

# **SERVING LIFE: CREATING COMMUNITY IN A RESORT TOWN**

by

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**DALHOUSIE UNIVERSITY**  
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## **ABSTRACT**

This thesis studies how architecture and planning influence community living through relationships between public spaces, housing, and circulation that focus on stimulating social activities for the betterment of service industry workers' way of life. Our built environment can not only connect people to one another or to activities or to places, but it can also isolate people. For the service-based populace of Lake Louise, Alberta, isolation is a recurring factor in various aspects of their lives. The design attempts to establish connections between the people and the community, to eradicate the barriers that fragment the community without neglecting the necessity of refuge for the individual.

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## THESIS QUESTION

How can architecture and planning stimulate a socially interactive and community-oriented way of life for a service-based populace?

## INTRODUCTION

### Sense of Community

The association of public and private realms is at the heart of community living. Demographics and scale of communities may vary widely but the occurrence of relationships and interactions within a community, which affect the way of life of the members, is something that transcends all communities. In resort towns, where the surrounding natural landscape is the main attraction, the tourism-based economy caters to those who come from away. The relationships that build and strengthen the community can be overlooked as visitors use the town as a base of exploration and sight-seeing, and many of the inhabitants are also there for the same reasons.

In Lake Louise, Alberta, the mountainous setting (Figure 01) and history of exploration have resulted in an outward perspective that lacks a sense of community to balance residents' quality of life. A community provides a foundation for individuals to nurture their own interests while establishing

Figure 01 Photo of the mountainous landscape surrounding Lake Louise from nearby ski slopes. Above the town, the lake for which it is named, is encircled by mountain peaks and glaciers. (personal collection)



relationships to be part of a larger whole. The accessibility to mountain adventures is ever-present and dominates the mentality of residents and visitors alike (Figure 02).

Figure 02 Photo of Lake Louise town and ski area. The proximity of the ski area to the town indicates how accessible mountain activities such as skiing and snowboarding are to the residents and visitors. (personal collection)



Varying levels of privacy and activity add a balance to the quality of life in a community, for as much as the strength and unity of a community is important, so too is the individuality of its members. Each member brings their own strengths to the group, where they learn and grow from the involvement with the group, but they still require a refuge for more intimate activities with family, close friends, or even alone. In Herman Hertzberger's description of a refuge for an individual or a group, which he calls a "safe nest", it is also evident that such a place offers a higher degree of interaction for the members of the group.

A 'safe nest' - familiar surroundings where you know that your things are safe and where you can concentrate without being disturbed by others - is something that each individual needs as much as each group. Without this there can be no collaboration with others. If you don't have a place that you can call your own you don't know where you stand! There can be no adventure without a home-base to return to: everyone needs some kind of nest to fall back on. (Hertzberger 2001. 28)

The collective livelihood of the inhabitants should be the paramount concern in creating a fabric of our built environments. It is important for community development to create social infrastructure that encourages recreation, education, culture, and social interaction, so that members of a community have space to gather and participate in activities and events, as well as nourish their knowledge and leisure pursuits.

In "Life Between Buildings", Jan Gehl describes activities as being necessary, optional, or social (Gehl 2006). The latter two give value and substance to our lives, as they are the things that we choose to do and the way we do them. Social activities, or resulting activities, increase as the other two activities do, since they stem from the presence of people in the same space. "The opportunity to see and hear other people can also provide ideas and inspiration for action" (Gehl 2006, 21). Spaces that invite people to walk, stay (stand, sit), or interact (see, hear, talk) create opportunities for play, sport, or other community activities.

Our built environment affects almost all of our activities in one way or another. Social activities that occur because people are in the same space as one another, are the seeds for other and often more comprehensive activities that stimulate relationships among community members.

Social and optional activities vary widely in function and level of privacy, from private or solitary acts to public gatherings or events. Continuity across scales is a key element of planning to create harmony for a community, where a home is a part

of a neighbourhood and a neighbourhood is a part of a town or a city. All elements of a community have some degree of public accessibility but at the same time can offer a refuge of privacy to maintain individualism (Creese 1967, 19). It is how all the elements of planning are thoughtfully intertwined and coordinated, as to not interfere with or obstruct one another, that create livable spaces within our towns and cities, which in turn encourage social activity and pride in a community.

According to Le Corbusier, town planning requires a complete set of united tools, comprised of suitable “organs” that are created for each function of the town and are of the same “order of size” to complement one another so that nothing is in isolation (Basset 1976, 149). The public spaces are the organs that create the social infrastructure to stimulate optional and social activities for a community and its inhabitants, and integrating these spaces with housing and circulation improves the association of individuals with activities. Project for Public Spaces (PPS), a nonprofit organization dedicated to building strong communities with vital public places, suggests that there are four key qualities public spaces must have in order to successfully welcome and host people and activity: sociability, access and linkages, uses and activities, and comfort and image (PPS website).

## Circulation: Integration, not Separation

The circulation between and within public spaces has the potential to facilitate spontaneous interactions by both physically and visually linking people to activities. Comfortable “staying places” along the edges of paths or open spaces allow for a full view of the activities that can inspire participation or new activities (Gehl 2006, 149).

People’s choices of transportation methods are affected by the distance and quality of the route between destinations and play a key role in the activities that can occur en route as well as connectivity to the surroundings and other people. Automobiles and elevators are two examples of dependencies that isolate people during necessary activities. They have resulted from relatively large distances, both horizontal and vertical. Suburban living and sleeper cities have fostered a dependence on private transportation and created housing that Le Corbusier describes as a “sterile isolation of the individual” (Besset 1976, 152) by locating it away from workplaces and social activity areas. Separation like this generates voids of activity in both residential and workplace areas at different times of the day, which reduces the opportunities to interact with others in the community. When people frequently leave their neighbourhoods for work and any other activities they have little or no interaction with their neighbours, heightening the isolation.

Organic neighbourhoods of historic cities would have activity throughout any given day,



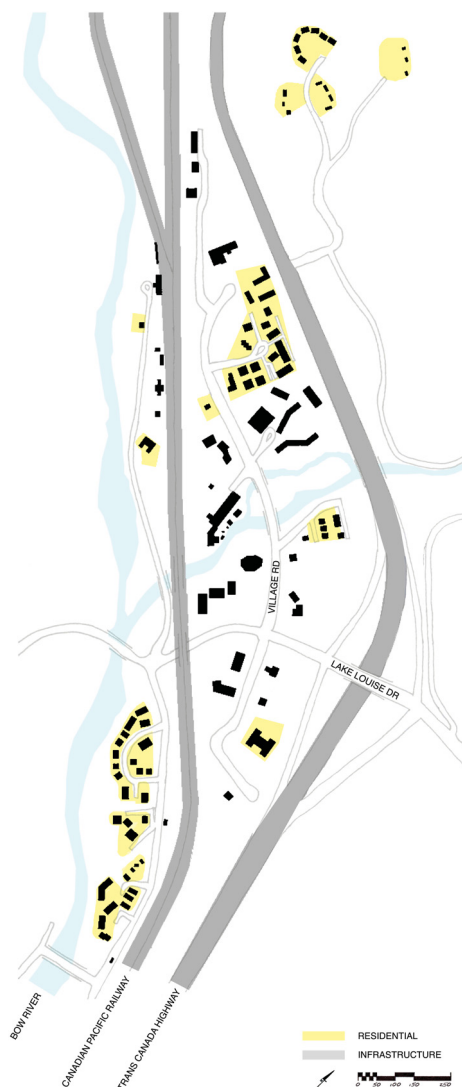


Figure 03 Town plan of Lake Louise highlighting how the pockets of residential areas are segregated by the Trans Canada Highway and Canadian Pacific Railway.

due to the integration of rich and poor, home and work, and leisure and business would all be woven together (Kostof 1991, 74-75). When people cannot walk to their destination because of the distance or unsafe walking routes caused by fast and busy streets, they utilize public transportation if available or they are required to commute in the isolation of private vehicles or even forego their activities. Public transportation can offer interaction during commutes but it is less successful in addressing activity voids and isolation caused by separation of housing, activities, and workplaces. Smaller towns often lack public transportation, but do have barriers that inhibit walking routes, as is the case in Lake Louise where the main workplace area is located between a railway and the Trans Canada Highway, but much of the housing is on the opposite side of these barriers (Figure 03).

Minimizing the distance and stimulating the “experienced distance” (Gehl 2006, 137) of pedestrian routes between housing and work or leisure activities lessens the dependence on private vehicles, and encourages people to walk or use other self-propelled methods. Pedestrians have a more intimate connection with their route and their surroundings than drivers do, because of their slower pace and less obstructed senses, and therefore have greater potential for spontaneous social activity and developing relationships with other people along their daily travels. Activity, pleasing surroundings, and irregularities along daily routes divide it into stages, and help it seem shorter and less tiresome. Such routes are more in sync with the human scale,



Figure 04 Image of residential street in Letchworth. (Kostof 1991. 76)

whereas long, straight streets isolate people from their surroundings which reduces the sense of place and belonging (Sitte 1965). Relinquishing society's dependence on private automobiles re-establishes a sense of place and belonging at a pedestrian pace and human scale.

Despite the tendency for suburbs to isolate residents from both work and leisure areas, the meandering organization of streets and irregular spaces between them create possibilities for buildings and neighbourhoods to reorganize their priorities to focus on the surrounding land and community. Blocks and lots in planning systems that focus on the streets and traffic are developed without consideration of the overall community. In Barry Parker and Raymond Unwin's design of Letchworth, one of the first garden cities, the free flowing streets and irregular blocks interacted with site conditions, as well as incorporated existing paths, roads, or buildings (Figure 04). They disassociated the building lines and street lines to allow buildings and exterior spaces to be designed to consider sun, views, trees, gardens and other favourable elements, creating a series of street pictures. Today's conventional suburbs squander the opportunity for interesting and active neighbourhoods through strict regulations and bottom line thinking, creating monotonous, lifeless streets (Figure 05).



Figure 05 Image of suburban street in Palm City, Florida. (Kostof 1991. 80)

Planning that focuses on the arrangement of spaces - the voids of the built environment, such as pathways, parks, public squares, and streetscapes - in patterns and sequences encourages leisure and social interaction when they are thoughtfully

designed in harmony with architecture and nature, not regularity with flat edges and geometric consistency (Sitte 1965, 87).

An opportunity to promote social interaction and develop community relationships is lost when circulation is simply a conveyance system. Public buildings or spaces that permeate or define the edges of circulation, plazas, or squares generate activity and stimulate the experienced distance. Multi-sensory connectivity between people and activities benefit the development of community living, whether they include physical, visual, or audible connections, not only by encouraging participation but also by inspiring other activities.

## Public Elements of Housing

For socially oriented communities, such as resort towns, universities, or senior complexes, transitional spaces are especially important where housing meets the public realm due to a large spread in the level of privacy and access, to prevent sharp divisions between the two.

The threshold provides the key to the transition and connection between areas with divergent territorial claims and, as a place in its own right, it constitutes, essentially, the spacial condition for the meeting and dialogue between areas of different orders. (Hertzberger 2001, 32)

Housing provides a refuge for people when they require their own space, and public spaces offer opportunities to interact and to feel part of a larger

group. Similarly, degrees of refuge and interaction are important for groups. The built environment provides the connection and integration of these two realms to create a balance of social infrastructure and personal refuge. A place in a series of places with a gradation of public accessibility offers increased social interaction for one group while it provides a refuge for another group.

Conventional apartment high-rises have a disconnect of social interaction and inhibit a sense of community for the residents, as the spaces linking the units are uninviting conveyance spaces with little or no communal space. Once inside the front door residents ride the elevator and transverse along a straight, narrow corridor with artificial lighting and air circulation to their private units that overlook the city, all in isolation (Safdie 1997, 79-80). Each unit closes itself off from the rest of the building and looks outward, with most of them high above the streets dissolving any meaningful connection with ground level activity (Gehl 2006, 98).



Figure 06 Image of circulation of a residential wing at Collegio del Trindente designed by Giancarlo De Carlo. Sitting areas are incorporated into the stairways and corridors to encourage students to interact with other residents and build social and educational relationships. The proximity to dorm rooms and natural light emitted by skylights make these nooks welcoming places for residents to spend their time. (McKean 2004, 96)

Circulation spaces of multi-unit housing infused with public spaces invite people to stay and gather as De Carlo has designed into the student housing wings of Collegio del Trindente (Figure 06). Natural daylighting from above and sitting areas encourage the students to mingle and collaborate with one another. Collective dwellings with interior unit entrances and communal spaces to host activities regardless of weather and seasonal conditions can be more conducive to community living than detached housing neighbourhoods or other housing typologies with individual exterior entrances. Communal areas





Figure 07 Image of a communal porch in Hertzberger's 'De Drie Hoven, Home For the Elderly'. Recesses along the corridor create niches shared by pairs of entryways that allow residents to add personal touches to public spaces and nurture relationships with their neighbours. (Hertzberger 2001, 40)

at entrances, and integrated with circulation help to smooth the gradient of privacy as people seek out refuge or interaction.

Affiliating the communal spaces with the individual units allows residents to inhabit these spaces and create livable places. The communal porches in Herman Hertzberger's 'De Drie Hoven, Home For the Elderly' (Figure 07) have niches shared by adjoining units where residents can add a personalized touch to the public space. Windows into the units link the two spaces and allow residents to remain connected to activities and passersby, which enhances the feeling of belonging to the community.

Such public spaces become more vibrant and interactive as more people have access to them. Grouping the access to units and activity spaces brings people into contact with one another and strengthens community relationships. Le Corbusier's design of multi-level units in his *Unité d'Habitation* had corridors on every third level, and along with communal services, there was greater potential for informal interactions. The extensive communal services were designed as 'extensions of the living quarters', which relieved the units of certain functions that are more social, efficient, and community-building (Besset 1976, 150). Moshe Safdie organized the high-density residential towers in his *Habitat* projects in three-dimensional matrices so that each unit maintained a public entrance along elevated exterior pedestrian streets every few levels, and private terraced gardens maintain a connection with public spaces along the pedestrian

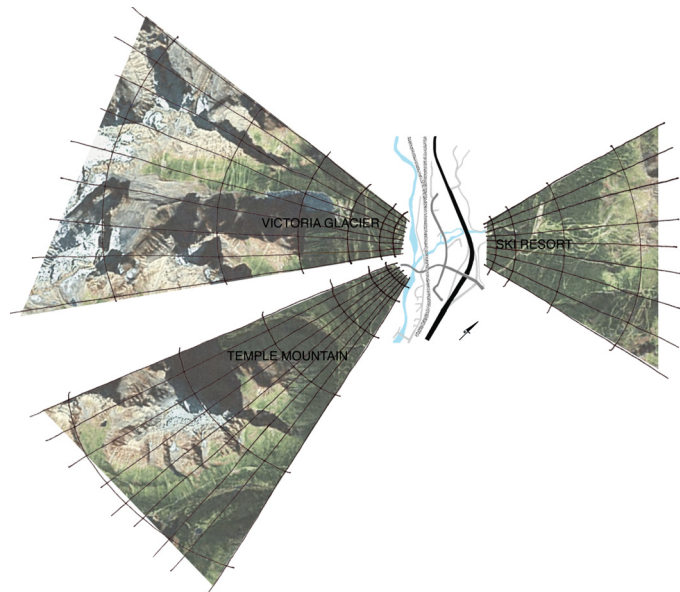
streets. Although both of these projects succeed in increasing the potential for more interactions along their circulation, the spaces are not conducive to longer, engaging activities. Unite's doubled-loaded corridors are long and dark, and Habitat's exterior streets are vast and often unprotected.

The scale and extent of personal refuge that is desired is influential in achieving balance, whether it is a private place to gather with family and close friends, or to retreat alone, to feel comfortable and content, or a slightly more public space to congregate with neighbours. Single-family houses have private spaces for the majority of activities the inhabitants choose to do, whereas other types of communal dwellings such as university dormitories share in daily activities and reserve the bedroom as the only personal refuge.

