situated outside of the city in adjacent municipalities, and this in part is a reflection of the unique geographical conditions of Richmond.

Analogous to the water table limitations of New Orleans, the low-lying ground of the City of Richmond, with an average elevation of one meter above sea level, restricts the tradition of full depth, in-ground burials in the city. Accordingly, the consideration for a local place of interment would evaluate alternative strategies for burial. Moreover, as the city is comprised of a diverse population, the thoughtful consideration of the unique funerary and burial practices of the multicultural demographic would be pertinent in serving the needs of the local community.



The aging population of the City of Richmond. Data from B.C. Stats, Ministry of Labour and Citizen's Services, P.E.O.P.L.E. Data Viewer.

Richmond Remembers

Despite the absence of a dedicated place of interment in the City of Richmond, the motivation of its residents to commemorate local public figures, as well as persons of private significance is evident. Several notable public memorials are located throughout the city. Situated within Garry Point Park, the *Memorial to Lost Fisherman* serves as a dedication to all fishermen lost at sea who once belonged to the historic fishing village. The adjacent *Cherry Tree Garden* was planted to commemorate the pioneering immigrants and ancestors from the Wakayama Prefecture in Japan, many of whom endured internment during the Second World War. Within the city's center, a cenotaph has also been erected as a memorial for the fallen veterans of Richmond, and serves as the site for the annual Remembrance Day ceremonies. Concurrently, personal dedications may be found throughout the city. Introduced in 1991, the *Tree and Bench Donation* program offers residents an opportunity to commemorate a loved one through private donations by dedications on park benches, picnic tables or to plant a tree throughout the city's green spaces. However, as the program utilizes public amenities for personal commemorations, the opportunity for private visits and the placement of personal items such as memorial wreaths or flowers often poses a challenge. Despite the limitations, the growing demand for such opportunities has exceeded the city's ability to accommodate the growing requests. There is undoubtedly a collective desire for a dedicated place of memory.



Dedicated park bench in the City of Richmond serving as an active memorial.



Steveston Fishermen's Memorial, Garry Point Park. Overlooking the Fraser River, the memorial was erected in 1996 to commemorate those fishermen and residents of Richmond lost at sea.



Cherry Tree Garden, Garry Point Park. The annual planting of cherry trees by the B.C. Wakayama Kenjin Kai Association began in 2000. It is dedicated to the pioneering immigrants who emigrated from the Wakayama prefecture in Japan and their successive generations, for their accomplishments and contributions to Richmond.



Memorial picnic table with dedicated plaque situated along the dyke overlooking the Fraser River. One of many examples throughout the city.



Dedicated benches at airport view park. Examples of personalized memorials found throughout the City of Richmond.

Places of Interment

The unique geographic conditions of Richmond have historically led to the interment of its residents in alternate sites outside of the city within Metro Vancouver. Prior to the construction of the first bridges connecting Richmond to its neighbouring cities, many of the pioneer families along the South Arm of the Fraser River chose to bury their loved ones in New Westminster as the tide up the river allowed for an ease of transport.

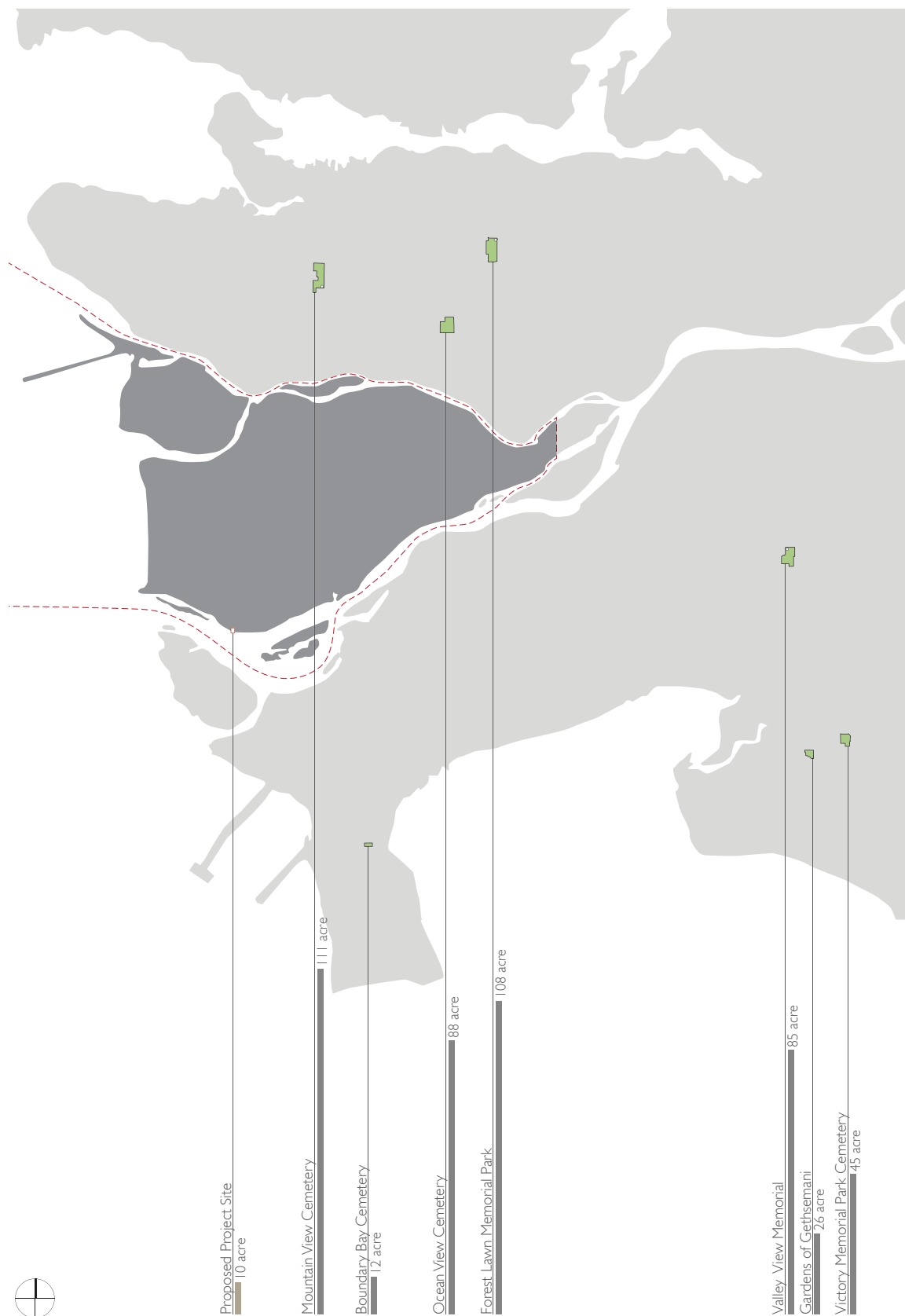
Over the past decades, the major places of disposition for Richmond residents have included cemeteries in adjacent municipalities, namely, Vancouver, Burnaby, Delta and Surrey as they offered well-drained properties to allow for in-ground burials. Traditionally, in-ground burials have been the preferred method of interment. However in recent times, there has been a growing trend towards cremation as a burial option. In order to meet the growing demands for a local place of memory, several religions affiliations in Richmond have adopted memorial and scattering gardens for the disposition of patrons that have passed. In addition, the city's first columbarium has recently been constructed to serve the community of a local Buddhist temple. However, as such spaces of commemoration are designated for residents belonging to specific religious affiliations, the desire for a place for memorialization for the collective community of the City of Richmond still remains.



Existing places of memory in the City of Richmond (top to bottom): Gilmore United Church Memorial and Scattering Garden, St. Ann's Anglican Church Memorial Garden, Steveston Buddhist Temple Columbarium, South Arm United Church Memorial and Scattering Garden.



Existing places of memory in the City of Richmond.



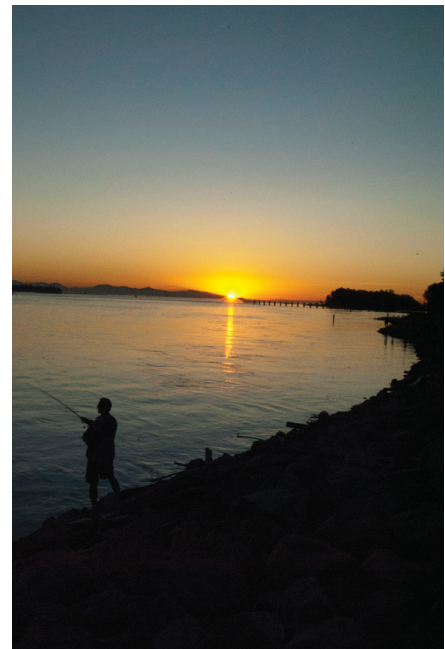
Major places of interment for residents of Richmond within Metro Vancouver.

Mortuary Traditions and Practices

The cultural mosaic that comprises the greater community of Richmond is mirrored by a diversity of funerary rituals and mortuary practices. As the latest census data indicates, sixty-five percent of the city's population self-identifies as belonging to a visible minority group, with the Chinese and South Asian ethnicities being the most prevalent. Concurrently, the diversity of religious affiliations situated within the city, further articulates the presence of a multicultural community. As such, in the design of a collective place of memory, this thesis aims to consider not only the unique distinctions that define the traditions, but strives to illuminate the unifying qualities shared cross-culturally.

Water and Landscape

Of pragmatic and symbolic significance, water is an integral element in various mortuary practices. The ancient practice of *fengshui*, literally “wind, water”, remains largely influential today amongst Chinese and Korean populations. A branch of geomancy, possibly attributed to Daoist considerations of harmony and balance with nature, the basic principles suggest that auspicious burial grounds be situated with mountains to its north and water to the south, to provide a harmonious balance of *yin-yang* energies (Chung and Wegars 2005, 37). Conversely, amongst practitioners of the Sikh and Buddhist religions, the tradition of scattering cremated remains in the earth or over flowing water, such as the river or the sea continues to be a contemporary practice (Lees + Associates



Sketch and photo of view from site towards the mouth of the Fraser River (south) with mountains in the distance.

2003, 33). Within the Jewish faith, it is customary for mourners to participate in the ritual washing of hands following an interment. This ancient custom of purification, serves as a symbolic washing away of death, and may be performed when leaving the cemetery, or before entering the home (Ashenburg 2002, 117).

A ritual needs things that speak to the senses, preferably things that have as wide a symbolic meaning as possible, even contradictory meanings. Because ritual aims always at consensus, the more ambivalent an object or a prayer, the better. Water is a symbol of life and death, of renewal as well as tears. (Ashenburg 2002, 64-65)

Water not only acts as a ritual element, but also gestures to various aspects of the landscape as well as to the city's collective past. The design of the cemetery will not only consider the significance of water as serving various ritual practices, but also utilize it to develop an architectural dialogue between the program of ritual and the experience of the landscape.

Interment

The final treatment and destination of the body is a ritual serving the acceptance of the finality of one's loss. Both earth burials and cremations have historically been the accepted methods of disposition. However, the treatment of the body to high temperatures was considered an unacceptable method and became obsolete in various cultures for some time (Puckle 1968, 210-211). As cremation has been reintroduced to Christian practices, and with the growing interest in more socially responsible burial practices in contemporary culture, cremation is becoming the

prevalent choice of disposition. This phenomenon is echoed in Richmond as over seventy-two percent of deaths in the city have been cremated (Lees + Associates 2003, 2). Coupled with the city's inability to offer traditional in-ground burial due to its flat topography and low-lying elevation (Lees + Associates 2003, 37), the design of a permanent place of memory within the city shall consider cremation as the primary method of disposition and interment.

Inherent to the design is the inclusion of a crematorium, as no such facility currently exists in the city, and because of the significance of it as a ritual space. Specifically in the Japanese culture, close mourners witness the cremation process through a window and this is followed by the ritual transfer of cremains and important bones into the burial urn (Ashenburg 2002, 81). Although others may not share in the specifics of this Japanese tradition, the opportunity to choose to witness the cremation of a loved one may aid in the acceptance of loss. The use of the term *crematorium* represents a space that serves the predominate method of disposition (although not absolute), other than traditional in-ground burials. However, as technological advances offer new accepted treatment methods, the space shall accommodate such practices. The emphasis is not so much the actual method of disposal, but the spatial qualities that accommodates the acceptance of this stage in a mourner's experience. Lastly, the final destination of the body's remains as places of interment and symbols of memory are considered. Specifically, in the design of a columbarium, a scattering pier and pond, and a birch tree orchard.



Sketch of birch tree orchard as a living memorial, gesturing to the existing tree memorial program in Richmond.

Procession

The ritual of procession and accompaniment of the body to the final resting place has been shared amongst a multitude of cultures and faiths. Historically, such processions were often elaborate and public displays of grief through streets en route to the burial site (Puckle 1968, 112-3). The funeral procession was once the most celebrated aspect of the Chinese funeral, a tradition that has been carried to North America through the streets of local Chinatowns in the early twentieth century (Chung and Wegars 2005, 201). For the Jewish, the escorting of the deceased to the cemetery is of profound significance, with designated pauses throughout the path. One may also escort the deceased symbolically by walking along the same direction to demonstrate their respect for the dead and their sympathy for the mourners (Lamm 1969, 51). Following interment, the recessional from the gravesite also serves as a symbolic gesture to “redirect the sympathies and concerns from the deceased to the mourners” (Lamm 1969, 66). Moreover, the accompanying of the body en route to the crematorium along with the reciting of significant hymns and prayers by family and friends are traditions shared by both the Hindu and Sikh faiths (Lees + Associates 2003, 31-33).

Although such elaborate displays of public grief may no longer be as prevalent in the present day, the act of procession throughout and within a cemetery prevails. As movement is implicit in the notion of ritual, the physical displacement, especially in such occasions,

is symbolic of significant change, of passage, and of journey. Accordingly, the design of the cemetery shall consider the significance of movement and sequences, specifically, in the experience of the visitor and the engagement of the participant.

Offerings

Presentation of offerings to the dead is a tradition shared by many cultures, both ancient and contemporary. One unifying belief is that material gifts such as food, garments and other earthly possessions are offered to the deceased to aid in their success in an afterlife. Historically, this may be traced back to ancient Greek and Roman burials in which gifts were placed in the grave, along with the departed (Ashenburg 2002, 54). Similarly, the ritual of burning symbolic money and paper representations of earthly materials gestures to the cultural reverence for one's ancestors, a practice that continues to be shared by Chinese and Korean descendants today (Chung and Wegars 2005, 3). Moreover, the offering of abstract and symbolic gifts such as flowers, incense and candles at a gravesite or funerary ceremony serve as gestures of respect and remembrance. For the Jewish mourner, it is customary to place a pebble on the grave following interment and after a visit, representing a token of remembrance (Lees + Associates 2003, 31-33).

Funerary rituals may be distinguished between ones about letting go and rituals that help to preserve a relationship with the deceased. The offering of food may be considered as a way of keeping in touch and communicating with the dead (Ashenburg 2002, 287).



Collage and study of the ritual of joss paper offertory burning.

Food may be offered in a ceremonial burning, such as in some traditional Chinese practices, or they may be presented as an offering and then shared amongst the living, as in the Hindu tradition of sweetmeats (Lees + Associates 2003, 31-33). Conversely, it is a Japanese tradition to share a meal at the crematorium, prior to the ritual of witnessing the cremation (Bailey and Flowers 2009, 95). In many cultures, the custom of a funerary feast or refreshments after the ceremony serves to bring a fractured group together.

The design of the cemetery shall consider how one engages the departed. Specifically, the program will include an offertory pavilion of funerary burners intended to serve the ritual of providing ancestral offerings. Moreover, the design of the interments shall consider not only the specific site conditions, but also how individuals visit and communicate with the deceased. Finally, a gathering and reception space shall be intended to serve as a collective space for the coming together of mourners.

Dedicated Days of Remembrance

Post funerary rituals may be distinguished between mourning periods immediately following interment (intended as liminal transitions back to daily life), or annual collective commemorations of the dead. Following a burial, Jewish mourners sit *shiva* for seven days, engaging in rituals of prohibition and abstinence. Similarly, the Islamic faith observes a three-day mourning period.



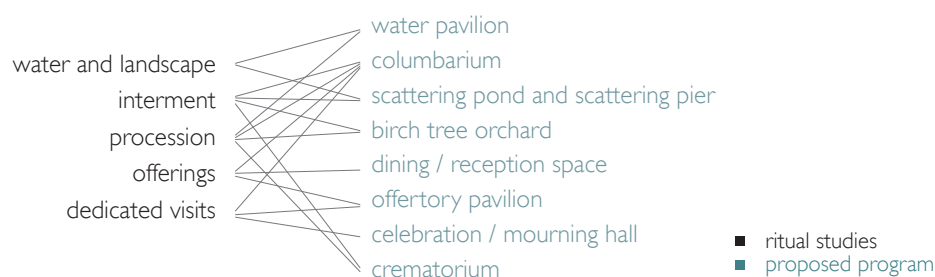
Participants at the annual All Souls' Day celebration at Mountain View Cemetery in Vancouver. From City of Vancouver Mountain View Cemetery.

Conversely, for many cultures and faiths, veneration of the dead is expressed each year at dedicated days of remembrance. *All Souls' Day*, a festival observed predominately by the Catholic Church, is celebrated annually in November. Observances include prayers for the departed, visiting and tidying of graves, and providing offerings such as flowers and candles. Buddhist mourners share a similar observance of returning to the grave seven days after the burial with offerings of flowers, incense and candles. The festival of *qingming*, or "Tomb Sweeping Festival" is a reverence of ancestors observed by Chinese mourners in April, who return to the gravesites of ancestors to clean and to pay their respects with offerings. For the Japanese, a celebration of the dead is held in July or August known as *Obon* or "Festival of the Dead". Participants typically return to the cemetery to attend memorial services and to clean family graves. Dances known as *bon odori* are also performed to entertain the dead (Ashenburg 2002, 116, 279, 280).

