

**HISTORICAL ARCHAEOLOGY AT AN INDUSTRIAL TOWN SITE: LILLE
ALBERTA**

A Thesis
Submitted to the Faculty of Graduate Studies and Research
In Partial Fulfillment of the Requirements
For the Degree of Master of Arts
In the Department of Archaeology
University of Saskatchewan
Saskatoon

By Meaghan Porter

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Abstract

The beginning of the twentieth century saw a boom economy for the coal and coke industry. Located in the Crowsnest Pass of Alberta, the coal mining town of Lille existed for about a decade in the early twentieth century, from approximately 1901-1912. Towns such as this are ephemeral in nature, and as such, offer interesting opportunities to investigate a very definite period in time. Lille can provide a unique snapshot of life in the Canadian Rockies at the beginning of the last century.

Vy q"cte jcgqm i kcnkpx guki cvkpu'y gtg"ectt kfg"qvw wrqp"vj ku"-ko g"lne gølp"3;9;" and early 1981. Further analysis of artifactual material was undertaken in order to reconstruct life in a company town. The present study combines the two archaeological assemblages for study. It focuses upon material remains found at the town site, as well as spatial relationships between different residences and parts of the business district. Lille is discussed using a framework of corporate paternalism as it was a company town and it is hypothesized that there are stratified residential areas based upon occupational status. The degree to which inhabitants followed this ascribed status is investigated through their material remains. Additional factors affecting the town and its residents, such as company policy, union strikes and the coal market will be discussed. This examination of Lille provides an opportunity to explore daily life in remote mining communities in the early 20th century.

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Abbreviations

C.P.R. - Canadian Pacific Railway

M.N.I. óMinimum Number of Individuals

M.N.V. óMinimum Number of Vessels

U.M.W.A. ŒUnited Mine Workers of America

W.C.C. -West Canadian Collieries

W.F.M. -Western Federation of Miners

Chapter 1

Introduction

1.1 Introduction

Recent archaeological studies of mining communities stress the importance of the people living and working in the community. Social archaeology is a productive approach to the investigation of mining communities (Knapp 1998:18), because it emphasizes the active role played by material culture in p gqrrguø'r cu'v'uekn'r tcevegu0''' Mining towns are sources of a wealth of information, and many different concepts may be investigated. The early 20th century mining community of Lille, located in southwestern Alberta, is investigated in this thesis by applying principles of corporate paternalism, status and economic factors (such as consumer availability), and spatial analysis. In addition, external factors often impact mining communities. Whenever possible these outside issues, including the coke market, will be linked to actions in Lille and the Crowsnest Pass. Through a combination of these principles, the individual ci gpe{ 'qh'Nkngau'tgukf gpw'y km'dg'lp'xgukiated.

Corporate paternalism is a style of management common in industrial capitalism where social relations between the employer and employee are based upon the notion of patriarchal authority, or mutual obligation (Metheny 2002:48). The company involved asserts a fatherly concern for workers, often involving strict behavioural rules. In short,

corporate paternalism attempts to limit worker agency. By studying corporate paternalism one is able to identify worker resistance towards company policy. Company towns are interesting examples of corporate paternalism, as the very town itself, not just its residents, is controlled by the company. Lille will be investigated in this context.

The historical archaeologist Mary Beaudry defines corporate paternalism as "a way in which corporate policies regulated and permeated the material lives of the community." The archaeological record may be able to show any resistance workers may have had towards company regulations. Coal mining communities are generally described by historians as being the worst of all company towns (Allen 1966:83). They were usually dirty because of the coal dust, and mining was, and still is, a dangerous occupation. The archaeological record can show if there were any signs of resistance. Beaudry found that the archaeological record and documentary records revealed that concern rarely extended beyond the realm of public image.

Corporate paternalism was present at Lille, and it is hypothesized to have been socially stratified through differences in house form and location. The material culture found in association with various residences in the town may reflect the social standing of residents, thus illustrating the pervasiveness of paternalism. The research will be focussed on an artifact analysis. It is through this analysis that status differences between archaeological deposits may be identified. Identifying a more expensive and rare item may illustrate the status of the individual who once owned it. Status and power often go together. Hardesty (1998:87) states that "status and power often go together."

necessarily begins with the supposition that the material world both reflects and creates a network of power relations. Power, through networks, and is related to mobility. Power networks in mining communities are often dynamic and referred to by Hardesty (1998:82) as heterarchies. Heterarchies differ from hierarchies in that they are much more flexible and situational. Socioeconomic status may reflect heterarchies, and may be archaeologically visible through material culture.

The use of space at Lille is another area of investigation. Heterarchies could be illustrated through Lille where inequalities are planned into the landscape through architecture (Mrozowski 1991:96). Lille was situated towards the coke plant, and faced the main road to Frank. It had different architectural styles for residences and these variations in appearance and location may have been the result of status relationships present in the town. For example, Lille had single family homes, found towards the front of town (hereafter referred to as the front row cottages), duplexes found in the middle of the residential area, and small cabins located at the back of the town. In Lille the very house one lived in could have been a status indicator. If one lived in a front row cottage one may have been of a higher status, as these homes had more room and privacy. A spatial analysis was undertaken in order to explore these concepts.

By investigating both material culture and spatial relationships, the degree of paternalism may be investigated. Spatial relationships in conjunction with material culture may indicate status separation. However, these relationships may be autonomous, and reflect a more dynamic social pattern.

1.2 Introduction to Lille, Alberta

A small company town located in the Crowsnest Pass, Lille was situated next to a coal mine and coke plant owned by West Canadian Collieries. It was used as the basis for this study as it was a company town, and its archaeological and documentary records are extensive enough to investigate how pervasive paternalism was. Lille is also representative of other mining communities in the Crowsnest Pass. The latter pass is located in southwestern Alberta and southeastern British Columbia, in the heart of the Rocky Mountains. After coal was discovered in the late 1800s several mining communities were established along the railway, including Frank, Blairmore, Passburg, and Bellevue on the Alberta side, and Fernie, Hosmer, Morrissey and Michel on the British Columbia side. The coal and coke industry was dependant upon the railway as a purchaser of its products, and as a link to the outside world. The remoteness of the Crowsnest Pass itself made the towns within it like a large community, as miners often moved between the Pass towns to work at the different mines.

There have been several archaeological investigations carried out at Lille and other areas in the Crowsnest Pass because of an increase in development in the region and a desire to increase knowledge. Recording of coke ovens in the Crowsnest Pass, including those at Lille, was carried out in 1977 by Margaret Kennedy (Kennedy 1979). The first formal archaeological investigation of Lille was conducted in 1978 under the direction of Michael Forsman for the Archaeological Survey of Alberta. This was a remote sensing and ground truthing project and archaeological testing of two small units was also completed (Forsman 1979). A larger scale excavation was carried out in 1981 by Lifeways of Canada Ltd. (Kennedy 1982), the work supervised by Margaret Kennedy. Several archaeological test units were excavated in such features as

house and residential privy deposits. Privies often contain a large amount of material culture. As a result they have the potential to provide information regarding attitudes toward sanitation, privacy, diet, and socioeconomic status (Wheeler 2000:1). A surface collection and excavation of the town dump was also carried out. It is the artifacts from the 1978 and 1981 archaeological excavations that will be the basis of this thesis research.

1.3 The Research Goals

It appears that Lille was planned by the company with the subtle intent to control residents by having them reside in a socially stratified community. Exploring this will possibly provide information on company policy, as corporate paternalism may be manifested through space. An investigation of how the residents of Lille responded to this control may be evident in the archaeological record. It is possible that the material remains found in association with the different residential locations will reflect the status differences of the residents. For example, it is expected that the front row cottage residents will have higher status items than those found in association with cabins located at the back of town.

This research project has been carried out with several goals in mind. One aim has been to study the artifacts in relation to the consumer goods actually available to the residents of Lille. In this regard, it is noteworthy that the Crowsnest Pass was traversed by major rail networks. Investigating the possible socioeconomic status differences in Lille was another goal. It has been hypothesized that Lille was a socially stratified community and this goal is explored by analyzing the artifacts, as well as the spatial relationships present in the town. The final objective of this project was to investigate evidence of corporate paternalism that may have been present in Lille. The outcomes of

these investigations will attempt to indicate individual agency, and responses to life in a company town. These goals will now be discussed in further detail.

With regard to goods available to Nkngau"tgukf gpw Lille was one of several small towns located in the Crowsnest Pass. These towns were dependant upon the rail line for supplies, and their virtual survival. Many items were purchased from local community stores but what was not available in the stores could be ordered through mail order catalogues. Also, it is known that residents of Lille would sometimes travel the short distance to other community stores, in Frank or Bellevue. The local store had advantages over mail-order as credit could be obtained, although one might have had to wait longer for certain items. Identifying what was available to miners and their families and where it was coming from will show economic networks. Residents may in fact have had a wide range of goods available to them.

Exploring status differences has been a major research goal for this project, as it relates to investigation of a socially stratified community. This was approached through the analysis of artifacts and their spatial relationships, as well as the spatial structure of the community. The town plan of Lille appears to have been stratified according to occupational status. Front row cottage residents may have been of a higher occupational status than those living in the duplexes or back row cabins. The possible status differences may also be apparent in the material culture recovered from the various residential privy deposits.

The primary research goal of this project is to explore daily life in a company town which may have been governed by a paternalistic company. It appears likely that the company exerted some control over the residents of Lille. The degree to which this permeated daily life will be explored. Specifically, the concept of individual agency will

be investigated. It is hypothesized that Nkngou's behaviour through actions in response to paternalism. These actions are represented through material culture. Material culture, which includes space, will be examined in order to explore the concept of corporate paternalism.

The mining community of Lille was in existence for only a decade. Today Lille is an archaeological site with only scattered artifacts, cellar depressions and the vandalized remnants of the once striking coke ovens remaining. Through the above noted research goals it is anticipated that analysis of this site will result in a picture of what life was like at the beginning of the twentieth century. The material culture of Lille has been analyzed with two concepts in mind; spatial relationships, and status differences. In these ways, various aspects of life in a company town will be identified. As Metheny (2002) points out, this is historical archaeology of an industrial site, and as Shackel (2004) stresses, the labour side of industry is just as important to examine as the machines since people are behind the machinery. Identifying the residents of Lille as active contributors to the archaeological record will expand current knowledge of daily life in mining communities.

1.4 Layout of the Thesis

Nkngou's Chapter Two. The Crowsnest Pass discovery and subsequent coal ventures are discussed and the techniques utilized in bituminous coal mining and coke production are also briefly examined. Chapter Three explains the theoretical background of the present study which uses elements of neo-Marxist archaeology, and corporate paternalism. These are discussed in terms of what they are, how they have been used, and how they will be used in the study of Lille. The archaeological excavations conducted at the site are summarized in Chapter Four.

Chapter Five is the interpretation, discussion and summary of the material culture.

Chapter Six is the spatial analysis of the town site of Lille, including observational,

spatial syntax and statistical analysis techniques, while Chapter Seven presents

conclusions to this thesis. Appendix A is the material culture analysis, upon which this

research is based.

Chapter 2

History and Background to the Project

2.1 Crowsnest Pass History

The Crowsnest Pass is located in the Rocky Mountains of western Canada, stretching from Alberta to British Columbia, (see figure 2.1). It is a natural corridor that runs through the mountains. The Crowsnest Pass was first crossed by a party of Europeans in 1874 led by a Hudson's Bay Company employee, Michael Phillipps. Phillipps and his group had planned on traversing the Rockies and expected to climb some rugged mountainsides; however, they began to notice bison hair along the trails and found it unnecessary to scale any peaks (Felske 1991:19). Not only did the party locate the Pass, but they also noted numerous coal outcroppings along the way. It was not until several years later that the Pass was found to be an area of economic importance. As a result of expanding American enterprise in Washington and the westward expansion of the Canadian Pacific Railway, the Crowsnest Pass was recognized as a source of coal and coke to supply the needs of the railways. Coal and coke were also required for the lead and zinc smelters in southeastern British Columbia.

The Crowsnest Coal and Mineral Company, located in Fernie, British Columbia. The venture was slow to expand, and did not really pick up until investors with federal government ties backed the venture in 1895 (Felske 1991:40). Following the 1896 federal election the newly

elected Liberal government became a firm supporter of developing the Crowsnest Pass. Therefore, it was a major project for the west during the so-called New West 1898-1912 (Seager 1981:23). The four principle interests that opened up the area included the federal and British private investors (Felske 1991:45). Although the coal in the Pass was discovered in the 1870s it was not until 1897 that the full potential of the Crowsnest Pass and its coal seams were realized. In 1897 the CPR began constructing lines through the Crowsnest Pass.

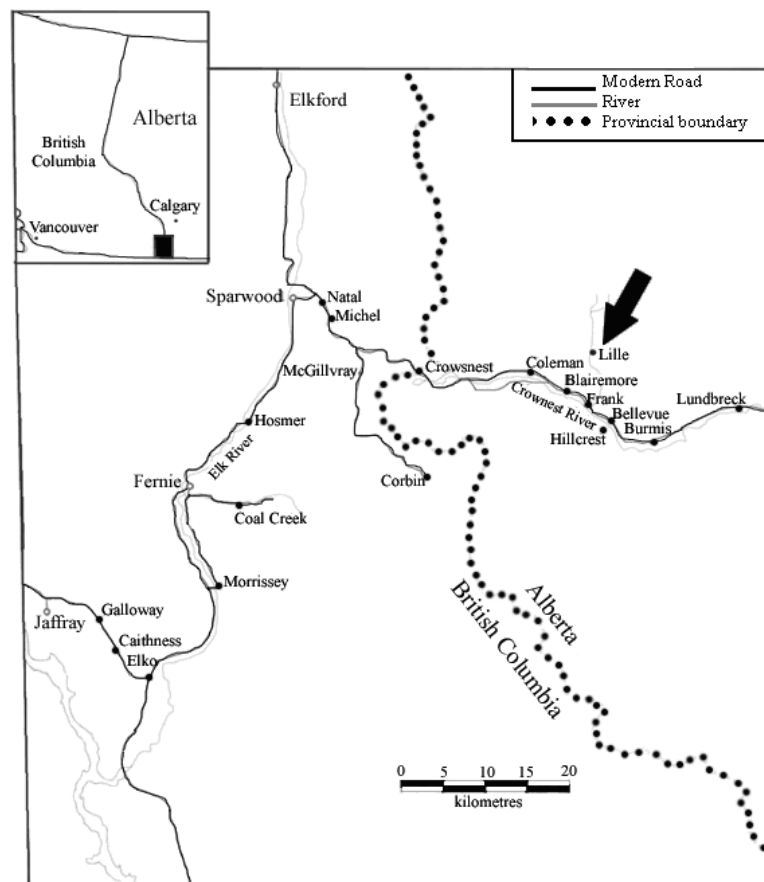


Figure 2.1 The Crowsnest Pass region of Alberta and British Columbia, (adapted from Norton and Langford 2002).