## Lake Louise

Lake Louise is a township nestled within Banff National Park in the Canadian Rocky Mountains of Alberta. The presence of the mountains and the sense of adventure they inspire, establish a sense of place for Lake Louise. There are three features in the mountains that highlight this: the ski area to the east of town is the main winter attraction, the lake the town is named after sits below a glacier on the western mountainside, and to the south is the highest peak in the region (Figure 08). Exploration has been essential to Lake Louise since it was first settled. It started as nothing more than a train

Figure 08 Views diagram. Three mountain vistas exemplify the activity possibilities and sense of place created by the mountainous landscape. Ski slopes are on the eastern side of the valley. Victoria Glacier sits above the lake the town is named for on the western side of the valley. Temple Mountain to the south is the highest peak in the region. (base images from Bing Maps, accessed 30 October 2010)



station for the Canadian Pacific Railway to allow mountaineers, photographers, and other visitors access to the lodge on the shores of Lake Louise as well as the surrounding mountains and glaciers. The railway follows the eastern shore of the Bow River that runs along the floor of the Bow Valley. Just north of the town, the rail turns away from the river to head west toward the Pacific Ocean (Figure 09). When a highway was constructed parallel to the rail line a variety of accommodations were built near the train station.

As tourism has expanded in recent decades, so too has the settlement and its boundaries, spreading out in all directions. The public services and accommodations are focused along Village Road between the railway and highway at the crossroad with Lake Louise Drive leading to the two main attractions; the lake that the town is named for and the ski resort, on opposite sides of the valley (Figure 10). The historic train station, which is now a restaurant, is isolated on the opposite side of the rail



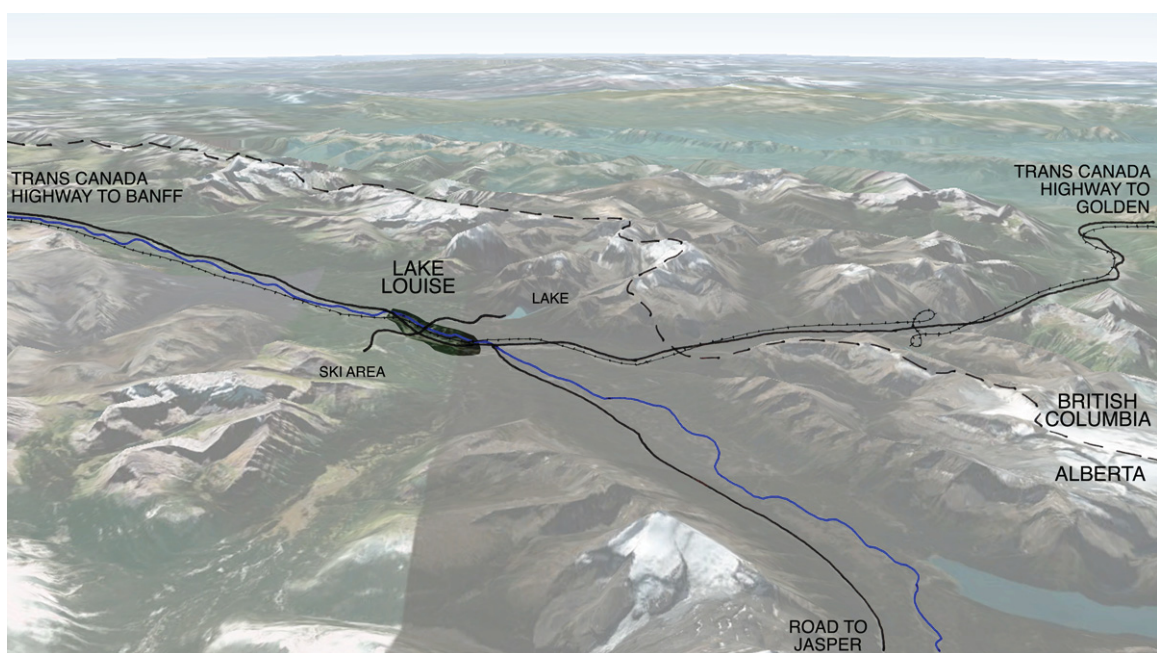


Figure 09 Aerial view from the north of the Bow Valley and surrounding mountainous landscape. Lake Louise is situated just inside the border to British Columbia at a junction that branches off toward Banff, Golden and Jasper. (base image from Google Earth, accessed 07 November 2010)



Figure 10 View of Lake Louise from the peak of a nearby mountain. The ski area and the lake are on facing mountainsides, directly adjacent to the town on the valley floor. (personal collection)



line from the commercial centre.

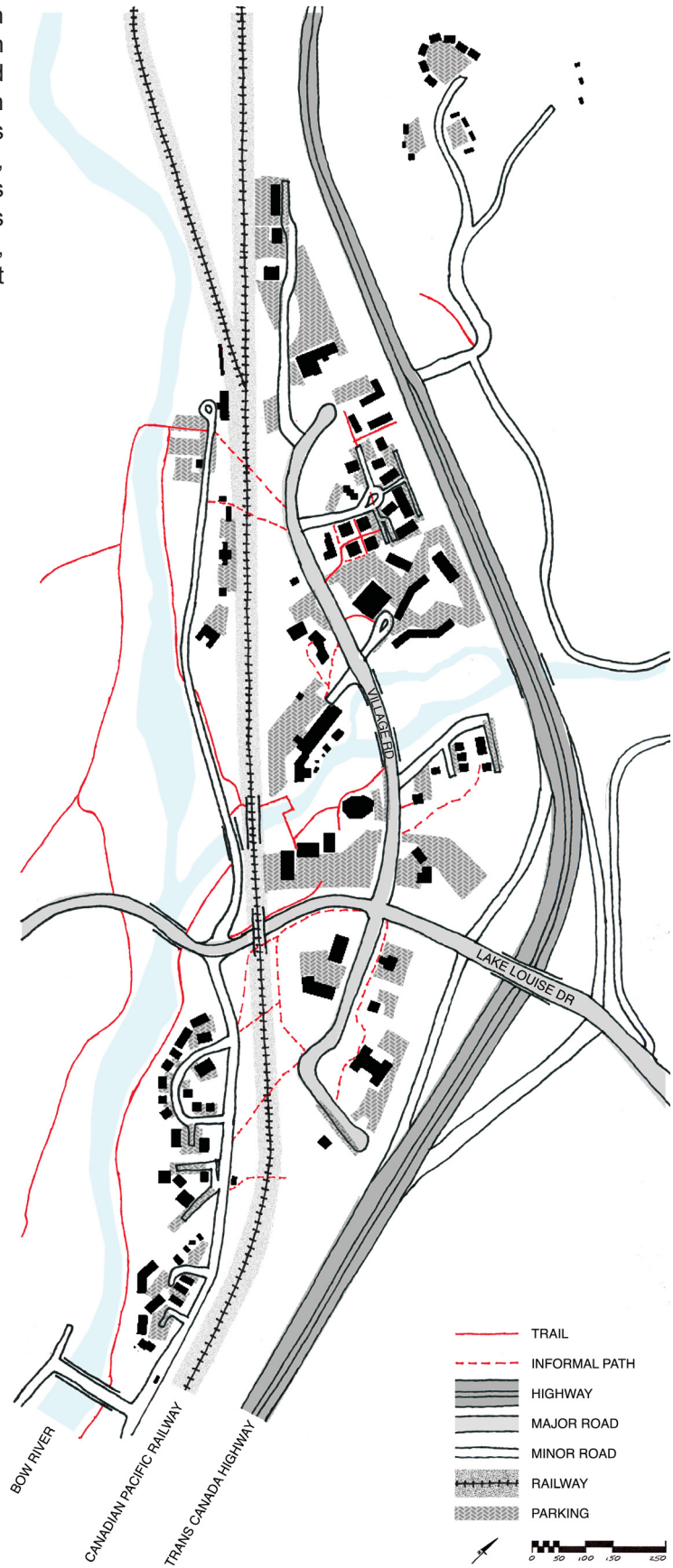
The crossroad at the entrance to town is dominated by Lake Louise Drive (Figure 11) and the parking lot in front of the main commercial area on the corner (Figure 12). An abundance of surface parking along the side of Village Road and adjacent to commercial buildings is evidence of the high volume of short-term visitors going up into the mountains or passing through. The roads serve as the main circulation for both cars and pedestrians, although there are a few maintained pathways that connect to the Parks trail system and informal beaten paths where residents tend to take shortcuts, a number of which traverse the railway (Figure 13).

Figure 11 Image of entrance to town from the Trans Canada Highway. Lake Louise Drive dominates the crossroads and encourages traffic to continue ahead instead of turning onto Village Road and into town. (Google Maps, accessed 4 January 2011)



Figure 12 Image of surface parking for main commercial area. Samson Mall is the main location for the tourism shops and services at the crossroads of Village Road and Lake Louise Drive. The area is dominated by the parking in front of the shops. (Google Maps, accessed 4 January 2011)

Figure 13 Lake Louise circulation map. Roads are used as the main circulation for both vehicles and pedestrians. Residents have beaten some informal paths for shortcuts between housing and workplaces, many of which dangerously cross the railway. Surface parking lots occupy large areas of the landscape, especially around buildings that focus on tourism.



## Service-based Populace

Lake Louise is a gateway to the adjacent mountainous area and is home to approximately 2000 service industry workers. The area's economy is tourism-based with the main employers being hotels. There are also a few independent restaurants, shops, essential services, and Parks Canada offices, in addition to the ski resort just up the mountainside. For the inhabitants of the community there are 'limited residential accommodations for people who are directly involved in providing basic and essential services' (Minister 2007, 88) and all housing is rented from their respective employer.

The populace is composed mostly of independent young adults who are socially outgoing and less family focused, and are not possessive or attached to capital assets. Such a community, with similarities to university or retirement communities, has a strong desire for social interaction.

Park communities exist to protect and maintain the sensitive ecosystems there, while providing responsible and enjoyable access for the greater populace. The residents are important for the well-being of the park as they welcome and tend to visitors, but their way of life should not be neglected. Service industry workers are often lost in the priorities of the service providers who cater to the tourist industry, and are left to fend for themselves.

The area is an outlet for people to be physically active and adventurous in exploring and enjoying the great outdoors, and is an escape for

the ever-growing urbanization of the world. Since it is so outward looking, the ‘sense of community’ is neglected. The resources and opportunities for individuals to further their knowledge or nurture their interests other than mountainous activities are inadequate.

There are voids in activity for those who live there that ironically are due in large part to the very things that draw people to the area: the mountainous setting and the industry. The prospect of exploration of the wilderness becomes limited and even dangerous without daylight or pleasant weather, not to mention the down time during the changing of the seasons (Figure 14). Even though the individuals

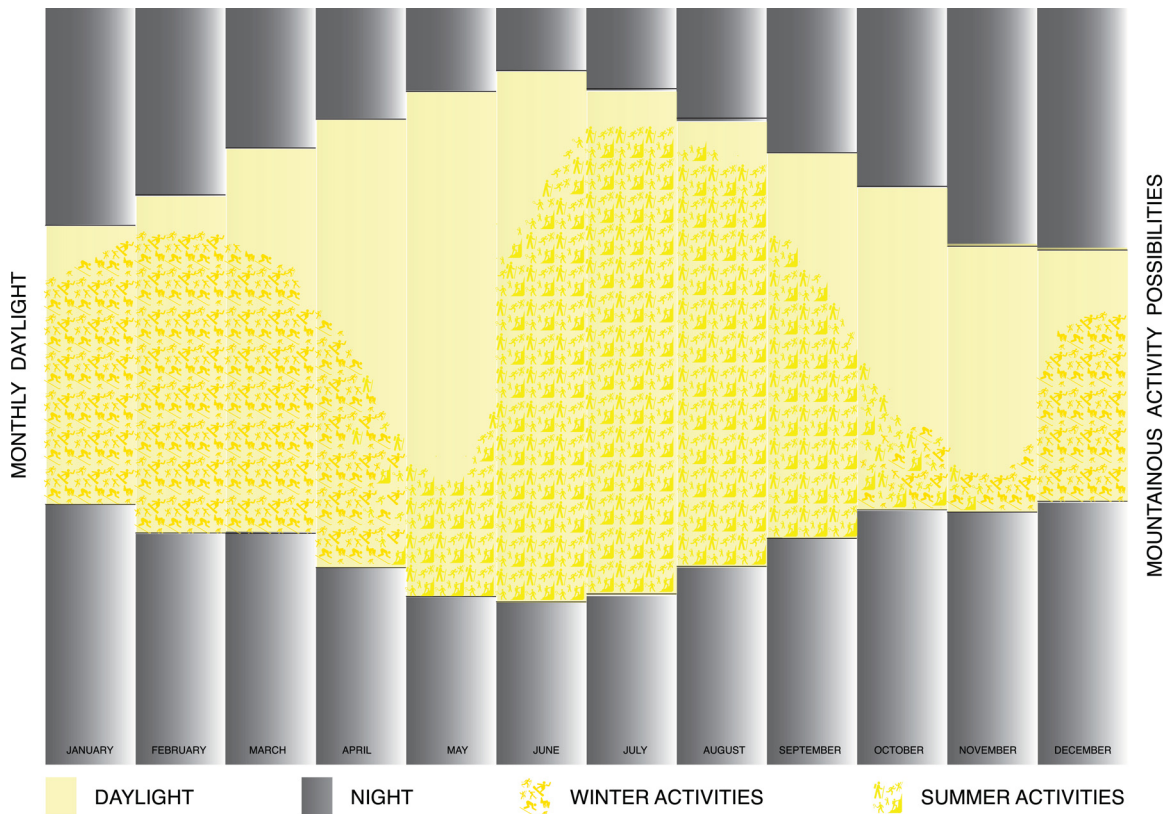


Figure 14 Mountainous activity diagram. The mountains offer many exciting activities, but they are not always accessible. Possibilities available throughout the year are dependent on the weather and the seasons. In Spring and Fall the possibilities of activities in the mountains are reduced and after nightfall they are minimal.

are ever-changing, the populace as a whole is ever-present, and considering them as part of the outlook will be beneficial for them as well as the service providers, the tourists, the park, and everyone, as it is a National Park and belongs to everyone.

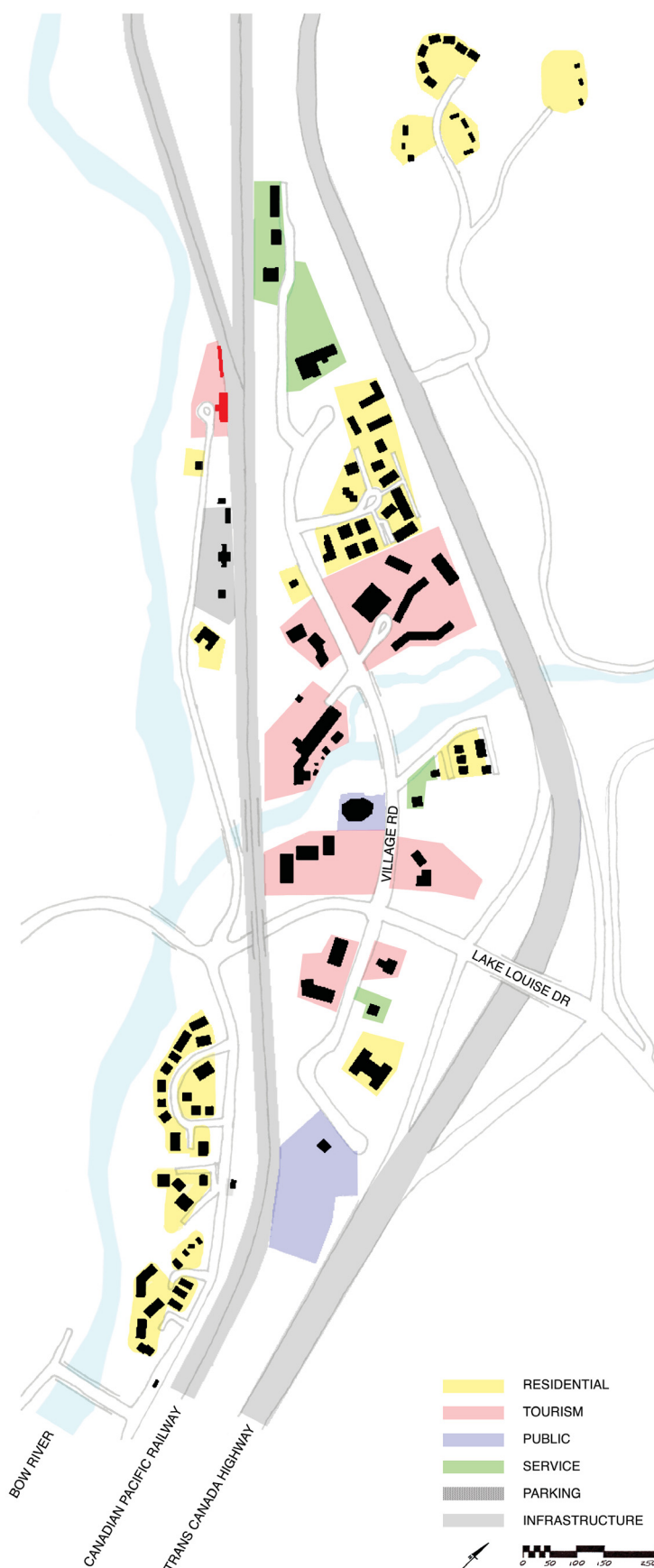
## Built Environment

Tourist-based commercial areas are located at the centre of town near the crossroad of Lake Louise Drive and Village Road, and visitor accommodations are just beyond that along Village Road. Housing for the service industry workers are spread out across the town, into pockets separated by distance and dangerous transportation infrastructure inhibiting community interaction (Figure 15). The housing consists mostly of duplexes or townhouses with a couple of dormitory style buildings, almost all accessed directly from parking lots. This is typical in our car-based society, and gets built in any type of situation without being questioned whether this is the most appropriate design strategy for the residents, the community, or the site.