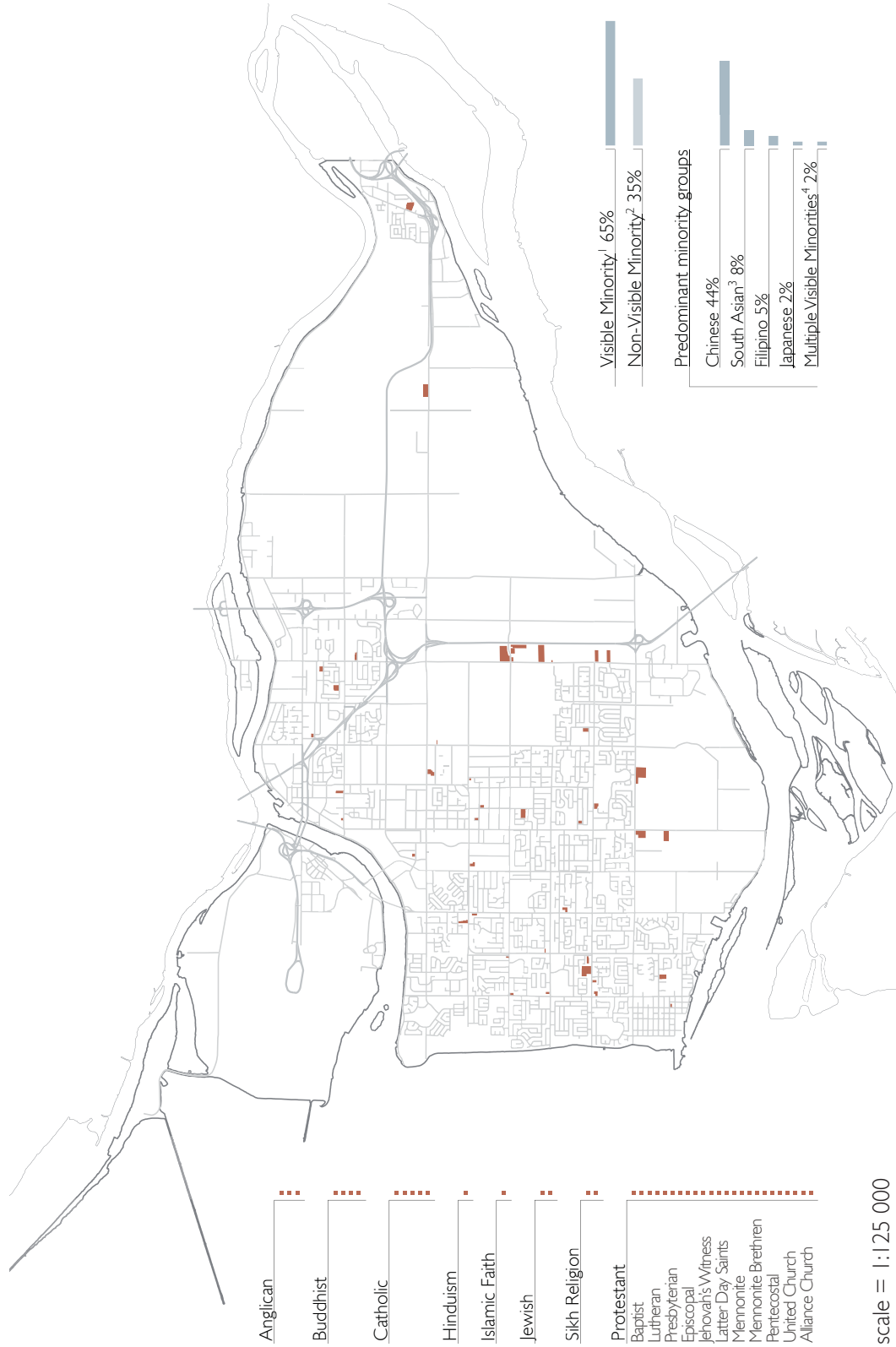
Such occasions of collective memorialization not only serves to celebrate loved ones whom have passed, but also helps to recall the pioneers and early immigrants to the country who have paved the way for the success of subsequent generations.



Offerings presented at the annual *qingming* or "Tomb Sweeping Festival" at Forest Lawn Cemetery in Vancouver.



Proposed program based on the study of mortuary traditions and practices.



scale = 1:125 000

Religious affiliations and predominant minority groups in the City of Richmond. ¹Based on population group(s) respondents identified as the one they felt they belong to. ²Includes respondents who reported 'Yes' to Aboriginal identity and those not considered to be members of a visible minority. ³For example: East Indian, Pakistani, Sri Lankan. ⁴Includes respondents who reported more than one visible minority group. Census data from City of Richmond Ethnicity Hot Facts.

CHAPTER 3: COLLECTIVE MEMORIES

Site for a Lasting Landscape

Situated along the historic South Arm of the Fraser River is the chosen site for an urban cemetery in the City of Richmond. The ten acres of city owned property, with adjacencies to the city's fruit tree nursery and the abundant river, gestures to the local thriving histories of agriculture and fishing. Located amongst stretches of farmland protected by the agricultural land reserve, the procession to the site from the urban centre serves as a liminal transition from the density and the noise of the everyday. With its main access from Dyke Road, the protected site is situated approximately two meters below the city's fortification, which in turn offers spaces of private reflection and assembly for the anticipated purpose and program.

The siting along the flowing water body with distant views of mountains not only offers a vast and tranquil landscape, but also considers the significance of a well-sited interment based on the principals of *fengshui*, a traditional Chinese system of geomancy that continues to be practiced amongst the city's largely Asian-descendent population. Presently, markers and symbols of memory can also be found along the dyke adjacent to the site, on the park benches that face the open river with views to the ocean, as well as on the river rocks and along the road. The site not only serves as a place for recreation for the local community, it also gestures to a shared heritage and holds a significance amongst the residents of City of Richmond.



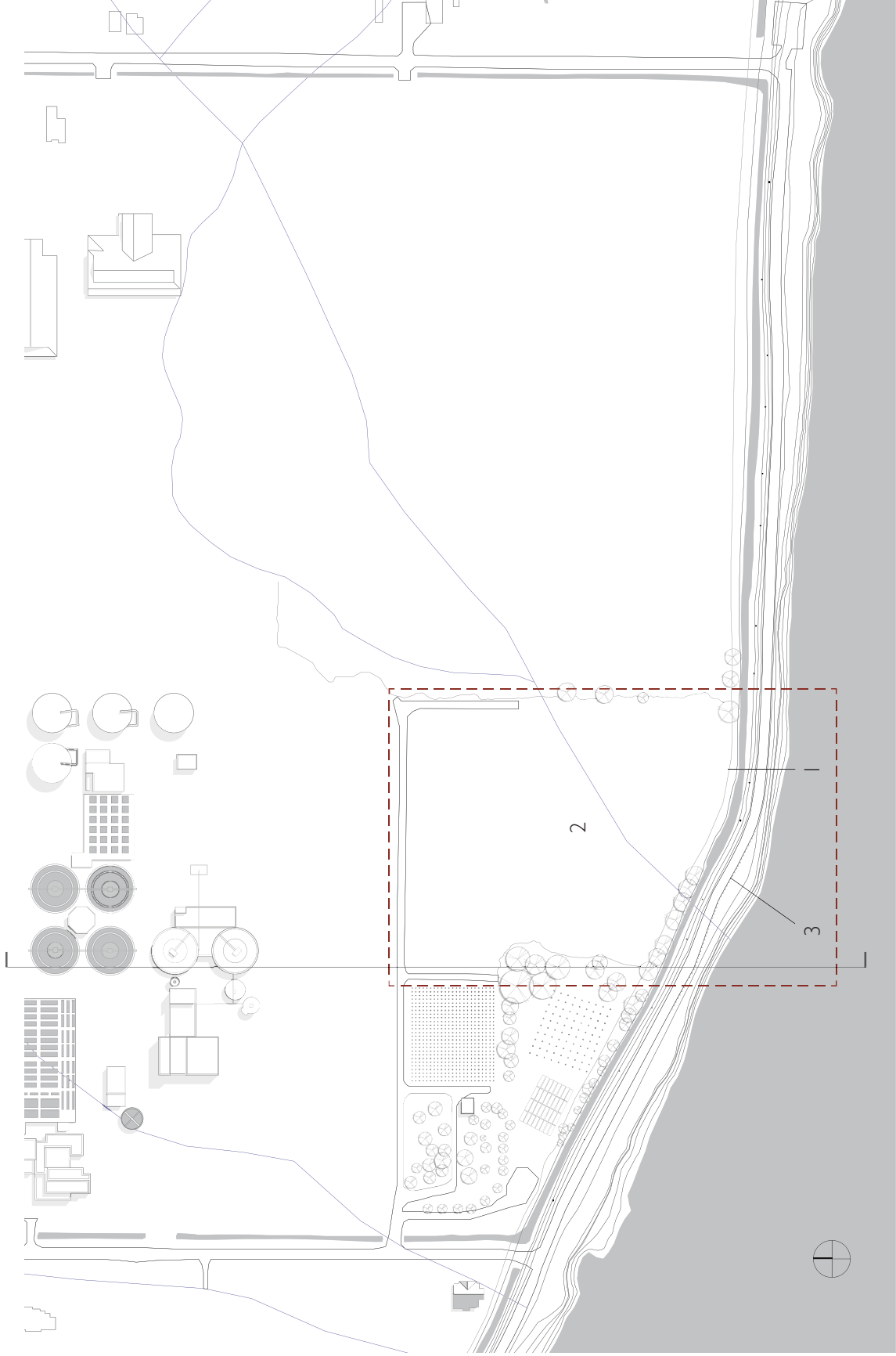
Personal markers of memory presently found along Dyke Road adjacent to proposed site.



Dedicated river rock presently found adjacent to proposed site.



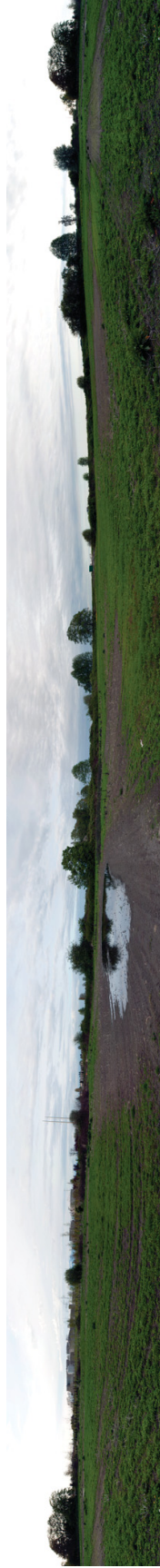
Site situated along the south arm of the Fraser River and the procession from the urban center.



Existing conditions of proposed site including reference to historic sloughs (numbers reference images on following page, p34). Scale = 1:4000.



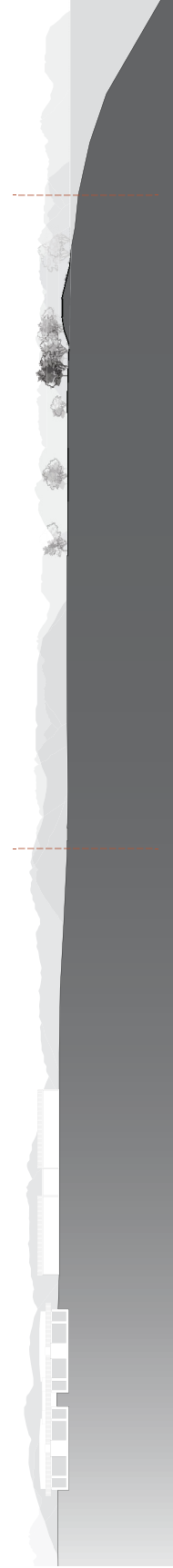
Photocollage of existing entry to the site (refer to 1 on previous page for site location, p33).



Panorama of existing site conditions (refer to 2 on previous page for site location, p33).



Photocollage of view from the river's edge adjacent to site (refer to 3 on previous page for site location, p33).



Section of proposed project site (refer to previous page for section cut location, p33).



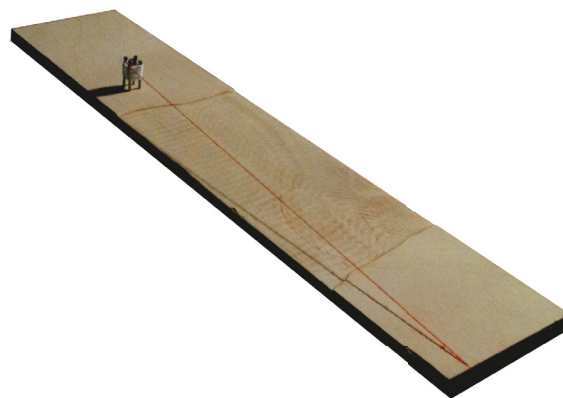
Typical site section and projected water elevations. Scale = 1:500.

Translations and Design

Consideration of engagement and experience served as motivations for each design intention. The ritual sequence of the various visitors, and in particular, moments of collective pause and gather, offered an insight to the possibilities of how the program may engage the landscape, and conversely, how the landscape may bind such rituals to the local culture.

Specifically, the proposed program is inferred from the pragmatic considerations and study of the mortuary traditions and practices reflective of the cultural mosaic that comprises the City of Richmond. Moreover, the formal articulation of the program gestures to an understanding and translation of the intentions that underlies the various practices, namely, funerary rituals about letting go and rituals about maintaining a relationship with the dead. Finally, the architectural expression is grounded in an understanding of the local landscape, both physical and cultural, and through such translations strives to bridge the past with its future.

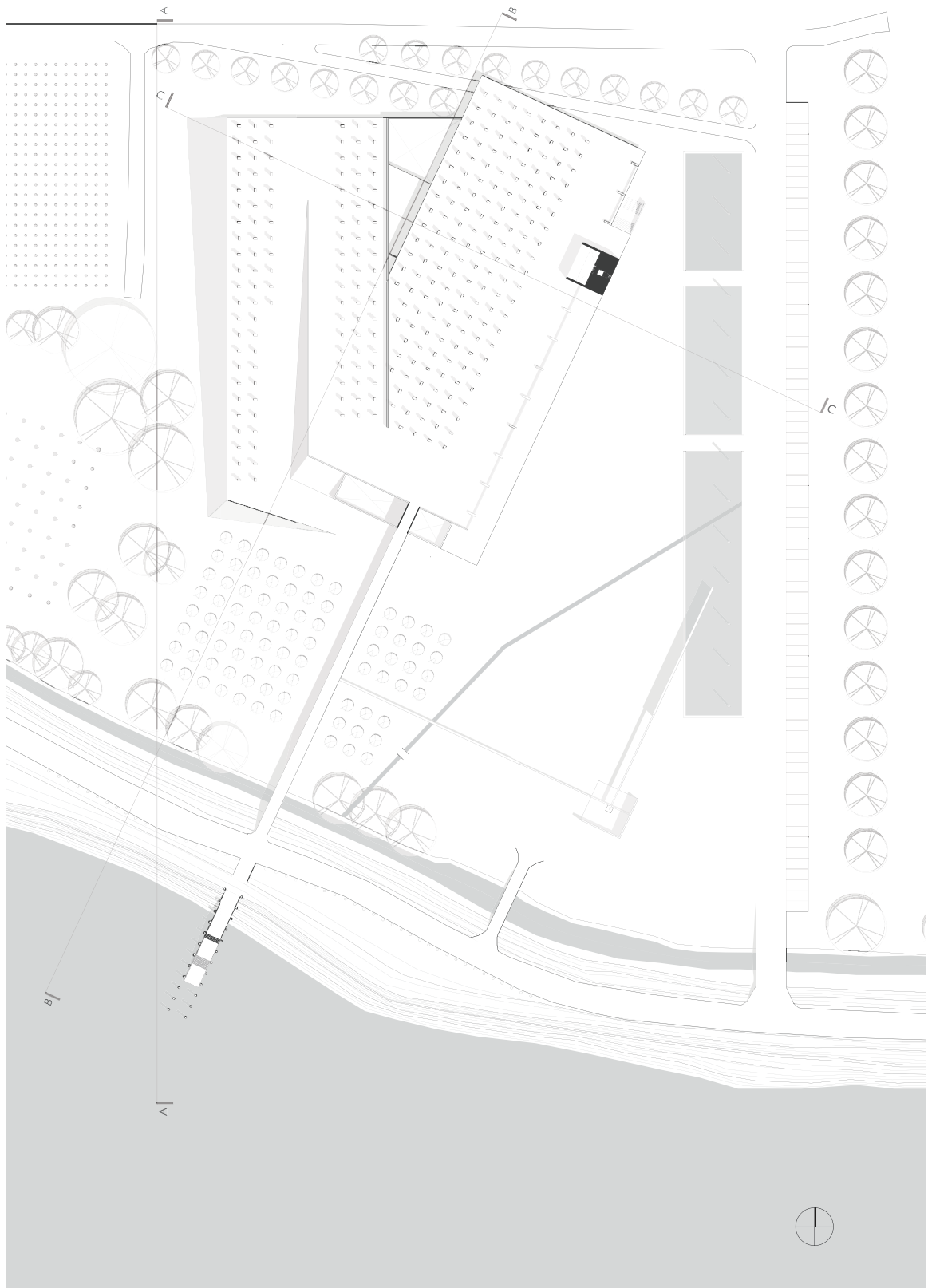
...the cemetery remains a moral force-field in society, acting as a meeting-place of past and future aspirations, as well as a reminder of the transience of human wishes and actions. (Worpole 2003, 160)



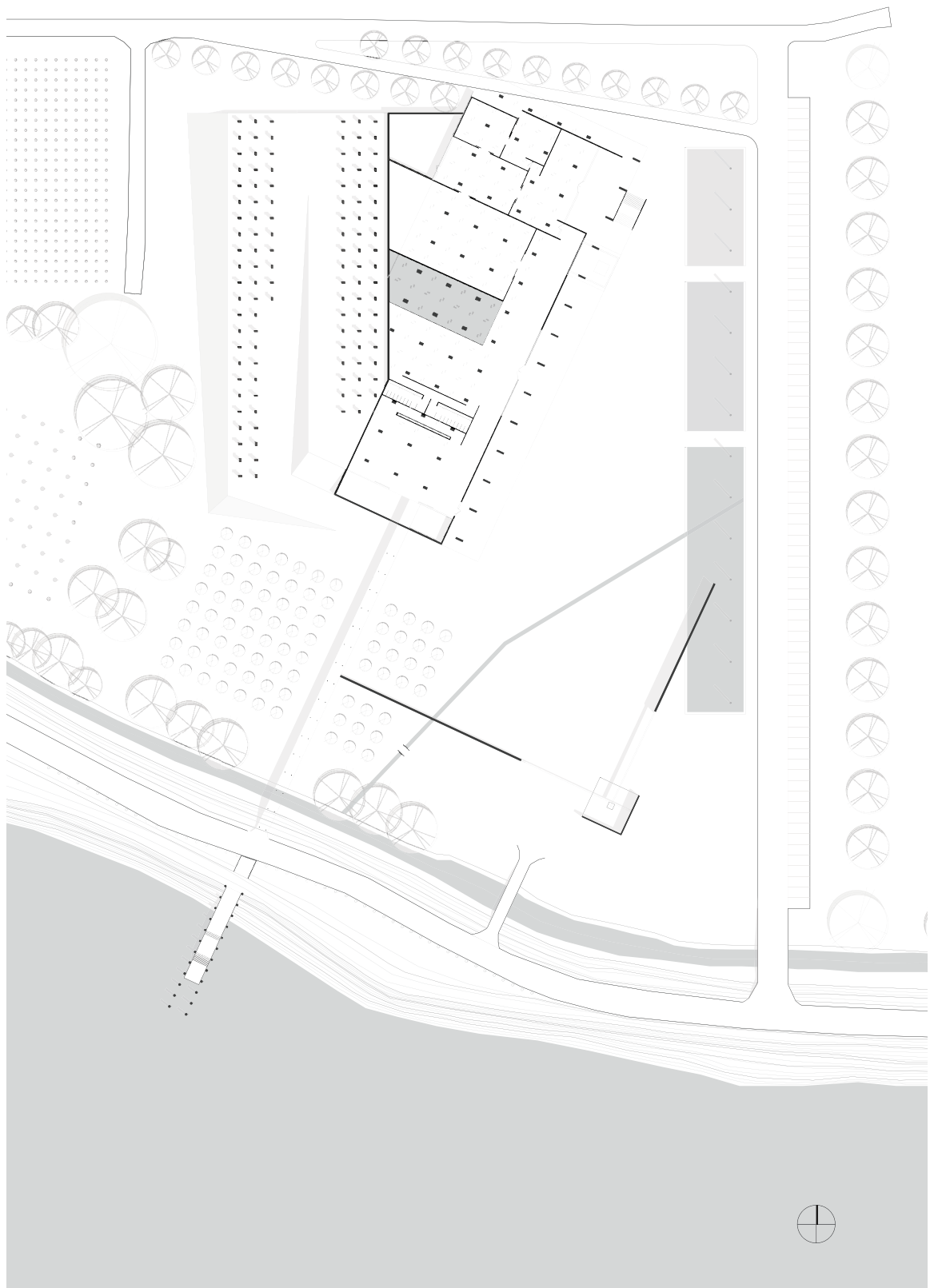
Study of processional ascend to ritual space.