The growing demand from railway and population led to increased mine and smelter production. This industrial explosion involved the Alberta side of the Crowsnest Pass by 1901. Initiating development in the Northwest Territories was easier for investors, as they only had to deal with the federal government, rather than those on the British Columbia side who had to deal with provincial regulations as well. The CPR also encouraged development, as the west was expanding, and coal was needed for the locomotives. The first company on the eastern side of the Pass was the Canadian American Coal and Coke Company, established in Frank in 1901. Industrial development in the Crowsnest Pass area was dominated by foreign capital. Foreign, particularly America, investors outnumbered Canadian (Felske 1991:63). There were several companies with coal operations on the Albertan side of the Pass, compared with the original one operation on the British Columbia side. As a result of various circumstances, such as expanding needs of the CPR, and further government involvement, a rapid and vigorous development began. Throughout the 20th-Century the Crowsnest Pass region was a major coal producer in Canada. The coal mining era on the Alberta side of the Crowsnest Pass ended in 1983 with the closing of Coleman Collieries (Babaian 1984:98). On the British Columbia side of the Pass mining activities continue in Sparwood.

The nature of early 20th-Century mining inevitably resulted in tragedies and the Pass experienced its share, including the infamous Frank slide, the Bellevue mine disaster, and numerous misfortunes in Fernie, including fires. Mining was highly unpredictable in the Pass and very dangerous. This will be discussed in more detail below.

2.1.1 Lille

Northwest Hilltop Eco-röwas established in 1901 by J.J. Fleutot and C. Remy, two representatives of a French company, United Gold Fields Ltd. Lille was named for the city in France where many of the financial backers were located. The company re-established itself as West Canadian Collieries in 1903. The town site was situated on a fairly level plain, behind Bluff Mountain.

In 1902 the Frank-Grassy Mountain Railway was built (see figure 2.2). This was a fairly large undertaking, as the line had 23 trestles which traversed 11 km of creek bed up the steep and narrow Gold Creek valley (Felske 1991:285). Lille, as seen in figure 2.3, was a company town, and most residences were built by the company. There were two residences, a large residence for the superintendent, and a residence. Although a small community, Lille had all the services common to mining towns of the day. These included a four room school with approximately 30 pupils attending. J. J. Fleutot, founder of the community, opened and owned the large hotel. There was a hospital with 15 beds, and a community centre was also present (Cousins 1981:46). The company rented lot space to businesses. Lille had a bakery, general store, butcher shop, liquor store and at least two barbershops. The town also had electricity and water works.

As families and children moved into Lille, a sense of permanency was established. The small size and isolation of the community resulted in residents relying on each other for entertainment. Leisure activities included hockey, soccer, picnics, dances, and belonging to various community groups. A church was not indicated on maps, nor mentioned in records. However, an Anglican minister did make rounds among several communities in the area (Buckley 2004:104). Although Lille had a large

Italian population, according to a local priest there were very few practicing Roman Catholics (Buckley 2004:105). Not exercising religion was likely a common situation in dispersed mining towns; for example, Dorothy Schwieder (1983:74) found the same situation in many Iowa coal mining communities with large Italian populations.

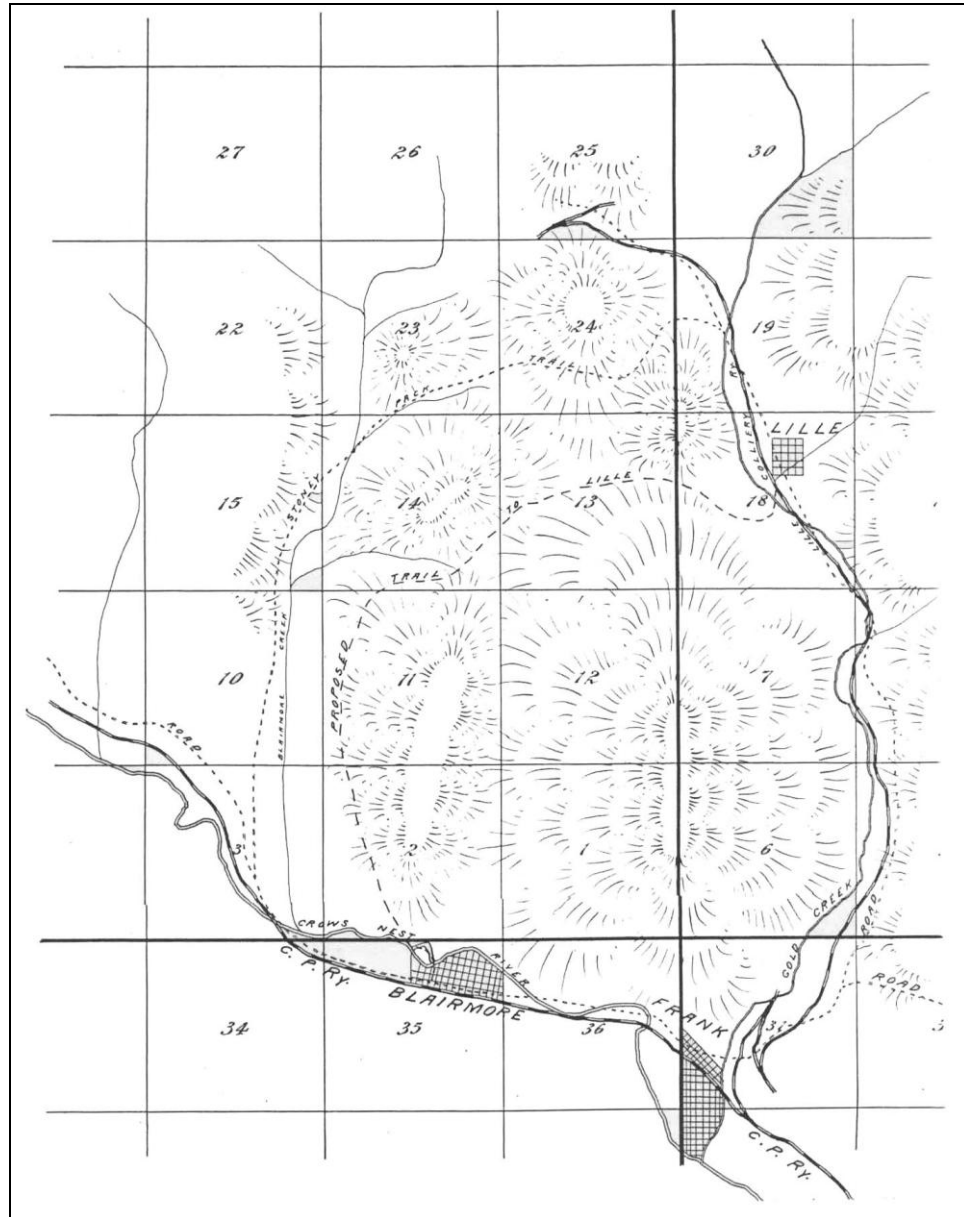


Figure 2.2 Location of Lille, indicating Frank-Grassy Mountain Rail line, unknown date (map courtesy of Glenbow Archives G3401C5 svar 808).

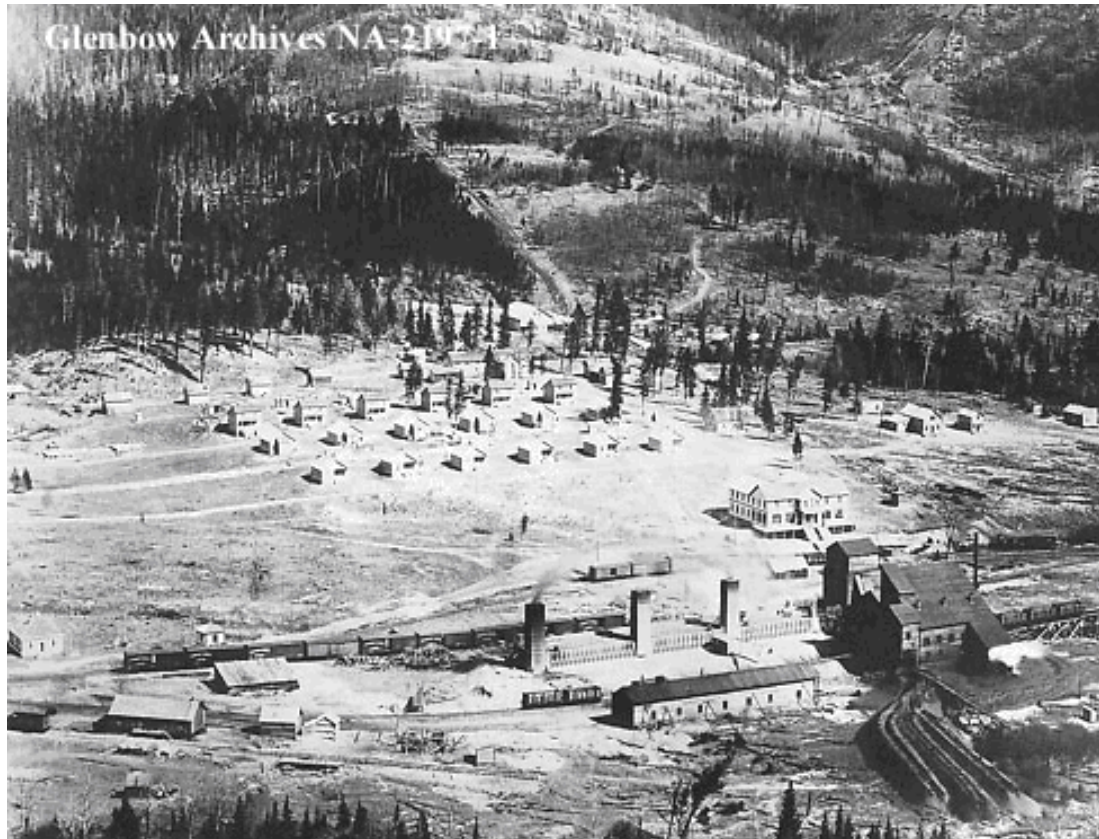


Figure 2.3 The town site of Lille, facing east, coke ovens in foreground, ca. 1906-1909 (photograph courtesy Glenbow Archives NA-2197-1).

The #1 seam at Lille was mined intensively producing an average of 600 tons of coal a day. Coke ovens were originally intended to be built at Frank, but the 1903 slide there halted plans and upset railway operations. Therefore, the coke operation was established at Lille. The construction style of the Lille coke ovens are the best example of both foreign influences and a standardized architecture being grafted onto local Pass practices (M. Kennedy, personal communication 2005). They are also an example of how much capital the company was willing to expend. In 1903 they were the only Bernard style coke ovens in Canada, outside of Nova Scotia. Lille had 50 ovens, first assembled in Belgium, then transported to Lille by way of South America (as the Panama Canal was not yet built), on to Vancouver B.C. and eventually to Frank, in the

Crowsnest Pass (M. Kennedy, personal communication 2005). Each brick was numbered so that it could be easily reassembled at Lille.

The mine was abandoned in 1912 after the market collapsed. This was a result of several factors, including a lengthy strike, resulting in a decreased demand for coke from Lille. In 1912 the West Canadian Collieries coke operation at Lille earned \$80,035.92, but paid a total of \$102,908.86 in wages (Felske 1991:326). Furthermore, the Lille coke produced too much ash for smelter requirements (Kennedy 1979:112). After abandonment, the houses were taken apart and reassembled in Bellevue and Blairmore. The rail track and much of the surface plant was also moved. In total \$29,500.00 worth of materials was moved (Kennedy 1979:58). As a result of boom time activity in the Pass, prospects appeared limitless in the early 1900s, but the resource became overdeveloped in relation to the demand (Kennedy 1979:110).

Today Lille is a designated Provincial Historic Site and very little remains of the town site, as seen in figure 2.4. The hotel, including in 1930 (Cousins 1981:55) but now all that remains of the hotel are the stone foundations. The Bernard coke ovens have suffered greatly from scavenging and many bricks have ended up in patios and barbeques (M. Kennedy, personal communication 2005). Evidence of this destruction can be seen by comparing figures 2.5 and 2.6. The site is well known, (it is featured on several ghost town websites) and it is frequently visited by campers, and unfortunately, bottle hunters.

2.1.2 West Canadian Collieries

The history of West Canadian Collieries begins with one of its original managers, Jules J. Fleutot, (figure 2.7), who was born in Burgundy in 1852 (Felske 1991:91). His early



Figure 2.4 Lille town site, ca. 1978. The coke ovens are in the foreground clearing, the town site remains are in the clearing behind the tree growth (photograph courtesy of Michael Forsman).



Figure 2.5 The coke ovens as they were in 1972 (photograph courtesy of Margaret Kennedy).



Figure 2.6 The coke ovens circa 1991 (photograph courtesy of Bill Tracy).



Figure 2.7 Jules J. Fleutot, 1892 (photograph courtesy of the Glenbow Archives NA-3903-14).

work took him to Siberia, where he set up a rolling mill supplying rails to the Trans Siberia line. Then, in 1896, he came to southeastern British Columbia to look for mineral properties. The Crowsnest Pass coal seams interested him and he assembled

lands, originally owned by American businessmen from United Gold Fields, with help from land surveyor J.E. Woods in 1903. Return visits to France succeeded in attracting investment from Lille businessmen and operations continued under the name West Canadian Collieries (Felske 1991:92). Fleutot was managing director of West Canadian Collieries from 1901-1905 in Bellevue. By 1905 Fleutot had become less involved in the company. He died in Toulouse, France in 1919 (Felske 1991:92).

The West Canadian Collieries (hereafter referred to as W.C.C.) had mines located at Bellevue, Blairmore and Lille. In the early years of coal production it was also one of the three biggest companies in Alberta. W.C.C. was incorporated in Britain in 1903; and had its head office in Lille, France. Although the first developed properties of the W.C.C. were at Lille and Bellevue, the Canadian headquarters were at Blairmore, since this town was central φ "vjg"eqo rcp{ α "qrgtcvkpu(Cousins 1981:43). The W.C.C. was deeply involved with the federal government at the time; a member of the government sat on its board of directors. δ Hgy "qrgtcvkpu"lp"vjg"r tqxlpeg"j cf "dgwgt" friends in high places than the W.C.C. δ however, all of its operations were doomed to failure (Seager 1981:33).

The W.C.C had a poor image as a result of the 1910 Bellevue colliery accident where 30 men died. There were no prosecutions for Mines Act violations, but there were doubts about the actions of the provincial mine officials and the company. This was not the first time that the W.C.C. had experienced issues concerning worker safety, or problems in complying with the mines act. An underage worker, aged 12, was killed in 1910 in a haulage accident. Mine records were reported as not up to date, and uncovered powder cans were allowed to enter the mines (Felske 1991:256). Poor safety conditions were not unique to the W.C.C; standards were lax across the board. Mining

conditions will be discussed further in the following section in order to illustrate briefly how the majority of Lille *ou'guf gus* were employed, and the possible dangers which they faced.

2.2 Coal and Coke Production

2.2.1 Coal Mining in the Crowsnest Pass

Although abundant, the coal found in the Crowsnest Pass was not without its problems. The quality of the coal seams present in the Pass varied greatly from mine to mine. Much of the coal found in this area is friable, breaking up easily (Felske 1991:115). This requires the coal to be handled more carefully. In addition, the type of coal present did not allow for mechanization of the mining process underground. Miners were only able to use hand tools and explosives; machinery was too heavy. Thus, mining in the Pass was very labour-intensive, a large work force working underground. Such a large number of employees however, were also very expensive for the companies. One way they attempted to offset this cost was to maximize mechanization for above ground production.

It was necessary for miners to employ explosives in the mining process. A list of permitted explosives was developed by the Alberta government in an effort to increase safety (Buckley 2004:5). These explosives could be quite expensive, and as a result the cost of the explosives a miner used was taken from his paycheque. It was common practice for companies to charge miners with the cost of all expenses and supplies used. Unfortunately the powders were often given to the miners in an unworkable state. Miners frequently attempted to thaw the dynamite over their house stoves and several were killed in the process (Felske 1991; Buckley 2004).