The public spaces available to local residents include a few bars and restaurants, and a recreation area with a small community centre, an outdoor hockey rink, two ball fields, tennis courts, and a playground at the south end of Village Road (Figure 16). The recreation facilities see little activity, in part due to the location relative to the housing and the circulation of the village. There is little housing or other activity adjacent to this area, and therefore residents



Figure 15 Lake Louise land use map. The majority of the tourism areas of town are centrally located along Village Road. The original train station building that is now a restaurant, shown in red, is isolated from the main tourism areas to the west of the railway. Small pockets of housing for the service industry populace are dispersed around town. They are separated from one another by the railway and highway.



are less aware of it and less inspired to utilize it. The sports fields have to compete with the numerous activities offered by the mountainous surroundings as well as the long winters of the region (Figure 17). The community centre is essentially one room with an adjacent kitchen, which limits the indoor activities that could benefit the community.



Figure 16 Existing recreation area at south end of Village Road. (personal collection)



Figure 17 An empty baseball field on the Community Centre grounds struggles to compete for activity against the surrounding mountains. (personal collection)

## DESIGN

Lake Louise is a community fragmented by isolating barriers that inhibit connectivity and diversity in community activity and interaction. It relies on the mountainous surroundings to facilitate the vast majority of interests and desires of both the visitors and the residents.

The design aims to link local service industry residents with a diversity of public activities and interactions to address the voids that the mountains are unable to, without neglecting the necessity of refuge for the individual and the community. The following interventions attempt to complement the activities, economy, and ecology of the mountainous area:

- Orient the architecture and the circulation around a network of pathways that connect all housing, public activity spaces, and workplaces.
- Institute a housing typology that caters to the socially orientated populace.
- Introduce community space for public activities that focus on recreation, education, and Parks Canada to diversify the activities of the community.



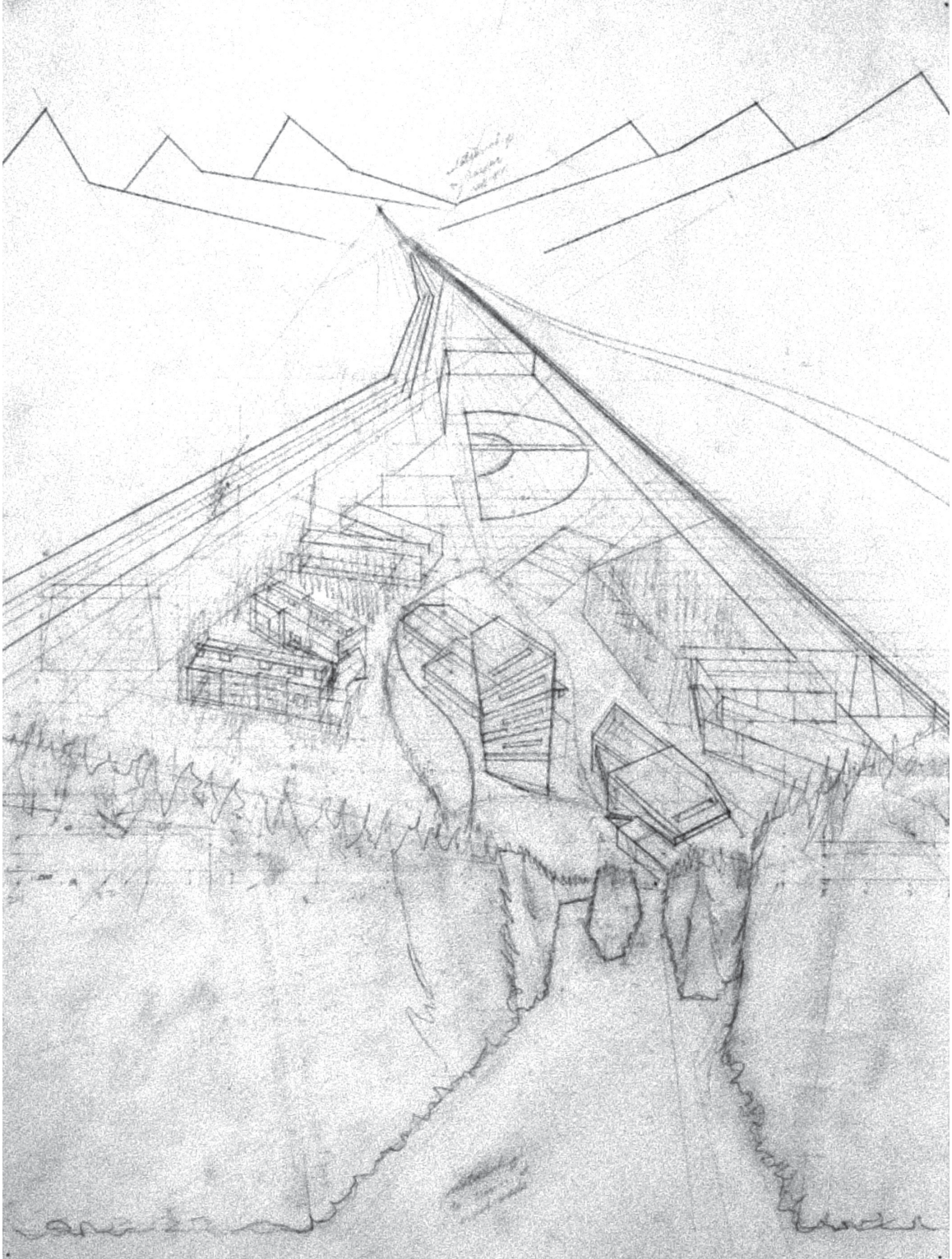


Figure 18 Perspective sketch of the south neighbourhood of Lake Louise. A Community Centre that anchors the south end of Village Road is the focal point around which the communal housing for service industry workers is organized. This relationship stimulates interactions that strengthen the community. The Community Centre like other public places in the town brings people together for activities, many of which relate back to the mountainous surroundings, to enrich both the community aspects of life as well as their mountainous adventures.

## Connecting Networks

Town boundaries are re-established to contain almost the entire community between the Trans Canada Highway and the Canadian Pacific Railway. This eliminates the two transportation lines as barriers that isolate areas of the community, and in turn become buffers to inhibit animals from entering the townsite, and reduce the frequency of human-wildlife conflicts. As the housing and roads outside the new boundaries outlast their usefulness, the land is revegetated for wildlife habitation and movement corridors, as well as allowing people to enjoy prime areas such as along the river (Figure 20). A smaller footprint of the community also means housing, workplaces, services, and amenities are in closer proximity to one another, and therefore the dependency on vehicles for daily use is reduced.

The tourism core remains central to the town as the heart of the local economy. Housing for service industry workers is organized around public buildings for community activities that anchor each end of town. All these realms are designed and interrelated to strengthen the sense of community in Lake Louise and enrich the experience of living in and visiting the area.

The hierarchy of circulation is different for visitors than it is for residents (Figure 22). Visitors drive into Lake Louise in their cars, RVs or on tour buses from the highway, so they experience the town from a road perspective. Village Road runs between the highway and the railway, and acts as a main



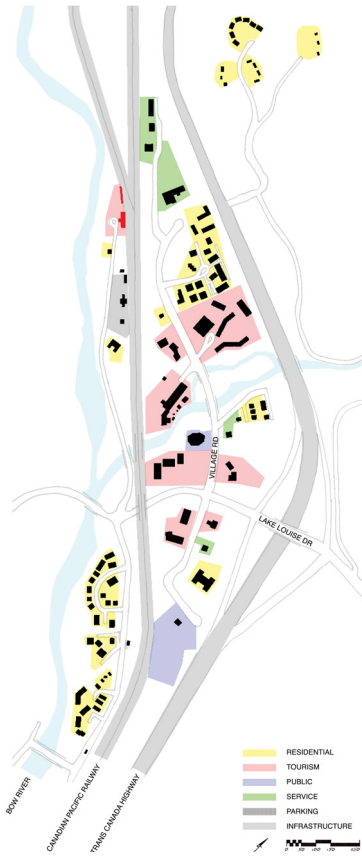


Figure 19 Plan of current land use in Lake Louise.

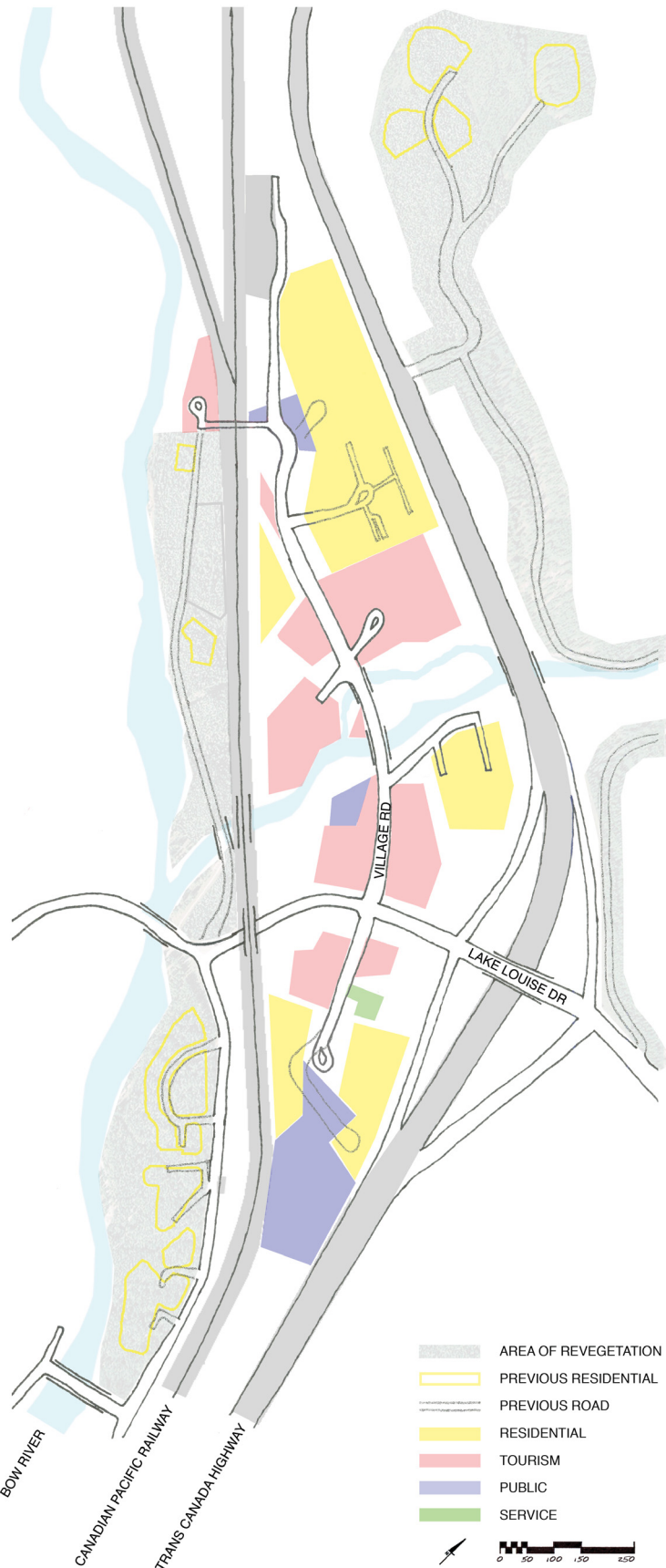


Figure 20 Plan of proposed land use for Lake Louise. Planning the future housing between the highway and railway eliminates barriers that cause isolation and allows the current housing areas and roads to be revegetated for habitats and wildlife corridors. The majority of proposed housing surrounds the public activity areas at each end of town to stimulate community interaction and accommodate easier access and awareness of public activities when residents are not exploring the mountains.



Figure 21 Plan of current circulation systems in Lake Louise.