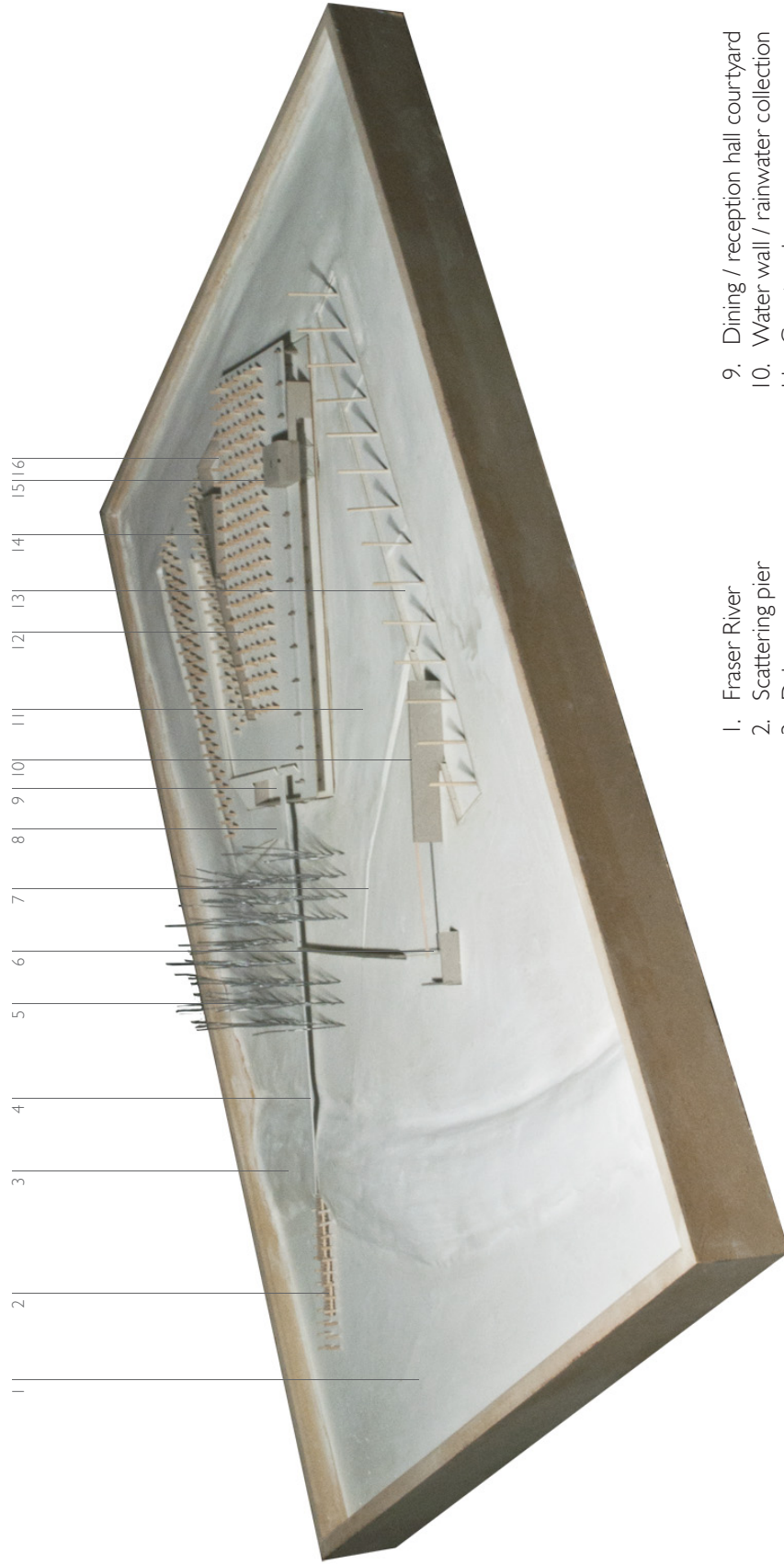
Site plan of proposed cemetery in context within the surrounding landscape. Scale = 1:2500.



Roof plan showing the interment grid and upper level of the offertory pavilion. Scale = 1:1500.



Ground plan of the interior ritual spaces below the columbarium. Scale = 1:1500.



- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Fraser River 2. Scattering pier 3. Dyke 4. Orchard path over ditch 5. Birch tree orchard 6. Water pavilion / entry 7. Historic slough 8. Columbarium ramp entry | <ol style="list-style-type: none"> 9. Dining / reception hall courtyard 10. Water wall / rainwater collection 11. Courtyard 12. Columbarium / roof 13. Scattering pond 14. Main celebration / mourning hall 15. Offertory pavilion 16. Cremation viewing space courtyard |
|---|--|

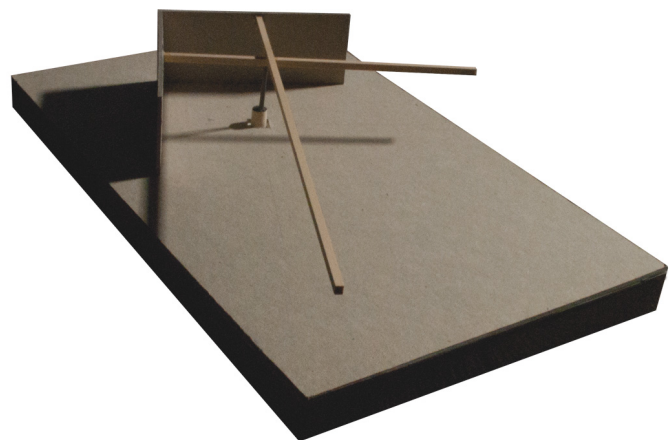
Aerial perspective from the Fraser River looking north-west towards the site.

Water and Landscape

Rooted in both ritual and landscape, water serves as an element that engages the user in movement and in pause, as well as embodies the physical properties of the site, in its reference to the historic slough and the ever-changing Fraser River.

Water Pavilion

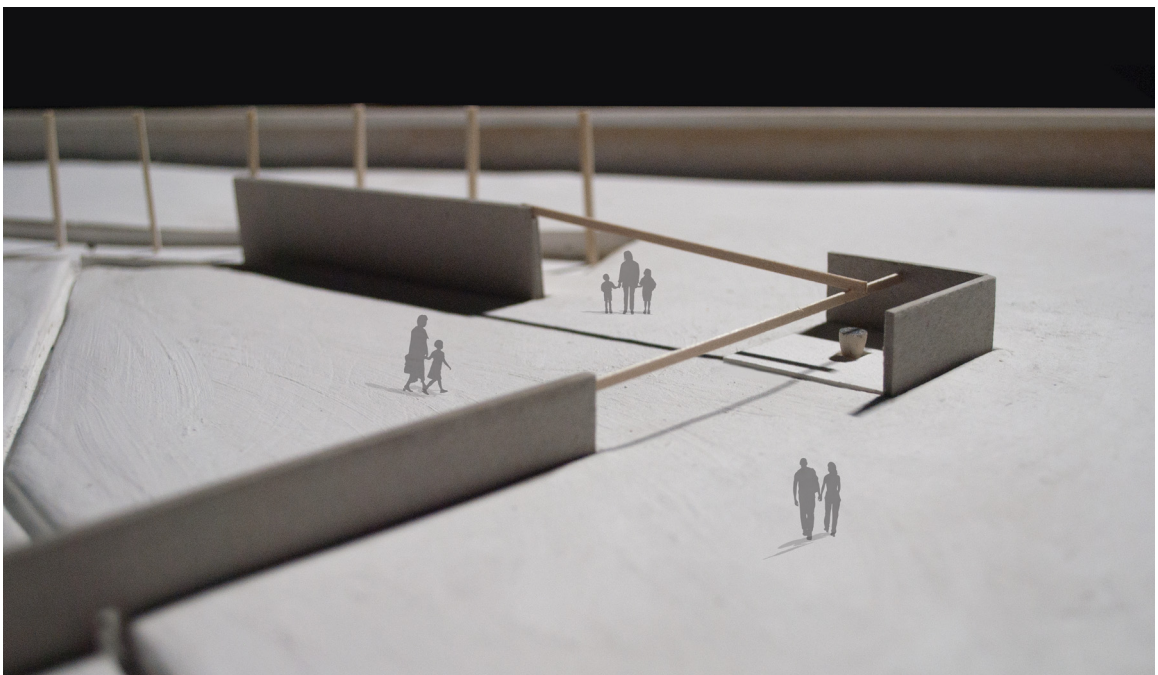
The approach to and from the cemetery is mediated by the water pavilion, expressed by the pulling away of two linear elements that together create a threshold of pause. Intended to serve the symbolic washing away of death, the ritual space engages the user upon arrival and departure. Defined by two walls and a change in the texture of the ground, the in-between space is continuous with the landscape, yet the water vessel that one engages in ritual offers a haptic scale of quiet contemplation. Symbolic of the forward movement of the ratchet and pawl mechanism, collected rainwater from the adjacent wall flows from above the vessel and returns to the ground as the vessel overflows with each use.



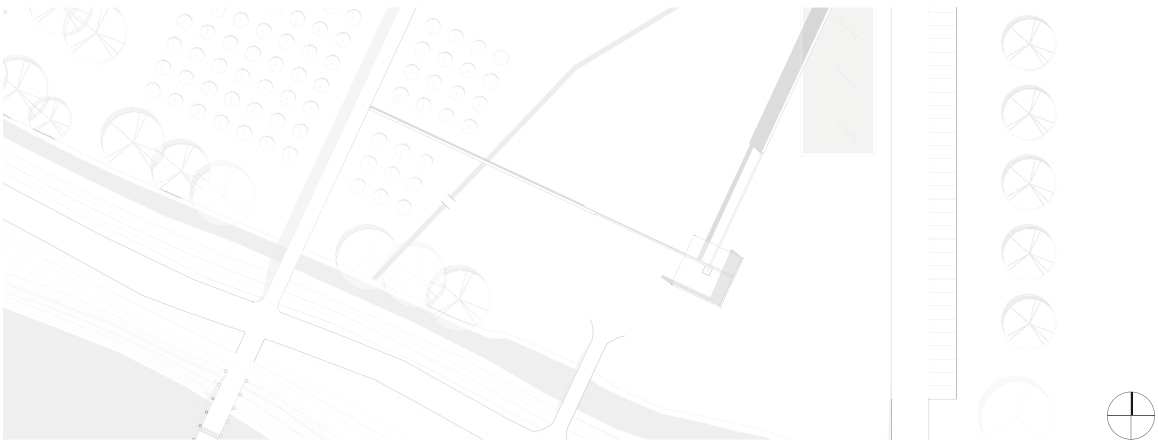
Study of water pavilion.



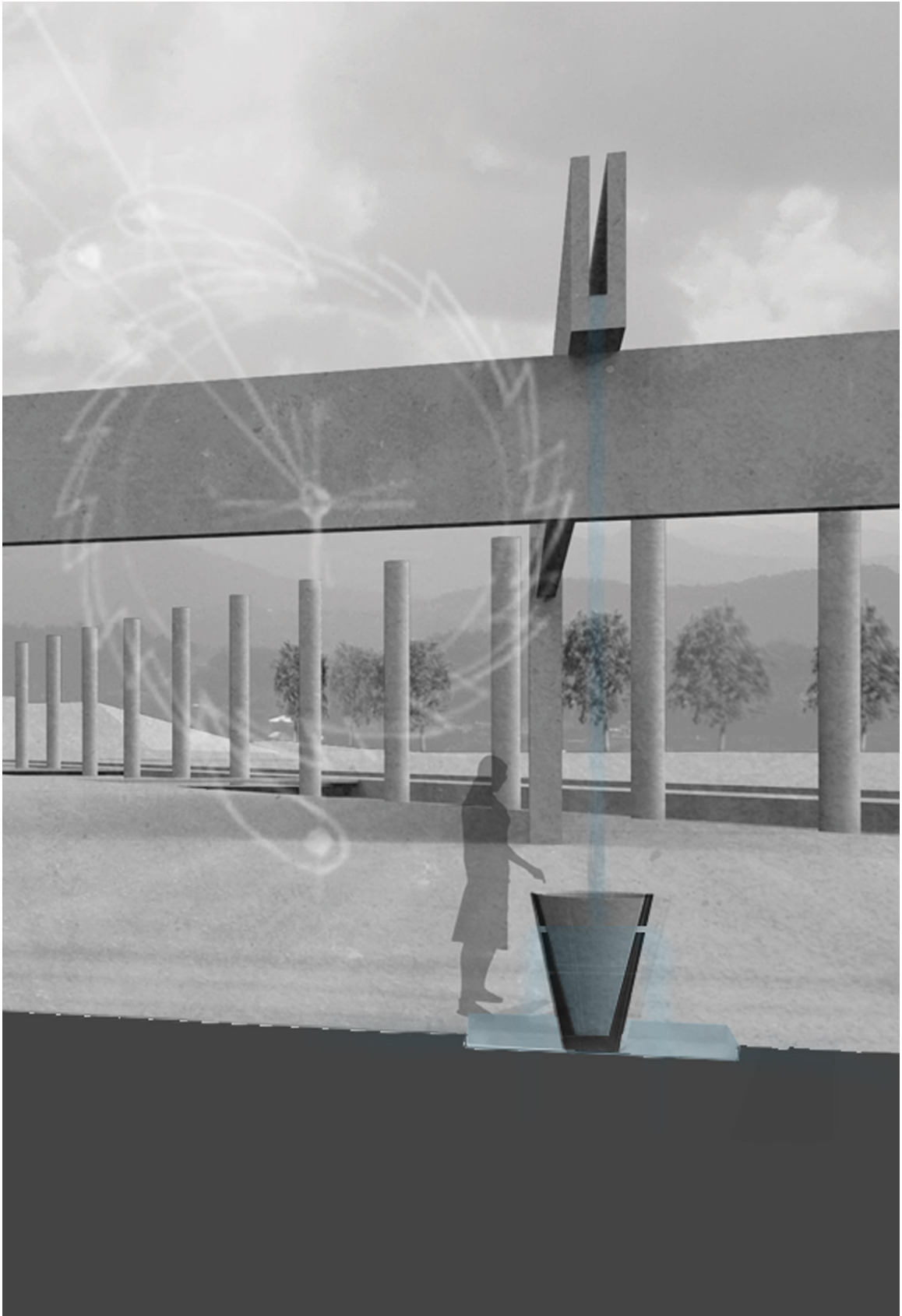
Entry into the cemetery anchored by the two walls that frame the water pavilion to the right.



The in-between space of the water pavilion created by the pulling away of the two adjacent entry walls.



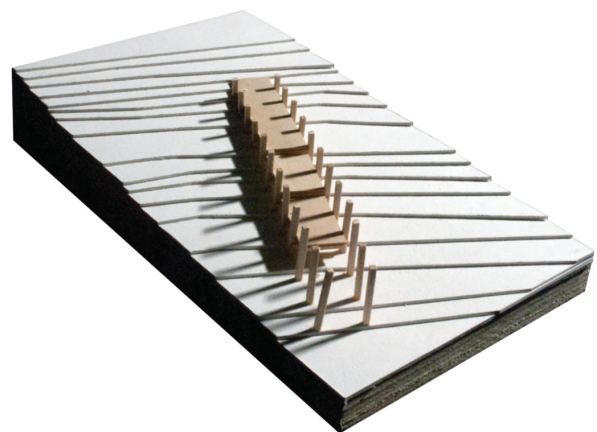
Plan showing the relationship of the entry and the water pavilion. Scale = 1:1500.



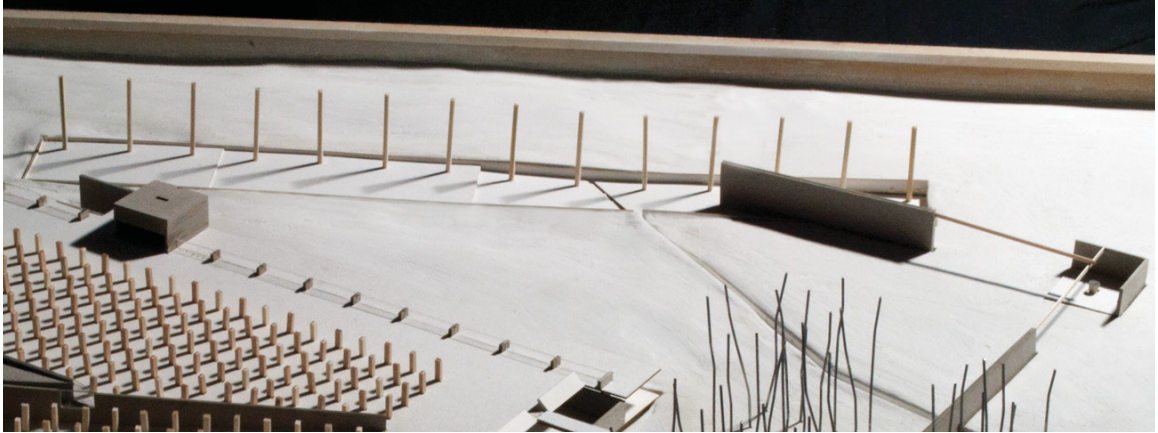
Section of water pavilion showing the overflow of water in the vessel draining back into the landscape.

Scattering Pond and Scattering Pier

Connected to the water pavilion by the north entry wall and acting as an overflow basin to the rainwater collection, the significance of water in ritual is further articulated by the scattering pond. Running along the north-south axis of the site, the stepped basin offers a threshold condition to the adjacent landscape as well as affords a place of collective memorialization and scattering of the cremated. The cascading water of the shallow pond is not only significant to ritual but also gestures to the movement of the river. This gesture is further expressed by the draining of the pond into the historic slough, such that the water then returns to the river via the dyke-ditch system. The significance of the Fraser River is reflected in the cascading steps of the pond, symbolic of the river's high and highest recorded water level and the projected 200 year flood line. Sharing in this gesture is the scattering pier outside the immediate site, projecting into the river. Continuous with the birch orchard path, the scattering pier references the local and historic fishing community and serves as a place of solace. The stepping of the pier not only offers privacy in an open landscape but also enables one to experience and engage the continuous flux of the river.



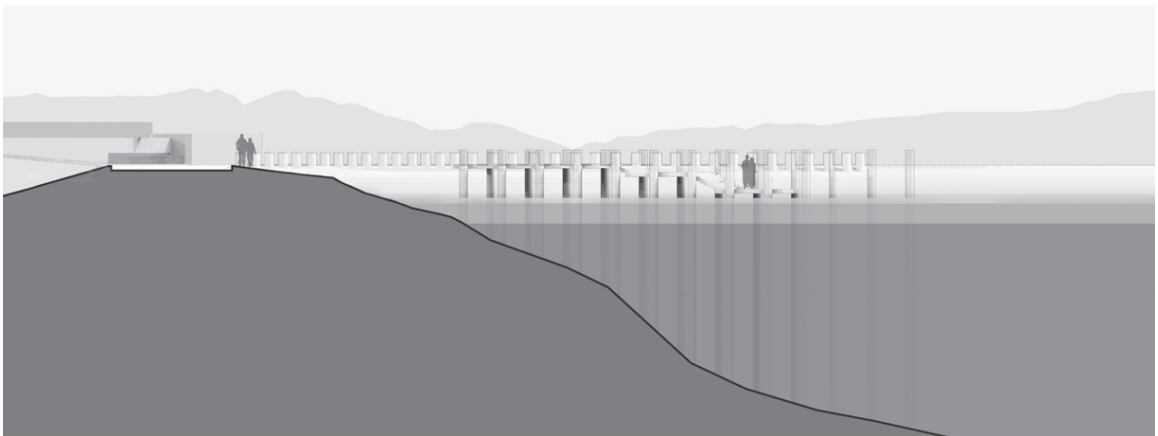
Study of scattering pier.



Water flows from the cascading steps of the scattering pond and drains into the historic slough.



The scattering pier, continuous with the orchard path, projects into the Fraser River towards to ocean.



Section showing the relationship of the stepped scattering pier to the Fraser River. Scale: = 1:500.



Perspective of main entry threshold showing the water pavilion to the right.



Perspective of courtyard space showing the scattering pond to the left and access to the above ground interment to the right.