2.2.2 Coke Production

Coke production began in Europe, around 1710, adapted from the methods used by charcoal burners for charring wood (Kennedy 1979:85; Wilson and Wells 1950:2). It is used to fuel ore smelters since it burns hotter than coal. Coke is coal with the volatile constituents of methane, carburetted hydrogen, tar, and ammonia burned off, leaving only fixed carbon and an ash residue of sulphur and phosphorus. For a complete explanation of the coking process utilized by different styles of ovens, see Margaret Mggpgf { *Coke Ovens of Crowsnest Pass*, 1979.

Coal that is high in ash content or rock does not produce desirable coke. Although expensive, the coal washery at Lille made the coking process possible. Washeries cleaned the unnecessary rock out of the coal. It was the first coal washery in Alberta (Kennedy 1979:51). The coal mined at Lille was washed before going into the coke ovens. The coking process involves burning the coal for five to eight days and then quenching it by immediately spraying water over it. Nkrga50 ovens were regenerative, where the hot gasses expelled were re-circulated through the ovens to maintain high heat, but non-recuperative, meaning that all of the by-products were lost.

Coke production was probably learned on site through apprenticeship. Mechanically operating ovens such as those at Lille were less labour-intensive than the traditional beehive ovens which were not mechanical. ðO qtg'ikely, prerequisites as to education or experience y qwnf'dg'pgeguuct{ 'hqt'y qm'cv'vj gug'hqecvkpuö'Mggpgf { " 1979:95). This may have contributed to part of the social stratification which will be discussed in Chapters Five and Six.

2.3 Unions

In the context of the dangerous nature of mining, given briefly in the previous section, a discussion of union activities will now be included. The union would often

uocpf 'wr 'lq 'c'eqo rcp {au'r cvgtprkuker r tcevegu'qwwkf g'qh'vj g'o kpg.'cu'vj g'hqmy kpi "

quote descr kdguo'V j g'wplqpu'r tgugpv'kp 'vj g'Rcuu'y gtg'cfxqecvgu'hq t'b kpgtuø'tki j uo'C "

brief discussion of union history and events in the Crowsnest Pass and more specifically Lille, will be included to provide a backdrop to concerns over company policy. The union played a major role in mining communities in the Crowsnest Pass. Significant issues generally included safety concerns and miner welfare.

ōí vj gtg'ku'pq 'twwj 'b q tg'qdxkqwu'vj cp'vj cv'y kvj qw'eqcn'vj gtg'eqwnf 'pqv'j cxg"

been such marvelous social and industrial progress as marks present day

ekxkk|cvkqp0'Dgkxkpi 'vj cv'vj qug'y j qug'hqv'k'ku'vq 'vkn'y kvj kp'vj g'gctvj au'tegeuugu"

surrounded by peculiar dangers and deprived of sunlight and pure air, producing

vj g'eqo o qfkv{ 'y j lej 'b cngu'vj g'y q tnf au'r tq i tguu.'ctg'gntitled to protection and

an equitable share of the fruits of their labour í ö

Preamble to the U.M.W.A. Constitution (Ramsey 1990)

Historian Dorothy Schwieder has observed that coal mining is a way of life, not just an occupation (1983:59). Coal mining has an infamous reputation for labour union strikes involving violence (see Corbin 1981; Seager 1981; Ramsey 1990; Walker et al. 2002; Lyon Endicott 2002; Wood 2002). It takes a special kind of person to stay underground all day, rarely seeing the sunlight. It would seem self-evident that, at the very least, these people should receive fair compensation for their effort, and yet in the

past, many companies have not agreed. The following will briefly describe the origins of the union movement in the Crowsnest Pass.

Unions were not illegal following the 1872 Trade Unions Act. However, employers did not have to talk to unions, were free to fire anyone, and made blacklists (ōfq'pqv'jktg'lkuv) of union activists. Companies could also hire scab labour to cross strike lines, and strikebreakers to intimidate the employees, and the police could arrest strikers. Strikers were not allowed to prevent scabs from working (Ramsey 1990:21). Independent unions were present in the area but it was difficult for them to make any real and lasting changes to company policy. The first international union in the area was the Western Federation of Miners (W. F. M.), which organized a union in the Crowsnest Pass in 1897. It had a reputation as a rough union where every strike was seen as a struggle against the whole unjust system, meeting resistance with force and violence (Ramsey 1990:18). Some managers in the area were fiercely opposed to unions, while others were willing to work with them, even encouraging them (Ramsey 1990:24). Companies were often fearful of infamous, and possibly fictitious, organizations like the Molly Maguires wreaking havoc on their mines, and influencing the workers.

In 1904 the W.F.M. decided to focus solely on metal mines, and therefore invited the United Mine Workers of America (U. M. W. A.) to fill the gaps left in their absence, which included the Crowsnest Pass operations. After setting up with success in British Columbia, the union president came to the then Northwest Territories and after a few ōugetgvō'b ggwp i u'hq to gf "c'wpkp'lp'E qmgo cp'lp'C r tkn'3;260Thus, District 18 of the United Mine Workers of America was established. Miners were easily convinced of the need for a union, and the unionization of the Crowsnest Pass spread (Ramsey 1990:30).

Wpfgt'vjg'Ncwtlgt'i qxgtpo gpv.'fwg'q'vjg'O lplvgt'qh'vjg'Kpvgtkq'au'lo o ki tcvkp" policy, Western Canada experienced a huge influx of immigrants. Immigrants from all over Europe came to the Crowsnest Pass in order to start a new life. In 1911, nine out of every 10 men counted as coal miners in Alberta was an immigrant (Seager 1981:82). This massively increased workforce led to a drop in mining wages in the Crowsnest Pass, beginning with the Coal Creek Coal Company. Companies felt that in order to keep costs down wages had to be lowered. Unfortunately, during this time a prominent Western European ethnocentric view was that the people from eastern and southern Europe were less civilized and intelligent. Companies assumed the immigrants could be treated unfairly. They were also taking advantage of workers, since the majority of the immigrants did not speak English. This view is interesting as the Anglos were lpetgculp in{ 'dgeqo lpi'vjg'b lpq tkv{ 'lp'vjg'c tgc0'kp'3;33'69' 'qh'tgukf gpw'y gtg'öD tkkuj " Tceguö while 13% were Italian, 16% were Western European, 22% Eastern European, and 2% other, including Chinese (Ramsey 1990:31, Seager 1981:145). As noted by Van Bueren (2002b:29), Capitalists often used ethnic, gender and job classification schemes to exploi v'fxxkukpu'lp'vjg'y q mltq teg.'cu'c'b gcpu'q'gpj cpeg'r tq fwevxxk{ ö0'Vjg'r tguu" often cited immigrants as the instigators of strikes. Company officials felt that some immigrant groups spent little money in the company store, therefore giving little back to the town, and there was little benefit to keeping them as employees (Ramsey 1990:17). The U.M.W.A. clo gf'öVq'wpkg'qpg'qti cpk|cvkp'tgi ctfnguu'qh'etggf.'eqmqt.'qt" pcvkpckv{ .'cm'y q mgtu'gri kdn'ht'b go dgtuj krö(U.M.W.A. constitution). The union brought the different groups together, while the management and in several cases the press, stressed their differences. In order to gain support, District 18 utilized interpreters in their meetings, allowing the executive to talk to the immigrants before the

management. In 1904 District 18 had 4,370 members (Ramsey 1990:34). The miners of the Crowsnest Pass were obviously ready to improve their working situations.

A strong sense of community and brotherhood existed amongst the miners, and especially amongst fellow countrymen. Schwieger's research on Italian families in Iowa coal mines showed a parallel from rural life in Italy to that in a western company town (1983:67). The ideals and lifestyle were easily transplanted. Ties to the homeland were never erased and immigrants needed to band together due to the Anglo-centric view of the company elites (Seager 1981:344). In the local newspaper, the *District Ledger* had a notice about the Italian Benefit Society (Seager 1981:98). The Italian Benefit Society in Lille was initiated in 1907 by 72 miners employed by the W. C. C., with a branch at Coleman (Seager 1981:107). After Lille was abandoned they re-established themselves in Blairmore. Their constitution barred strike-breakers, an occupation frequently associated with Italians. Generally, the Italian immigrants provided the unskilled labour for the mines. However, several were skilled stonemasons who built and maintained the coke ovens in the area (Seager 1981:107). To this day descendants of these Italian immigrants reside in the Crowsnest Pass. Proud of their ancestors, members of the Crowsnest Pass Italian Canadian community have made a website identifying the immigrants who worked in the various mines throughout the Pass and their family histories (Celebrating the Crowsnest Pass Italian Canadian Community 2002).

The Crowsnest Pass area became notorious for its disasters. Indeed, according to one expert, the conditions found at the Crowsnest Pass seams were more hazardous than at other fields (Felske 1991:188). From 1902 to 1910 there were a total of at least 200 deaths in the Crowsnest Pass (Buckley 2004:147). This was due to dangerous gases, explosive dust, and unstable roofing conditions. The Hillcrest Mining disaster in 1914

killed 189 men and boys, the largest mining disaster in Canada to date. Unfortunately many miners could not read the posted safety signs, written in English. The cause of the accident included an abundance of explosive dust and improper safety precautions.

There is a deep sense of esprit de corps among men who work underground that sets them apart from workers in most other industries. It is essential to place trust in ones fellow workers underground for warnings of changing conditions. On 15th Canadian American Coal Company went on strike in 1906 regarding safety concerns. Raises in the mine were as high as 60 metres and lacked ladders. Ropes were used and these could have been cut by falling coal. Furthermore, the mine suffered from bad ventilation and faulty safety lamps. Miners had been complaining of severe burns for months (Ramsey 1990:39). In 1907 the Alberta government made it mandatory for companies to switch to the Wolf safety lamp instead of open flame lamps. However, these were not liked by management or the miners. For management they were expensive to replace, and for miners they gave off less light. Miners tended to be fatalistic (Green 1998; Buckley 2004), where accidents were seen to be inevitable, and death was always a possibility. It was never expected that accidents would ever be eradicated. Compensation for accident victims and their families was seen to be necessary. In 1908 union members were able to improve workers compensation laws; however, the latter needed a lot of improvement.

Child labour was also widespread in the mining industry at this time. A new bill in 1906 changed the minimum age of child labourers from twelve to sixteen. This practice was not followed by many families and companies. Children had always worked in coal mines, and boys were sub-contracted by miners. "The boys were

was picking up bits of coal in the mines, for little to no pay. They also sorted coal on the conveyor belts, worked the ventilation doors, and were mule drivers (Buckley 2004:26). Boys followed in vj gkt'hcvj gtø'hqqwgruand many immigrants saw their children as economic assets rather than liabilities (Schwieder 1983:65). Fathers would often bring their sons along to learn the trade and to assist him in his work. Children continued to work in mines after the 1906 bill was passed. This is evident by the previously mentioned 12 year old killed in the haulage accident in 1910.

In 1911 the members of District 18 were able to enforce the check-weigh system (Ramsay 1990:31). Prior to this, miners øarts were weighed by company employees. As miners were often paid by tonnage, officials were notorious for shorting their weights. With the new system a miner would weigh the carts. The year 1911 also saw the implementation of mandatory rescue equipment on mine sites (Buckley 2004:40). F tcgi gto gp."cu'vj g"tguwv'vgo u"ctg"ecmgf."ctg"cp"guugpvkn'rctv'qh"b"b kpgø'uclhv{0"Hqt" a recent account see *The Westray Tragedy: a M lpgtøStory* by Shaun Comish, 1993. It ku'lpvgtgukpi "v'p'qv'vj cv'vj g'lvq tlgul'p'E qo kuj øu'xqno g"j cxg"b cp{ "rctcmgu"v'v'qug"qh" the early 1900s. Safety in Canadian coal mines continues to be an issue.

Unions also had the power to make daily life outside of the mine better for employees, including life in company towns. Miners were expected to make purchases at the company store and in some instances they were not paid real money, but rather with scrip, or their paycheques were deposited at an account at the company store (Ramsey 1990:33). This situation did not allow the miners to be fully free of the company. Several historians have termed this industrial serfdom ø(Seager 1981:183; Freese 2003:45). In an effort to solve this, the preamble to the District 18 constitution set an objective òv"b clpvclp"qwt"tki j v"v"tgegkxg"qwt"rc{ 'lp'hcy hwn'b qpg{ í ö"¶T co ug{ "

1990:32). Most labourers were not on salary, but were contract workers. This system was good for the companies, as workers could not afford to be lax on the job.

The U. M. W. A. provided the miners of the Crowsnest Pass with a much needed voice. Without the union much of the progress regarding workers rights would not have been accomplished. By suffering through horrible conditions, these early unions were able to spark change in the coal mining sector. The miners at Lille only saw the beginning of what was to become of the Crowsnest Pass mines.

2.4 Summary

The Crowsnest Pass has a rich history. Numerous communities but its existence was brief due to the nature of coal mining. Through the coal and coke industry including the establishment of a union, a context for the study area has been given. The coal mining communities within the Pass are an integral part

Chapter 3

Theoretical Basis

As Lille was a company town the main research focus will be upon the examination of corporate paternalism, including how it was expressed in the daily life of the residents, as well as their reactions to it. Corporate paternalism studies generally fall within the theoretical sphere of neo-marxism, as it in part investigates company and worker relations. Spatial analysis techniques will also be employed as tools for investigating the existence of corporate paternalism in Lille, as corporate paternalism may be manifested physically through town layout and housing forms. Spatial theory approaches, including spatial syntax and statistics are applicable, as they assist in illustrating the physical presence of corporate paternalism, and will be discussed at length in Chapter Six. Consumer-choice theory is also discussed, as purchasing decisions made by individuals may reflect their ideology, or reactions (or even resistance) to corporate paternalism. The material record may be interpreted as responses to hegemonic ideology. Elements of neo-marxism, corporate paternalism, and consumer choice are used as the theoretical bases for this research, as relationships amongst the three may be indicative of control and responses to control. The present Chapter is a discussion of these three concepts, their use in archaeology, as well as their relevancy to this research.

3.1 Neo-Marxism and Archaeology

The use of Marxism today is very different from that of its original formulation. For this reason the term neo-marxism is used. The main focus of neo-marxism is the role of ideology. Furthermore, marxism with a lower- ecug":o ø'ku'wugf'lp"q tfgt"vq" differentiate Marxism as a political movement from the theories that are applied by modern scholars utilizing concepts of Marxism (McGuire 1992). Neo-marxists today consider that: 1) Marx is a starting point not an end, 2) social relations are at the core of change, 3) society should be seen as a whole, not parts, 4) there should be an emphasis on contradiction and conflict as they are vital parts of society, 5) there should be a human-centered view of history, 6) people make knowledge, and 7) socialism is an alternative to capitalism (McGuire 1992:83). Under Marxist consideration, capitalism is seen as exploitative. People sell their labour power to others in order to increase the means of production. Humans are motivated by individual goals and are moved to accumulate power in order to extend self-interest and increase social status (Parker Pearson 1984:61). The means of production increase the resources of the capitalists, thus separating the labourers from any chance of upward mobility even further. Neo-marxists investigate these relationships and the social differences which arise from interactions between the capitalists and labourers.