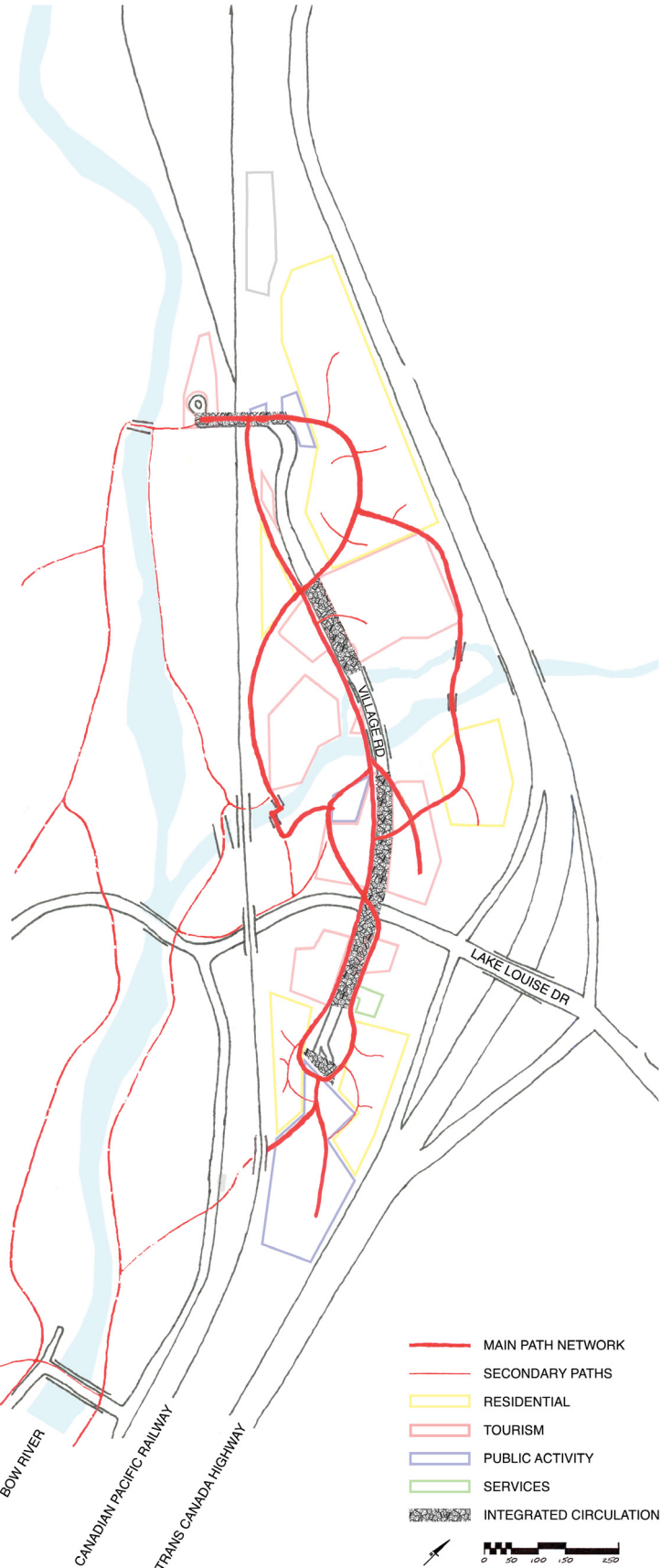


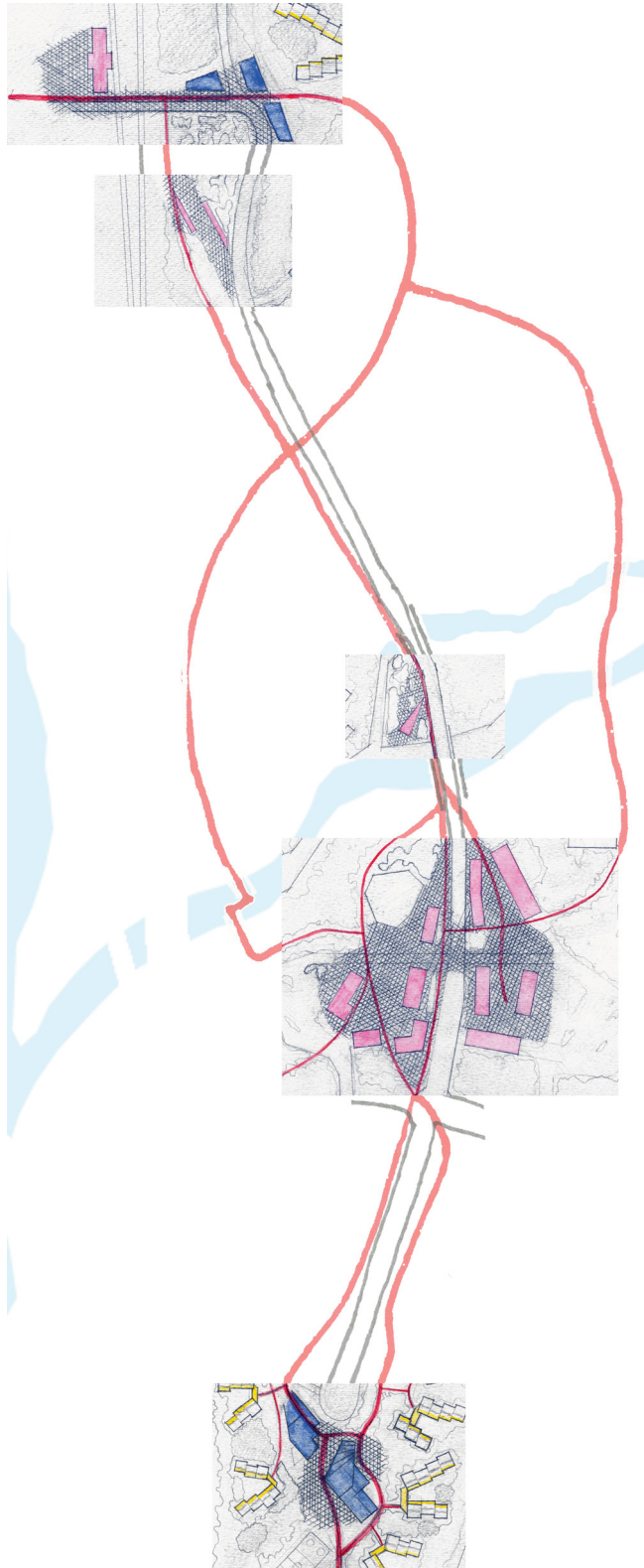
Figure 22 Proposed town circulation map. A path network is the main circulation for local service industry residents, with main paths connecting housing areas with both workplaces and activity spaces. Secondary paths branch off the main paths leading to the housing units and connecting to the surrounding trail system. Village Road remains the main circulation for visitors as they arrive and explore the surrounding area. The paths and roads converge at the commercial areas and public activity areas to connect the different groups and places.

spine with the commercial area of shops and services located at the crossroad with Lake Louise Drive and the accommodations are dispersed further along the road towards the public activity buildings that anchor each end. Visitor parking is below the commercial shops and plazas to minimize the amount of land occupied by hardscaping, and parking for oversized vehicles is directly behind the commercial areas.

The local community, on the other hand, experiences the town from a more pedestrian perspective. Housing is oriented around a network of pathways to encourage walking, cycling, or skiing instead of driving, and links the housing with public spaces and workplaces. As people use this network in their daily routine, their interactions are on a more personal scale, which can lead to spontaneous interactions and relationships.

These circulation routes come together at the commercial centre because it is the main workplace for the residents and as a result accounts for the majority of interactions between locals and visitors. Public buildings in each anchor area also address both the road and paths to be accessible to everyone to offer greater diversity in activities and people with whom to interact.

A series of civic spaces stimulate the experienced distance of the paths at locations where both circulation systems converge and encourage interaction between local inhabitants and visitors. They are defined by the public or tourism buildings that they correspond to or emphasize the immediate features within the surrounding landscape (Figure 23).



A transverse 'street' links the public buildings of the north anchor that represent the past, the present, and the future of Lake Louise and the surrounding region.

Landscape furniture engages the path and tree grove and opens a visual connection from the road to the first building of Lake Louise, the historic train station.

Riverside furniture and landscaping allows people to take in the surroundings and relax at the rivers edge.

The pedestrian commercial plaza mixes storefronts and sitting areas to articulate the shape and stimulate the movement through the space. The porous edges of the plaza establish visual connections to the surrounding landscape and allow entrance from various directions and means of arrival. The paths approach from many directions to weave through the spaces whereas the underground parking entrances rise up into the space and those in oversized vehicles enter through the peripheral.

Adjacent to the Community Centre are a variety of connected outdoor spaces that range from sitting and dining patios to entrance areas or fields, that the path network weaves through.

Figure 23 Series of civic spaces along the circulation stimulate the experienced distance of the paths. They are places to gather and interact, to enjoy the immediate landscape or take in the magnificent surroundings.

## Maintaining Refuge

Housing for service industry workers is designed to create smaller communities of residents within the larger community of Lake Louise and offer a 'safe nest' for those who live there (Figure 24-25). Multi-unit buildings that cater to the socially oriented populace are located near the public building in each of the anchors and are organized along the path network that diverges from the road. The separation provides a buffer for residents to withdraw from the workplace and tourist crowds. A low stone wall lines the walkway that ties each building into the main path network to mark the public address of the housing (Figure 26). Inside the housing a series

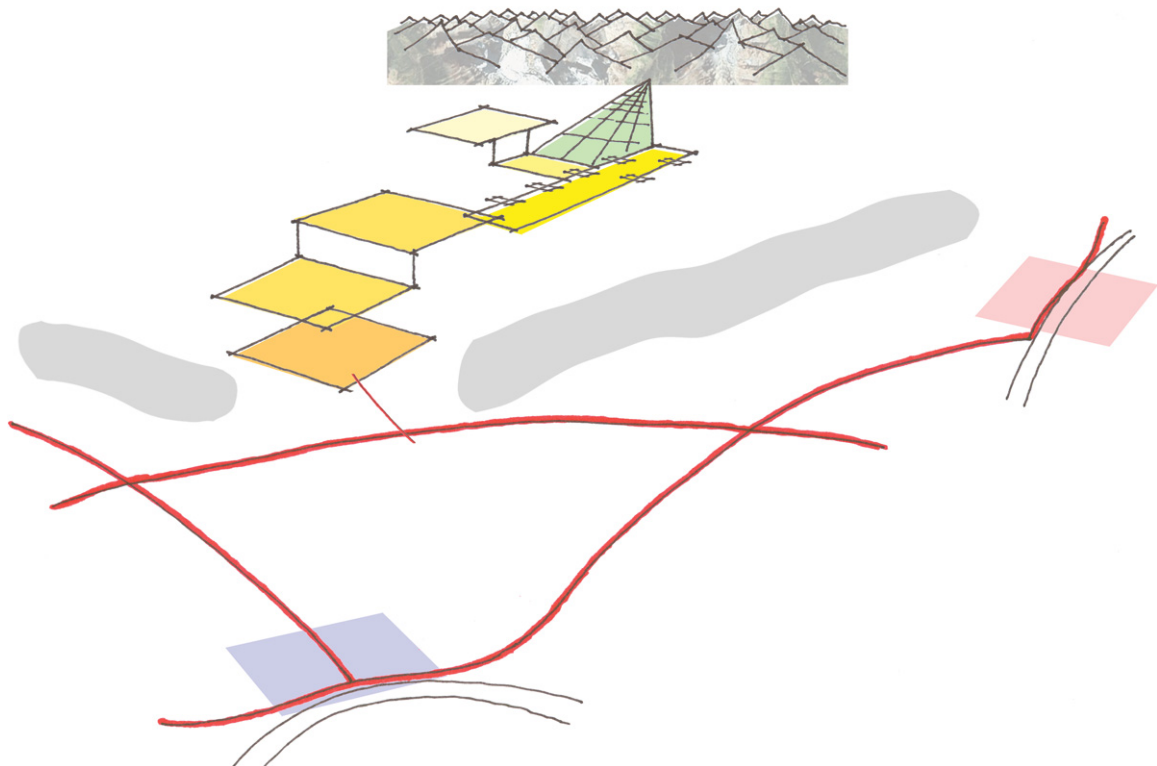


Figure 24 Principles for service industry housing. The communal areas have a gradient of public accessibility to offer different levels of refuge or interaction. The most public spaces address the path network to connect to other housing and public or workplace areas while the more private living spaces open to the surrounding mountainous landscape. (base image from Bing Maps, accessed 30 October 2010)



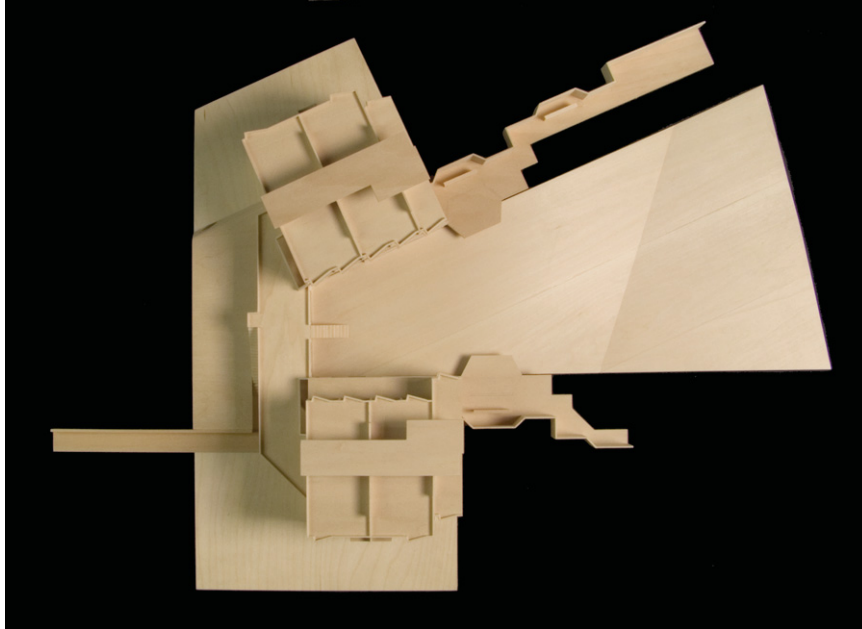


Figure 25 Partial housing model. The circulation and shared spaces of each wing line the courtyard, and together they form a community space for the residents of the building. The narrow section of the building is a hinge that not only connects the two wings, but is also a transition between the community space that is oriented to the surrounding landscape, and the path that connects to the larger community of Lake Louise.



Figure 26 Partial housing model. The path that connects the housing to the main path network is marked by a low stone wall to establish a public address. The entrance is in the one story hinge section that connects the two unit wings as well as offering a transition between the residents and the larger public.



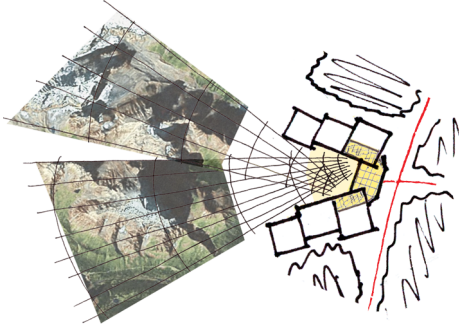


Figure 27 Housing sketch. Two rows of units connected by a transitional hinge form a courtyard that is private to the community of the building and maintains a connection to the surrounding mountainous landscape. (base images from Bing Maps, accessed 30 October 2010)

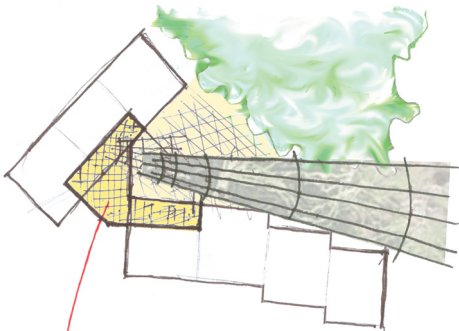


Figure 28 Housing sketch. Existing tree lines enclose the courtyard, frame views of the surrounding mountains, as well as influence the length and orientation of the wings. (base image from Bing Maps, accessed 30 October 2010)

of shared living spaces progress in a gradient of privacy levels allowing residents to have a choice in their involvement in community activities.

Each housing building is organized in two rows of units that fan out to create a central, wedge-shaped courtyard, which opens out toward the mountainous surroundings (Figure 27). The existing vegetation is preserved and influences the length of the housing wings and their positions relative to one another. Tree lines of the forest define the end of the courtyard and frame the vistas of the surrounding mountains (Figure 28).

Activity space for the community of building residents is a combination of interior and exterior spaces that articulate the facing edges of the two wings (Figure 29). Single-loaded circulation for each wing incorporates living and dining areas that overlook the raised courtyard, and maintains connections between residents as well as the surrounding mountainous landscape.

This interior main spine is a scaled version of the township spine with transverse nodes of

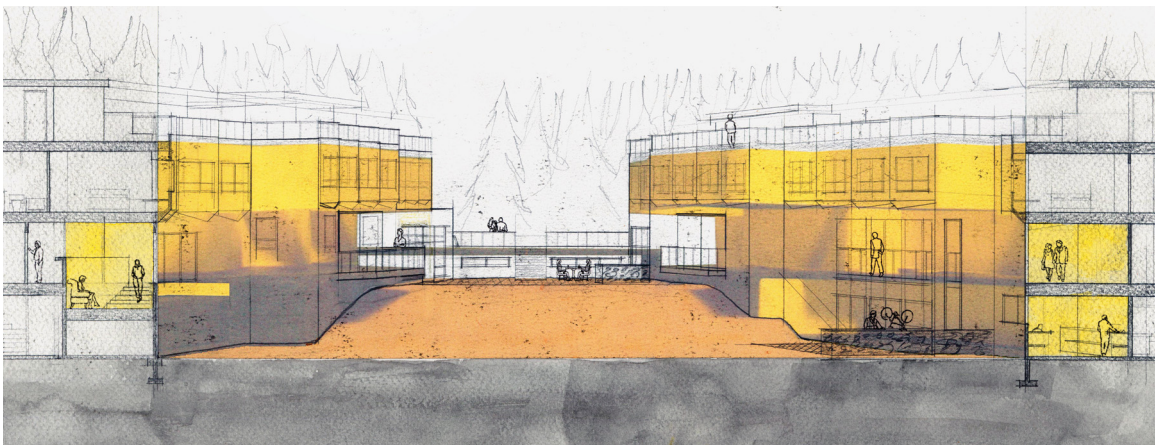
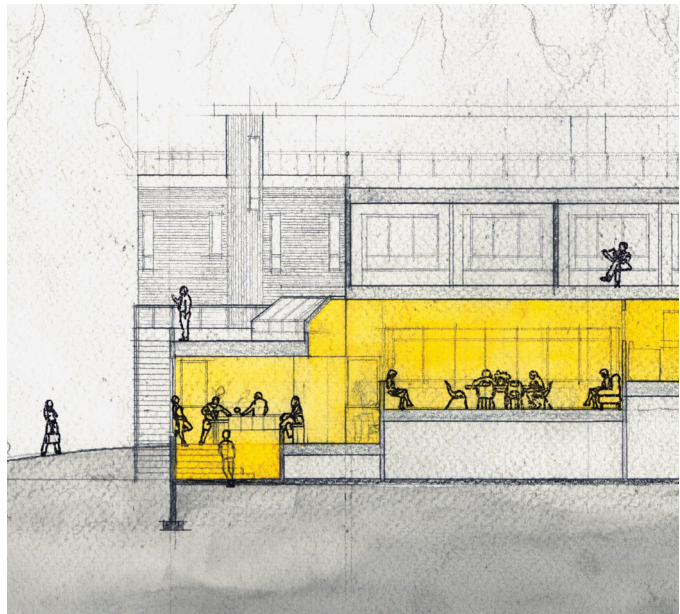


Figure 29 Housing section. Two wings, that house all the units together with a connecting hinge, frame a courtyard lined with communal interior spaces where residents interact and develop relationships as a community.

common areas and shared services that increase the number of people who are aware of activities and will increase participation. Physical and visual connections are important to the communal living aspect of the housing. The progression of spaces is arranged in intermittent levels to distinguish the spaces but not separate them so that relationships can be maintained (Figure 30).