View of the Fraser River looking towards the ocean from the scattering pier:

Interment

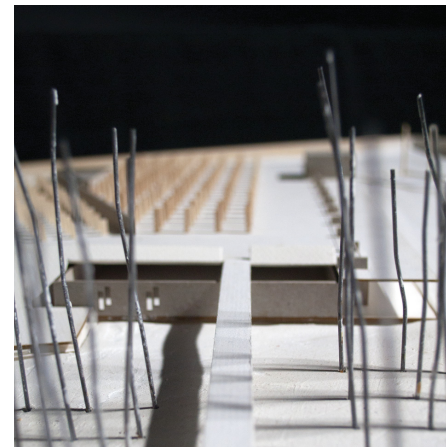
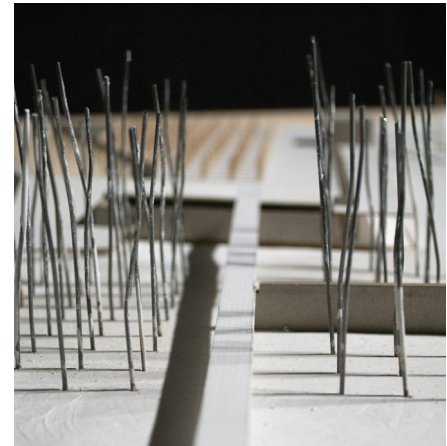
Symbolic of the return to the earth, the scattering pond and pier serve as ritual spaces of movement and letting go. Conversely, markers and interment of the cremated offer dedicated places of memory where the living may go to visit and remember.

...the landscapes and buildings of the dead also act as confessional spaces, places in which the living can communicate with those who have gone before. ...the dead are thought to sit in judgement on the living, and act as a sounding-board for the moral debates of the living community. (Worpole 2003, 159)

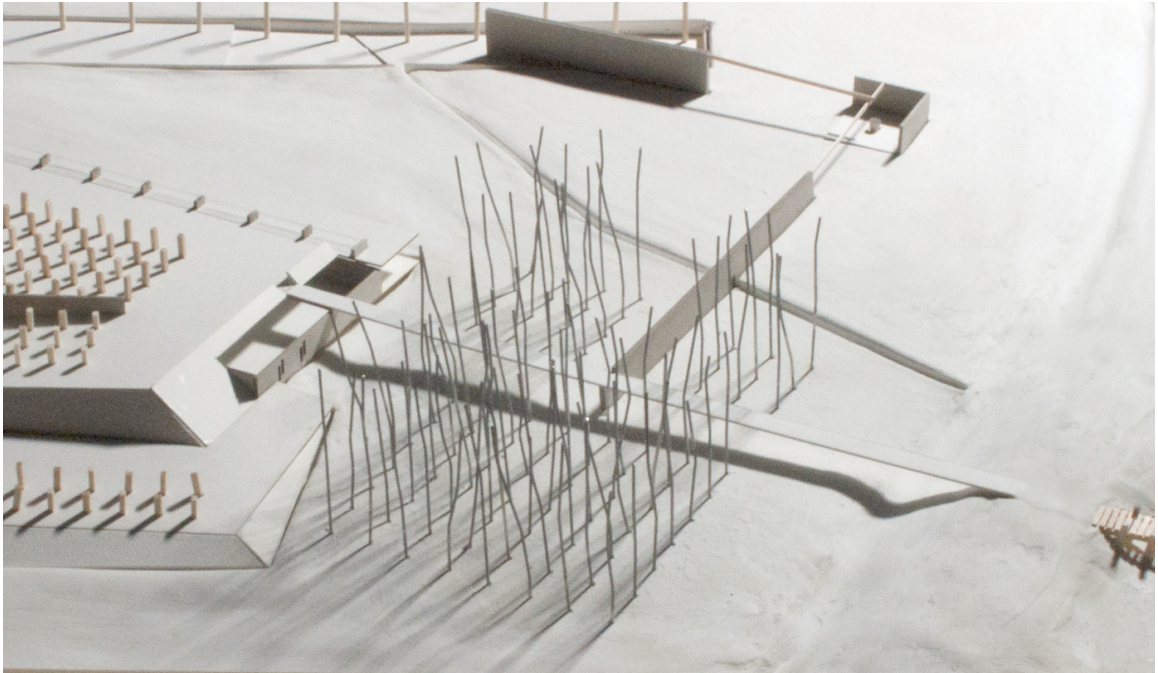
Birch Tree Orchard

Continuing in the tradition of the city's tree donation program, the birch tree orchard serves as a living memorial for the departed. Beginning along the south periphery of the cemetery, the orchard not only acts as a threshold between the public dyke and the private space of the columbarium within the site, but also references the neighbouring farming community as well as the adjacent fruit tree orchard. As a juxtaposition to the surrounding low-lying agricultural land, the tall slender trunks of the birch tree thus acts as a landscape marker as one approaches the site.

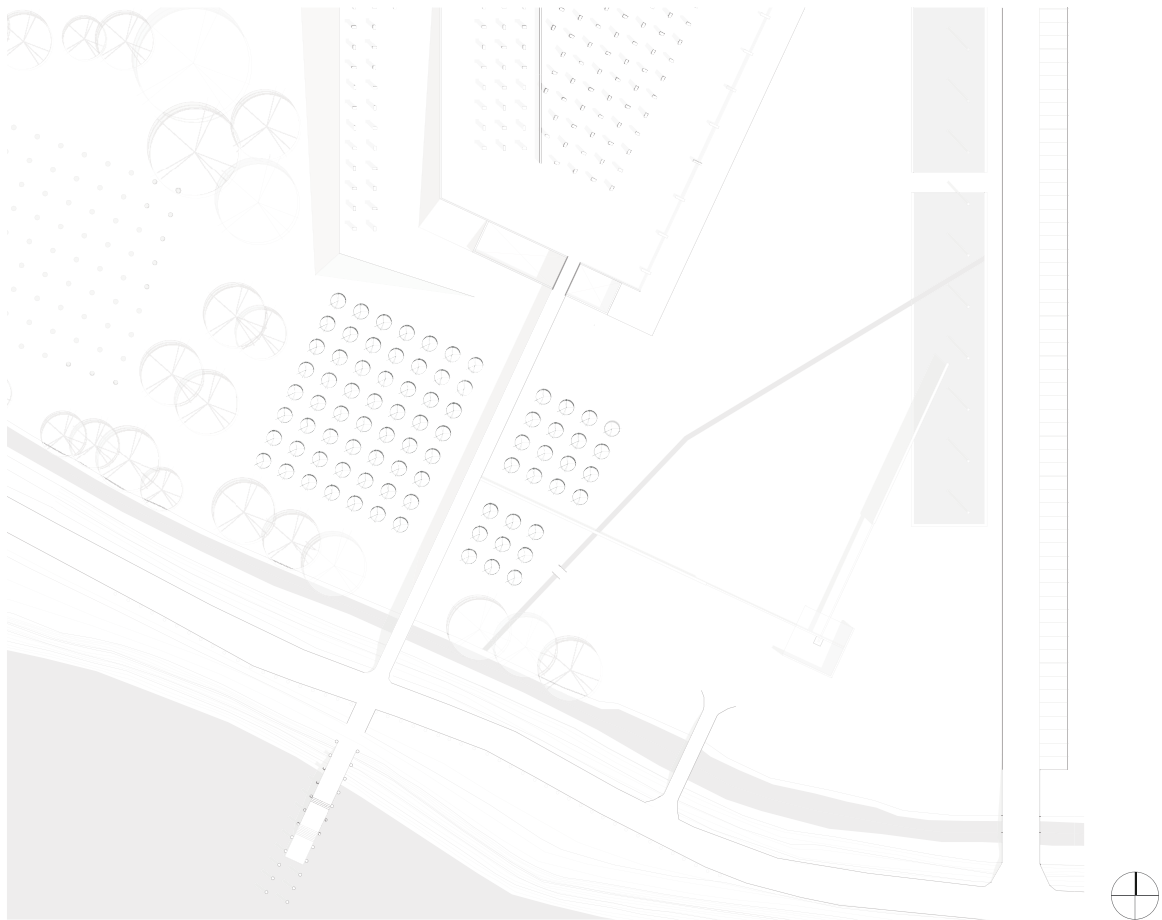
Finally, as the birch trees become planted and develop to maturity over time, the grid of the completed orchard will echo the rhythm of the columbarium pillars beyond. Accordingly, the landscape of the cemetery will respond to the seasonal qualities of the birch, maturing along side the trees and throughout the seasons each year.



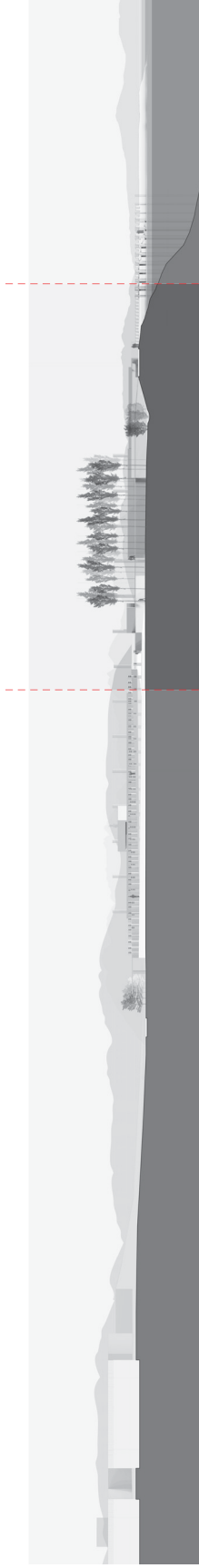
Procession along the birch tree orchard path towards the columbarium over the courtyard space of the dining / reception hall.



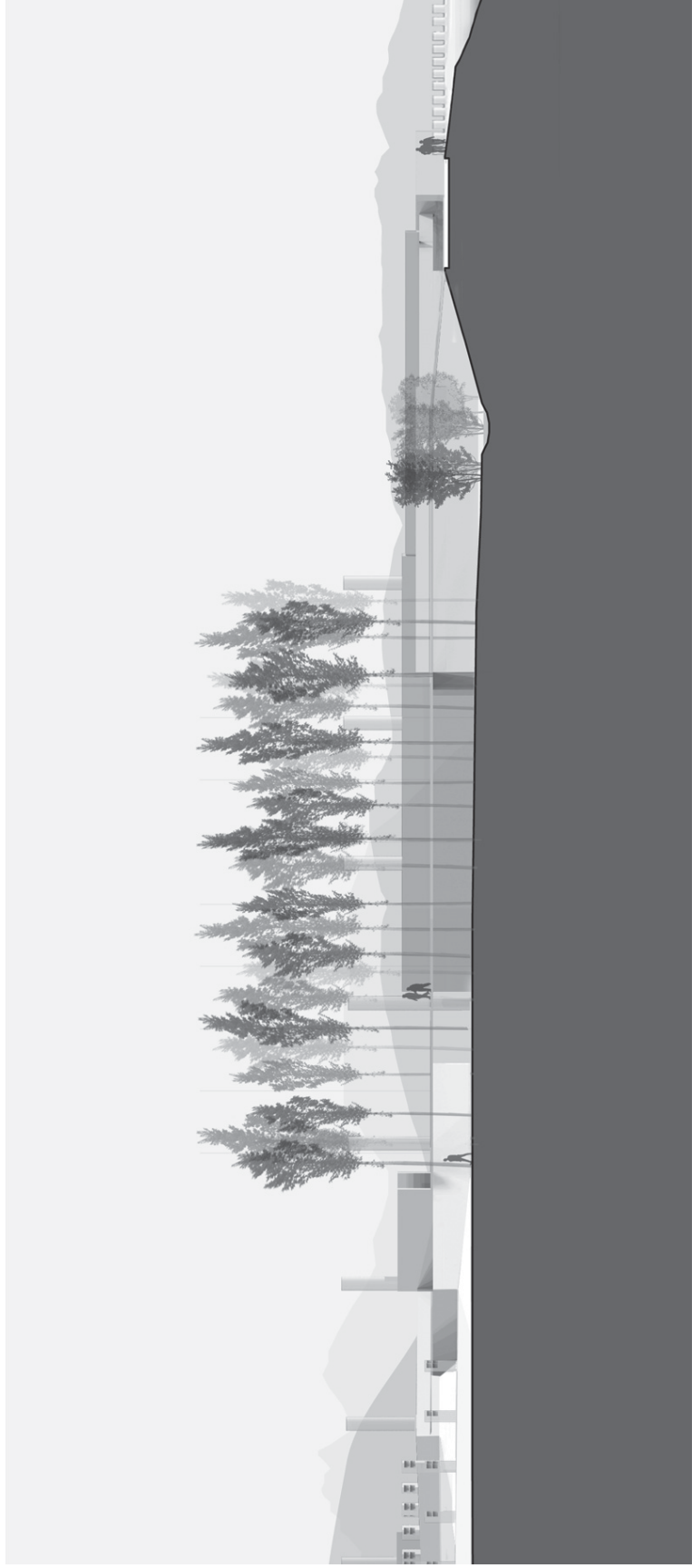
Juxtaposition of the tall birch tree orchard to the surrounding low-lying landscape, acting as a threshold between the dyke (right) and the columbarium (left).



Plan of completed living birch tree memorial within the cemetery. Scale = 1:1500.



Birch tree orchard section (refer to section AA of roof plan for section cut reference, p38). Scale = 1:2000.

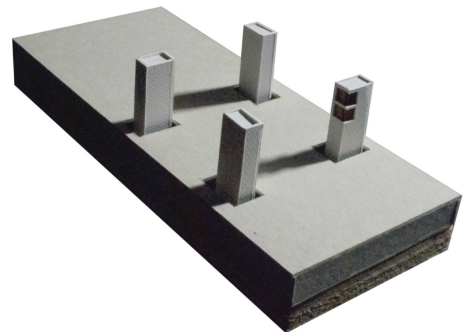


Birch tree orchard section (refer to section AA of roof plan for section cut reference, p38). Scale = 1:500.

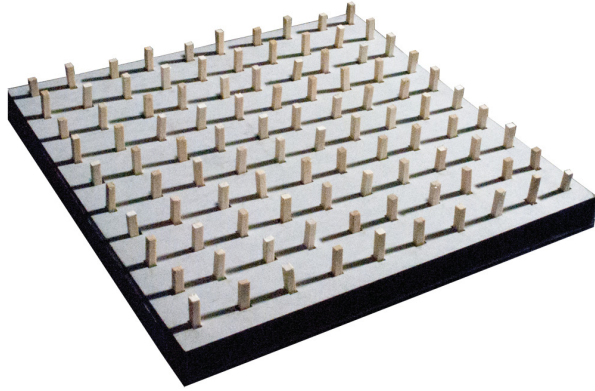
Columbarium

Continuous with the living memorial of the birch tree orchard, the formal rhythm of the columbarium pillars offer a sense of unity, as well as places of private memorialization. In consideration of the city's unique site conditions, the columbarium pillars are raised above ground with its niches situated above the two hundred year flood line. Reminiscent of traditional grave markers, the four niches within each pillar are placed at eye level so the living may communicate and converse with those at rest. Concurrently, the niches are situated at opposite ends of each pillar to offer privacy to the various visitors. The pin-wheeling grid of the pillars further enable one to stand in discretion so that each corner may be experienced as a private nook amidst the columns.

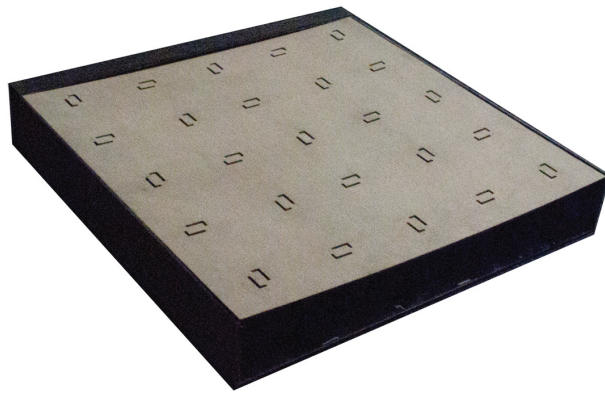
The grid of the pillars also informs the structural grid of the ritual spaces below the roof. Where the pillars are grounded to the landscape, the columns widen to accommodate the roof and become structure. The roof thus floats above the extra width of the column, allowing the pillars to remain continuous throughout and into the ground. Where the pillars are not grounded to the site, the roof cuts away to allow for a separation and a distinction, as well as to let light into the spaces below. This expression, in combination with the drop in the roof to accommodate the pillars, gestures to and creates an awareness for those occupying the ritual spaces within the building, of the sacred that lies above.



Study of columbarium pillars.



Study of the pin-wheel grid of the columbarium pillars.



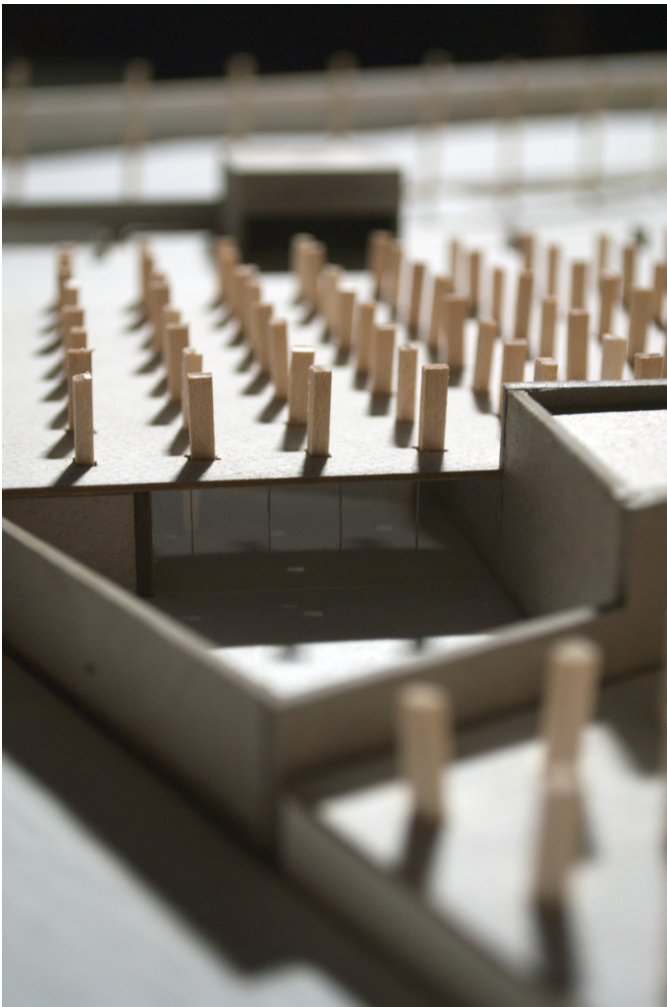
Study of the cuts in the roof to bring light into the ritual spaces below.



Plan showing the pin-wheel arrangement and location of cuts in the roof. Scale: = 1:50.



Final model of the main building and the columbarium above.

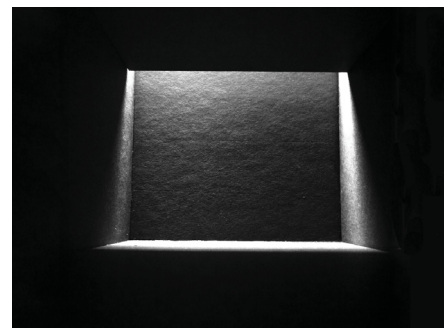
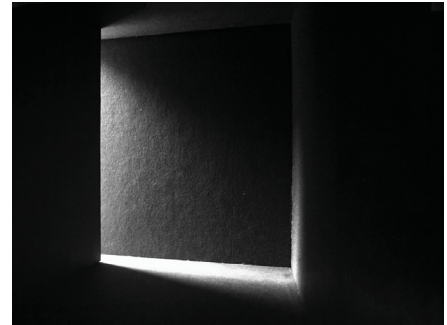
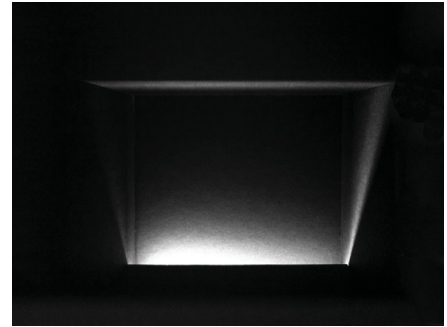


View of the courtyard adjoining the cremation viewing space and the columbarium above.