In reference to point five above, i.e. that neo-marxists feel that there should be a human-centered view of history McGuire (1992:49) has observed: ðK'ku'r gqrg'y j q" make history, people who struggle in class conflict, people who sell their labour, and people who buy it. ö Additionally, any individual worker is entrenched within the company and society. According to McGuire and Wurst (2002:88), ðJ wo cpu"ecppqv" exist as individuals apart from society. ö Rather than study only individuals or society, a

dialectical approach which studies both is suggested, as individuals contribute to and make up society, and also are products of society. Dialectical history is based upon the argument that studies of the social world should focus upon the experiences of human beings (McGuire 1992:13). The dialectic forces us to abandon absolutes. In effect, it is important to study both the individual, and how the individual acts in society.

Archaeology offers the unique potential in this regard, as archaeologists study the material remains left by individuals, which may among other things indicate the

of resistance to dominant ideology.

Neo-marxist archaeology emerged in response to processual archaeology, rejecting both evolutionary and systems theory (Matthews et al. 2002:110). Neo-marxist archaeologies involve the critique and study of capitalism and the state. In a recent volume on capitalism, historical archaeologists came together to discuss why and how capitalism should be studied in a historical archaeological perspective (Leone 1999).

Alison Wylie, for example, states that not only is capitalism what we study, but studying capitalism of the past may give insights into the present (1999:24). Western

archaeologists today live in a capitalist society, and as a result are products of the state.

Neo-marxists stress the importance of self-identification; for example, Parker Potter Jr. identifies himself as a participant within capitalist society (1999). Self-identification

may assist researchers in exposing inherent biases based upon their positions within society. In present western society everyone is a consumer, as we live in a capitalist

society. The degree to which the same is true for the past differs. It may have been less difficult to escape capitalism in the past, as many people were more self-sufficient than

today. By studying the capitalism of the past, parallels

only way to understand particular social arrangements or institutions is to understand
 j qy "vj g{ "fgxgrgrgf"j kxq tkecm{ ö"Rcwg tuqp"4225-344-0Neo-marxism offers a means to
 study capitalism of the past. Neo-marxism is used here in the study of Lille because it
 centres upon relationships between the worker and the employer, as well as class and
 status relations between individuals.

Neo-marxism focuses on dominant ideologies: the beliefs of the capitalists,
 labourers, and society. It is ideology that determines why things are seen as they are.
 Kf gqm i lgu"ctg"uggp"cu"-i kxg puø"cp f"-vømgp'hqt"i tcpvgfuø"Nggpg"3 ; ; 7-96: +0"K/hggnu"uq"
 natural that it is not questioned; it simply is felt to be the way things should be.
 Ideology: 1) appears to be natural, 2) makes interests that are sectional appear to be
 universal, and 3) masks the true nature of itself, and denies the truth of inequalities
 (Johnson 1999:95). Dominant ideology masks the realities of capitalism. In order for
 ideology to work, both sides must see something compelling within it (Jackman
 1994:67). If that were not the case, then dominant ideology would fail, resistance and
 rebellion would occur. Of course resistance and rebellion do occur on occasion, and it is
 these conflicts in which neo-marxists are quite interested. Vjg"-qrrqupi'ukfguø are the
 labourers and the capitalists. Society can be seen as an amalgamation of discontinuous
 interests, often in conflict, forged and reproduced as an entity through struggle and
 domination (Matthews et al. 2002:110). This is the nature of capitalism. Inequality is
 ingrained in dominant ideology, so that it seems very natural to society (Jackman
 1994:65). It appears to be so natural that for the majority of society it is not even
 questioned. Society passively accepts dominant ideology, and as a result, ensures that it
 will continue to exist. When dominant ideologies are questioned conflict arises, and
 conflict is of importance to neo-marxist studies.

Marxist studies revolve around investigations of power and inequality. Through neo-marxism it is possible to investigate the relationships between the powerful, and the subservient, such as the W.C.C. and the miners. However, subservience does not mean submission. Neo-marxist archaeology should strive to see members of society as active agents. As Metheny (2002:15) argues, workers have agency and are not merely

ōrq tvc {gf 'hcti gn { 'cu'xkēvo u'qh'geqpqo kē'r tqeguugu'y j kēj 'ctg'tgukwcpv'q'r cuukxg"

xqlēguō Workers made their beliefs and concerns known to the company. This is evident in the number of strikes that the coal and coke industry faced in the Crowsnest Pass.

The mining residents of Lille likely shared a similar ideology, although individual opinions no doubt existed. òV jg'fgxgrōro gpv'qh'c'lvtpi 'qēewr cūqpcn"

ideology appears to be associated with the extent to which there is a strong occupational association that can provide norms guiding members; conducted in and out of the work

ukwcvqpō "Fwpmgtrg { '3;97<64+0'C u'r tgyiously stated, miners shared a sense of brotherhood with other miners. Unions also provided a large support system for miners and would have assisted in shaping the ideology of the miners. The union would have had a contradictory relationship with the company; they are both resistant to the company and yet exist because of it. Underground mining is dangerous and stressful; trust is a very important element. Having confidence in the management would also have been necessary. From the expected degree of cooperation within the mines, it is likely that cooperation would be expressed outside of the mines. Furthermore, Lille did not have a large population. It would have been necessary for all residents, both management and miners alike, to interact with each other. Documentary evidence supports this theory, mentioning and illustrating sports teams and drinking behaviour.

perspective, is the ongoing work at Ludlow, Colorado. In 1914 the Ludlow miners were on strike. They had wanted to join the United Mine Workers of America for some time, and had been evicted from their company-owned homes. The miners set up a tent colony and continued their protest against the Colorado Fuel and Iron Company. As the violence escalated, militia and company officials shot and burned 20 people to death, 12 of whom were women and children (Walker et al 2002:8, McGuire and Reckner 2002:52). As previously mentioned, companies try to avoid conflict. According to philosopher Mary Jackman, power relationships are based upon fear, and use of force reflects a failure of power, not an expression of power (Jackman 1994:61-62). The Colorado Fuel and Iron Company's actions during the strike tragically resulted in several deaths. Ludlow continues to be an extremely sensitive issue. Begun in 1996, the Colorado Coal War Project has had two main goals: to raise public awareness of the strike and industrial history, and to gain a better understanding of how the strike began with material conditions of the camps and how life changed after the strike (Walker et al. 2002:1, Walker 2003). The project aims to see the differences between contexts and within contexts. For example, primary researchers attempt to identify ethnic groups and their daily life within each site, and at each excavation unit (Walker et al. 2002:11). At the end of the 1999 research project it was noticed that the town site of Berwind within the strike area had more stable house foundations. Also, the Ludlow tent colony appeared to have relied more on pre-packaged food, as evidenced by the higher number of tin cans (Walker et al. 2002:103). The researchers speculate that this illustrates how the company treated workers before and after the strike. It appears after the strike the company building better housing. It also shows how the company treated miners during the strike, by having to rely on pre-packaged food. Not only are

the archaeologists investigating the past of the Colorado coal field strike, they are also concerned with the present. The project also focuses upon the importance of possessing a theoretically informed practice.

Material culture is of great interest to neo-marxists, and its interpretation is guided by praxis. Ideology is present in all material practice and immaterial behaviour (Parker Pearson 1984:60). Material culture may be seen as active or passive. Individual artifacts may speak of daily lives, as evidence of class and status differences, or as evidence of meaningful actions supporting or refuting the present system. People put meaning into their lives, but the meaning is often the result of society. I am not suggesting that individuals are puppets of society; as McGuire and Wurst put it, society
cpf"vjg'pflxkfwcn'ctg'pqv'cwqpqo qwu'ōvj kpi u.ō"dwv'vjg{ 'ctg'rctv'qh'c'eqo rmgz'y gd"
(2002:89). People are neither passive objects, nor wholly free subjects (Spriggs 1984:2); agency lies somewhere in between. In this thesis material culture will be viewed recursively as part of the possible interaction of the ideology of the residents of Lille.

The role of ideology in society may be determined by the economy or it exists in a reflexive relationship with it (Pearson 1984:59). Despite paternalistic impositions, consumers did have choice. The decisions made by residents of Lille, may reflect opposition to corporate paternalism. The material record can be seen as evidence of changes in the ways a culture is demonstrated. Material culture may illustrate the social class or status of the individual who once owned it. Status differences, particularly occupational and socioeconomic status are hypothesized to have existed at Lille. Historical archaeologists study socioeconomic status differences through material remains, as these can serve to display status (Wall 1999:102). Items such as ceramics or butchered faunal material are often studied in an attempt to understand the class or status

of the members of the household being studied (Miller 1980, Spencer-Wood 1987, Henry 1987). Studies have involved creating indices of goods, such as ceramics, based upon the prices and years of manufacture. Generally speaking, in 19th and early 20th century assemblages, decorated porcelains are more expensive, and undecorated unvitrified earthenwares cost the least (Miller 1980, Spencer-Wood 1987). Similarly, archaeologists have developed price-scaling methods using butchered faunal remains, indicative of the meat cuts purchased (Henry 1997, Landon 1995), where meat cuts are ranked according to their contemporary cost. Although these studies were not rooted in neo-marxism, they are relevant to this discussion. According to Beaudry (1993:91),

“The archaeological record [can be] viewed as a medium of communication and expression that can be used to understand the past. The archaeological record is a record of the past, and this is evident in the material record, and how this may relate to the spatial organization of the community will be investigated. These questions will be explored further in Chapters Five and Six.

Our interpretations of the past are shaped by our visions from **our** present (McGuire 1992:247, emphasis in original). Matthew Johnson adds to this proposal by pointing out that according to Marx, intellectuals cannot divorce academic thought from political action (1999:93). In this sense I asked myself if I was placing a neo-marxist theory upon people who would not feel that marxism depicted their lives. This question

“The Proletariat in Wild Rose Country: Alberta Coal Miners 1905-1945” was rife with socialism. The U.M.W.A. was a huge presence in the Crowsnest Pass and

several chapter presidents were socialists (Seager 1981). Unions and socialism went hand in hand. Although not all residents supported socialism, it was a definite influence in the area. In 1911, 67% of the votes from Lille during the provincial election were for the Socialist Party (Seager 1981:258). Furthermore, B rckto q tg"y cu"fgertgf 'Ecpfcøu" first communist town in the 1930s. Mines during the early part of the past century, and even into the present, are sites of rebellion (Lyon Endicott 2002, Walker et al. 2003). Labour disputes are pervasive in the history of coal mining, as are unions and strikes, (as was mentioned in Chapter Two).

The present study is seen to benefit from a neo-marxist approach for several reasons. Neo-marxism focuses upon dominant ideology and capitalist relations, and as a company town, Lille would have experienced various interactions between capitalists and employees. In addition, this thesis focuses on material culture which may represent daily life, and neo-marxism stresses the importance of human-centered history. Hence, Lille will be investigated through a neo-marxist perspective.

3.1.1 Corporate Paternalism

You live in a company house
 You go to a company school
 You work for this company,
 According to company rules

You all drink company water
 You all use company lights
 The company preacher teaches us
 What the company thinks is right

E ctnUcpfdwti .'gzegtrvhtqo "ōV jg'Eqo rcp{ 'Vqy pö"
 (Corbin 1981:61)

Examples of how paternalism is investigated in an archaeological context will be discussed, and this will be related to the present study of Lille. The attitudes of the company and the resulting effects upon the residents will also be explored. This section will lay out the framework for the following analysis of Lille.

The term paternalism suggests a relationship based on the concept of familial
 tgnvklpujkr u0"J qy gxgt.'vjg":rctgpw'ku'cevki "qp'vjg"cuwo rvlqp'vjcv'vjg{ hppqy "dgwgt"
 vjcp'vjg":ejkfø'cpf'y jcv'ku'dguv'ht"jko "qt"jgt"Mrkløki "3; :5<4+0"E qtrqtcvg"rcvgtpcrkuo "
 can be defined as a company exerting control over employees through the guise of
 dgpqxrpgpeg0"V jg"cdqxg"gzegtrvhtqo 'vjg"øE qo rcp{ 'Vqy pö'knwvvcvgu"j qy "rgtxculxg"
 vjg"eqo rcp{ "eqwnf "dg'lp'y q mgtuø'fckn{ 'hxgu.'dqvj 'lpukfg"cpf "qvwukfg"qh'y q m0"
 Paternalism has been seen in a benevolent light, and justified because it is for good of
 those dominated; however, it is seen as a father-child relationship. It makes the
 dominated appear to be immature and unable to look after themselves (Jackman
 1994:12-13). Furthermore, corporate paternalism stresses hegemonic ideology, and the
 appearance of being a natural relationship.

Mary Beaudry and Stephen Mrozowski have done extensive archaeological work
 at the company town of Lowell, Massachusetts. The Boott [textile] Mill owners held
 eqpukfgtcdrg"eqpvtqn'qixgt'vjgkt"go r nq{ gguø'hxguoutside of work. Beaudry considers
 j qy "eqo rcp{ "rqkø'gu'øtgiwrcvgf"cpf "rgto gcvgfö'vjg"fckn{ 'hxgu'qh'y q mgtu'dqvj "qp'vjg"
 job and at home, as seen through material culture (1989:19). Nkngru'b cvgtkn'ewnwgtg"ecp"
 also be investigated to determine how pervasive the company was in its paternalism.
 Questions can be investigated regarding stated company policy and the reality of life in a
 company town. Archaeology can reveal differences between the stated corporate

ideology and the actual reality of life in company towns (Beaudry 1989:27). In Nqy gmu"ecug"vj g"cte jcgqmq ikecn'cpf "f qewo gpwct{ "tgeqtfu"tgxgc n'vj cv'r cvgtprkuo "tc tgn{ " extended beyond the realm of public image (Beaudry 1989:27). This was evident from the artifacts that were located in the Boarding House excavation units. Investigators uncovered evidence of smoking and drinking behaviour, which was something discouraged by the company. What workers did in their free time may not necessarily be what the company dictated. The pervasiveness of company influence was investigated through activity areas. The company employees had very limited space in which to relax and the community nature of boarding houses did not allow for a high degree of individual expression. The back yards became the main locus for a variety of activities.

There is active and passive paternalism. For example, active paternalism may make the individual act or dress a certain way, while passive paternalism has the individual refraining from actions (Kleinig 1983:6). West Canadian Collieries appear to have had a more active participation in town affairs. Company towns in the Crowsnest Rcuu"gp lq{gf'y j cv'C mnp "3;88+"vgt o u":gpri j vpgf ø'r cvgtprkuo 0"Hgtplg"tgukf gpvu"cumgf " for a reading room, and the company supplied \$250 for its construction (Felske 1991:434). Lille residents were also provided with a reading room and library. Many ÷enugf ø'qy pu'lp'vj g'Rcuu'dwkn"j qurkcnu."cpf'vj gp'hcugf'vj go "q"cp'lpvgtguvgf"f qevqt" (Felske 1991:446). During the 1912 strike the company pr qxkf gf'vj g'qy pøu"tgukf gpvu" with a \$400 Christmas tree, and the superintendent taught Sunday school (see the passage at beginning of this section). W.C.C. operator, J.J. Fleutot, made a sports field for Bellevue, capable of hosting soccer, baseball and tennis matches, and was the honorary president of the local musical band (Felske 1991:456).