Figure 30 Partial housing section. The public areas of the housing are arranged in a continuous series of intermittent levels that smooth out the transition between measures of intimacy and public accessibility. The areas are distinguished from one another but they are not isolated. Skylights allow the rooftop terrace to maintain a connection with the adjacent interior spaces that are on a lower level, in addition to providing the interior with natural daylighting.



The hinge section that joins the wings is the most public area and the main transition between the Lake Louise community and the resident community of the building. Beyond the entrance in the hinge, the living spaces ascend into progressively more private areas. The circulation and shared spaces are in a continuous series of levels that step up and down through the two lower floors (Figures 31-33). A number of terraces and balconies step on and around the building to offer similar degrees of accessibility to their corresponding interior spaces. Restricting all the interior circulation in the wings to



Figure 31 Partial housing model. The public areas progress through the housing on a connected series of levels that establish a gradation of intimacy while maintaining a unified community. Exterior terraces and balconies on and around the building have corresponding privacy.



Figure 32 Partial housing model. Terraced interior shared spaces ascend to greater levels of privacy. Intermittent level changes distinguish the areas but allows the people using them to remain connected. From the entrance people can be connected to activities taking place in the games room or communal living room and even the courtyard beyond.

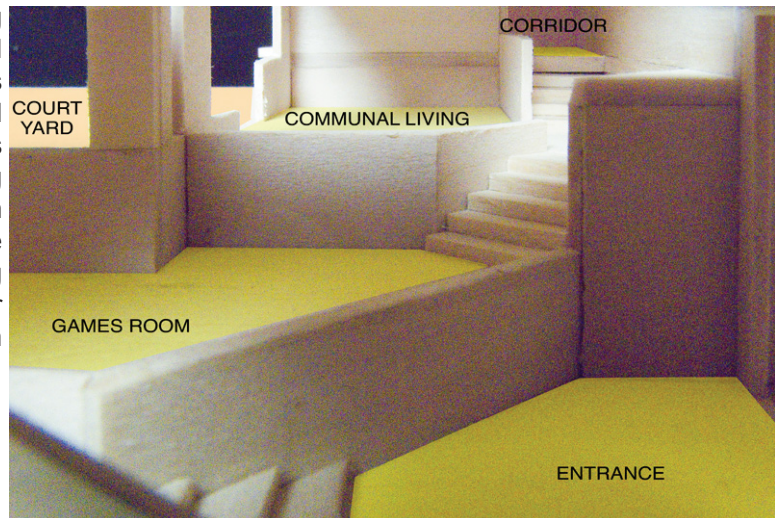
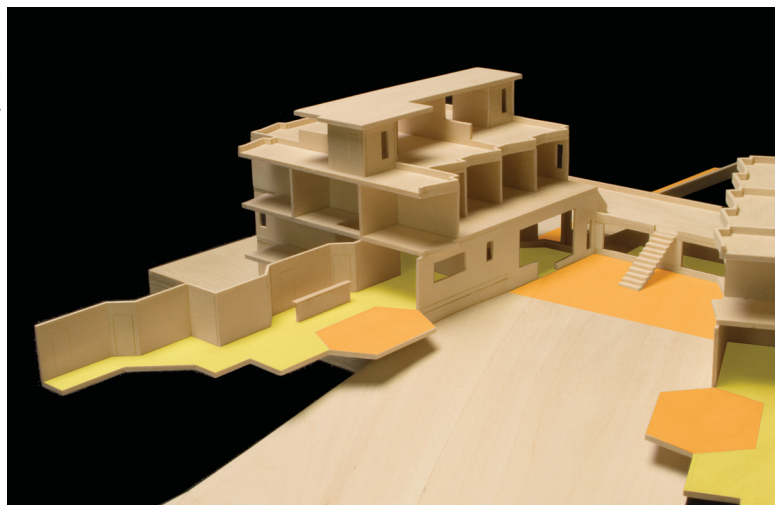
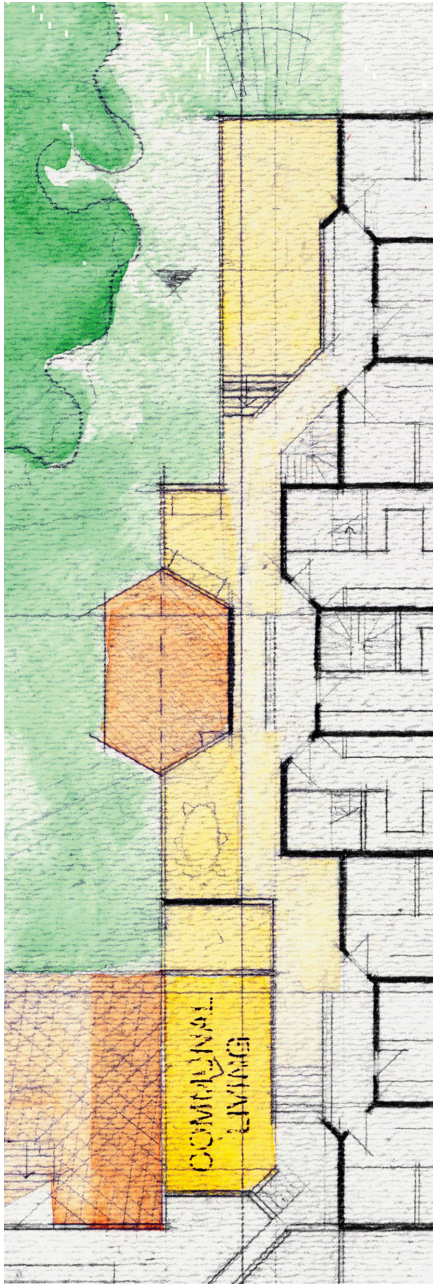


Figure 33 Partial housing model. The courtyard slopes down from the hinge resulting in a variety of relationships with the interior spaces along the circulation.





Figures 34 Partial second floor plan. The public areas of the housing are a variety of interior and exterior spaces along the courtyard side of each wing. Balconies become part of both realms by being set into the building and projecting out. Dining and sitting nooks are open to the circulation and the larger community space but are staggered with unit entrances to distinguish them as their own spaces. Larger spaces open directly onto a courtyard patio or look out to mountain vistas.

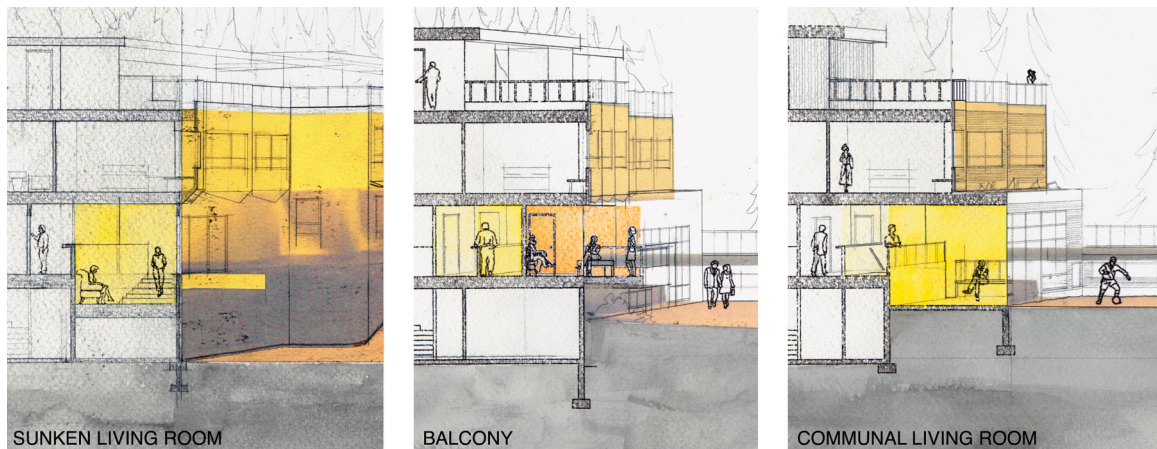
the same level limits the height of the buildings to no more than three or four stories, so that people in and on the building remain connected with those at ground level (Gehl 2006, 98).

A variety of interior and exterior activity spaces are created in the zone between the courtyard and circulation, as the building edges weave in and out, and blocks of three units shift forward and back. The interior spaces have various relationships with the adjacent courtyard (Figure 34-40). Communal living or kitchens and dining areas open onto courtyard patios. Balconies project out into the courtyard as well as penetrate into the building to offer a gradation of protection and connect to both the inside and outside realms. Nooks for smaller sitting or dining areas are created between balcony insets and the shifting of the unit blocks. Openings at the ends and occasional side points reveal vistas of the surrounding landscape and other activity areas, maintaining the connectivity.

Entrances to all the units are along the same second floor circulation space and are grouped together in sets of three to contribute to the sense of belonging to the building's community. All of the residents are connected to and aware of all the spaces and activities in their everyday routines. Grouped unit entrances and communal living spaces provide opportunities for residents to interact and develop relationships with other residents of the building.

Within the community of the building there are smaller, more intimate communities formed by each three-unit block, and furthermore by the





Figures 35-37 Partial housing sections. Shared spaces closest to the building entrance are more communal and have stronger relations to the exterior courtyard, whereas the further away spaces are more intimate. The living room at the end of the wing is sunken to separate it from the circulation but is elevated above grade maintaining only a visual connection to the courtyard. Balconies are set into the face, so residents can be protected from the elements while enjoying the fresh air, in addition to extending out to be part of the courtyard. Communal living space at the junction that steps up to the wing's circulation, down to the games room in the hinge, and out into the courtyard at grade, mingles activities of the three realms and diversifies the interactions of the residents.

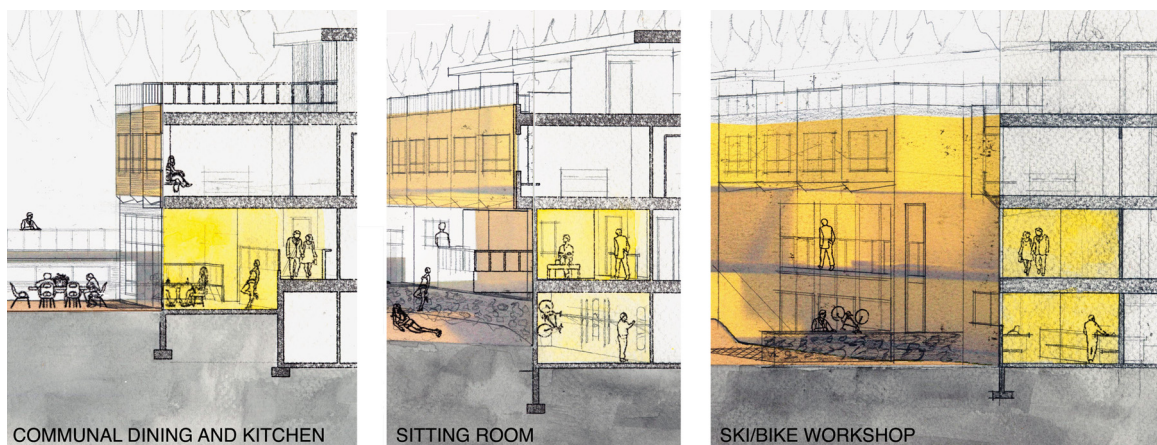
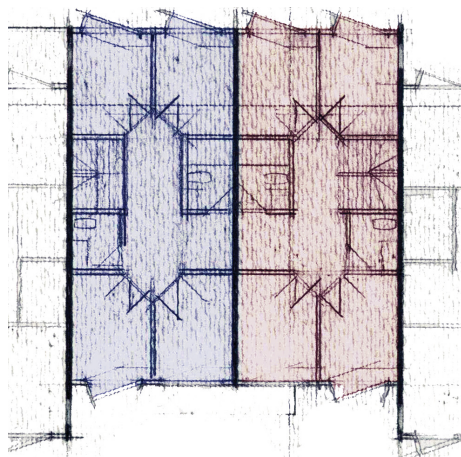
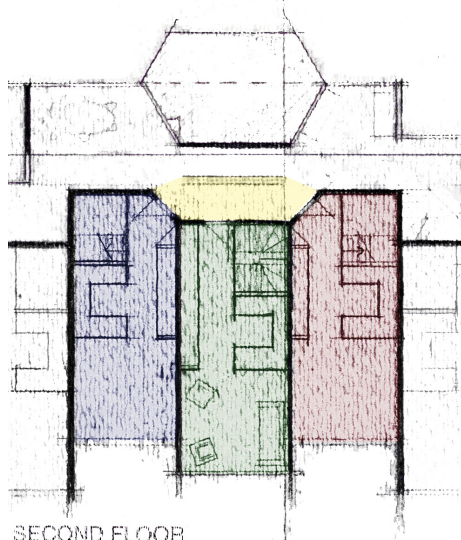


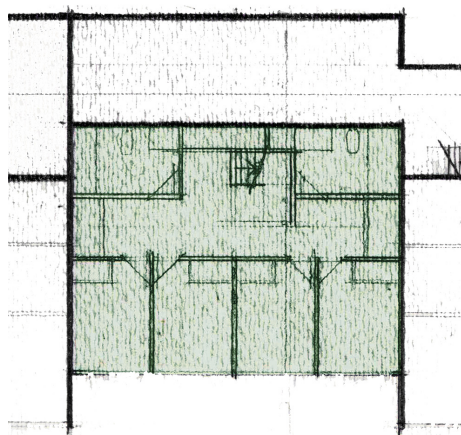
Figure 38-40 Partial housing sections. A communal kitchen and dining area at the junction of the circulation, games room and courtyard, encourages social interaction with both interior and exterior cooking and gathering spaces. Sitting and dining nooks that are shared by nearby units are established along the circulation as the building edge is articulated by balconies, level changes and shifting blocks of apartments. A workshop for tuning and repairing skis, snowboards, bikes, etc. in the housing not only addresses direct needs and interests of the residents, but it also adds diversity and strengthens the sense of community among the residents. The workshop has first floor workstations in the end of the longer wing as well as exterior ones that are part of the courtyard and provide access to trails leading into the surrounding landscape.



THIRD FLOOR



SECOND FLOOR



FIRST FLOOR

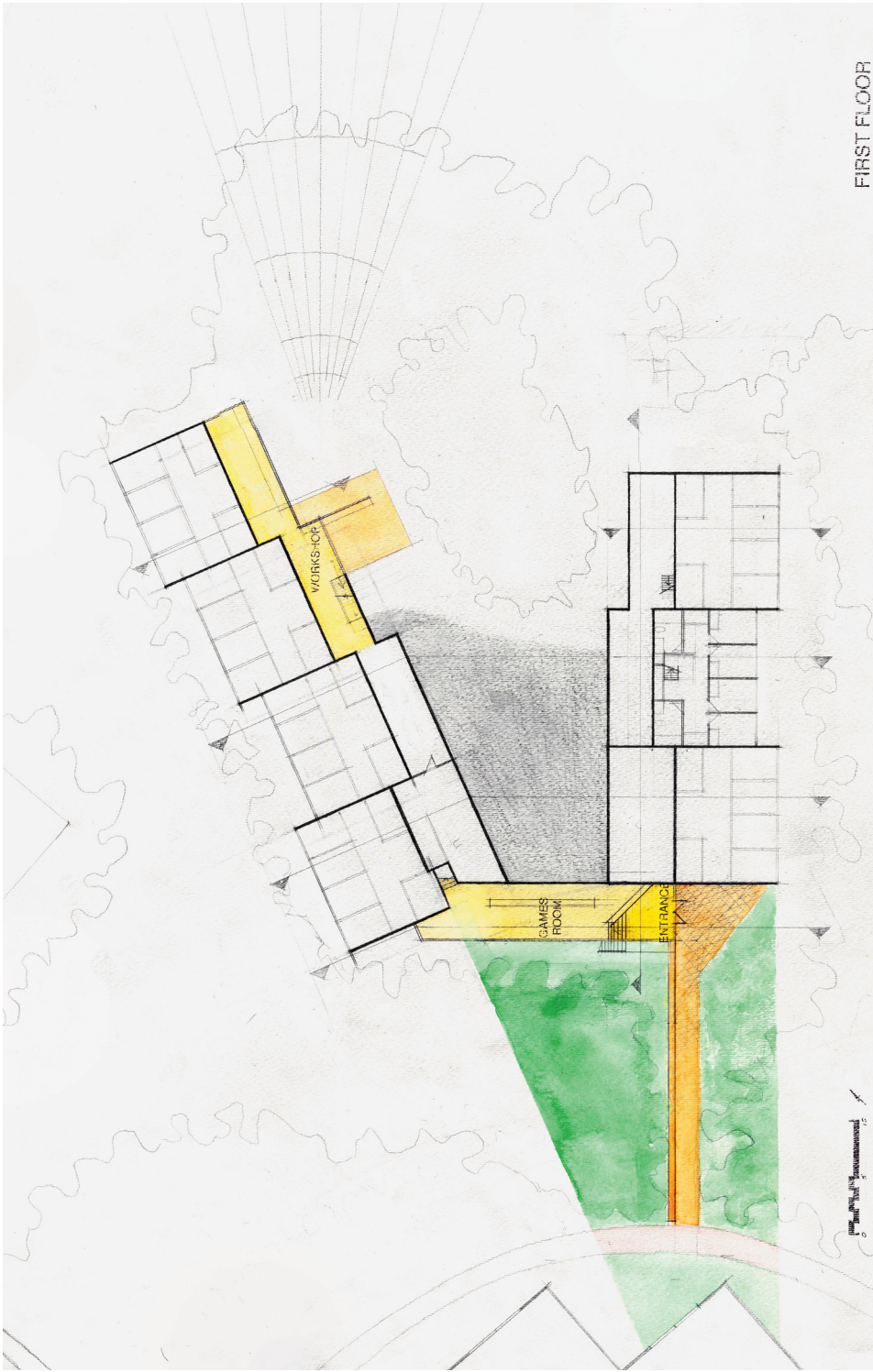
roommates who share each four bedroom unit. The scale of communities progresses intermittently just as the intimacy of shared spaces do.