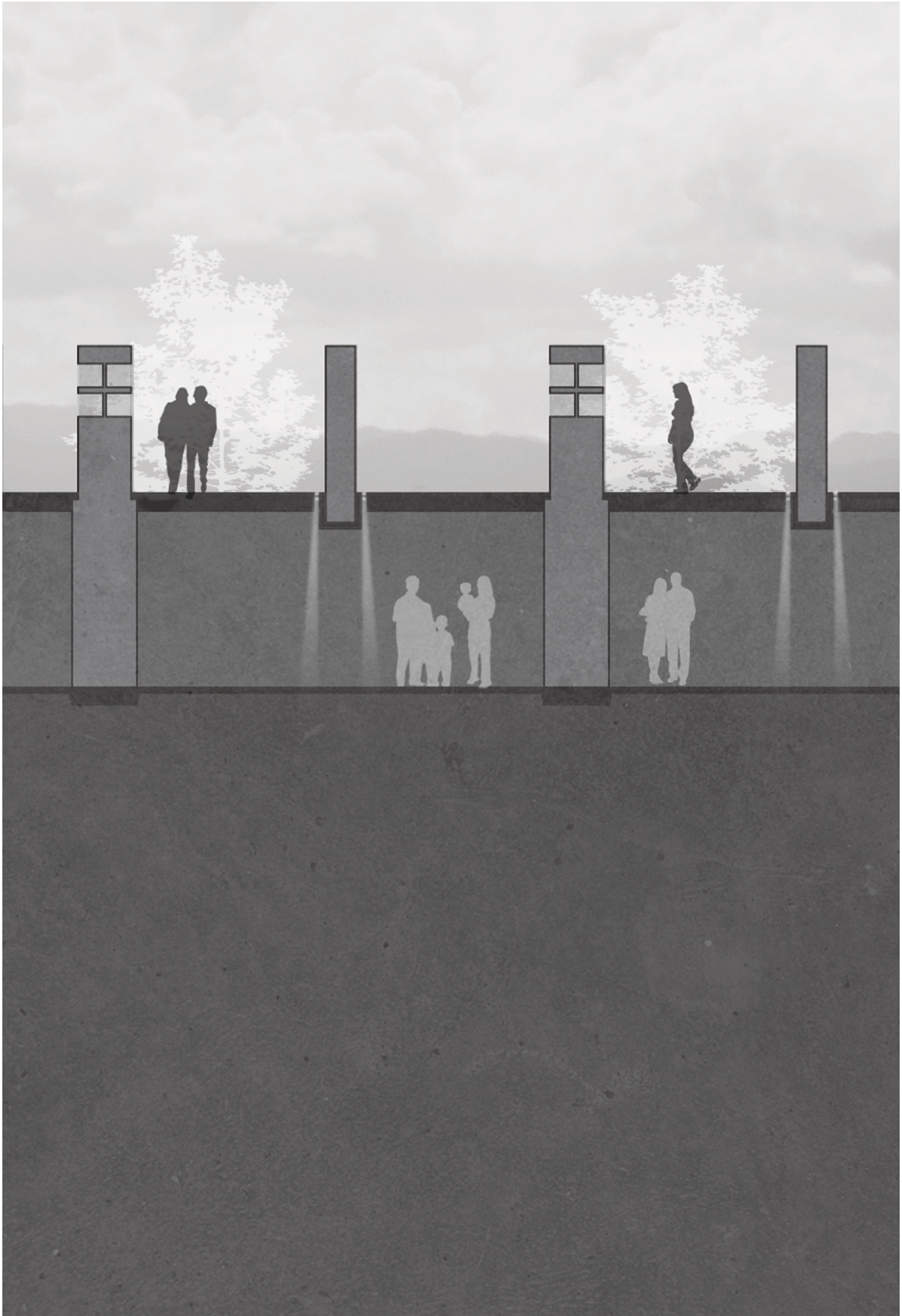
Plan showing the formal ritual spaces at ground level. Scale = 1:1500.

1. Dining / reception hall
2. Entry hall
3. Main celebration / mourning hall
4. Cremation viewing space
5. Crematorium

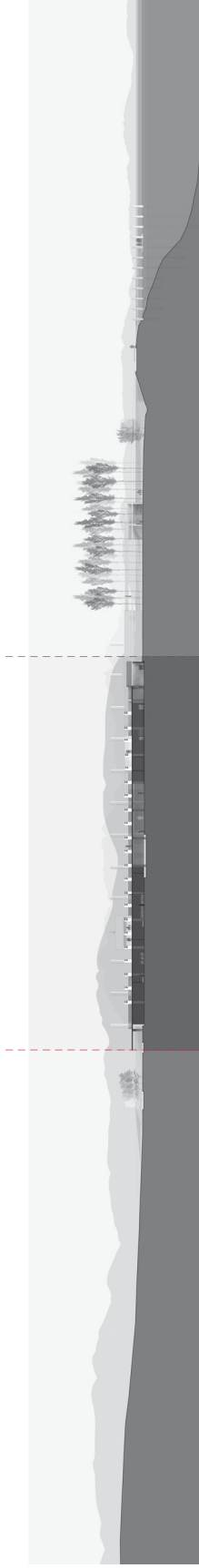


View within the final model showing the structural grid and the interior light quality in the entry hall below the columbarium.

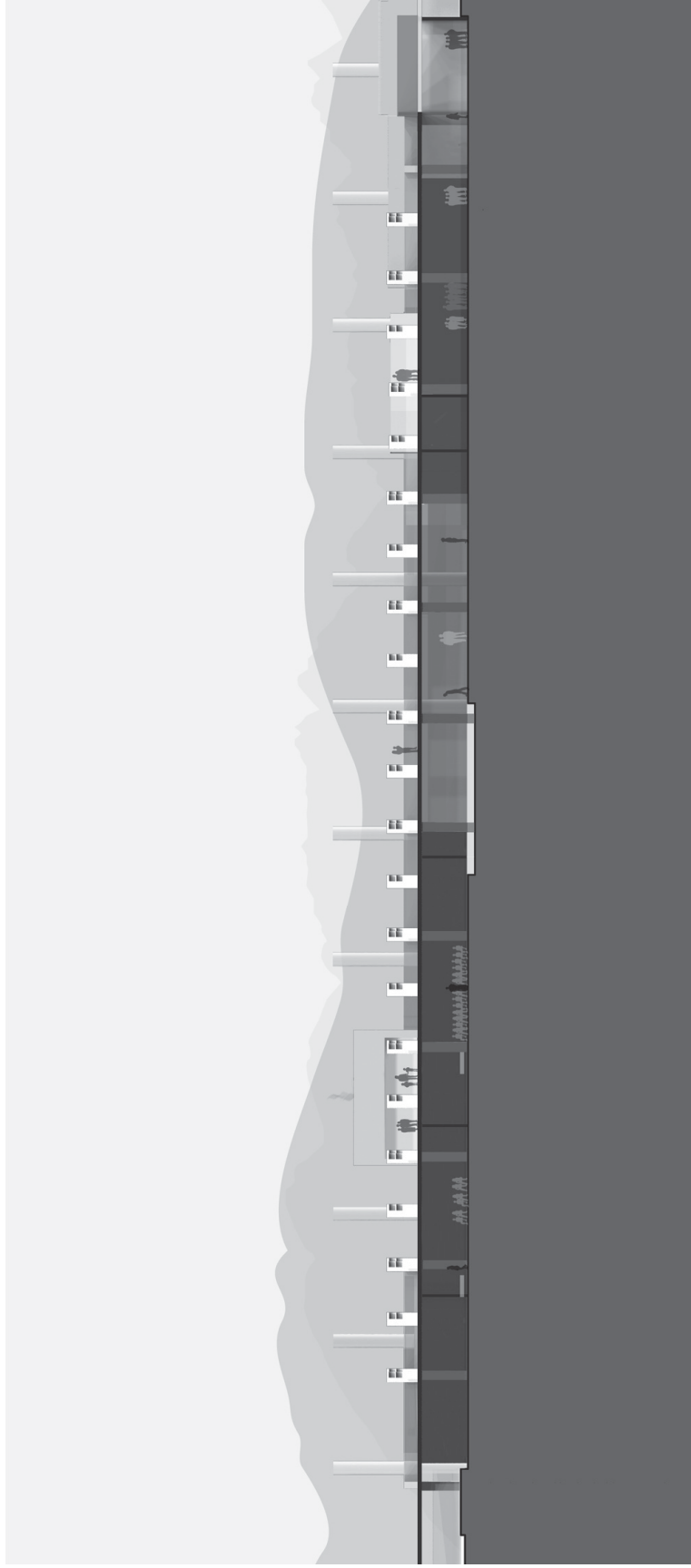
Studies exploring the qualities of light within a ritual space.



Typical section showing the relationship between the main building and the columbarium pillars.



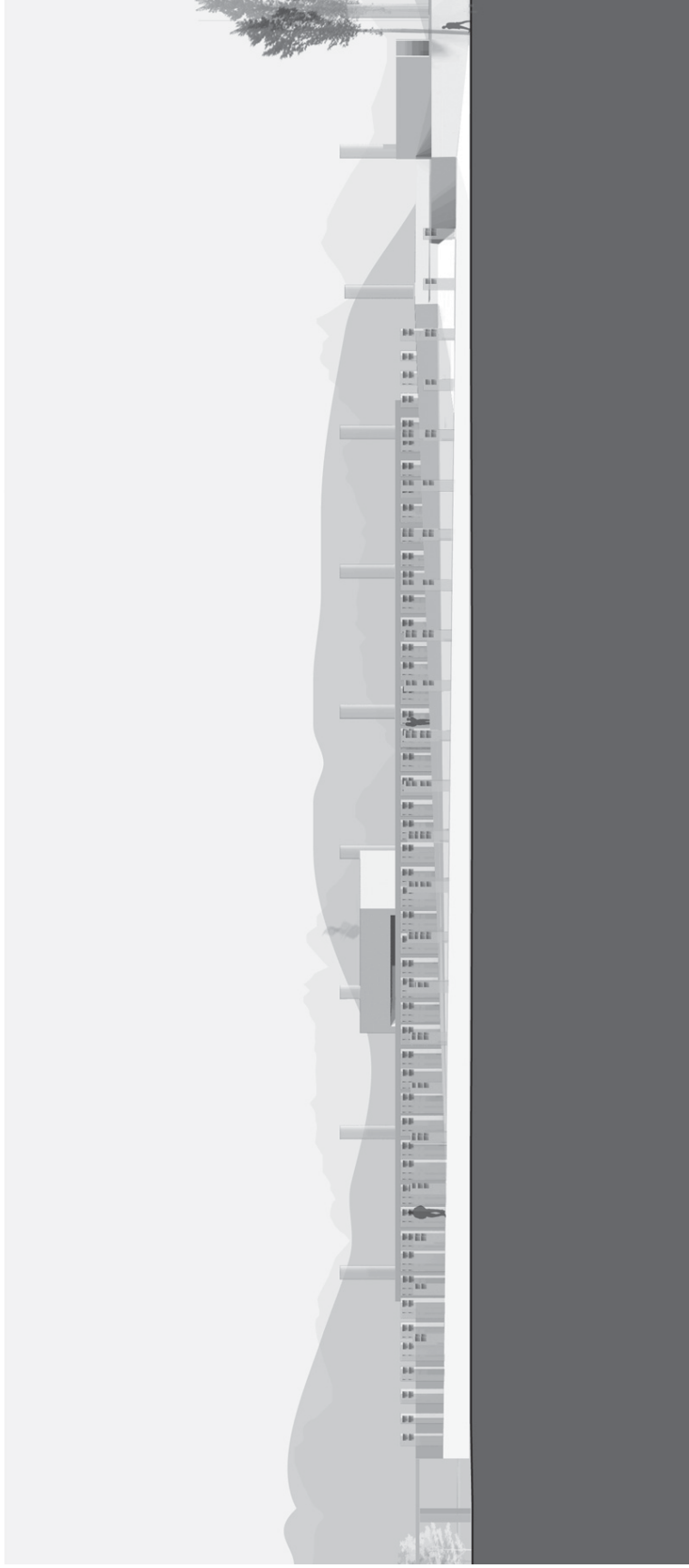
Columbarium and building section (refer to section BB of roof plan for section cut reference, p38). Scale = 1:2000.



Columbarium and building section (refer to section BB of roof plan for section cut reference, p38). Scale = 1:500.



Columbarium elevation (refer to section AA of roof plan for section cut reference, p38). Scale = 1:2000.



Columbarium elevation (refer to section AA of roof plan for section cut reference, p38). Scale = 1:500.



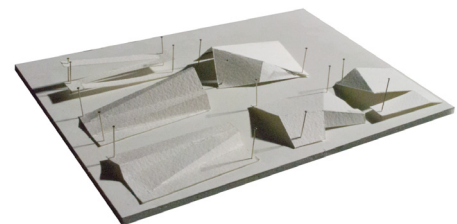
View of the gentle sloping ramp of the columbarium.

Procession

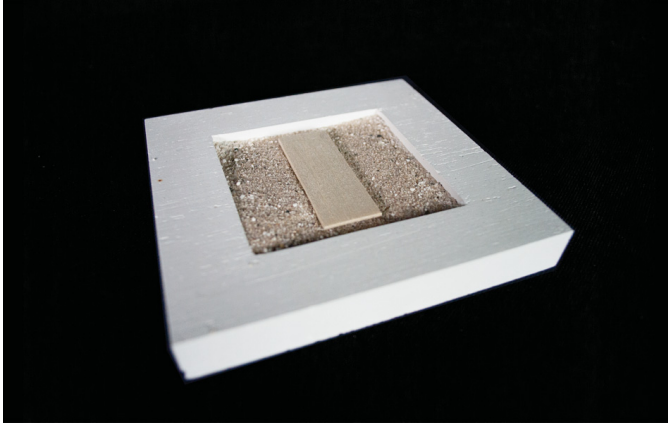
The processional sequence of the individual and the collective, as well as of the living and the dead served as considerations for the architectural expressions of movement and pause. Such translations began with studies of the experiential qualities of the ground, as well as manipulations of the landscape.

The procession to accompany a beloved's final journey is reflected in the vehicular path along the north-south axis of the site. Accessible only from the dyke, the funerary procession ends upon arrival at the cemetery, where the path of the living and the dead becomes divergent. The two are then reunited in ceremony within the ritual spaces of the main celebration/mourning hall and the crematorium for a final farewell.

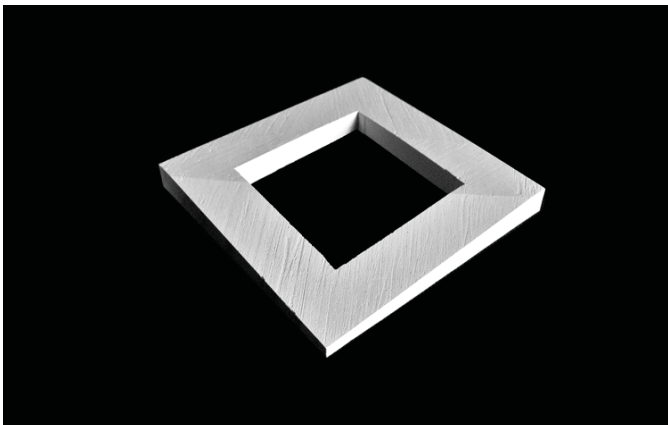
Providing direct access from the dyke to the columbarium, the path along the birch tree orchard serves as a liminal transition from the everyday to moments of reflection and remembrance. As one approaches and enters the orchard, the scale of the individual shifts, and one becomes aware of forces greater than the self. Although the path maintains the same elevation, the landscape lowers, making conscious one's relationship to the ground, a notion that becomes challenged upon arrival to the roof. The slow ascend along the landscape of the columbarium ramp also challenges the notion of ground. A built roofscape, formed by the earth removed from the excavation of the scattering pond and the historic slough, the gentle slope minimizes one's awareness of the shifting ground.



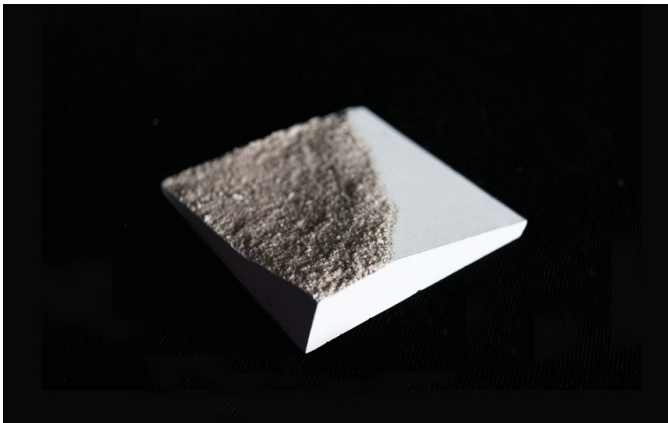
Study of procession and roofscape.



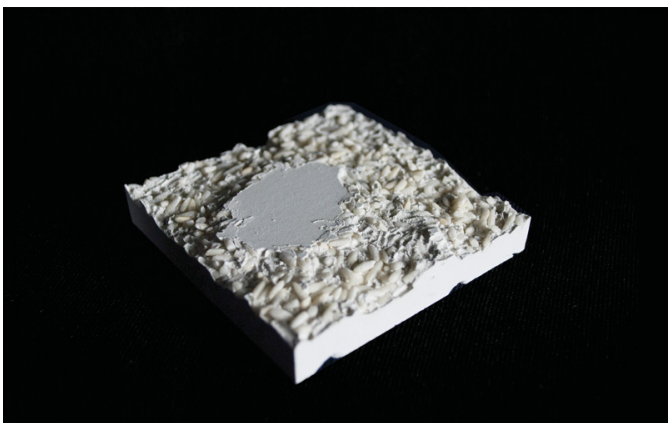
Study model exploring the experiential quality of where the foot meets a shifting ground texture.



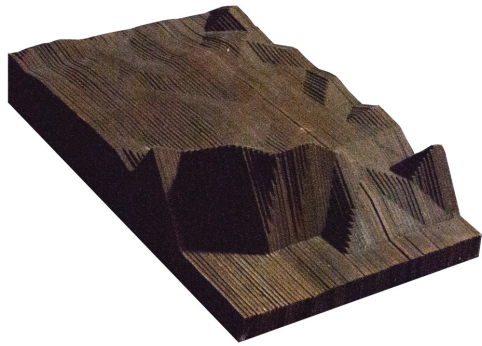
Study model exploring the quality of procession along a shifting ground plane.



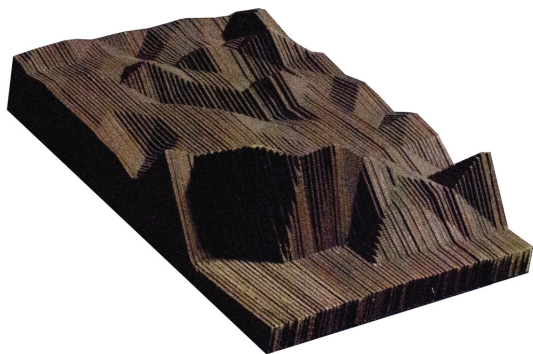
Study model exploring the quality of a change in ground texture in tandem with a shifting ground plane.



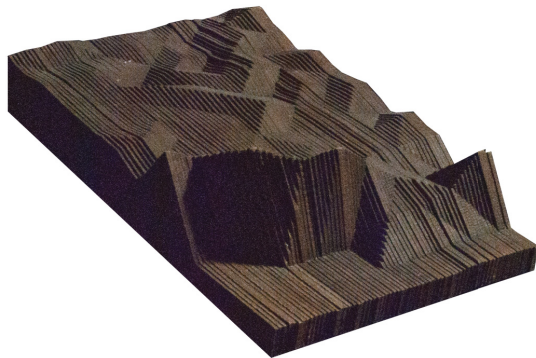
Study model exploring the experiential quality of a textured ground in contrast to the less conscious awareness of a smooth ground plane.