J qy gxgt.'vjg'fgi tgg'qh'vjku'gprki j vpo gpw'ku'swgukqpcdr0'Nkmg'fkf'pqv'j cxg'c"
 wash house for the miners after a shift until 1908. Companies felt that hygiene was not
 their concern, and that miners should pay for the construction and upkeep of the facility.
 Ceeqtfkpi "q'vjg'o cpcigt.QG00Y jkgukfg.'vjg'jqvnu'y cuj "tqqo u'y gtg'cf gswcvg.'cpf"
 a wash house was never built because the miners did not pay for one (Felske 1991:146).
 In 1908 new government regulations ordered that miners be provided with a wash house.
 J qy gxgt'Nkmg'u'y cu'lu'hmj { "cpf'wphk.'y kj 'leg'ur tgcflpi 'cetquu'vjg'hmqt.'vjcv'o kpgtu"
 complained to provincial inspectors and received a new, larger steam-heated wash house
 in 1911 (Felske 1911:146).

Paternalism, though likened to benevolence, is separate from it because
 paternalistic actions are not always in the best interests of the dominated individual, but
 rather the best for the group or the dominator (Jackman 1994:14). The ability to control
 the worker as much as possible assisted the company in a variety of ways. Paternalism
 o c { 'dg'uggp'cu'cp'ko rqukkp'cpf'c"eqpvtckp'qp'htggfgo "Mngkpi "3; :5-0"0V jg"
 corporate ideology that promoted social control as a mechanism for ensuring profit for a
 few fostered the development of a pervasive system that extended beyond the workplace
 cpf'qqm'ejctig'qh'vjg'fgo guke.'tgrkikwu.'cpf'gfweckp'cn'curgeu'qh'y qmgtu'fxguo"
 (Beaudry 1989:29). By controlling employees, corporations could affect the morale of
 workers. For example many companies were able to directly control employees by
 keeping their paycheques for extended periods or time, or directly depositing them into
 an account at the company store.

The founders of the mill town of Lowell Massachusetts insisted that social
 controls were driven by concern for worker welfare (Beaudry 1989:20). Enforcing rules
 such as limited alcohol in the towns could ensure fewer sick days and less disorder. This

may be seen in two ways: as a genuine concern for the morals and well-being of employees, or as a means by which to regulate social engagements and increase productivity. In addition, the values of the company were placed upon the worker, especially regarding the 'enclosed' way of life 'which required the worker to be well-dressed and to be clean' (Mrozowski 1991:90). Class was expressed in Lowell, Massachusetts in several ways, including yard space. Class is a social and cultural phenomenon that can only exist in relation to other classes. People make class (McGuire 1992:44). The company included landscaped front yards, while boarding house yards were used as activity areas. Inequalities are planned into the landscape through architecture; the homes of the elite was not a place of production, but decoration (Mrozowski 1991:96). The inequalities of the company were expressed in the way that the company controlled the landscape.

Corporate paternalism helped to eliminate the possibility of labour unrest (Beaudry 1989:20). Company towns could threaten to cut off services for non-compliance, but these were rarely more than threats. However, the Western Federation of Miners told that he could not go home to Morrissey, as it was a company town, and the company could control who could and could not enter (Ramsey 1990:20).

The company also controlled the quality of life for the workers as well, although chiefly in personal terms, that is, in terms of how the quality of life was controlled. The company controlled the quality of life for the workers as well, although chiefly in personal terms, that is, in terms of how the quality of life was controlled. The company controlled the quality of life for the workers as well, although chiefly in personal terms, that is, in terms of how the quality of life was controlled.

important, as is conflict and ideology. The inhabitants of Lille were aware of their position within the paternalistic system. They were aware of their status, especially since it was incorporated into the layout of the town. Corporate paternalism may be more controlling than other neo-marxist inquiries, however, investigating consumer choice provides the opportunity to investigate individual agency. Class and status relationships are the dominant theme in this investigation, but ethnicity will also be considered. A neo-marxist approach is thus a suitable theoretical context to adopt for this study. A brief summary of the archaeological excavations is discussed in the following chapter.

Chapter 4

Archaeological Research

4.1 Previous Research at the Crowsnest Pass and Lille

The Crowsnest Pass area has been the subject of numerous investigations regarding its historical coal-mining sites. The Highway 3 realignment made an evaluation necessary for Passburg and Frank in 1978. Investigators from the Archaeological Survey of Alberta focused efforts upon the Passburg Hotel site, Passburg, and the Imperial Hotel site, Frank (Forsman 1979:147). Over 65,000 artifacts were recovered. As well in 1973 a Heritage Resource Inventory and Impact Assessment was undertaken by Lifeways of Canada. At this time the town site of Lille was identified as an important representative early coal mining town (Kennedy 1982:7). A record of the Lille cemetery was undertaken in 1977. In addition, the uniqueness of the Bernard coke ovens at the Lille town site resulted in heritage designation. These ovens were also researched for O cti ctgvMgpppgf { æ'O cuvgtæ'vj guku in Industrial Archaeology at the University of Calgary.

Two archaeological excavations have been performed at the town site of Lille. It is from these two investigations that the artifact assemblage for the present study is taken. The first excavation was undertaken by Michael Forsman for the Archaeological Survey of Alberta in 1978. Several years later, in 1981, Margaret Kennedy for Lifeways of Canada Limited also examined the remains. A summary of these investigations is

provided below. For archaeological test locations utilized in the present study see figure 4.1.

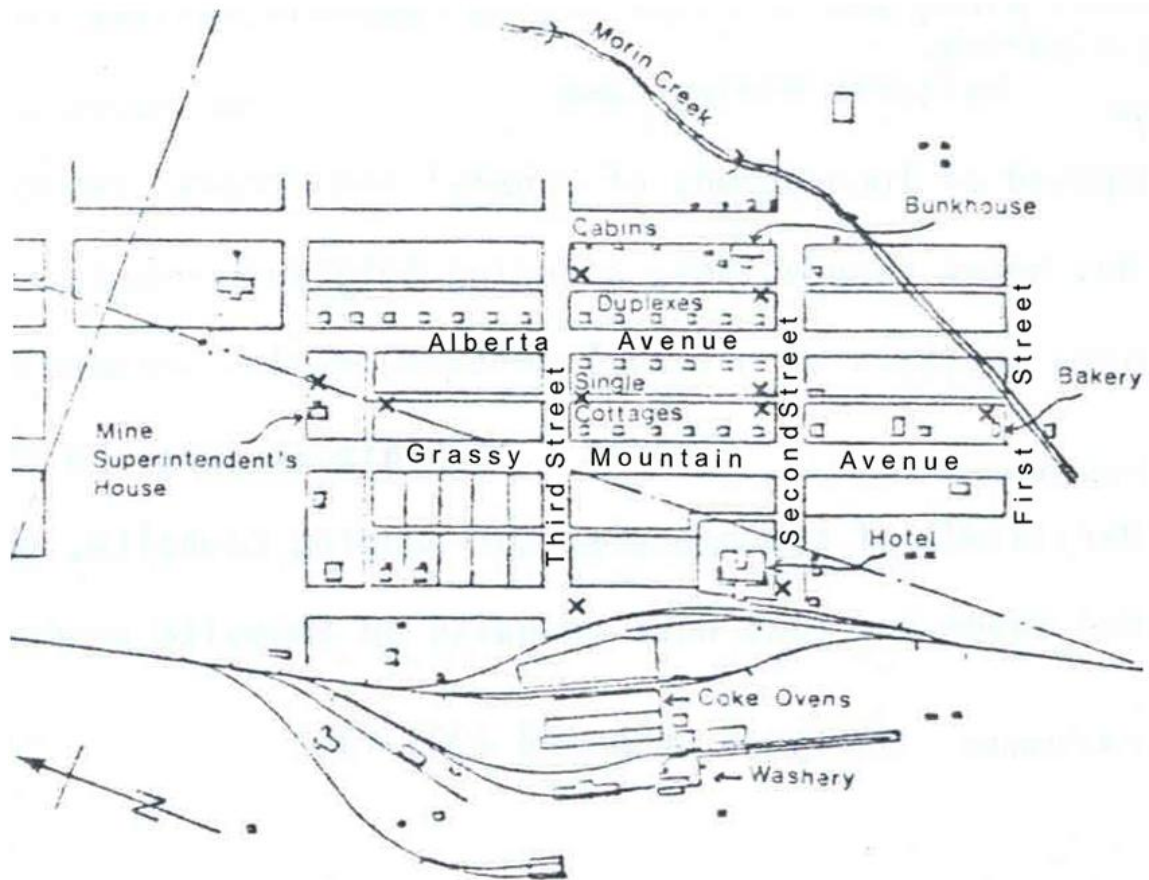


Figure 4.1 The excavation units from both the 1978 and 1981 investigations are indicated by an X (figure adapted from Kennedy 1982).

4.1.1 The Archaeological Survey of Alberta Investigation

In 1978 the Archaeological Survey of Alberta chose the former town site of Lille as the focus for a research investigation on the effectiveness of remote sensing technology in historical archaeology (Forsman 1982). Aerial photographs were taken using black and white and colour infrared film. The objective of the project was to provide a basis for interpreting cultural features. A ground-truthing survey was also

carried out to correlate remote sensing data and visual observations at the site. The project revealed both successes and failures in the use of remote sensing technology at historical sites. A total of 24 features were identified during the ground-truthing survey. Although the research design does not focus on artifacts, archaeological testing was carried out in order to correlate the remote sensing data.

Archaeological investigations were undertaken by Michael Forsman, of the Archaeological Survey of Alberta, at Feature 1, at the base of slope of the terrace edge, located west of the hotel foundation, (as seen in figures 4.2 and 4.3). Units DjPo 112-1A and B were expected to be excavated in two parts, but owing to time constraints and location only unit B was excavated. This unit will hereafter be referred to as the "Hotel Terrace" unit. The excavation was carried out with a shovel and trowel and the matrix was passed through a mechanical screen. The primary investigators noted that the unit was fairly homogeneous throughout and that evidence for disturbance was not present and recent deposition was not encountered (Forsman 1982:8). The two levels were excavated in natural layers. Two distinct depositional phases were identified, as shown in figure 4.4. Given the nature of the feature (a commercial site), Forsman (1982:8) considered that the artifacts contained were of considerable research potential.

Feature 22 was also excavated (units DjPo 112-22A and B), in order to provide a sectional profile through the centre of the depression (Forsman 1982:8). Surface materials were not collected, because of mixed deposition. Feature 22 was found to be a privy feature, with straight walls, some depth, and identifiable backfill phases. This unit corresponds with houses located in the front row, occupied by one family each. This unit was excavated in natural layers, with a shovel and trowel. Matrix was passed through a

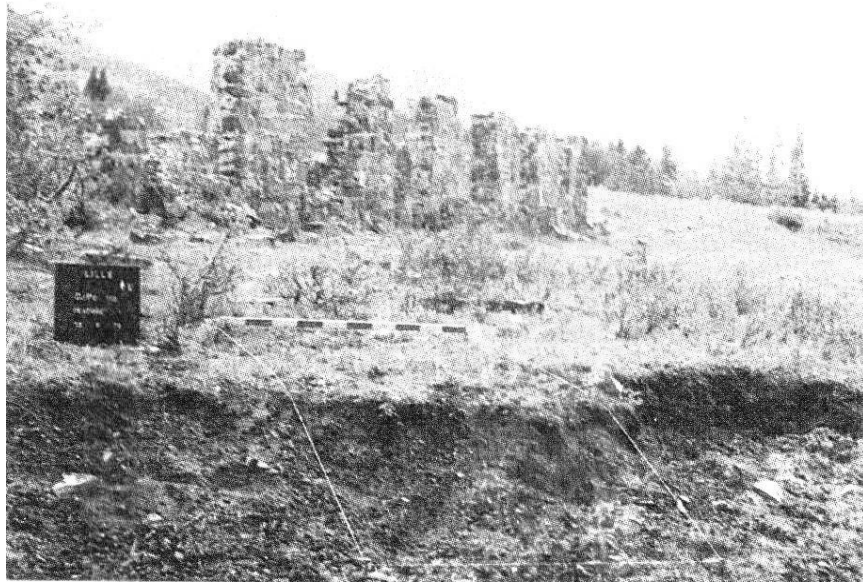


Figure 4.2 Feature 1, the hotel terrace unit, hotel foundations visible (photograph courtesy of Forsman 1982, figure 7).

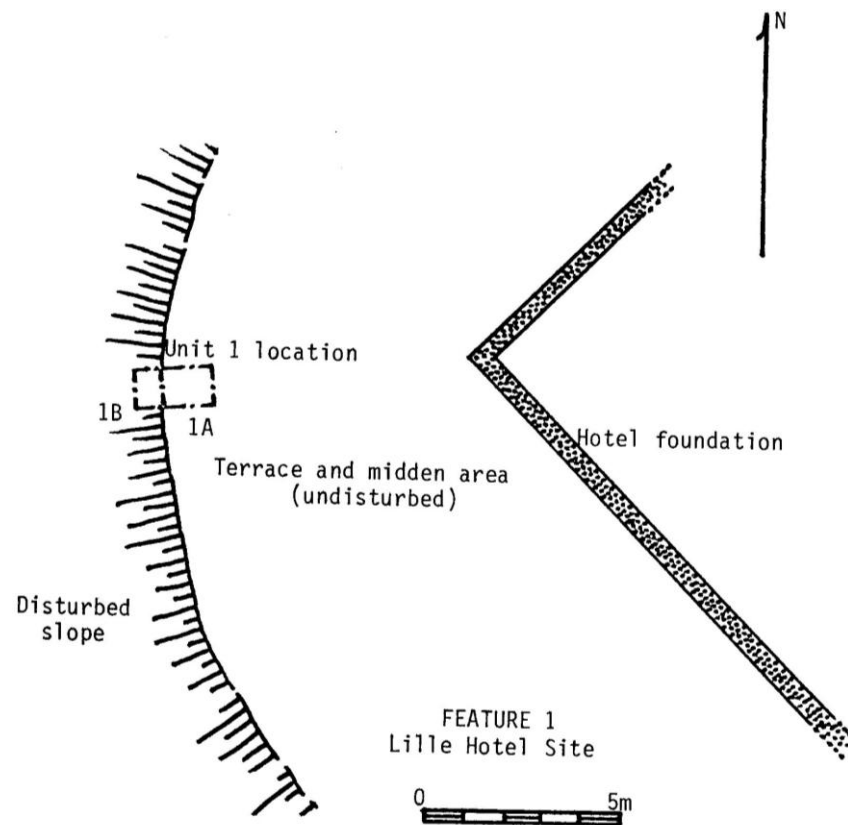
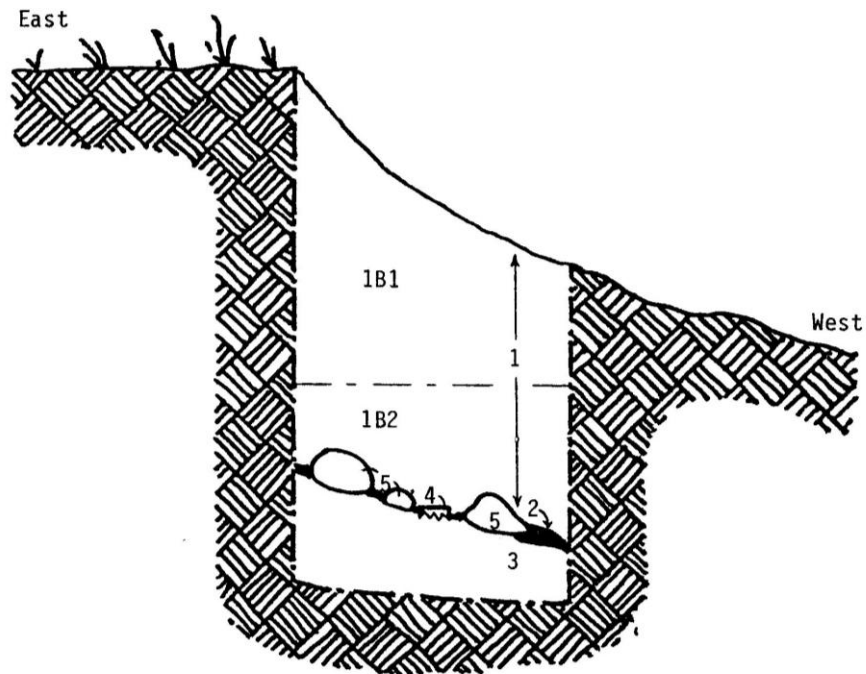


Figure 4.3 Location of Hotel Terrace unit in relation to hotel foundation remains (figure courtesy Forsman 1982, figure 19).