In this particular building, roommates of the four bedroom units share a kitchen and sitting area on the same level as the communal living spaces (Figure 41-43). The centre unit of each block descends to the lower level where the bedrooms line the exterior wall to look out into the adjacent forests. The staircases in the outer two units lead up to bedrooms on the full width top floor before continuing to the rooftop patios. Windows in the third floor bedrooms overlooking the courtyard are punched out on an angle to look out toward the mountains, as opposed to into the bedrooms across the way. Window seats are built into the punchouts to create a personal refuge that is still connected to the greater surroundings.

Underground parking below some of the housing buildings that are nearer to a road, is shared with adjacent buildings to reduce the amount of hardscaping to allow precipitation to infiltrate the soil as well as reduce the visual presence of human impact. Hiding the vehicles out of site helps to reiterate the emphasis on active transportation.

Figure 41-43 Partial housing plans. Each wing of apartments is divided into blocks of three units with entrances grouped along the second floor circulation. Shared kitchen and sitting areas in the units are on this floor, in addition to staircases leading to bedrooms and bathrooms either one floor up or down. Centre units are shifted away from the courtyard to create a recess for the three entrance ways and provide them with an identity.





FIRST FLOOR

Figure 44 Housing first floor plan. The public address of the housing is marked by a low stone wall along a walkway that leads residents from the main path network into the hinge of the building. Beyond the entrance, the living spaces begin to ascend into progressively more private areas. The games room in the hinge is the most public area in the housing and is a transition into the central courtyard on the second floor, created by two rows of units. The circulation on the level above eventually leads to the workshop on the first floor where residents can store and tune their skis, snowboards, bikes, or other equipment used to explore the mountains. The bedrooms and washrooms for the units that occupy space on the lower two levels are on the first floor.



Figure 45 Housing second floor plan. The second floor is designed to accommodate the majority of the activity and nurture the sense of community. A combination of interior and exterior spaces flow into each other to offer a gradient of privacy levels for various interactions. The communal kitchen and living area both continue into the same section of courtyard at grade to create a combined barbecue gathering space. A few steps above, the single circulation space of each wing incorporates living and dining areas overlooking the courtyard, and groupings of entrances to all the units. Inside each unit the kitchen and sitting areas look outward to the adjacent forest and stairs leading up or down to the bedrooms.



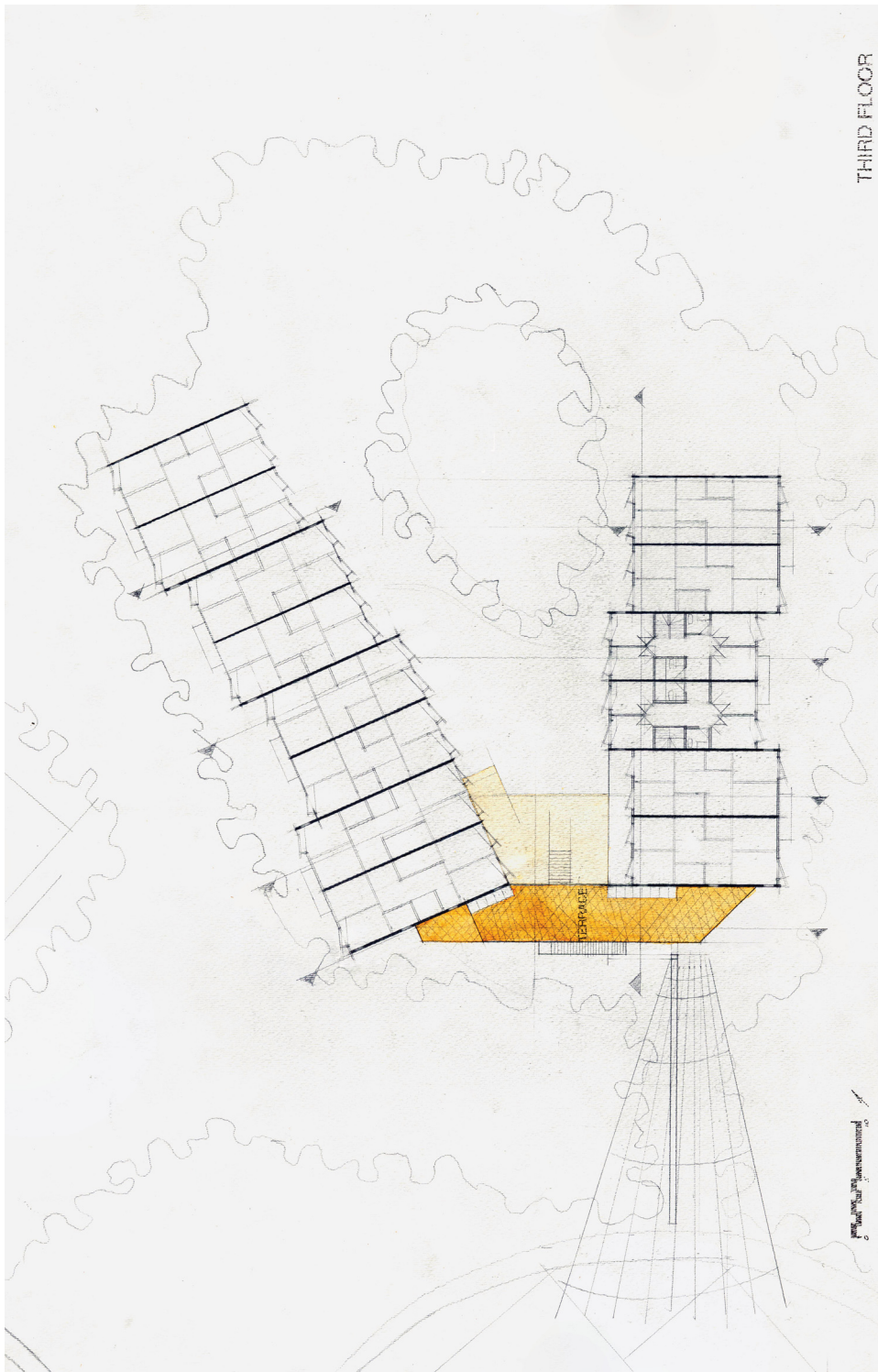


Figure 46 Housing third floor plan. The most private spaces of some of the units are on the top floor. The bedrooms and washrooms for the units that occupy space on the upper two levels are on the third floor. The staircases of these units continue up to give access to rooftop patios. The roof terrace above the hinge is a transitional exterior space between the courtyard and the entrance pathway.



Figure 47 Housing section. Second floor living rooms are at the end of each wing and are a story above the courtyard. They provide residents with gathering places that are quieter and allow them to reconnect with the mountainous vistas. The first floor workshop spreads into the courtyard and gives access to the surrounding landscape.

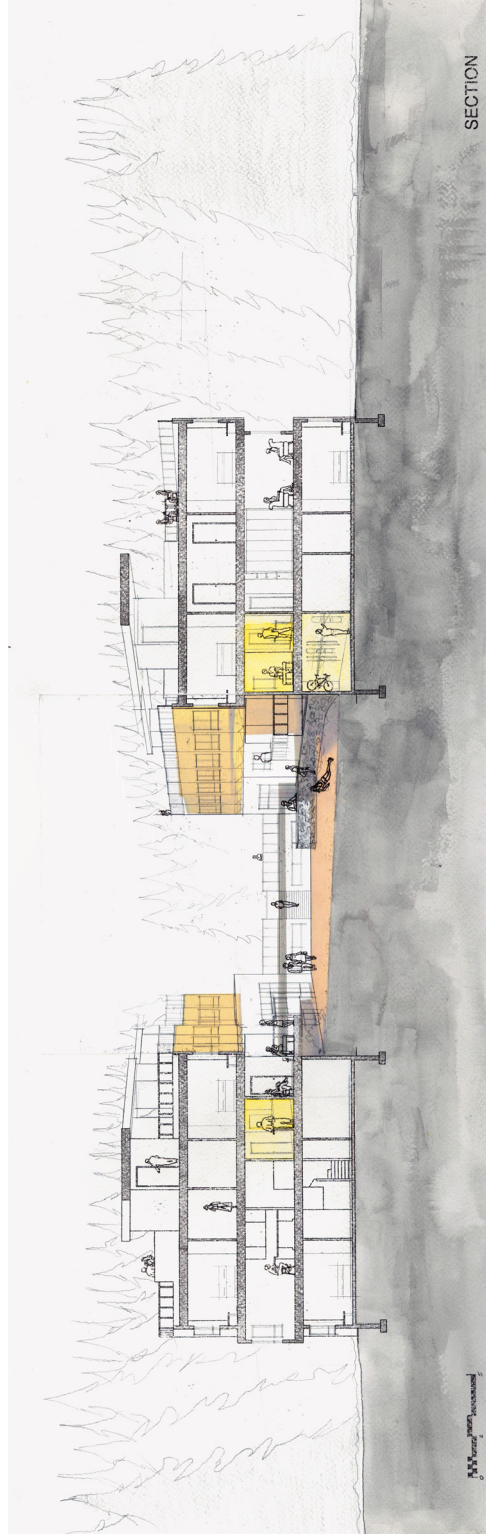


Figure 48 Housing section. Balconies and shifting blocks articulate the second floor edge of the wings and create sitting nooks.



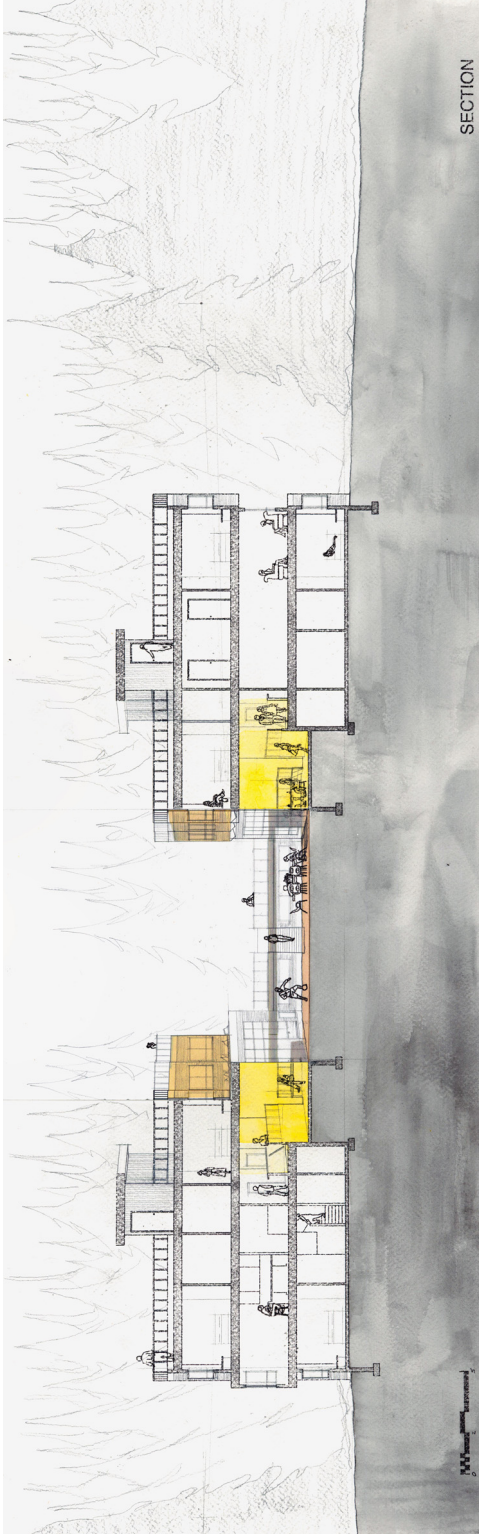


Figure 49 Housing section. Communal living room and communal kitchen and dining area face each other across the courtyard. The spaces and activities extend outdoors and are enjoyed together in the exterior gathering and barbecue area. Circulation rises up a partial level as it leads into more private areas of the housing.

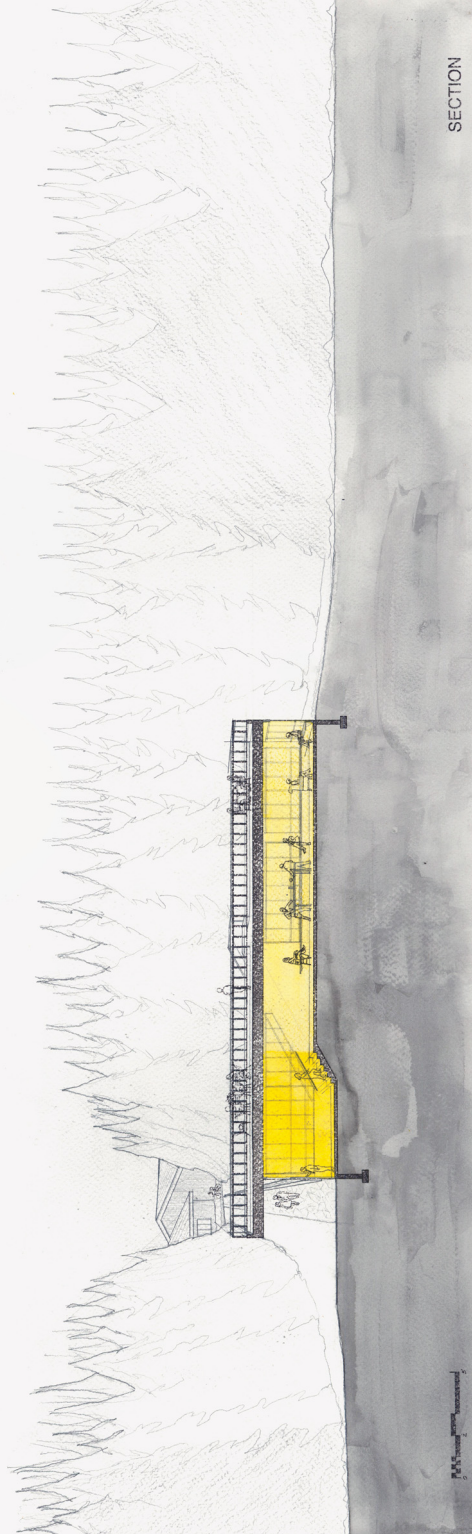


Figure 50 Housing section. The games room, which joins the two wings, is shared by the entire building. Slightly below that, through the entrance, a path connects the housing to the town's path network and public realm. Similar to the rooms in the hinge, the rooftop terrace is an exterior transition space between the community of building residents and the rest of the town.

## Activating Voids

There are three contributing factors to the activity voids in Lake Louise.

- For all the opportunities and excitement that the surrounding mountains offer, they do have limits to their hospitality. They are treacherous without daylight or good weather, not to mention the down time during the changing of the seasons.

- The tourism-based economy fluctuates with seasonal changes, which leaves workers with less hours and more available time.

- The lack of interior spaces for public activities limits the quantity and diversity in which residents can partake.

The proposed town plan calls for buildings for public activities to anchor each end of Village Road. Each of these anchor sites contribute to addressing the activity voids and diversity of the community in a different way (Figure 51).