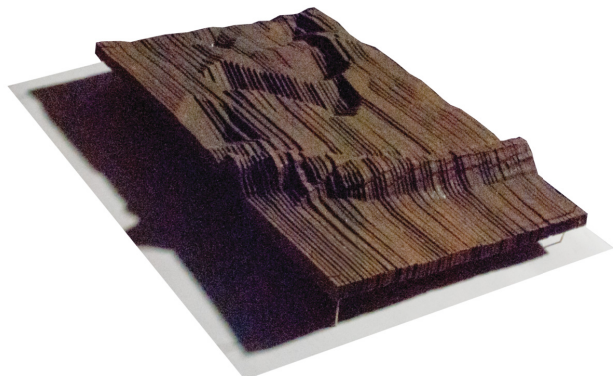
Landscape and procession study 1:
existing topography of site (elevation
points multiplied for scale of model).



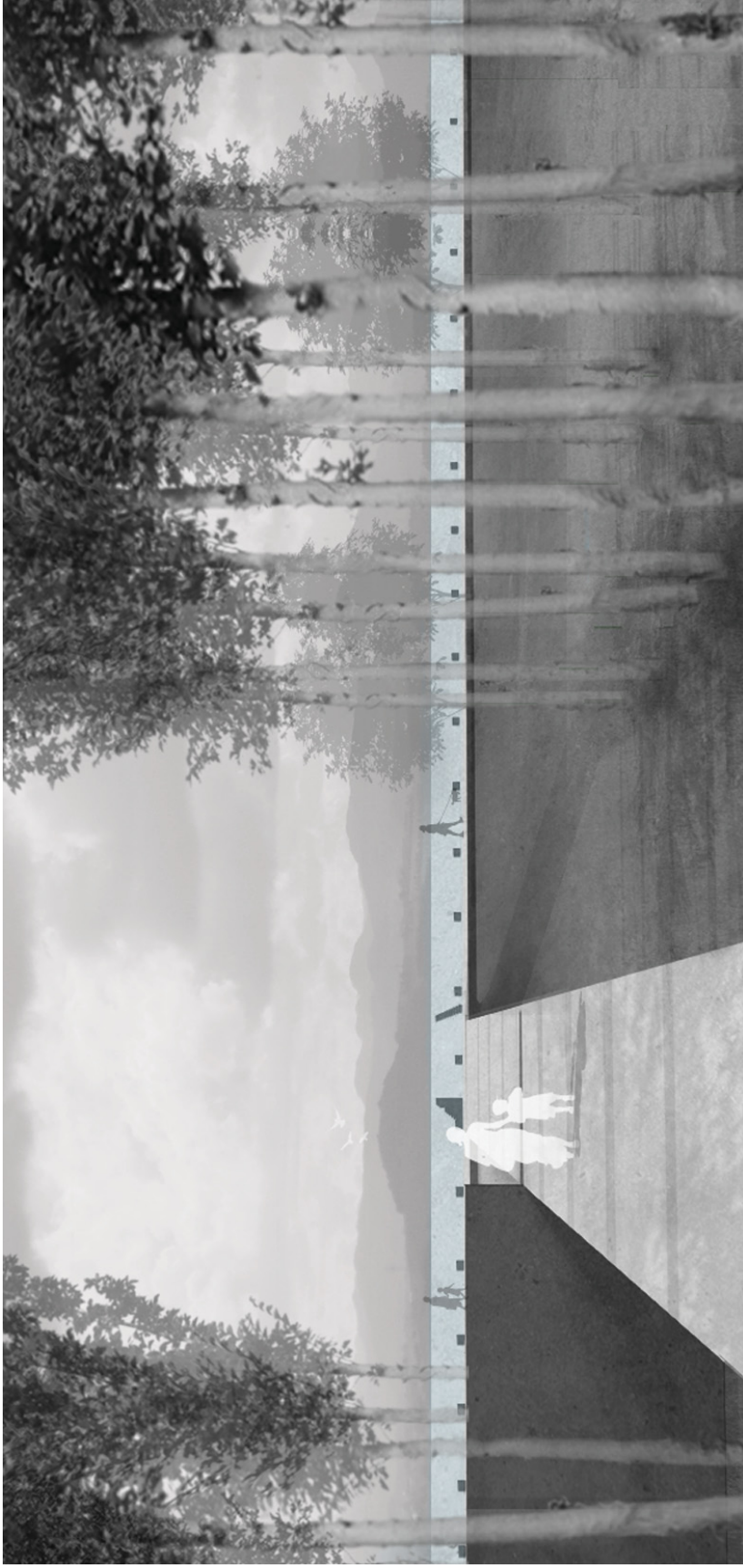
Landscape and procession study 2:
exaggeration of the highest and lowest
elevation points of the site (elevation
points multiplied for scale of model).



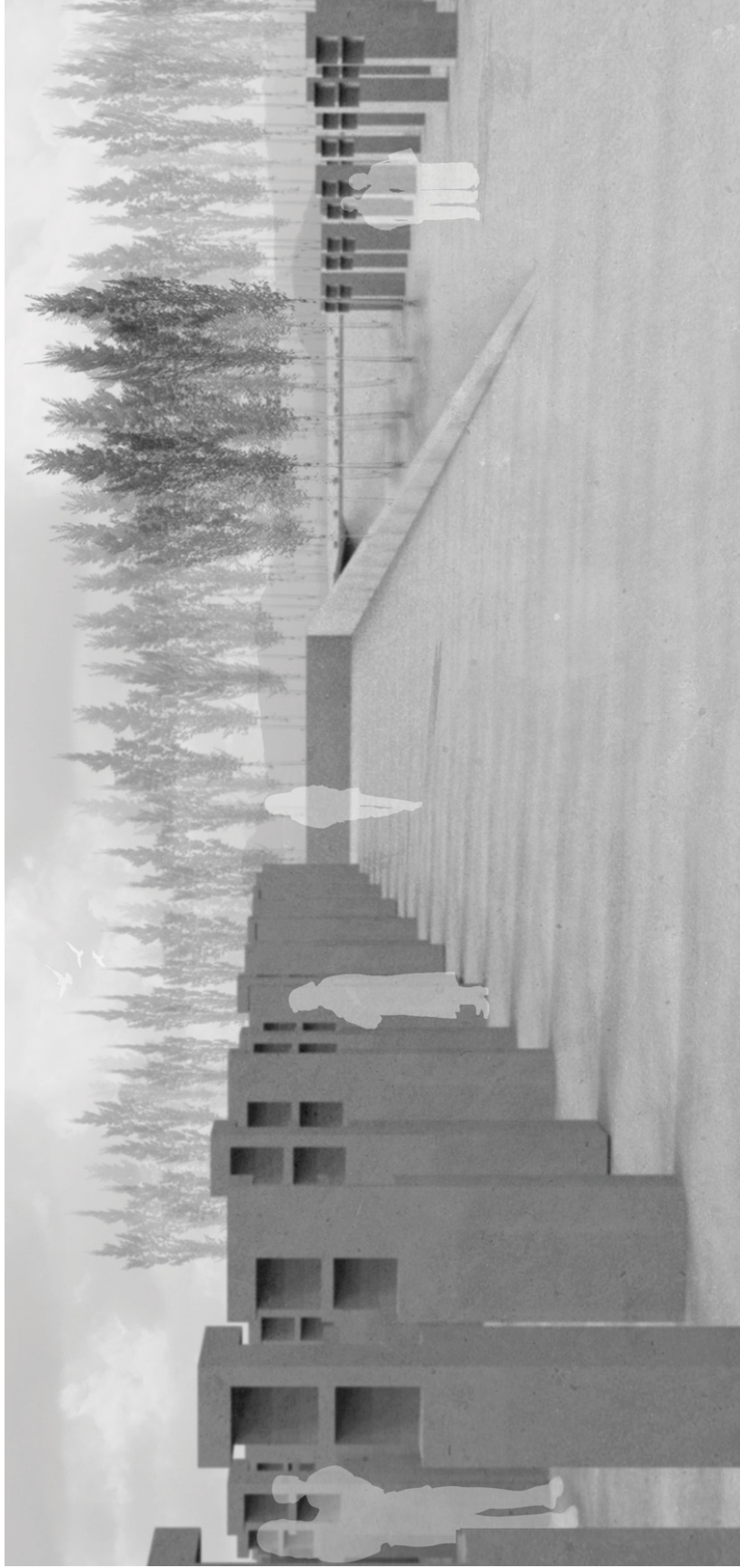
Landscape and procession study 3:
exploring the inverse relationship of the
highest and lowest elevation points of
the site (elevation points multiplied for
scale of model).



Landscape and procession study 4:
exploring the spatial relationship of
the landscape as roofscape (elevation
points multiplied for scale of model).



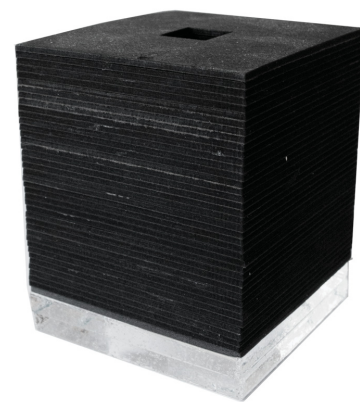
View of the path along the birch tree orchard towards the dyke and the Fraser River:



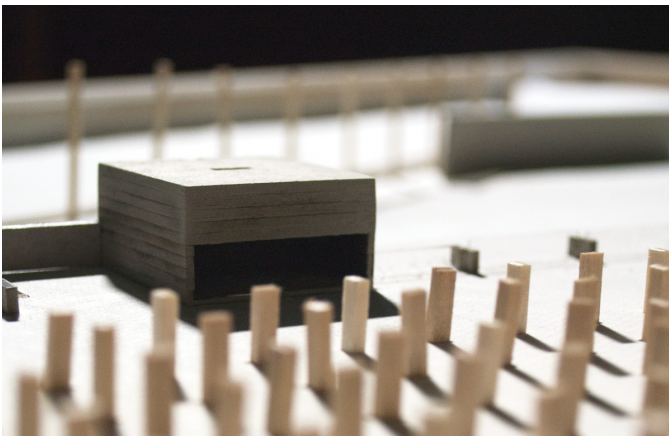
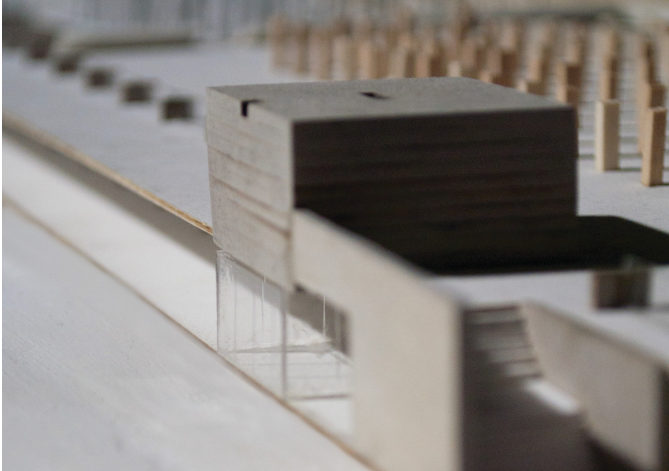
View of the procession and the slow ascend along the columbarium ramp.

Offerings

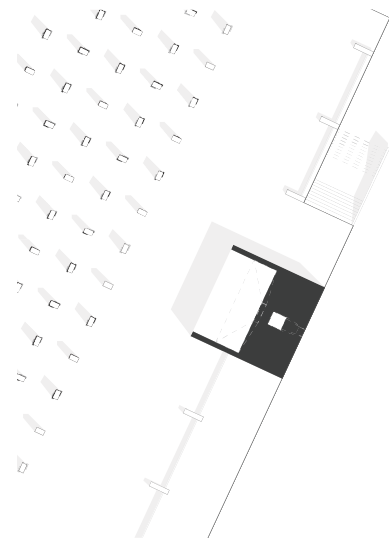
Consideration of the cultural reverence for ancestors in the afterlife through the presentation of offerings is expressed most notably by the articulation of the offertory pavilion. The formal expression of the offertory pavilion gestures to the water pavilion in its geometry and dimensions, yet juxtaposes it with its solid mass suspended above a translucent void. To facilitate the ritual of burning paper representations of gifts and offerings, the interior space and structure accommodates the gathering of close friends and relatives around a communal fire by drawing up and removing the smoke produced during the ritual practice. Serving as two ritual spaces, the mass above provides those returning to the cemetery to visit the interred, a place to make offerings at the level of the columbarium, as well as acts as a chimney for the collective formal ritual space below. The transparency of the space at ground level serves to engage others in the ritual, while providing privacy to those that require. Concurrently, the displacement of smoke by the double chimney of the suspended structure serves as a symbolic communication of the ritual that is taking place within.



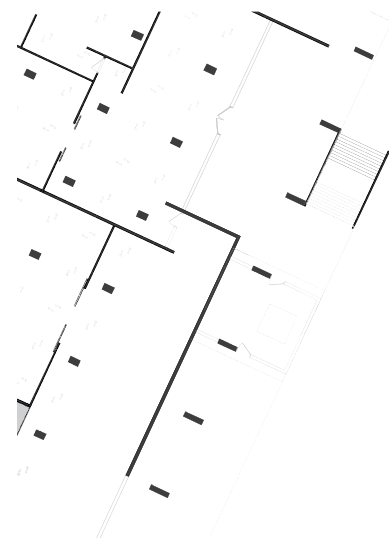
Study of offertory pavilion.



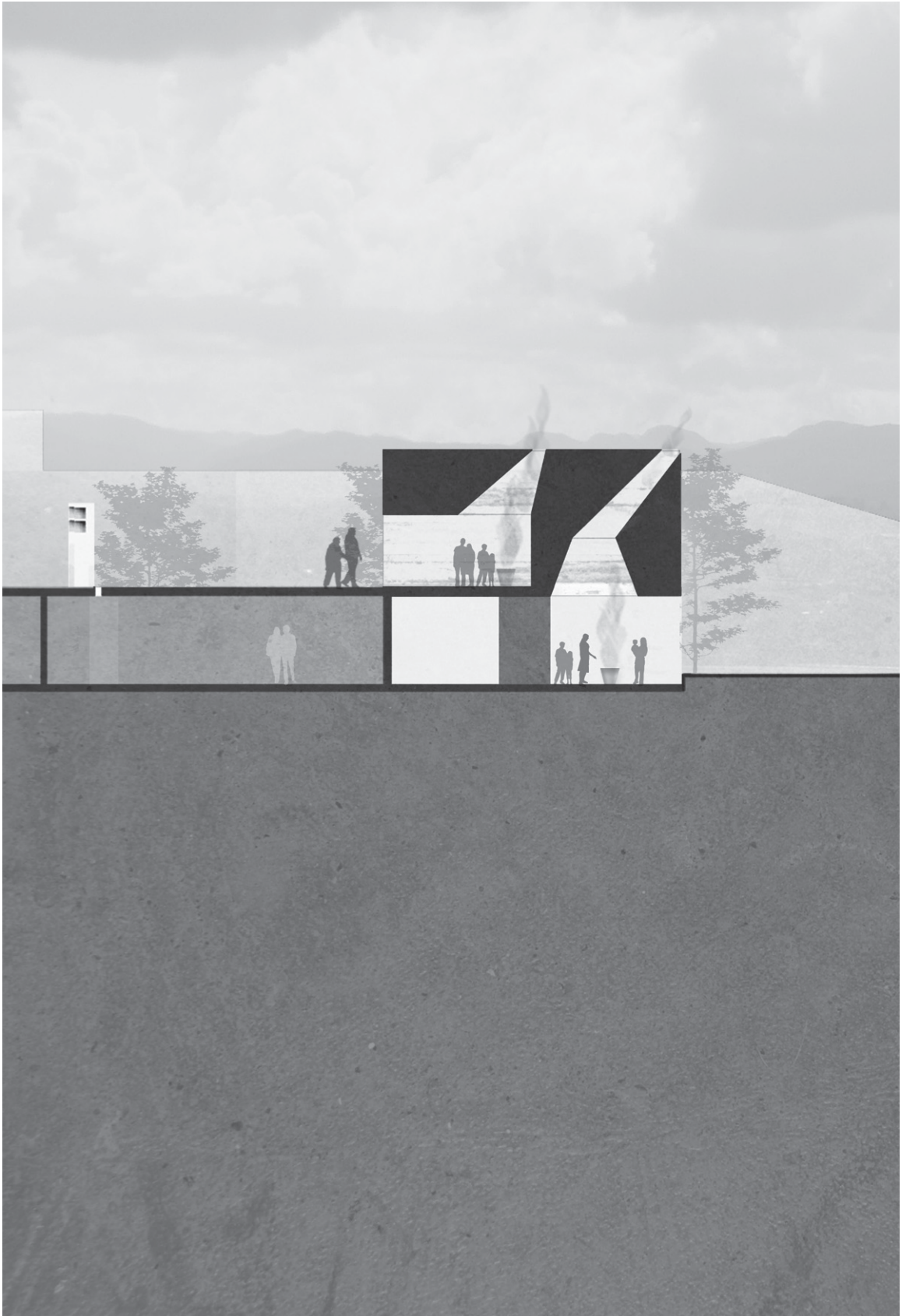
Views of the offertory pavilion situated within the cemetery.



Upper level plan of offertory pavilion.



Ground plan of offertory pavilion.



Section of offertory pavilion showing the relationship between the two ritual spaces.



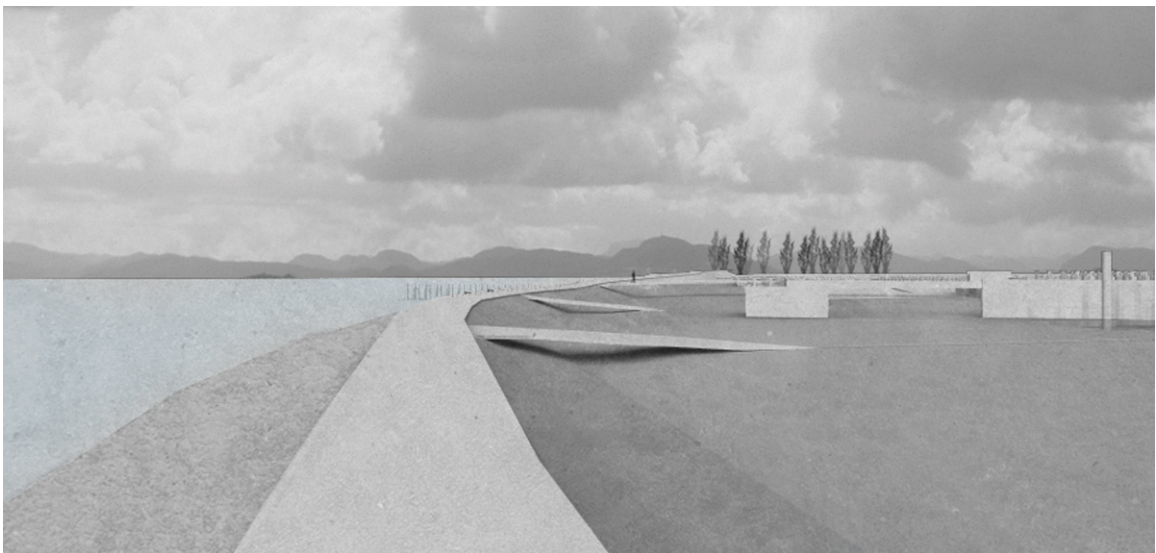
Main celebration / mourning hall section and offertory pavilion elevation (refer to section CC of roof plan for section cut reference, p38). Scale = 1:2000.