DjPo 112 - 1B1,2
South Elevation View

LEGEND

1. Ash, cinders, coal fragments.
2. Soil horizon at date of initial occupation.
3. Sterile subsoil.
4. Bottle base.
5. Rocks.

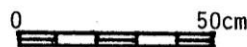


Figure 4.4 Profile drawing of Hotel Terrace south elevation view (figure courtesy Forsman, 1982, figure 20).

mechanical screen. Cultural material in the depression was found to a depth of 1.5m.

The south side of the unit was unstable and removal of the cultural deposits was deemed necessary. The unit was extended 40cm to the south, with no levels. This extension was designated as 22B. Excavation of the Single Family Home Privy revealed a dry-laid stone retaining wall on the north side, shown in figure 4.5 (Forsman 1982:9). This wall,

however, was not detectable with the remote sensing technology. Primary investigators believed that the cultural deposits in this unit are the result of rapid backfilling in the course of abandonment, as shown by the presence of several crossmends (Forsman 1982:9).



Figure 4.5 Feature 22 retaining wall (photograph courtesy Forsman 1982, figure18).

The primary investigators of the 1978 project concluded that remote sensing has the potential to detect buried historical resources. The study, however, shows that in the 1970s this potential was yet to be fully realized (Forsman 1982:10). Ground-truthing and archaeological testing are still crucial in providing information unavailable through remote sensing alone.

4.1.2 The Lifeways of Canada Ltd. Investigation

As part of the Heritage designation process for the town of Lille, Lifeways of Canada Ltd. was sub-contracted by historian Lorry Felske, under contract with the Historic Sites Service of Alberta, to undertake excavations at the town site of Lille in 1981, figure 4.6. The project had three primary objectives: 1) to determine if the ethnic background of the miners at Lille could be seen in the material culture, 2) to identify status differentiation between the various residents of the town, 3) to obtain evidence of miner mobility in the Crowsnest Pass mining area, and 4) to illuminate personal injuries not recorded in official reports (Kennedy 1982:5). However, several problems (i.e. inability to locate the hospital and the difficulty of # 3 due to the confines of the project), the original objectives were modified so that investigations focused upon objectives 1 and 2.



Figure 4.6 View of Lille town site during 1981 excavations (photograph courtesy Margaret Kennedy, 1982).

A total of 12 1x2m units were excavated at eight different locations. Privy units were always placed perpendicular to the long axis in order to ascertain stratigraphic profiles and control (Kennedy 1982:8). Matrix was passed through mechanical screens and units were excavated to sterile deposits, privy depths were found to range from .75m to 1.5m (Kennedy 1982:8).

The Bakery Privy, Bakery Interior, see figure 4.7 and Bakery Veranda were tested, located on Lot 1 of Grassy Mountain Avenue. Cobbles were present throughout the Bakery Privy, possibly placed there in its construction. A conical brick mound, the remains of the beehive bake oven, was located. On the basis of this, a general area was identified. The area was also identified by the presence of a sandstone slab foundation wall, thought to be the remains of the bakery structure.



Figure 4.7 Test excavations at the bakery with bake oven remains to the left (photograph courtesy Margaret Kennedy, 1982).

Two privy tests were excavated which would have been associated with cabins located at the front of town, hereafter called Front Row Cottage Privy Tests 1 and 2. These units were located at the back of the corner lot of Grassy Mountain Avenue and 2nd Street, refer to figure 4.1. The outhouses that once stood here could have served up to four front row cottages. Coal dust and gravels were seen, probably used to cap off deposits to minimize odour (Kennedy 1982:11).

A duplex privy was investigated, located at the back of the lot on the corner of 2nd Street and Alberta Avenue. This privy would also have been used by the residents of one of the six duplexes. Burnt wood, charcoal and fire-cracked rock were noted at 70 to 80cm below the surface, possibly used to cap off deposits.

A privy deposit belonging to the residents of a cabin located at the back of the town was also excavated. It was tested to provide further material culture with which to compare standards of living in the town. This feature is located 12m south of the remains of a log cabin.

The Town Dump unit was placed upon the least disturbed mound. Coal dust was encountered, and was either placed there for odour reduction, or naturally deposited by the wind (Kennedy 1982:15).

Cp'cwgo rv'y cu'b c'f'g'q'q'ecv'g'v'g'r t'x { 't'go ckpu'qh'v'j g'O kpg'Uwrgtkp'v'p'f'g'p'w'u" residence. A depression connected with a shallow trench, 7 to 8m north of the supposed residence was also excavated. Excavations, however, revealed that this depression was not the privy and therefore the exact cause of this depression remains unknown. Horizontal wooden planks were uncovered, suggesting either a floor or fallen structure. Further investigation revealed gravel fill, upright timbers and their braces 1.3m apart at either end of the unit and large cobble supports.

Another large foundation depression .hpecv'f'lwvj 'qh'vj'Uwrgt'p'p'f'p'w'j'q'wug" was investigated. The residents of this lot remain unknown. However, because of its location, the primary investigators speculate that it was a person of some standing within the community (Kennedy 1982:16). Other areas of investigation included a possible privy depression (although excavation showed this was not the case) and a water line wpp'p'i 'htqo 'vj'g'qy p'q'vj'g'Uwrgt'p'p'f'p'w'j'q'wug0"C v'qpg'w'g'vj'ku'y cvgt'h'p'g'b c{ " have also had an associated structure.

The Lifeways of Canada Ltd. investigation of the Lille town site produced 6,504 artifacts (Kennedy 1982). Identifying differences in standards of living was outlined as one of the primary objectives of this investigation. Although the function of two of the features remains unknown, the privy features of front row residents, duplex residence and cabin residents can provide a wonderful cross-section of town residents. The objective of determining ethnic identity was originally seen as being inconclusive based upon material culture alone. However, several artifacts of Italian origin were identified kp'vj'g'cwvj q'tu'c'w'cev'cpcn'uku0"Uwej 'vj go gu'y km'dg'f'k'ewugf'kp the next chapter.

4.2 Archaeological Excavation Summary

Lille is an important part of Crowsnest Pass history and is a Designated Provincial Historical Resource. As previously mentioned, despite the designation, Lille is subject to vandalism and bottle-hunting, even to the present day. The primary investigators noted the problem in the 1981 report (Kennedy 1982); I have noted in 2005 the town site cfxgt'wugf'qp'p'wo gt'qu'y gdu'ku'cu'cp'f'cwvj gp'w'e"i j qu'qy pö."cp'f'cu'c" popular spot for campers and hikers alike. The possibility of information loss continues to be significant, due to both natural and human factors.

From these two archaeological investigations a total of over 8,400 artifacts were recovered. The impetus for each excavation was quite different; one was to augment a remote sensing survey, the other to gain further understanding of the town and increase the knowledge of early 20th-century coal mining communities. Both projects shed light on different aspects of Lille. The resulting artifacts from these excavations form the basis of the current research project. It is hoped that the combination of these two assemblages can expand the already gathered information, and synthesize the different investigations. The material remains located in the excavation units will be discussed and interpreted in Chapter Five.

Chapter 5

Material Culture Interpretation

5.1 Methodology

The excavations at Lille produced 8,492 artifacts. Items were re-catalogued and re-identified, as there were discrepancies from the original catalogues. It was also noted that over 360 artifacts were missing, the majority from the 1979 excavations. However, these were entered into the database using the information available from the original catalogue sheets. It was noted that there were numbering problems as well, so the final catalogue numbers do not match the exact artifact numbers. The two collections were combined into one for this study. Although excavated first, the 1979 collection was added to the 1981 collection, as the 1981 artifacts had numbers inked directly onto them. Also, for continuity, *vjg'vgo "HtqpVTqy 'Eottage Rtkx{ 'Vguv'5ø'tgrncegu'vjg'q tki kpcn"* *-UkpingHco kq "J qo gRtkx{øhtqo 'vjg'3;9;"gzecxcvkp'hqt'eqpvkpwk(O"Kp"cf fkkqp.Kfkf"* not directly study the faunal remains from the Lifeways of Canada excavation and therefore information regarding these materials comes from the 1982 site report.

5.1.1 The Classification Scheme

In order to understand the material culture found in historical sites, archaeologists often order artifacts into functional categories. A classification scheme was developed for the Lille collection, based loosely on that suggested by Roderick Sprague (1981). It was put forward to classify material remains by a scheme closer to

reality rather than simply by material of manufacture. The classification scheme for Lille includes categories that express the function of the item. The scheme is also broken down into the context of the functions through a sub-category (Sprague 3;:3<474+0"Ur tciwga'ercuukhecvqp'uejgo g.'y jkej'y km'dg'fguetkdgf'dgmqy .'dgi kpu'with the individual. Categories move outward, with the individual being more and more removed from the item. In no way is the scheme adapted for Lille suggested to be the only way in which to classify the artifacts recovered. Several items may be placed in various ecvgiq tgu="vjg'hvpevkp'wugf'ku'vjg"-dguv'hwOV jg'ercuukhecvqp'uejgo g'hqt'Nkmg" is outlined in table 5.1.

Table 5.1 Functional Classification, Sub-category and examples.

Personal Items

Accessories: trinket boxes

Adornments: beads, pocket watch, belts, necklaces

Clothing fasteners: buttons, garter clasps, bib overall fasteners

Clothing textiles

Footwear: shoes, shoe horns

Health and Hygiene

Medicine bottles

Toilet Paper: newspaper fragments in privy context

Toiletries: shaving lotion bottles, perfume bottles

Grooming: comb, mirror, shaving mugs

Indulgences

Alcohol consumption: bottles, and closures

Tobacco consumption: pipes, smoking tobacco cans, snuff tins

Beverage consumption: bottles and closures. (This category is modern intrusions).

Recreation

Toys: balls, toy tea sets, marbles

Music: mouth organ parts

Hunting: cartridge casing, shot gun casings. (These artifacts are placed in

Recreation rather than Foodways the limited faunal assemblage was of predominately domesticated species. Therefore, hunting was evidently undertaken as a means of recreation, rather than as a subsistence based strategy).

Sport: skating

Foodways

Kitchenware: mixing bowls, frying pans, kettles

Multi-use food storage containers: tin cans, crockery

Single-use food storage containers: tin cans

Subsistence-related faunal remains: butchered bone

Subsistence-related organic material: eggshells, seeds

Tableware: ceramics, cutlery, tumblers

Furnishings

Furniture: furniture legs

Wall treatments: wall paper

Lighting: chimney lamp parts

Heating: stove parts

Household Maintenance

Painting: paint brush

Laundry: sad irons, clothes pins, laundry bluing.

Commerce

Currency: pennies

Electrical System: electrical wire, power line insulators

Water System: non-ferrous metal piping, valves

Transportation

Railway: railway spikes

Animal Powered: horse shoes

Communication

Newspapers

Writing Materials: ink bottles, pencil lead

Architectural

Architectural Hardware: nails

Window Materials: flat glass

Door Hardware: hinges, door knobs

Building Materials: wood, brick

Industry and Machinery Maintenance

Mining: coal, slag

Machinery: machine parts

Machinery maintenance: oil cans, gas cans, wrenches

Unidentified

Articles of an Unidentified function. Unless a function could be assigned with confidence, items were placed in the unidentified function. For example, tin cans had other uses than food containers, and amber glass was used for more than just alcohol bottles. As a result, a large amount of the collection is placed in this functional category.

Unidentified Ceramics

Unidentified Container Glass

Unidentified Glass

Unidentified Metal

Unidentified Metal Closures

Unidentified Metal Containers

Unidentified Metal Hardware

Unidentified Organic

Unidentified Faunal: Un-butchered bone.

5.2 Artifact Summary and Interpretation

The material culture at Lille provides insight into the daily life of a coal mining community in the early 20th century Canadian west. Material culture can give insight as to what products were available to residents in an isolated location. It was assumed that isolation would limit consumer choices. However, it appears that a variety of items, including imported ones, were made available. C 'hco k{ a"dwf i gv'y cu"fgr gpf gpvwrrqp" the coal and coke market. If the markets were doing very well, disposable income would increase, and high fashion could be obtained from New York (Babaian 1984:72). Apparently Crowsnest Pass residents were not limited in what they could purchase

because of their location; they were limited by their incomes. It was also hypothesized that residents of Lille would get their goods at a combination of the local general store, the mail-order catalogues, or nearby Blairmore or Frank. However, since miners were paid monthly, or once every six weeks (Babaian 1984:76). It was often necessary for miners and their families to purchase goods on store credit. As a result, as was discussed in Chapter Three, the company store account at the company store, resulting in union stipulations regarding the problem. Since miners were not paid bi-weekly (Babaian 1984:76), it is likely that the majority of the goods found in the archaeological excavations came from the general store in Lille, or from a company store in the area. Early on in its history Lille was serviced by agents from Frank. The F.M. Thompson general store, shown in figure 5.1, charged patrons an increase of 5-7% on goods due to the isolation of the town. Residents would go to Frank if they could, in order to pay less for goods (Babaian 1984:84).



Figure 5.1: F.M. Thompson general store, ca. 1907-1908 (photograph courtesy Glenbow Archives NA-3903-111).

5.2.1 Artifact Summary

In order to investigate the socioeconomic status of the residents of Lille, an artifact analysis was undertaken. It was hypothesized that the privies of Lille residents with higher occupational status, such as the mine superintendent, would have left more expensive goods in the remains. The degree of status differences will also be explored with reference to the ascribed social status that the company gave the town. In addition to providing evidence of the socioeconomic status, the range of goods identified may reflect consumer choice and available goods. These remains will be investigated as items reflective of the common ideology held by miners and their families. The following is a summary of the artifacts placed in the functional classification and sub-categories that contribute to the present study. The functional category frequencies for each artifact are indicated in tables 5.2 and 5.3.