The community buildings of the south anchor area address these factors by focusing on recreation and education. The gymnasium, fitness centre, and studio complement the physically active people drawn to the region by the exploration and adventure that the mountains offer, while the Food and Beverage, and Spa training facilities offer opportunities for residents to improve their skill sets in the local industry. The intensity of programs fluctuate inversely to seasonal changes to help resolve activity voids that occur when there is both a downturn in tourism and unsafe mountainous

conditions. A library, auditorium, and smaller multi-purpose spaces assist in training and also benefit the community by nurturing individual interests and facilitating a greater diversity of activities including movies, plays, or places for groups or clubs to meet.

The north anchor, public buildings focus on research, stewardship, and operation of the park. Research and science build the foundation of understanding and awareness of the surrounding ecosystems and the introduction of researchers adds diversity to the community. Parks Canada offices

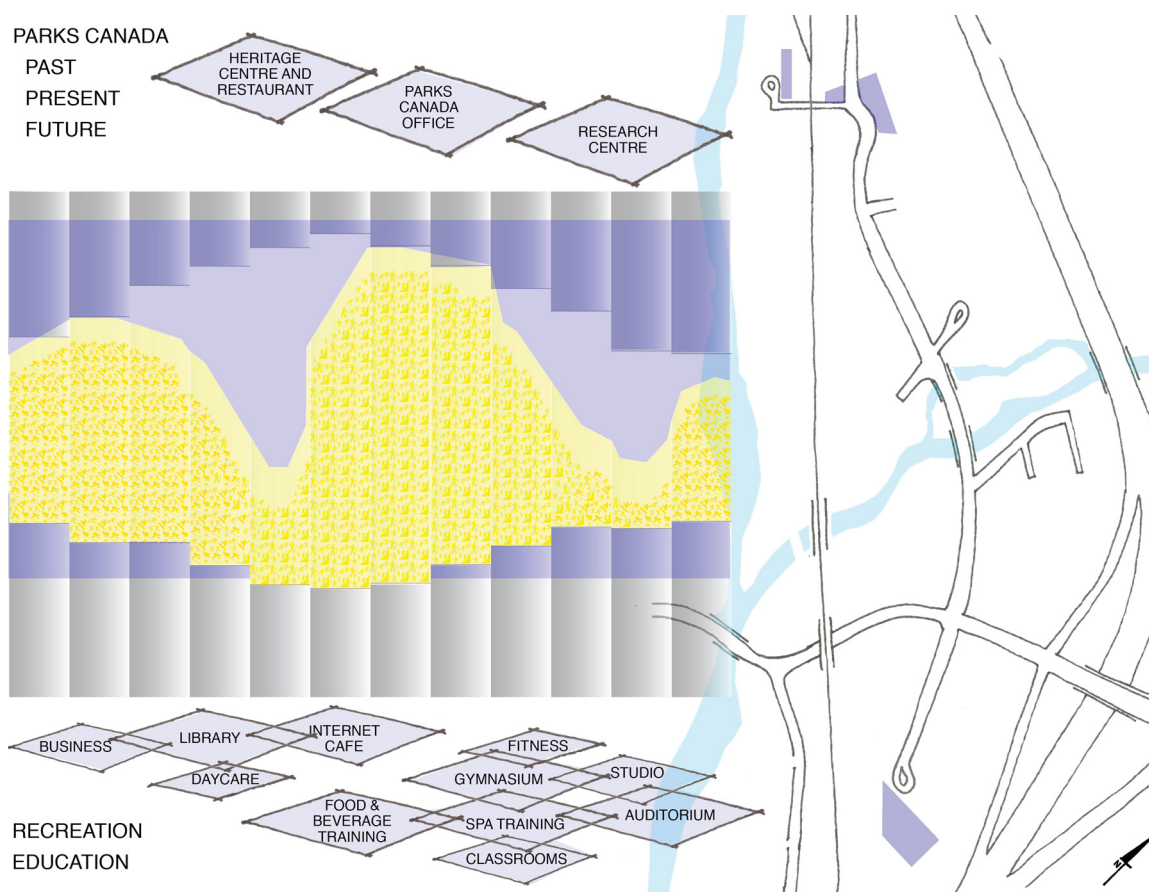


Figure 51 Programming diagram for the public activity buildings. The buildings for public activities combine upgrades to existing facilities and services with the introduction of new ones that correspond with the community’s strengths. The recreational and educational focus of the southern buildings complement the physical active lifestyles of the people drawn to the area and the industry of the local economy. The past, present and future of Parks Canada is represented at the northern buildings.



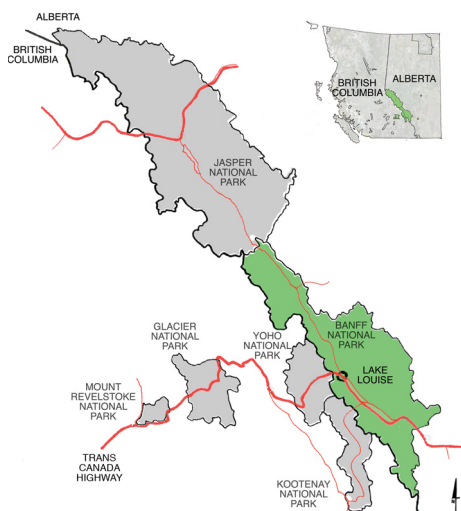


Figure 52 Mountain National Park Network. Lake Louise is central to Banff National Park as well as other national parks. It is also at the junction of highways leading north to Jasper and Edmonton, west to Vancouver, and east to Banff and Calgary.

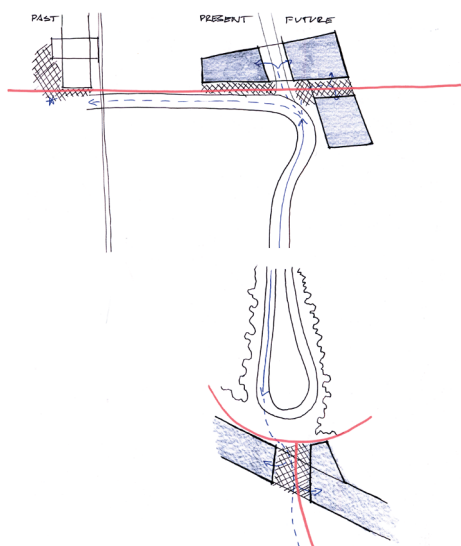


Figure 53 Sketch plan of the public buildings that bookend Village Road. The south anchor funnels movement between the buildings to encourage interaction in recreational and educational activities. The north anchor directs the flow of traffic along a transverse axis that links the past of the historic train station building with the present administration and stewardship of Parks Canada and research that leads the park and the community into the future.

are incorporated into the north anchor buildings to improve the accessibility and presence of the Park's caretakers, to promote stewardship of Banff National Park and to inform people of the work they are doing through all of Canada's National Parks. Lake Louise is only a couple of kilometres from the western entrance to the park as well as the British Columbia border, and therefore is a prime location to welcome visitors approaching from the west. With the proximity to the west entrance, the central location in the system of mountain National Parks (Figure 52), and existing settlement, it is an ideal location for a research base that minimizes further development within the park. The access to the Station Restaurant and gardens at the historic train station is redefined to link the history and origins of the area with the present and steps into the future.

The groups of buildings that bookend Village Road include civic spaces through which visitors interact even before they enter the buildings. The path network also passes through these spaces so that they become active with residents' daily lives (Figure 53).

The public buildings are not only for the benefit of the residents of Lake Louise, but also to stimulate the experiences and interactions of visitors (Figure 54). They are sited to be accessible from both systems of circulation in order to connect to both the local housing areas and the tourism centre. The paths from the housing areas and the road from the tourism centre approach the buildings from different directions. The two groups come together either in the civic spaces between the buildings or in

their lobbies before moving into more specific activity areas. Orientation and views from the interior activity areas offer vistas and connections to the surrounding landscape.

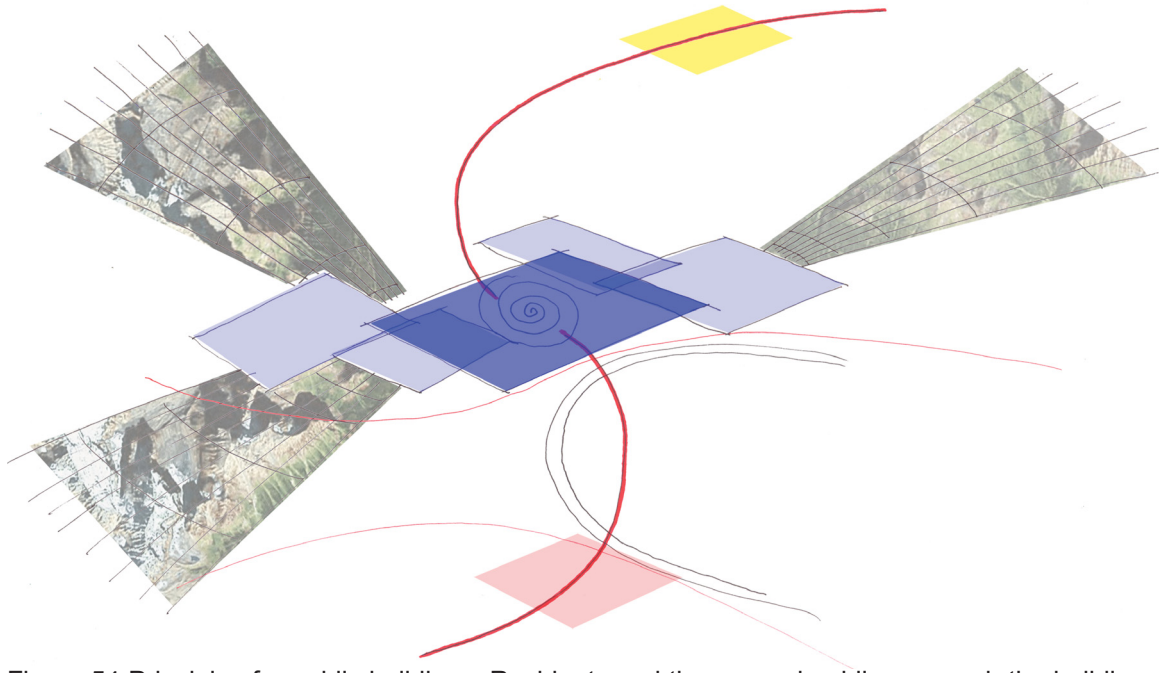


Figure 54 Principles for public buildings. Residents and the general public approach the buildings from different directions and interrelate in the communal space. The activity spaces are linked to the communal space as well as other activities. Interior spaces are oriented toward appropriate inspirational views. (base images from Bing Maps, accessed 30 October 2010)

## Recreation and Education

At the southern end of town the community centre is built into the sloping terrain between the end of Village Road and the sports fields (Figure 55). The path network uses the buildings to step down from the upper level of the surrounding housing to the lower of the civic space and the sports fields beyond. The western building extends out of the sloping terrain with the landscape continuing to form the roof so that the path from the housing travels

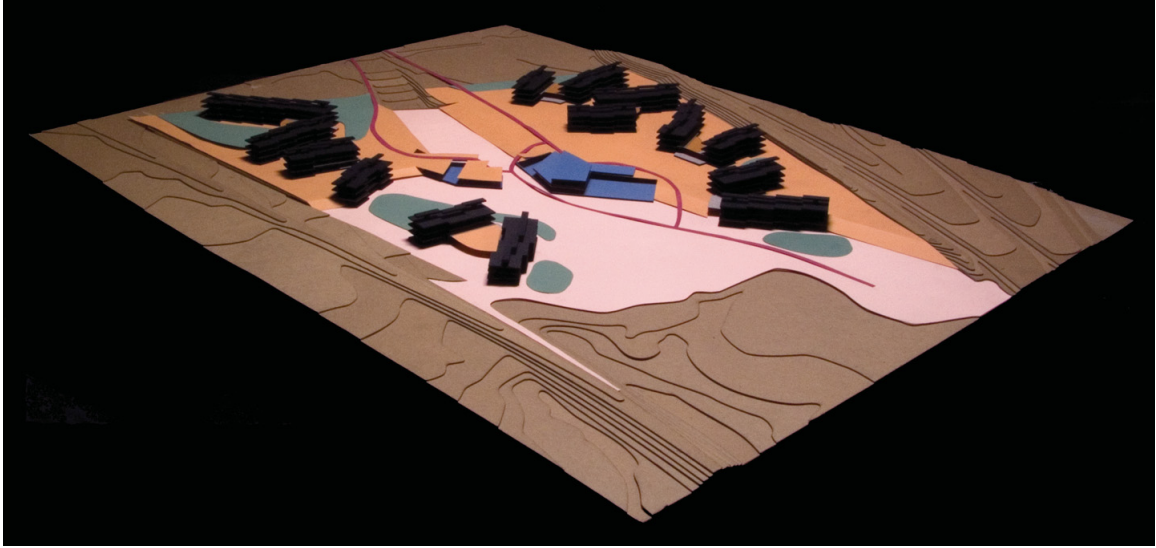


Figure 55 Site model of south anchor. As the road and general terrain slope down to the south, the landscape around the housing remains level north of the community centre. The western building projects out of the slope with the path from the housing above traveling over the vegetated roof and down into the civic space between the buildings. The eastern building is nestled into the south-facing slope and connects entrances from the different grade levels with a two-story lobby that bisects the building.

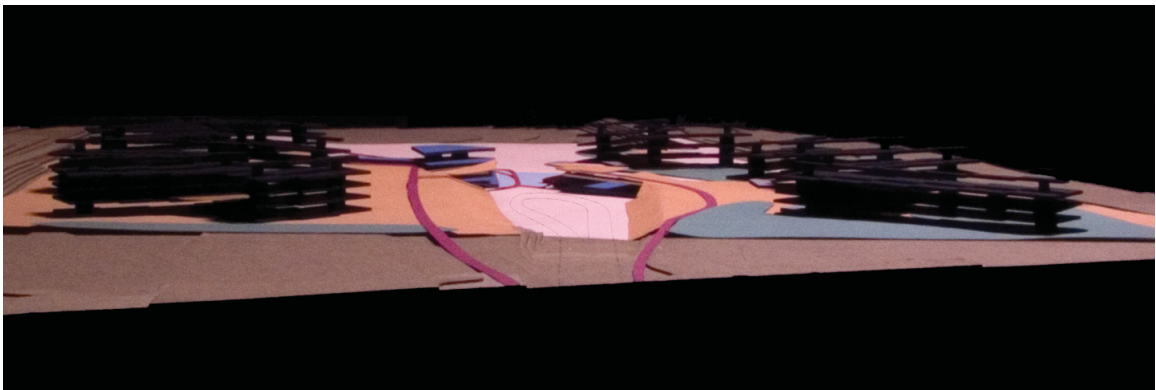


Figure 56 Site model of south anchor. Village Road slopes down into the terrain as it approaches the Community Centre. The buildings are angled to guide visitors through the civic space between them to their entrances or sports fields beyond. Paths from the housing approach from the upper level and either traverse over the vegetated roof and down to the entrance or enter the building on the upper level into a two-story lobby.



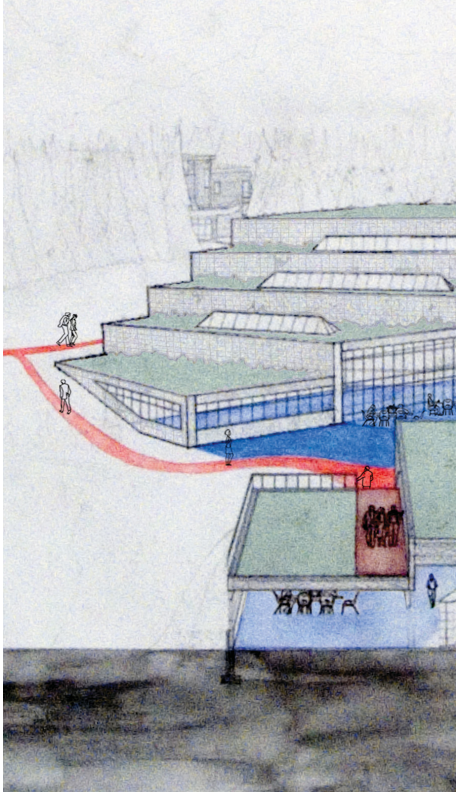


Figure 57 Partial section through Community Centre library. The roof of the western building is an extension of the landscape as it projects out of the slope. The path for the housing continues along the rooftop and descends into the civic space next to the entrance. Paths from housing on the upper level behind the eastern building, which is set into the slope lead to the second floor entrance into the two-story lobby. The volume of the top two floors is cut back to present a view of the ski slopes from the west building. Each step is a half story to articulate the interior volumes and to create spaces within spaces. Natural light penetrates deep into the interiors through skylights on the stepped, vegetated roofs.

over the building and steps down into the civic spaces next to the entrance (Figure 57). To the east of the buildings, the path network from the housing approach a second floor entrance into the two-story lobby of the eastern building.