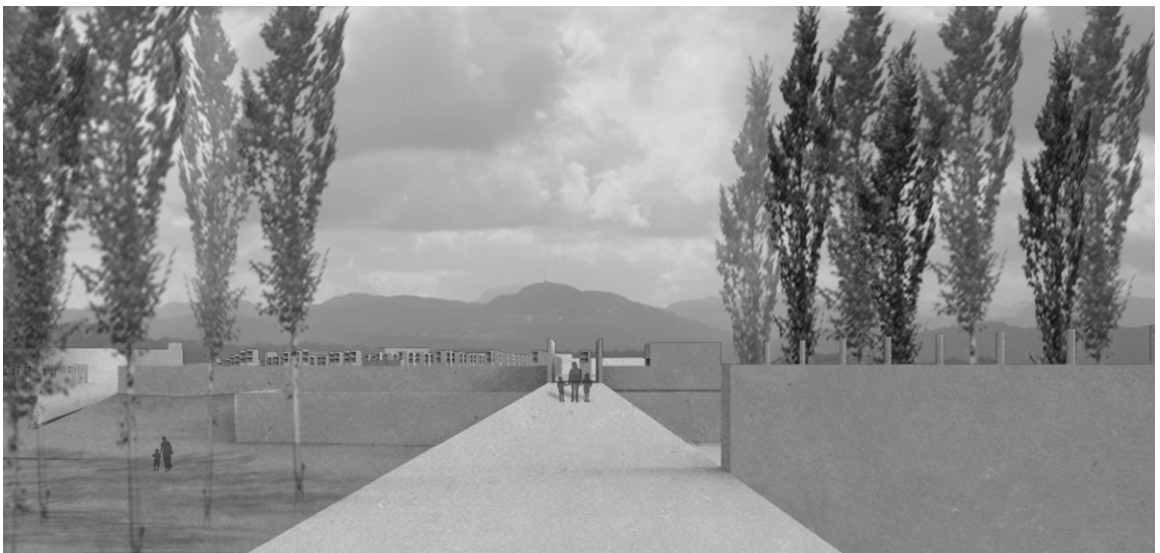
Main celebration / mourning hall section and offertory pavilion elevation (refer to section CC of roof plan for section cut reference, p38). Scale = 1:500.

Dedicated Days of Remembrance

The significance of both dedicated and informal returns to the cemetery reflects a desire to visit and to remember those beloved. The elevated columbarium pillars, with views to the distant landscape offers a place for private visits and conversation, while the courtyard below offers a place for collective celebrations and remembrance. The following experiential sequence illustrates how one might process through the cemetery during a dedicated day of remembrance.



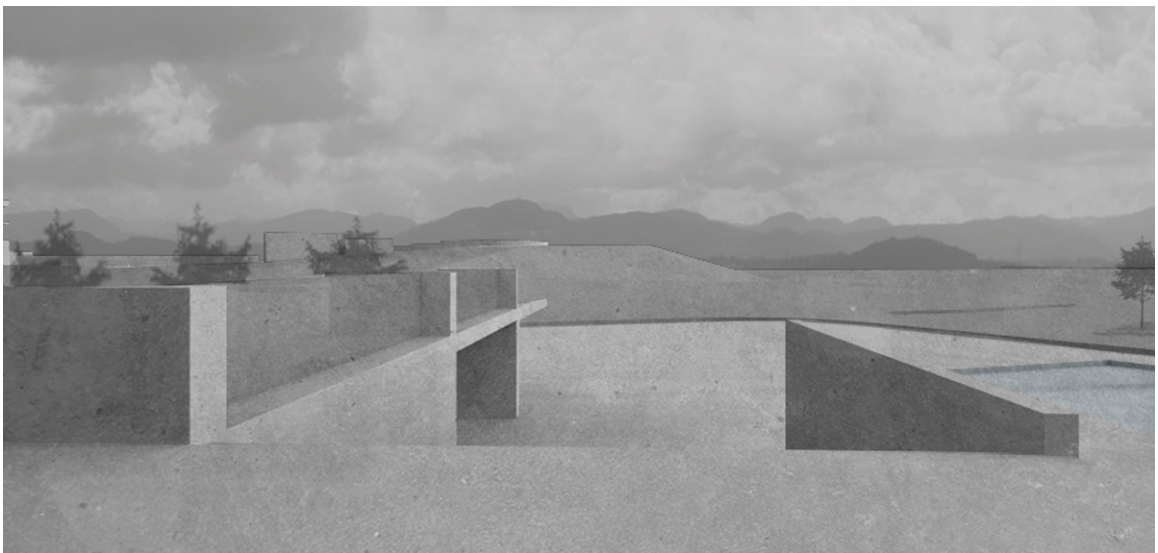
Approach along the dyke showing the river to the left and the cemetery to the right.



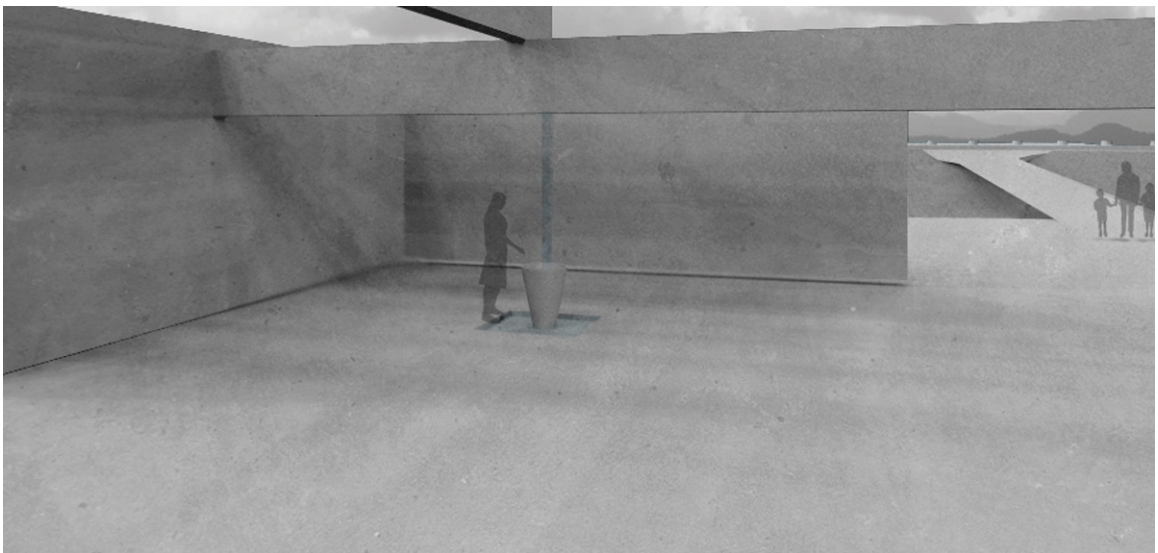
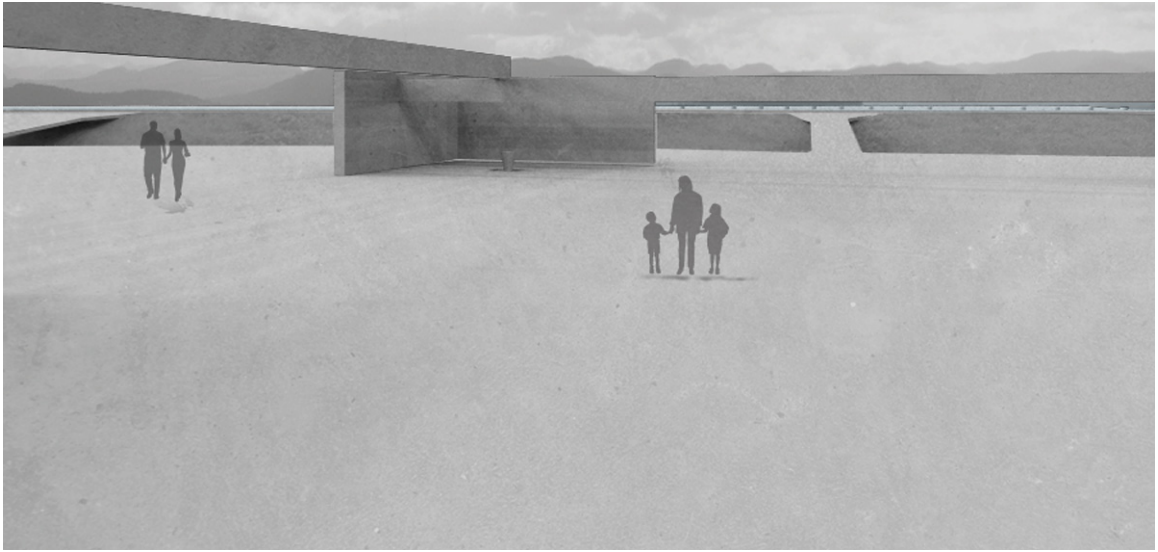
Entry and procession along the birch tree orchard into the columbarium space.



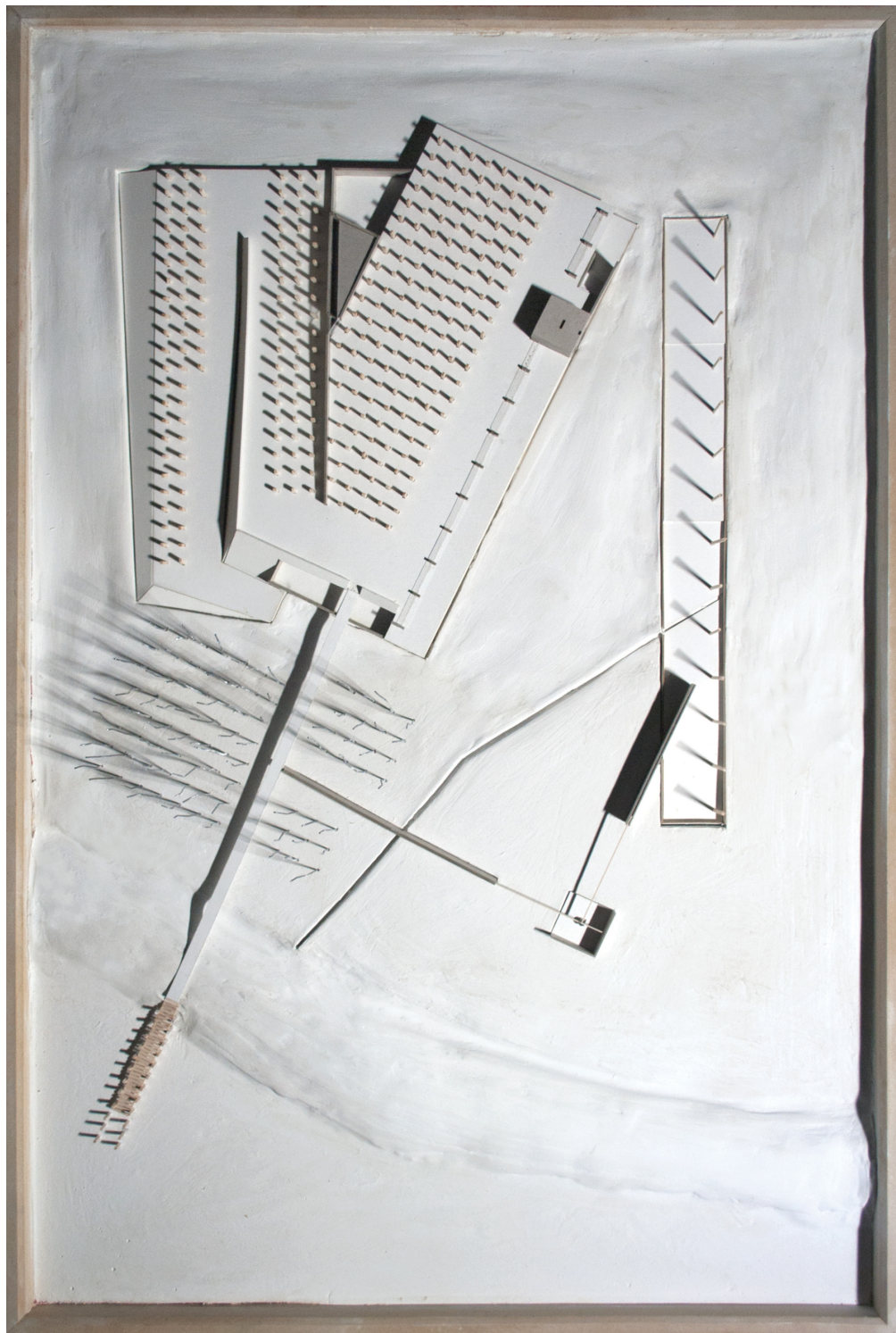
Procession within the columbarium and entry into the upper level of the offertory pavilion.



Descend from the columbarium and offertory pavilion to the courtyard below.



Procession from the courtyard to the water pavilion and departure from the site.



Final model showing the proposed building and landscape composition.





Aerial perspective from the Fraser River looking north-east towards the site.

CHAPTER 4: CONCLUSION

This thesis served as an exploration of how consideration of cultural intentions may give rise to a thoughtful design of place. Specifically, the intention for a collective place of memory led to the study of a collection of burial rituals and funerary traditions reflective of the community of Richmond. Consideration of the intentions shared amongst the various mortuary practices led to the abstraction of five themes that served as design elements for the various ritual spaces within the cemetery.

The design of the ritual spaces strive to embrace and celebrate the diversity reflective of Richmond's largely immigrant population, currently comprised predominately of first and second generation families. As a repository of history, the intention is that the city's first cemetery may also serve as a place in which traditions and rituals may be communicated to future generations. The process of study has revealed that although much of the rituals are grounded in tradition, like the ratchet, these undergo modifications and are reevaluated over time. The unique site condition of Richmond serves as an example. The inability to accommodate for traditional in-ground burials has prompted the proposed strategy for interment in the city. It is uncertain as to how the collective community of Richmond would respond to such a proposal. However, it is certain that such limitations may either pose a challenge for the preservation of heritage and cultural expression, or it may serve as opportunities to embrace change and negotiate tradition.

APPENDIX A: BURIAL RITUALS AND FUNERARY TRADITIONS

Catholicism	<ul style="list-style-type: none"> • Catholics may be interred in a Catholic or nondenominational cemetery.¹ • Prohibition on cremation lifted in 1963.¹ • Funeral ceremony takes place at church in the presence of the body of the deceased.¹ • Prior to interment, the priest accompanies the remains to the cemetery and consecrates the place of interment with a blessing.¹ • Graveside service with a priest may be held at time of interment.¹ • No further ceremonies or required visits following interment.¹ • Scattering of cremated remains or failure to inter them in a cemetery is not considered reverent disposition.¹ • The new liturgy stresses the family resemblance between baptism and the funeral, but the Church has always marked the link between the first and last ceremonies of a person's life. At the start of a funeral, the priest meets the coffin and the family at the baptismal font. There he drapes the coffin in a white pall that echoes the baptismal robe, and sprinkles it with water from the font.¹ • The church is against scattering remains on ground, air, or sea. Burial at sea in a casket or urn is allowed if the deceased died at sea.⁵ • All Soul's Day, November 2.² 	d
Buddhism Non-Chinese	<ul style="list-style-type: none"> • Burial or cremation is acceptable, depending on the family's wishes.¹ • Funerals and the disposition of remains are typically simple and non-religious. • A simple service may be held at the crematorium chapel.¹ • The (largely Sri Lankan) Vihara Society of Surrey encourages the scattering of ashes in water - a river or the sea.¹ • Buddhist of the Vihara Society burn candles and joss candles in a vessel next to the grave for ritual purification, meditation, and as an offering.¹ • Markers are usually plaques in the ground.¹ • Mourners return to the grave 7 days after burial with flowers and fruit, and to burn more candles and incense.¹ • Vietnamese Buddhists follow generally the same practices, but they prefer no marker at the grave.¹ • Many Buddhists prefer to cremate, and scatter the ashes. A columbarium may be purchased if the family so chooses.¹ • Japanese Buddhists observe Obon, or "Ullambana," a memorial service held in July or August to commemorate ancestors. This service is held at cemeteries and temples and is followed by the Obon dance.¹ • Japanese Buddhists also observe Etaikyo, or "Perpetual Memorial", a day in September established to remember the deceased and their families.¹ • Some Buddhists do not like the sound of loud water at a gravesite, and prefer interment on high ground.¹ 	w o d d
Sikh Religion	<ul style="list-style-type: none"> • Cremation is the traditional method of disposal, though other methods may be acceptable.¹ • Family and friends gather at the home of the deceased to be with the body and accompany it to the crematorium.¹ • Cremated remains are traditionally scattered in the sea or in running water.¹ 	p w

KEY:	<ul style="list-style-type: none"> w water and landscape i interment p procession o offerings to the dead d dedicated days of remembrance 	<ul style="list-style-type: none"> 1 Lees + Associates, 2003. 2 Ashenburg, 2002. 3 Lamm, 1969. 4 Buchanan, 2009. 5 Bailey and Carmen, 2009. 6 McCorkle, 2010.
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Judaism

- Interment takes place on consecrated ground, preferably in a cemetery that provides or permits physical separation (eg: hedge/fence).¹
- Orthodox Jews are usually buried in a Jewish cemetery (several in the lower mainland).¹
- Cremation is forbidden in some Jewish communities and permitted in others.¹ i
- Funeral service may be held at a chapel, synagogue or graveside.¹
- Everyone participates in a symbolic washing of hands before leaving the cemetery to indicate they are leaving the pollution of death behind them.¹ w
- After interment, each visitor to the grave brings a pebble to leave on the grave marker (small stone = token of remembrance).¹ o
- Keri'ah (rending of clothes in mourning) is a Jewish ritual, usually performed by observant Jews in the funeral chapel just before leaving for the cemetery or at the cemetery. Keri'ah mimics heartbreak by tearing that which covers the heart; and conveys a myriad of not always articulated or even understood feelings. It was designed to heighten the sense of tragedy, so that mourners could weep.²
- The Jewish funeral service is a starkly simple, but emotionally meaningful, farewell to the deceased. The service does not attempt to comfort the mourners. The service is directed towards honoring the departed.³
- In modern times, the funeral chapel is almost always used. The chapel provides a dignified setting, is able to accommodate many people, and is, therefore, to be encouraged in most instances.³
- The funeral service is a brief and simple service designed primarily as yekara d'schichba - for the honor and dignity of the deceased. The function of the eulogy, however, is not to comfort the bereaved, although by highlighting the good and the beautiful in the life of the departed it affords an implicit consolation for the mourners.³
- The eulogy is a significant focus of the funeral service.³
- The escorting of the deceased to the cemetery is of profound significance. There is an obligation to escort the departed to the cemetery even if one must sacrifice time from work. One should escort the deceased to the cemetery at least symbolically by walking in the direction of the hearse some six or eight feet to indicate respect for the deceased and sympathy for the mourners.³ p
- Pallbearers from among the family or friends should carry the casket and deposit it in the grave. Regardless of whether carried on shoulders or by hand, or wheeled on a special cemetery device, this should be considered a signal honor and a symbol of personal tribute for those who participate.³ p
- Because the spirit of the procession is governed not only by the desirability of personal participation and accompaniment of the deceased, but also by hesitation and unwillingness to remove the presence of the dead, the procession pauses briefly several times before it reaches the gravesite... One custom establishes seven stops, another three stops, and another maintains that the procession should stop every six or eight feet. Seven pauses are customary in most communities.³ p
- Recessional from the gravesite: the purpose is to redirect the sympathies and concerns from the deceased to the mourners. The theme changes from honoring of the dead to comforting the survivors. To act out this transition, those present form parallel lines, facing one another. The mourners solemnly pass through as they come away from the site of their bereavement. As mourners walk by, they recite words of comfort.³ p

KEY:	w	water and landscape	1	Lees + Associates, 2003.
	i	interment	2	Ashenburg, 2002.
	p	procession	3	Lamm, 1969.
	o	offerings to the dead	4	Buchanan, 2009.
	d	dedicated days of remembrance	5	Bailey and Carmen, 2009.
			6	McCorkle, 2010.