5.2.2 Personal

Personal items consisted mainly of footwear fragments. These included both ladies' and men's footwear. Several larger fragments of ladies' shoes could be identified based upon their decoration (Rexford 2000), including toe caps and a double T-strap with cut-outs, (see figure 5.2). The majority of the shoe fragments are of black leather; however brown leather and black rubber were also identified. A ferrous metal

Several pieces of textiles were found, see figure 5.3, some of which were quite large pieces, indicating that a whole garment was disposed of in the privy. Textiles were identified using a low powered microscope and burn tests (Corbman 1979:24-26). The fabrics included a beige-coloured silk blend fragment, possibly a ladies stocking, and wool and cotton fragments, as well as a wool-cotton blend and cotton trim. Colours

Table 5.2 Residential Area Association Functional Frequencies

Category	Cabin Privy	Duplex Privy	Front Row Test 1	Front Row Test 2	Front Row Test 3	Super-Depression	2 nd Large Depression	Total
Personal	22	9	44	29	27	3	0	134
Health and Hygiene	4	6	3	4	2	0	2	21
Indulgence	6	92	15	11	0	1	1	126
Recreation	4	15	9	3	53	0	0	37
Foodways	89	537	280	126	276	36	56	1398
Furnishings	0	0	2	0	2	0	2	6
Household Maintenance	0	0	1	6	1	1	1	10
Communication	0	0	0	0	1	0	1	2
Transportation	0	0	0	1	0	0	1	2
Commerce	0	4	2	0	0	0	1	7
Architectural	51	206	539	73	116	20	92	1097
Industry and Maintenance	0	1	0	0	3	0	0	4
Unidentified	489	278	551	667	1116	10	152	3312
Total	661	1135	1438	918	1587	71	309	6119

Table 5.3 Business Area Association Functional Frequencies

Category	Bakery Interior	Bakery Veranda	Bakery Privy	Hotel Terrace	Town Dump	Total
Personal	0	1	16	0	35	52
Health and Hygiene	0	0	1	0	1	2
Indulgence	0	0	4	20	27	51
Recreation	1	0	0	0	3	4
Foodways	13	0	12	14	280	419
Furnishings	0	2	1	0	7	10
Household Maintenance	0	0	0	0	1	1
Communication	0	0	0	0	1	1
Transportation	0	0	0	1	2	3
Commerce	0	0	0	0	0	0
Architectural	124	16	20	68	93	321
Industry and Maintenance	0	0	8	0	3	11
Unidentified	84	162	226	299	850	1621
Total	221	181	288	402	1300	2392



Figure 5.2 Ladies shoes: top double T-strap and cut-outs, bottom decorated toe cap (photograph by author).

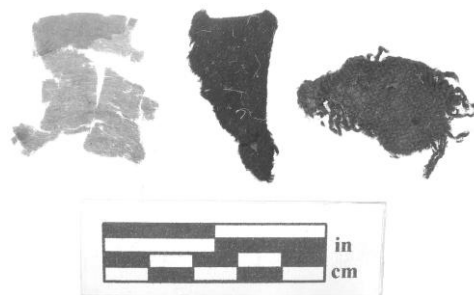


Figure 5.3 Textile fragments: silk blend, cotton, wool (photograph by author).

included rust and green but black was most common.

Items related to the occupation *qh'o kpi 'y gtg'cuq'gxkf gpw'0'C 'o kptu'dqqv'y cu'* located in the front row cottage privy, as shown figure 5.4. The cleats on the sole would have assisted miners in gripping the mine floor, especially if it was steeply sloped. A tin water bottle was identified, shown in figure 5.4. Bottles like these are evident in several historic photographs. Water bottles were very important; miners did not want to be underground without any water. The personal items identify the gender of the



Figure 5.4 Tin water bottle, miner's boot both from the front row cottage privy, test 1 and 2 (photograph by author).

residents. Artifacts that once belonged to women, such as mother-of-pearl buttons, silk stockings, garter clasps, and shoes were located in the bakery privy, front row cottage privy test 1, front row cottage privy test 3, and of course the town dump. It is likely that women were present in the majority of households. Child rearing activities are also evident from a soother, found in the front row cottage privy test 3. Other items of interest include various beads, trinket box covers and pocket watch faces.

5.2.3 Health and Hygiene

Many of the items relating to health and hygiene are patent medicine bottles, as shown in figure 5.5. Two of these were quite popular cure-alls, O kptfauNkpo k [sic] cpf'F t0Vjqo cu0Gergevte[sic] Oil both found in the front row cottage privy test 2. Uqo cej "tgo gfkuy gtg"cuq'kf gpvkfg0GpqauHwk/Ucn/cpf'D tqo q'O kpgtcnUgm|gt." (seen in figure 5.6) were found in the Duplex privy. Although Lille had a hospital, residents probably looked after themselves as much as possible, because of the cost of

medical care. This may also have been a way to hide sickness from the company and continue working despite being ill. Also, medicines from the early part of the 20th century often contained a high amount of alcohol. Taking medicines high in alcohol content would have been more acceptable, particularly for women, instead of outright alcohol consumption.



Figure 5.5 O g f l e k p g " d q w r u < l u g e q p f " h t q o " h g h F t 0 V j q o c u o G e n e v t k e " Q k n " e g p v t g " O k p c t f a u N k p l o k p v * r j q q i t e r j " d { " c w j q t t 0



Figure 5.6 U v q o c e j " c k f u < h g h D t q o q O k p g t e n U g n | g t " c p f " t k i j v G p q a u H t w k U c n " (photograph by author).

Other personal items were identified including a comb, shaving mug, shaving lotion bottles and mirror fragments. The shaving lotion was Frostilla, a fragrant skin lotion used by both men and women, but particularly by men after shaving. The shaving mug, shown in figure 5.7, is made of lead-based pewter. This is identified from the pock marked appearance, called pewter disease. Pewter disease is common during corrosion of lead pewter (Light 2005:15-38). The newspaper fragments, in English, found in the cabin privy test were placed in the toilet paper category, based upon their context.



Figure 5.7 Pewter shaving mug (photograph by author).

5.2.4 Indulgence items

The liquor-related remains present in the assemblage can be linked to the accounts of the Crowsnest Pass as a wild and woolly place. The Pass had several breweries with warehouses that were large enough to store several railcars worth of beer (Felske 1991:434). However, drinking behaviour was discouraged by companies. The worst time for companies was after payday, when miners were often drunk or hung-over.

Drunkenness was such a problem that often these days would be taken as holidays.

Miners in these conditions were unsafe in the mine. Liquor licences were strict in the area, and people were not to be served after a certain hour. However establishments did not always follow these regulations, and could be fined (Babaian 1984:78). Hotels even had a room in which men could sober up. Several men in the area died of alcohol poisoning, including three from Lille; a man was found dead on the road between the hotel and the hospital (Felske 1991:434). There were even liquor peddlers who sold door-to-door (Babaian 1984:81). The Lille liquor store was owned by the manager of the Lille hotel, a friend of J.J. Fluetot. After the abandonment of Lille he set up shop in Blairmore.

Alcohol bottles found in the privies include those for imported Dutch gin, imported whisky, imported Italian bitters, and beer (see figure 5.8). Remains of gin case bottles were found in the duplex, front row cottage privy test 2, back row cabin privy, and hotel terrace. The remains of two imported Italian Fratelli Branca bitters were found in the Duplex privy and the town dump. Whisky bottle remains were found in several privies. The most expensive identified, imported Peter Dawson Scotch, was found in the front row cottage privy test 2. A large amount of beer bottle remains was also identified in the town dump, front row cottage privy test 1 and test 2. Various tobacco-related items were identified. The majority of these are the lids from Copenhagen snuff tins. Snuff would have been used in the mines, as smoking would



Figure 5.8 Alcohol bottles from left to right: beer bottle ; Imperial whisky bottle; whisky flask; wine bottle; Dutch gin case bottle; probable alcohol bottle; Fratelli Branco Bitters bottle (photograph by author).

have been dangerous, although miners occasionally broke this rule 0"Vy q'O eF qp cnfau" Brier cut tobacco cans were located in the supe tlpvpgf gpvau" fgr tguukqp "cpf Htqpv'tqy " cottage privy test 2. Also recovered y cu'c"ecp'hqt"J wfuqpauDc{ 'Ko rg tkcnO kzwgtg" tobacco found in the second large depression unit. This was a premium blended tobacco, registered in 1909 (J wfuqpauDc{ 'Eqo rcp{2005). The duplex privy contained remains from 2 composite pipes, indicating pipe smoking.

Although discouraged, alcohol consumption was not illegal in the company towns. The duplex privy and town dump contained the majority of the indulgence items. Although the duplex privy deposit yielded a total of 87 alcohol consumption items these represented a minimum number of only six vessels. Alcohol consumption was evident in the majority of the excavation units. The only tests without any indulgence items were the front row cottage privy test 3, the bakery veranda and interior tests.

Evidence of modern intrusions was identified and these were placed in the beverage consumption sub-category. Beverage consumption was represented by several carbonated drink remains. These included a Pepsi Cola crown cap, stamped YOU MIGHT WIN ö."cpf "c'Rgruk"eqrc"dqwg.'y kj "c'F qo kpkp"I rnu'E qo rcp{ 'b mgtu'b c m" indicating it was made in pair #9, mould # 2893, at the Redcliffe, Alberta plant in March/April 1968. These were found in the town dump test. In addition, a Fanta crown cap was found in the front row cottage test 3. It is labelled in both official languages, and therefore a *terminus post quem* of 1974, the date of the official languages act (Treasury Board of Canada Secretariat 1996). No doubt these items illustrate hikers or campers who visited the town site.

5.2.5 Recreation

Evidence of hunting activity was recovered in several of the deposits. However, residents were probably not supplementing their diet with wild game given the lack of butchering marks on the bones of the wild species identified. Remains relating to hunting include ammunition and remains from several wild species. These include snowshoe hare, jack rabbit, hawk, and *Martes* sp; either a fisher or a marten. It is likely that the mammals would have been trapped.

Toys were located in the front row cottage privy tests 1 and 3 and back row cabin, indicating children were present at these households. Several similar pieces of non-lead peach glaze parian ware were identified as well. Based on their shape, colour and material type they are probably doll parts (Kulle et al. 1998:280). Fragments were located in front row cottage privy tests 1 and 3, the back row cabin privy, and the town dump, (figure 5.9). Fragments of green glazed earthenwares from a little tea set were also found in the front row cottage privy test 1 0"C 'b gmgf"ecvü'g{g'b ctdrg'y cullocated

in the back row cabin privy test, but because of the melting it was impossible to tell if it was machine or hand made (Randall 1971:105). Front row cottage privy test 3 also contained the remains of a sub-adult house-cat. Pets are also indicated by the dog licences that the company sold to residents (Felske 1991:446).



Figure 5.9 Toys from left to right: porcelain doll parts, toy tea set fragments, and melted marble upper right corner (photograph by author).

A skate blade was located in the duplex privy, see figure 5.10. Skating and hockey was enjoyed by residents, as seen in figure 5.11. As reported by Cousins (1981:101), residents also enjoyed soccer and horseshoes.



Figure 5.10 Skate blade (photograph by author).



Figure 5.11 Lille hockey participants and spectators, ca.1906-1907 (photograph courtesy Glenbow Archives NA-3903-114).

Several mouth organ draw reeds and combs were identified in the cabin privy, front row cottage privy test 2, and front row cottage privy test 3, see figure 5.12. Mouth organs were inexpensive musical instruments. Portable instruments like these were probably quite popular with individuals; as previously stated, there were music bands in the Pass. Furthermore, larger instruments, such as pianos would not have been practical $hqt'vjg'uo\ cmlurcegu'qh'o\ kpgtuø'tgukf gpegu$ and likely out of their range financially.

Artifacts relating to recreation illustrate a variety of activities enjoyed in Lille. $Kpfk\kwcu'ecp'cnuq'dg'uggp'vj\ tqwi\ j\ 'vj\ gug'kgo\ u'uwej\ 'cu'vj\ g'o\ qwj\ 'qti\ cp'cpf'ej\ knf\ tgpuø'$ toys. Residents of Lille occupied themselves with various activities which involved the whole community. Through these activities residents would have been able to fraternize and build social bonds essential to the community. In addition these activities would have allowed different families to get together. Although they did not involve

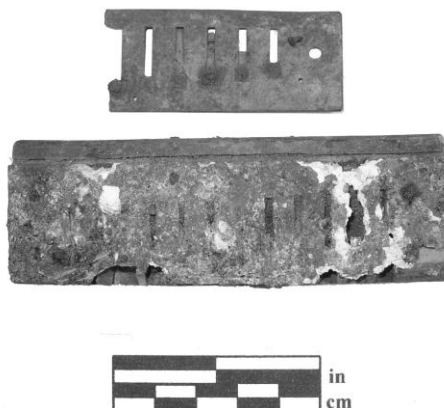


Figure 5.12 Mouth organ draw reed and comb fragments (photograph by author).

themselves in town affairs related to the company (Felske 1991:446), residents were socially involved with each other.

5.2.6 Foodways

Artifacts relating to foodways are important to the discussion of the socioeconomic status of the residents Lille. The application of economic scaling to, for example meat cuts and ceramics, can provide indication of the relative expenditure by various families or residents. Consumer choice may also be revealed, choice determined by the availability or otherwise, both of foodstuffs and tablewares. Items such as ceramics and meat cuts have been studied in detail through economic scaling (Landon 1982, Miller 1980, Spencer-Wood 1987). As well, these items may infer consumer choice, and what goods were available at the time in the area.

5.2.6.1 Kitchenware

The Kitchenware category consisted of enamelled tinware mixing bowls, found in the front row cottage privy test 1. A copper kettle lid was found in the front row

cottage privy test 2, and a ferrous metal frying pan handle was found in the front row cottage privy test 3.

5.2.6.2 Multi-use food storage containers

Containers which could be resealed were placed in this category. These included both tin cans and crockery. Cans which could be resealed, identified by their closures, included an E.D. Smith food slip lid, which was likely a container for pie filling. Also identified was a Magic Baking Powder can slip lid, and a com rrgvUy kmaSilver Leaf brand Lard pail, with a 1.8kg capacity. These were all manufactured in Canada. The GF 0Uo kj 'tkf'ku'wco rgf'y kj 'Y kppc.Qpwtkq.'cpf'vjgUy kma'rtf'rck'ku'kf gpwk'gf'cu' coming from Winnipeg, Manitoba. Magic Baking Powder has been manufactured in Canada since 1897 (Kraft Canada 2006). One slip lid not from a Canadian product was vjcv'qh'c'eqeqc'rqy fgt'ecp.'wco rgf'öLU0HT ["('UQPU'EJ QEQNCVG"('EQEQC ." OCPWHCEVWTGTU'VQ 'J @ 0vjgMKP I .DTKUVQN'GP INCP F ö0Ceramic items were predominantly crockery with an external Bristolware glaze, and internal brown inc|g0"Qpg'htcio gpv'ku'rckpvgf'kp'dwng'öKO RGö*TKCN+but, further information could not be found.

5.2.6.3 Single-use food storage containers

Wholesalers in the Crowsnest Pass ordered in nearly 40,000 cases of canned goods annually. Smaller businesses brought in an additional 10,000 cases. If each case held 48 20oz. cans, this could have resulted in 2 cases per person annually given on the population of the Pass (Babaian 1984:71). Such a calculation is confirmed by the large number of metal containers in the assemblage, (making up 20.4% of the recoveries). This quantity is similar to the assemblage from the Ludlow tent colony and Berwind sites (Walker et al. 2002). Residents probably had to rely heavily on pre-packaged

foods, especially for produce. The climate and soil conditions (the result of the altitude) at Lille would not have supported successful kitchen gardens. Cultivated plots are not visible in photographs, nor is there evidence of appropriate tools in the material remains. Other items were common, such as possible evaporated milk cans (cans with punched holes), and sardine-type cans. Hardesty (1988) states that tin cans may provide a time marker for a site. All of the cans from Lille correspond to the time of occupation; all are sanitary cans, with open top or hole-in-top ends, as is to be expected from an early 20th century site.