Village Road, on the other hand, follows a sloped cut in the terrain that is enclosed at the end by the Community Centre (Figure 56). Angled walls of the lower levels guide visitors into the civic space that cuts through the centre and leads not only to the entrances but also to the sports fields beyond. The most social spaces of the Community Centre are the Internet cafe and restaurant that face one another across the civic space. The proximity of these three spaces, in addition to both lobbies establishes connections of activities taking place and encourages further participation so that the spaces become one, interactive place.

The two-story lobby of the east building that joins the housing entrance on the second floor with the public entrance on the first floor distinguishes the recreation and education areas and provides some common ground for activities to overlap (Figure 58). The lower portion gives access to the restaurant, bar and kitchen, as well as the recreation facilities and office (Figure 59), while the Spa training and the auditorium are off the upper level (Figure 60). Both levels have vantage points of the gymnasium, sport fields, and civic space, and also have spaces that can be isolated for smaller meetings or gatherings.

Each of the gymnasium's four sides share a visual connection to a different aspect of the community. The south wall looks out over the sports

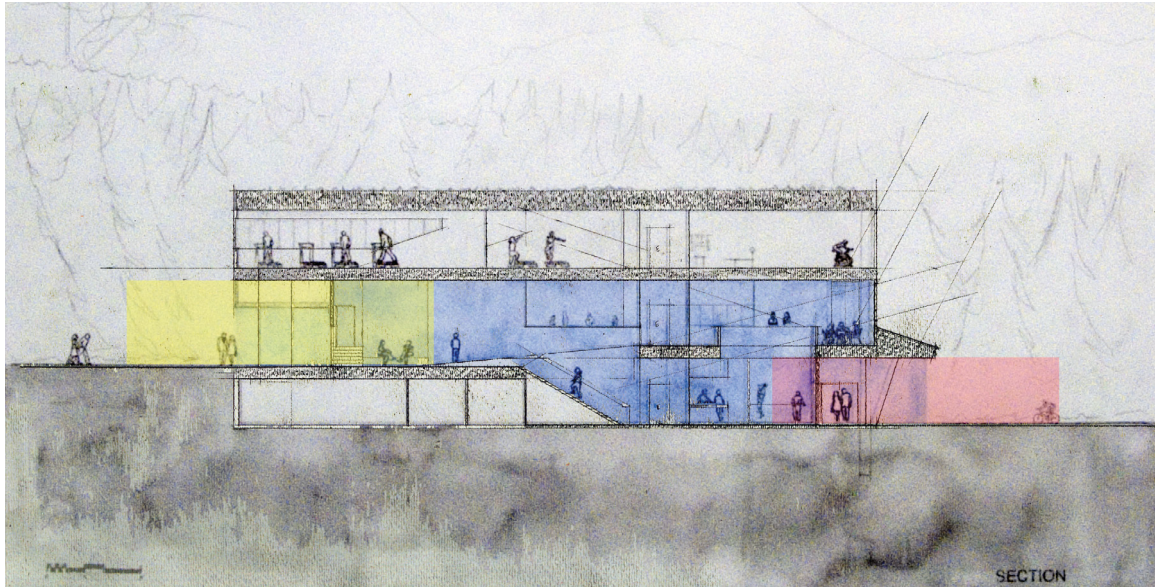


Figure 58 Section through the Community Centre's eastern building. There are entrances into the two-story lobby from the lower level civic space as well as from the upper level path network connection to the service industry housing. The lobby is a shared space for all the activity areas and a place for different user groups to interact.

fields and to the region's highest peak beyond, and admits natural light. The lobby, stairs, and fitness centre exchange views through openings in the west wall, while the housing path and the studio overlook the gym from the east and the north respectively.

Many of the mountainous activities are physically demanding and require high fitness levels to enjoy them safely. Located on the top floor, the fitness centre allows adventure seekers to prepare themselves for their explorations and offers unobstructed views of the area's ski slopes and highest mountain peak to motivate and inspire them (Figure 61).

All these recreation spaces offer guides and instructors facilities for preparation and training to enhance the opportunities and experience for their clients, both locals and visitors. Other educational components in the community centre offer training in areas of the local service-based economy. The restaurant that opens onto the civic space also includes a bar and kitchen to offer hands-on training

in the food and beverage industry. One floor above, the spa training area teaches in a similar hands-on environment that looks out onto the beauty of the mountains. Educating and training service industry workers in a tourism-based community provides first-hand experience for them as they improve their skill set without major changes to their lives and strengthens relationships between workers, service providers, and the education system.

The auditorium bridges education and recreation, in addition to inviting in the general public. It is a class for educational programs, a lecture hall for Park Stewardship, and for the community it is a movie theatre or when opened to the adjoining studio it becomes a performance stage.

The west building accommodates the more general interest activities and support facilities for the educational programs (Figure 62). The library and Internet cafe are great resources to nurture and diversify a wide range of individual interests. They are also beneficial in handling some necessary tasks, which are made more convenient with the business centre. This includes offices that can be temporarily occupied by professionals from out of town to provide services in accounting, banking, counselling, etc.

Classrooms for the training programs are also meeting rooms for the community and provide a home for various groups to introduce more diversity to possible activities and levels of community involvement.





Figure 59 Community Centre first floor plan. The most social spaces of the two buildings, the Internet cafe and the restaurant, face one another across the central civic space and extend into it in nicer weather. Interior spaces are organized to correspond with the exterior surroundings as well as the activities of the adjacent rooms. The gymnasium opens onto the playing fields and looks out at Temple Mountain beyond. The daycare has an adjoining playground and is near the library to facilitate the children's learning.





Figure 60 Community Centre second floor plan. Paths from the housing to the east lead to the upper level entrance into the two-story lobby. The studio overlooks the gymnasium and out toward the housing, and is connected to the auditorium as a stage. The spa training facility has views of the glacier and mountains encircling the lake as well as the ski slopes. Residents coming for the western housing follow the path over the roof and down into the civic space between the buildings.



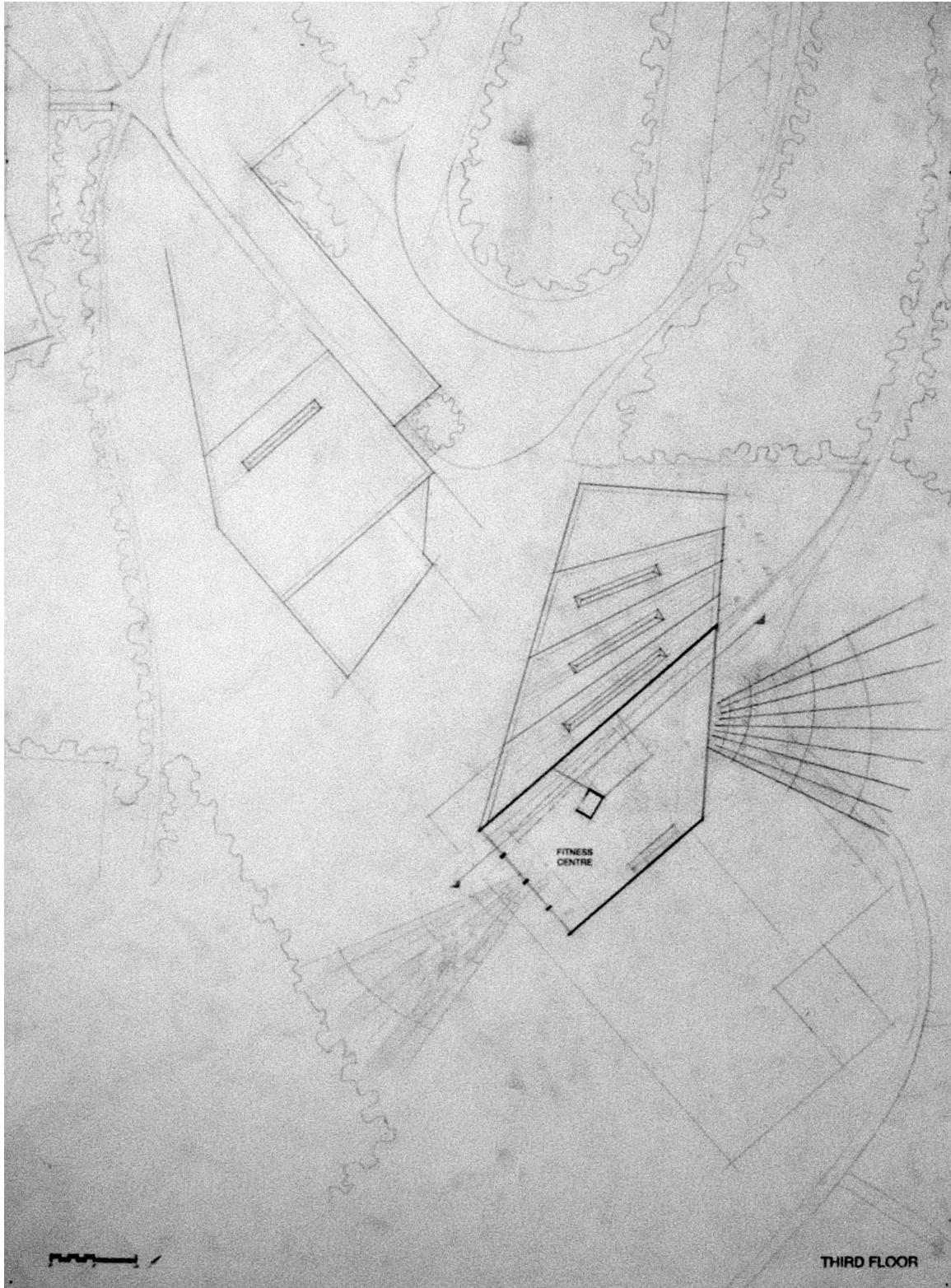


Figure 61 Community Centre third floor plan. The fitness centre on the top floor looks out to the ski slopes and highest mountain peak for inspiration and motivation.



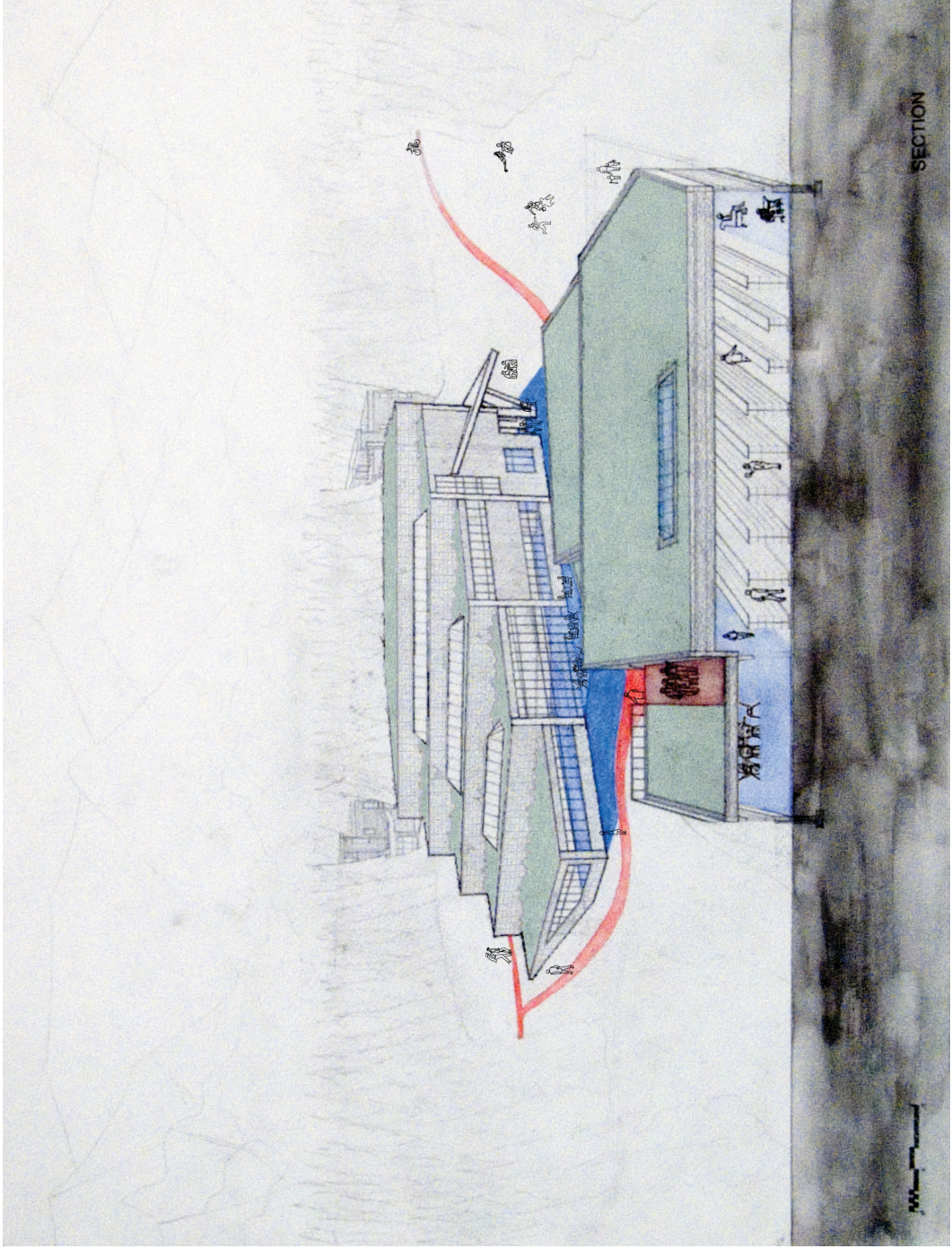


Figure 62 Community Centre section through library. The library, reading areas and internet cafe not only support the hands-on educational programs but also allow residents to nurture individual interests and share their knowledge and experiences with other community members.

## SUMMARY

### Response to Thesis Question

How can architecture and planning stimulate a socially interactive and community-oriented way of life for a service-based populace?

This can not be achieved by addressing any one aspect of a community. This thesis has considered the town as a whole, and the individual lives of residents, and many scales in between. It has contemplated how the community lives, how the community plays, and how the community works, as well as how they relate to one another. It addresses the overall perspective of town planning and how each aspect fits into it and maintains continuity across scales.

This thesis is an exploration in building communities of various scales and compositions. A sense of community begins with interaction, whether with loved ones or strangers, for leisure or for work, even in the smallest of groups. Architecture creates spaces that people are drawn to, for escape or for gathering, where they can be comfortable. The same space that is a refuge for a group or an individual can be a place for interaction and involvement for others.

The exploration has led to a new housing typology for the town that embraces the social inclinations of the service industry community, yet enables residents the opportunity to choose the right balance of interaction and refuge at any given



Figure 63 Proposed town plan of Lake Louise. Circulation, housing, as well as public and tourism areas are all interconnected and influenced by the sense of place instilled by the mountainous landscape to stimulate and diversify community relationships on multiple scales.



time. It encourages a sense of community in each residential building as well as maintains connections to the larger community of Lake Louise and the surrounding environment.

The proximity of housing to community spaces for public activities and pedestrian-oriented circulation in and around them increases the awareness and accessibility to community activities to inspire participation and involvement. The public buildings offer more diversity to activity possibilities and opportunities for the service industry populace, as well as visitors to the area, to build community relationships and nurture individual interests.

The community of Lake Louise is not entirely unique. Elements of this design could be beneficial in other communities if they are considered in respect to all scales of the larger picture.

Figure 64 Site model of Community Centre and housing in south anchor. Each housing building has a central courtyard defined by a series of interior and exterior shared spaces that encourage interaction and build relationships to establish a sense of community among the residents. The courtyard opens outward to relate to the surrounding mountains and the path network links other housing and the rest of the town. Central to all the housing is the Community Centre that comes out of the sloping terrain to bring the neighbourhood together with the rest of the community of Lake Louise. The activity spaces join the people but also remind them of the sense of place that the mountainous surrounds instill.

#### LEGEND

	ELEVATION 1539m
	ELEVATION 1537m
	ELEVATION 1534m
	SURROUNDING TOPOGRAPHY
	EXISTING TREES
	PATH NETWORK
	PUBLIC BUILDINGS
	HOUSING



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