Hinduism

- Hindus believe in reincarnation, so a funeral is as much a celebration as a remembrance service.¹
- Hindus cremate their dead, and believe that the flames represent the presence of the god, Brahma, and that burning of the body signifies the release of the spirit.¹
- The vast majority of Hindus come from India. Those that have emigrated typically aspire to returning to India in order to die and be cremated there.¹
- Death should occur while lying on the ground to be in direct contact with the earth.¹
- The body is washed, dressed, anointed with sandalwood paste, decorated with flowers and sometimes sprinkled with gold dust.¹
- Mourners usually wear white, traditional garments and make noise (with horns and bells) en route to the crematorium.¹
- Prayers and offerings of flowers and sweetmeats are made at the entrance of the crematorium.¹ o
- Scriptures are read and the eldest male in the family, representing the entire family, bids farewell to the deceased and ignites the cremator.¹
- The body is usually oriented to face north or south prior to cremation.¹

Islamic Faith

- Preference to be buried in a Muslim cemetery or in an area designated for Muslims.¹
- Burial customs are very important although Muslims believe that the present life is only a trial preparation for the next realm of existence.¹
- Cremation is strictly forbidden.¹ i
- A wet site is not considered acceptable for a grave.¹
- Preparation of the body for burial should be done by the family, and includes washing and placing the body, wrapped in a simple, white shroud into a coffin or directly into a grave. The head or face of the deceased turned to the right, or towards Makkah.¹
- Muslims consider the burial one of the final services they can do for their relatives and an opportunity to remember their own brief existence on earth.¹
- The gravesite should be raised above the surrounding area and any gravestone should be simple.¹
- There are ceremonies, 3, 7, and 40 days after burial and on the first anniversary of the death. Only at the 7th ceremony is there usually more than just close family at the gravesite.¹ d

Anglican

- Cremation may be viewed as final a leave-taking of the dead person's mortal remains as is interment; but it is sometimes followed by a further burial, or scattering, of the ashes (with a further liturgical rite), sometimes at a distance in time or space from the cremation service.⁴ i
- In time, the sheer quantity of burials induced a rethinking of the necessity of interment and led to the rise of cremation.⁴ i
- In the 20th century, services that had previously been called "burial of the dead" became known more often as "funeral" services, as a broader title was needed in order to include cremation, and "funerals" did not necessarily imply literal burial.⁴

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Chinese

- In Canada, many of those of Chinese origin or descent prefer an upright marker, if permitted by the cemetery. ¹
- Orientation of the body is a consideration, with Feng Shui principles often applied to selection of the gravesite. It is a traditional Chinese belief that the ideal site has mountains behind for protection and the ocean or a river in front, to provide views and a cool breeze in summer. A wet site is not considered suitable for a grave. ¹ w
- Many Chinese burn incense, paper money and paper representations of inanimate objects that may be desired for use (such as cars) in the afterlife. o
- A burning pail called a ting - an ornate, metal vessel on legs with sand for holding incense and dousing flames - is desirable at the gravesite. If a small ting is not available at the grave, a large, common one (provided by the cemetery in a covered location) may also be used. ¹ o
- Food and flowers are also provided as offerings, both at the time of interment and three days after. ¹ o
- Chinese Buddhists often provide chicken, rice, oranges and apples as offerings, and pour wine on the gravesite. ¹ o
- There is a national holiday on the Chinese calendar (usually in April) called Qingming ("Tomb Sweeping Day") specified for visiting cemeteries to honour dead ancestors and provide gravesite offerings. ¹ d

Korean

- Many Koreans in Canada are Christian; however some maintain old customs (similar to Chinese customs), such as burning offerings. ¹ o
- Historically, Koreans buried their dead with the coffins standing upright in a large mound. ¹ i
- If possible, Feng Shui principles are used for selecting a gravesite. ¹

Japanese

- The Japanese are particularly tenacious about commemorating their dead, holding memorial services on the first anniversary of the death, then after 3, 7, 13, 25, 33, 50 and sometimes 100 years. ² d
- Obon (Festival of the Dead). Families return home to honor their departed ancestors with living relatives. This involves eating, drinking, praying and mourning. All of these events are meant to memorialize and celebrate the dead, both past and present. Dances, called bon odori, are held to entertain the dead. ² d
- Most Japanese funeral services are held in the Buddhist traditional style, but there is some variation. One custom takes place on the day the body is cremated. The guests take a meal in the crematorium. Afterwards, the relatives pick the bones out of the ash and pass them from person to person by chopsticks and places them into an urn. ⁵ i
- The Japanese family views the cremation procedure through a window in the crematorium. Afterward, the close mourners transfer the important bones, ending with the Adam's apple, into the burial urn that holds the ashes and other bone fragments. ² i
- Family members use special utensils called hashi (Japanese chopsticks) to pickup bone fragments and place them into a vessel/urn where the cremains are stored for future performances. The performances involved in the disposal of the dead may be performed again and again ad infinitum and may take years before they can be considered successful and finished. ⁶ i

KEY:	w	water and landscape	1	Lees + Associates, 2003.
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Humanist
Non-religious

- Typically non-religious ceremonies and interments acknowledge loss and celebrate the life of the deceased without religious rituals.¹
- Cremation is a common choice, with either interment or scattering of the cremated remains.¹
- Memorial ceremonies may replace funerals, and may occur whenever and wherever is deemed appropriate. The memory of the life and the character of the deceased is usually the focus of the gathering.¹
- For the families of many who choose cremation, a plaque or monument installed at the cemetery or at a favorite site is still often requested.¹
- A monument or marker of some kind is believed to fulfill the need for knowing that there is a place dedicated to and marked with the name of the deceased, where the friends and family can visit and remember.¹

KEY: w water and landscape
i interment
p procession
o offerings to the dead
d dedicated days of remembrance

1 Lees + Associates, 2003.
2 Ashenburg, 2002.
3 Lamm, 1969.
4 Buchanan, 2009.
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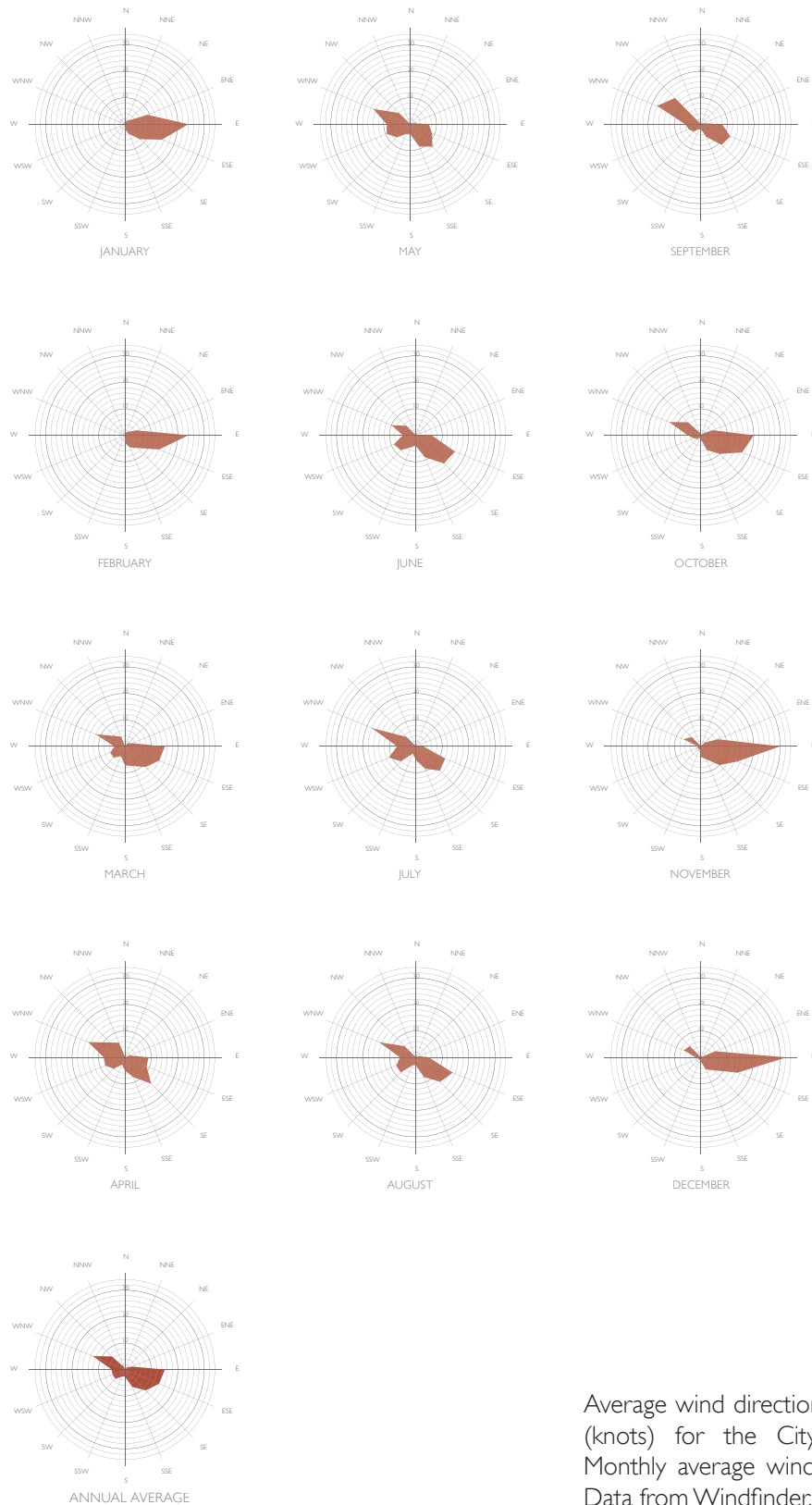
APPENDIX B: PHYSICAL PRINCIPLES

Average Monthly Precipitation



Average monthly precipitation for the City of Richmond. Annual average precipitation is 97.17mm. Data from The Weather Channel.

Annual Wind Direction and Magnitude



Average wind direction and magnitude (knots) for the City of Richmond. Monthly average wind speed: 8 knots. Data from Windfinder.

APPENDIX C: CASE STUDIES

Landscape Memorial, North York, Canada.

Shim and Sutcliffe's design of a family memorial space within a local cemetery offers a dialect between connection and separation through the creation of a sunken outdoor garden room via an exaggeration of the surrounding topography of an existing hillside. Entry to the private space is framed by a heavy, yet porous steel gate that extends one's view into the landscape but such that the physical effort to cross the threshold also serves as a psychological awareness of the transition. Moreover, the strategic application of weathering steel to both the entry gate and the wall emerging from the site into the landscape gestures to an adaptive material that expresses an accumulated use over time. (Milojevic 2000, 44-49).



Watercolour sketch depicting the entry gate to Landscape Memorial.

Igualada Cemetery, Igualada, Spain.

Enric Miralles and Carme Pinos' evocative carving of landscape to create an architecture of movement offers a reinterpretation of the concept of ground that resonates between the site and the body, as well as the living and the dead. The processional experience throughout the project is achieved by the deliberate removal of earth, reminiscent of the once active quarry that occupied the site. The notion of 'embedment' is articulated in a multitude of scales: in the textural qualities of the wooden railroad ties in the cemetery floor; to the bodies in the ground as well as the columbarium chambers in the hillside that contribute to the sectional movement throughout

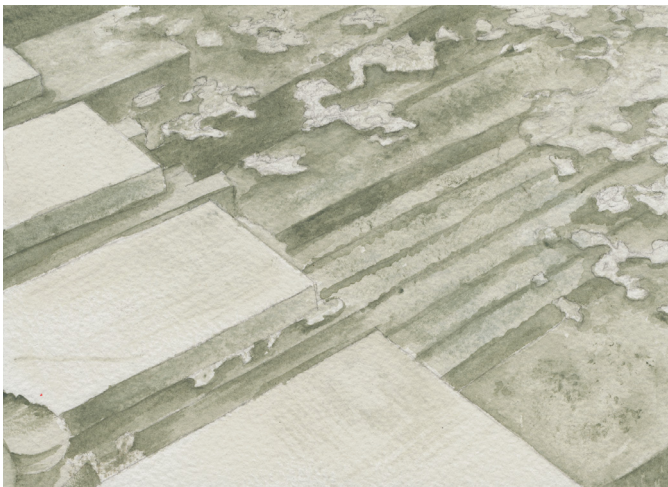


Watercolour sketch depicting path through columbarium of Igualada Cemetery.

the project. (Berrizbeitia and Pollak 1999, 68-75). Furthermore, the project employs materials such as pre-cast concrete and a system of reinforcement bars that expresses a sense of incompleteness intended to be mediated by the transformation of the site over time, as the rusting of the steel stains the surfaces below, the concrete begin to deteriorate, and the trees and shrubs mature to offer shade and cover parts of the site. (Heathcote 1999, 166-171).

Brion Cemetery, San Vito d'Altivole, Italy.

Carlo Scarpa's application of water as a material property resonates throughout the project. The transparency of the material serves to evoke a sense of the present world and a world beyond. Through the deliberate submersion of concrete work below the surface, the eye is drawn through the water and downward to an unknown darkness. The visual permeability of the water also acts as a physical barrier to the built forms it surrounds, while the stillness of the water is also juxtaposed by slow-moving streams. (Berrizbeitia and Pollak 1999, 50-55).



Watercolour sketch depicting path over reflection pool in Brion Cemetery.

REFERENCES

- Aries, Philippe. 1974. *Western attitudes toward death: From the Middle Ages to the present*. London: The Johns Hopkins University Press.
- Ashenburg, Katherine. 2002. *Mourner's Dance*. Toronto: Macfarlane Walter and Ross.
- Bailey, Sue, and Carmen Flowers. 2009. *Grave Expectations*. Kennebunkport: Cider Mill Press.
- Bell, Catherine, ed. 2007. *Teaching Ritual*. New York: Oxford University Press.
- Berrizbeitia, Anita, and Linda Pollak. 1999. *Inside outside: Between architecture and landscape*. Gloucester, Massachusetts: Rockport Publishers, Inc.
- Bhugra, Dinesh, and Matthew A. Becker. 2005. Migration, cultural bereavement and cultural identity. *World Psychiatry* 4 (1): 18-24.
- British Columbia Ministry of Environment. Lower Mainland Dike Inventory Maps: Richmond (image). Last updated June 1, 2011. http://www.env.gov.bc.ca/wsd/public_safety/flood/maps/richmond_3.pdf (accessed November 14, 2011).
- British Columbia Ministry of Forests, Lands and Natural Resource Operations. Tree Book: Paper birch *Betula papyrifera*. <http://www.for.gov.bc.ca/hfd/library/documents/treebook/paperbirch.htm> (accessed November 21, 2011).
- British Columbia Stats. Ministry of Labour and Citizen's Services. P.E.O.P.L.E. Data Viewer (images). <http://www.bcstats.gov.bc.ca/DATA/Pop/PeopleDataViewer/> (accessed February 16, 2011).
- Buchanan, Colin. 2009. *The A to Z of Anglicanism*. Lanham: Scarecrow Press.
- Carr, David. 2003. *The promise of cultural institutions*. Plymouth: AltaMira Press.
- Chung, Sue Fawn, and Priscilla Wegars, eds. 2005. *Chinese American death rituals: respecting the ancestors*. Lanham, MD: AltaMira Press.
- City of Richmond Archives. 1987. *An Archaeological Heritage Resource Overview of Richmond, B.C.* GP (Government Publication) 316. Richmond.
- City of Richmond Archives. Iron Chinks, Imperial Cannery. Item Number: 1985 4 670 (image). <http://www.richmond.ca/asp2/archivesSearch/Images.aspx?ID=7475> (accessed September 23, 2011).
- City of Richmond Archives. Original Blair Home. Item Number: 1978 25 2 (image). <http://www.richmond.ca/asp2/archivesSearch/Images.aspx?ID=1583> (accessed September 23, 2011).
- City of Richmond. Ethnicity Hot Facts (data). http://www.richmond.ca/___shared/assets/2006_Ethnicity20987.pdf (accessed February 24, 2011).

- City of Richmond. Geographic Information System (GIS) (graphic data). <http://www.richmond.ca/gis.htm> (accessed June 3, 2011).
- City of Vancouver Mountain View Cemetery. All Souls: music. (image). <http://vancouver.ca/commsvcs/nonmarketoperations/mountainview/allsouls/images/2011/music.jpg> (accessed March 1, 2012).
- Furnham, Adrian, and Stephen Bochner. 1986. *Culture shock: Psychological reactions to unfamiliar environments*. London: Methuen & Co. Ltd.
- Heathcote, Edwin. 1999. *Monument builders: Modern architecture and death*. Chichester, West Sussex: Academy Editions.
- Hong, Ying-yi, Michael W. Morris, Chi-yue Chiu, and Veronica Benet-Martinez. 2000. Multicultural Minds: A Dynamic Constructivist Approach to Culture and Cognition. *American Psychologist* 55 (7): 709-720.
- Keen, Mary. 2005. *Time and Tide: The Settlement of Lulu Island's South Arm Shore*. Richmond: City of Richmond Archives.
- Keen, Mary. 2010. *The Country: Richmond's Eastern Neighbourhoods*. Richmond: City of Richmond Archives.
- Lamm, Maurice. 1969. *The Jewish way in death and mourning*. New York: J. David.
- LEES + Associates. 2003. *City of Richmond Memorial Garden Feasibility Study: Phase I*. Richmond: City of Richmond.
- McCorkle, William W. Jr. 2010. *Ritualizing the Disposal of the Deceased*. New York: Peter Lang Publishing Inc.
- Milojevic, Michael 2000. Time Constructions. *Praxis: a journal of writing + building*, 44-49.
- Norberg-Schulz, Christian. 1985. *The concept of dwelling: On the way to figurative architecture*. New York: Electa/Rizzoli.
- Puckle, Bertram S. 1968. *Funeral customs*. Detroit: Singing Tree Press.
- Reimers, Eva. 1999. Death and identity: Graves and funerals as cultural communication. *Mortality* 4 (2): 147-166.
- Richmond has highest percentage of immigrants in Canada. *CanWest MediaWorks Publications Inc.*, December 5, 2007. <http://www.canada.com/richmondnews/news/story.html?id=add39b4e-452d-454b-b7a8-f35890156593&k=7115>(accessed March 24, 2011).
- Ross, Leslie J. 1979. *Richmond: child of the Fraser*. Richmond: Centennial Society and The Corporation of the Township of Richmond.
- Rossi, Aldo. 1982. *The Architecture of the City*. Cambridge: The MIT Press.

- Semple, Dave. 2003. *City of Richmond Memorial Bench Program*. Richmond: City of Richmond.
- Statistics Canada. Immigrant population by place of birth and period of immigration (2006 Census) (table). Last updated October 14, 2009. <http://www40.statcan.ca/101/cst01/DEMO24A-eng.htm> (accessed August 24, 2011).
- Tomasello, Michael, Ann C. Kruger, and Hilary H. Ratner. 1993. Cultural learning. *Behavioral and Brain Sciences* 16: 495-552.
- Vernon Secondary School. Rivers Mind Map (image). http://vss.sd22.bc.ca/hpp/courses/geo12/course_material/unit6/U06L02.htm (accessed September 12, 2011).
- The Weather Channel. Monthly Weather for Richmond, Canada (graphic data). <http://www.weather.com/weather/wxclimatology/monthly/graph/CAXX0400> (accessed May 20, 2011).
- Windfinder. Wind & weather statistic Jericho Beach/Vancouver Airport (graphic data). http://www.windfinder.com/windstats/windstatistic_vancouver_airport.htm# (accessed May 20, 2011).
- Worpole, Ken. 2003. *Last landscapes: the architecture of the cemetery in the West*. London: Reaktion.
- Wynn, Graeme, and Timothy Oke, eds. 1992. *Vancouver and Its Region*. Vancouver: UBC Press.