The majority of the cans probably came from Canadian suppliers, as indicated by several examples, for example, *Evaporated Milk Co.* However, several of the cans speak of imported goods from Italy. These include imported olive oils and tomatoes, as seen in figure 5.13. This indicates that the Italian population of Lille had access to familiar goods, although by what route is unknown. Residents of the Pass were able to have fashion shipped in from New York; it is probable that they were also able to request Italian items, given the railway connections. The Italian products may also speak of a market preference.

As the records indicated, it would appear from the number of cans identified, that packaged food. Although residents of the Pass were connected to a larger economic market by the C.P.R., they were isolated enough to necessitate a heavy reliance on pre-packaged instead of fresh foods.

5.2.6.4 Tableware

The ceramics in the assemblage vary in quality, from earthenwares to porcelain.

Earthenwares are typically much less expensive than porcelain and for this reason



Figure 5.13 Imported tomato cans (photograph by author).

ceramics are good indicators of wealth and status (Miller 1980, Spencer-Wood 1987).

Two of the front row cottage privy deposits have ceramic pieces with the same

four tile pattern, shown in figure 5.14, which possibly indicates that they were purchased

from the same place. The 1901 Fall/Winter Gove's Catalogue of the complete table

setting with the four tile pattern. A complete 40 piece Gove's Catalogue set cost

\$2.39, while a porcelain set cost \$2.80 (Gove's 1901:194). An ironstone flatware

fragment was found in the front row cottage privy test 1, which had part of a CPR

decoration. Other identifiable patterns include several sherds with the later version of

the four tile pattern which dates from 1880 to the present (Sussman 1979:235).

This was found at several tests, including the front row cottage privy tests 1 and 2. The

ceramics include both vitrified earthenware and porcelain, and several vessel forms are

represented, including saucers, plates and tea cups. Several of the porcelain sherds have

a darker blue pattern than the vitrified earthenwares. Ceramics with a flow blue pattern were also identified. The fragments come from the front row cottage privy test 3, and appear to be the same pattern. The fragments include both vitrified earthenware and porcelain. The majority of the porcelain pieces are polychrome under glaze transfer prints from hollowware vessels, quite possibly teacups. Vitrified earthenware teapot fragments were located in a front row cottage privy, with a Jackfield-type, or black glaze.



Figure 5.14 Ucwegt'y kj 'vj g'öur tki ö'r cwgn, (photograph by author).

The ceramics from the hotel include porcelain tea cup fragments with a blue non-lead glaze over a clear glaze. This assemblage also contained an earthenware tureen cover with a blue under glaze transfer print and hand painted gold gilding. This is highly fragmented, probably in part due to its un-vitrified nature. A vitrified earthenware tureen cover with a floral green transfer pattern was found in the front row cottage privy, test 3. Both of the transfer prints on the tureen covers are second

transfers, recognized by gaps in the pattern, or lines that do not match up. This indicates that these items would have been less expensive than those with original transfer prints.

Vjg"jqvnu"egtco leu"cr rgct"q"j cxglncluded cheaper and more costly wares.

From the hypothesis that socioeconomic status differences would be evidenced at the site based upon occupational status and location within town, one would expect the superintendent to have the most costly items, followed by the front row cottage residents, the duplex residents and finally the back row cabin residents. However, the cabin tests produced more porcelain than the duplex residents. This may indicate that although the cabin residents experienced lower social status than the duplex residents, they used goods associated with a higher socioeconomic status, (see figure 5.15). It seems, therefore that even though their status was ascribed to them, they were living above that status. This would indicate agency, where residents are making active choices about the goods they were purchasing and the lifestyle they were living, regardless of what management thought.

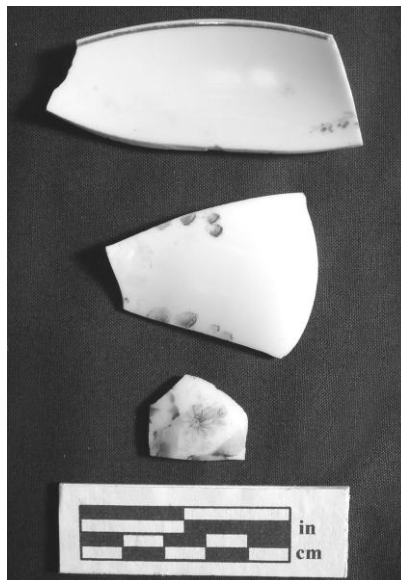


Figure 5.15 Porcelain fragments; the top two are from the back row cabin privy, the bottom from the mine superint gpfgpva"fg r tgu kqp(photograph by author).

Vjg"b c lq tkv{ 'qh'vjg'egtco le"b cngtuø"b ctnu"q tki kpcvgf 'kpD tkckp0"V j gug"

included: T. and R. Boote, W.H. Grindley, Alfred Meakin, Dudson, Wilcox and Till, and W.F. Winkle and Company. The T. and R. Boote and Alfred Meakin ceramics were undecorated ironston. W.H. Grindley was the manufacturer of the flow blue pieces; unfortunately, the pattern name could not be read. Dudson, Wilox and Till were identified as makers of the sprig pattern items, as well as a blue under glaze transfer r tkp0Y 0H0Y kpmg'y cu'kf gpvkfg'd{ 'c'rctvkn"b cngtuø"b ctnu"K'y cu'hqecvgf 'qp"c vitrified earthenware serving dish, with a teal green under glaze transfer print. This rncvgø"rcwgt p'ku'uko kct"q"qvjgt excavated ceramic fragments included a cup rim. Three items were not made in Britain; these included pieces with a Mortiz Zedkaur mark, an Austrian company, an unidentifiable mark, (shown in figure 5.16), and a ðMade in Japan östamp. All of these have dates contemporaneous to the time of occupation at Lille, from 1890-1945, including the ðMade in Japan östamp, which began to appear on ceramics as early as 1900 (Costello and Maniery 1988).

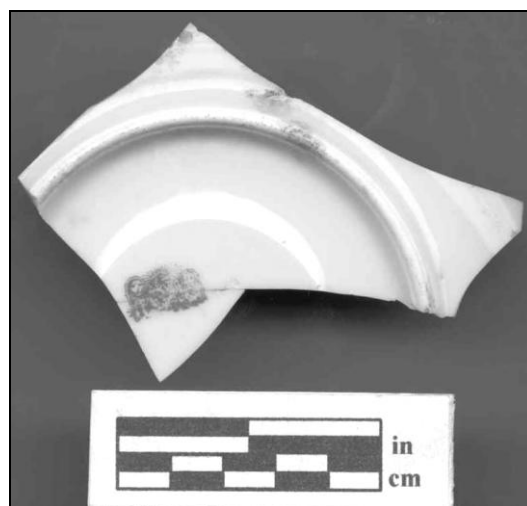


Figure 5.16 Unidentified makers mark, (photograph by author).

Other tableware items included fluted glass tumblers, and cutlery. Due to corrosion, the cutlery has degraded and can be identified as tinned steel, rather than silverware. These specimens were found in front row cottage privy tests 1 and 3, and in several of the residential tests. The cutlery was all of the plain tipped design, which was cheaper than other patterns. Although lower priced, all but one of the cutlery items

hwpf'y kj "j cp fngu'y gtg'kf gpwkgf "cu"j cxkpi "vj ku"rcwgt p0Vjg"3;23 HcmY kpgtGcvqpau catalogue sold plain tipped table forks for \$2.97/dozen, while the decoration in the mid range sold for \$3.63/dozen and the most expensive sold for \$4.63/dozen. This may indicate matched sets. An enamelware pitcher was also found in the front row cottage privy test.

5.2.6.5 Subsistence-related Faunal Remains

As identified in figure 5.1, Lille had a meat shop. The subsistence-related faunal remains from Lille indicate that a variety of cuts were consumed. It is unknown if any livestock was raised in or on the outskirts of town. Stables are indicated on maps, but these are assumed to be for the pit horse used in the mines and wagons for travel. However, chickens were raised on site (Felske 1991:446). It is also unknown if butchering occurred in the town site, or in a completely separate location. Discard items were recovered, possibly indicating either that primary butchering occurred, or that larger cuts were cut down to size. This behaviour has been observed at many sites. It is likely that the meat shop cut to size, depending upon the client, be it the hotel, or a resident. It is also possible that a butcher may have travelled amongst the Pass communities doing primary cuts, and residents did secondary and tertiary cuts thereafter. Table 5.4 lists the cuts recovered from various units. Based upon the remains, the duplex residents ate the widest variety of meat. Rib cuts were present throughout the

Table 5.4 Identifiable Meat Cuts Represented and Association

Association	Beef cuts (MNI 4)	Pork cuts (MNI 4)	Sheep or Goat cuts (MNI 3)	Chicken count (MNI 10)	Fish count (MNI 1)
Uwrgtkpvgpfgpva" Depression				18	
Front row cottage privy test 1	rump roast, ribs			1	
Front row cottage privy test 2	chuck roasts, shoulder roasts, cross- rib, blade roasts, steak, ribs			3	
Front row cottage privy test 3	rump roast, rib roast, chuck roast, steak, ribs, veal brisket, soup bone	hams, picnic shoulder, shank, hock, feet, ribs	forelimb discard	72	3
Duplex	sirloin steak, ribs	picnic shoulder roast, head, feet, hams, chops, shoulder butt	chops	301	
Back row cabin	chuck roasts, shoulder roasts, cross- rib, blade roasts, sirloin steak, ribs			2	
Bakery interior		feet			
Town dump	roasts, foetal bone, steaks, ribs			2	

entire town assemblage, including beef and pork. Ribs can be evidence of various cuts, including rib roasts, brisket, steaks and ribs. Pork was mainly from the duplex privy and town dump (Kennedy 1982:35).

The results indicate a preference for beef, as it made up the bulk of the subsistence-related faunal remains (Kennedy 1982). This probably reflects personal or perhaps even ethnic choice. The meat cuts represented indicate choices reflecting meals that would feed a family-like roasts, hams and soups. The most expensive cuts appear to be steaks, which would be individual portions. Steaks were evidenced in the front row cottage privy tests 2 and 3, the duplex privy deposit, back row cabin deposit, and town dump. Chicken had the highest count of Minimum Number of Individuals as they are smaller than the other fauna found. This would have been the least expensive as residents could have raised their own chickens in the coops they rented.

5.2.6.6 Subsistence-related Organic

Of particular interest are the materials that I obtained from flotation of two soil samples taken from the second large depression. These soil samples were contents from a sealer, (see figure 5.17). The contents included grape seeds (Martin and Barkley 1961:112), stems and skins, glass, coal slag, small rodent bones and insect parts. This indicates that raisins were consumed at Lille. Egg shell fragments were also found in the front row cottage privy test 3.

5.2.7 Furnishings

The majority of items related to furnishings were chimney lamp pieces, not only the lamp chimney glass, but also a thumbscrew and stem for the reservoir (Woodhead et al. 1984:61). Two pieces of wall paper were also located in the second large depression test (see figure 5.18). The wall paper was embossed, and had a green and brown print.



Figure 5.17 Sealer contents clockwise: glass fragments, small mammal ribs, eggshell, grape skin and seeds, grape stems, insect carapaces, coal, and coal slag (photograph by author).



Figure 5.18 Wall paper fragment (photograph by author).

The back of one fragment appeared to j cxg'c'b amgtu'b cm'qp'k'daTCQö0"J qy gxgt" consultation of *Wallpaper Identification of Manufacturers Marketing Wallpaper in Canada* did not reveal the full manufacturer name (Leung 1980). In fact, the combination of RAO did not appear at all. It is thought that this combination of letters may be part of the design name.

5.2.8 Household Maintenance

Several items were related to laundry (figure 5.19), including numerous clothes-pin
ur tpiu."c'O tuUgy ctwDnwpi "dqwr"cpf "c'uo cm'ucf'ktqp0Mggrkp i 'emvjg clean
would have been a constant struggle for residents of the community. Not only would
coal dust have been a factor, but the smoke from the coke ovens would have filled the
air with particulates. All of the laundry-related articles came from the three front row
cottage r tkx { "vguv."vjg"lwr gtpvfpf gpvu "fgr tguukp "cpf "vjg"vy p "fwo r0Also identified
was a paint brush, 2.5cm in width, which is missing its handle.



Figure 5.19 Laundry related items from left to right, including a bluing bottle, washboard glass, and sad iron (photograph by author).

5.2.9 Communication

Several communication items were found relating to newspapers, and letter writing. These included an Italian newspaper fragment, found in the second large depression. This is not classified as toilet paper, due to its context. An ink bottle was found in the front row cottage test 3, and a pencil lead was found in the town dump.

5.2.10 Transportation

The transportation items included two horse shoe fragments from the front row cottage privy test 3 and town dump, and three railway spikes, found in the second large depression, hotel terrace and town dump. One of the horse shoe fragments, found in the front row cottage privy test 3, was very large, and likely for a draft horse. Horse shoes may also have been used for recreation, as playing horse shoes was reported (Cousins 1981:44).

5.2.11 Commerce

The Commerce classification included two pieces of currency namely an 1882 British pence, made using the H die, and a 1916 Canadian penny (both shown in figure 5.20). The 1882 pence, found in the front row cottage privy test 1, was quite worn. The moving of several of the buildings off of the town site (Kennedy 2005: personal communication). This did come from the second large depression, where a house may have once stood.



Figure 5.20 British 1882 pence and Canadian 1916 penny (photograph by author).

5.2.12 Architectural

Architectural items were found at all of the units, beyond the ubiquitous wire nails and flat window glass. A ceramic door knob, made of clear glazed porcelain parian ware was found in the cabin privy test unit. According to Light (2000:19), ceramic knobs were the least expensive at the time. There were also two T-strap door hinges and two fragments of brick which did not have a brand.

5.2.13 Industry and Maintenance

Several items were placed in the industry and maintenance category, since they were connected with industrial activity at the site. The artifacts included machinery parts from the front row cottage privy test 3 and back row cabin privy. Also included in this category were two oil cans found in the front row cottage privy test 3 and the back row cabin privy test. Eight fragments from a gas can, with an oval plate stamped "RCVGPVGF '3 : ; - 3 ; 22ö and crimped tubing were found in the bakery privy (shown in figure 5.21). In addition to machinery parts and maintenance items, several pieces of coal and slag were found in the town dump test.



Figure 5.21 Gas can, (photograph by author).

5.2.14 Unidentified Function

Within the assemblage, the specific function of various items could not be identified. Large amounts of container glass and metal were retrieved. Several complete bottles were located, but their contents were not identifiable. A heat-treated chert core (shown in figure 5.22) was recovered from the bakery privy test. This core may have been mixed in with the large rocks present in the bottom of the privy. The more interesting items are discussed below.



Figure 5.22 Heat treated chert core (photograph by author).

5.2.14.1 Container glass

A fragment of a milk glass jar rim with USA painted in green may be identifiable as a cold cream jar; but other substances were also placed in these types of jars. Bottle fragments with various markings were identified, including those of the Dominion Glass Company and the Beaver Flint Glass Company (Toronto, Ontario, c. 1897-1948), both of which made a variety of bottles for various uses. A small colourless glass bottle, measuring 4.7cm from base to shoulder was recovered, with gold paint present in the

and decorating letters (Sears 1902:263). An aquamarine glass bottle was recovered from the hotel terrace test, which was enamelled with orange black and white. Unfortunately, the breakage pattern makes the label indiscernible. This bottle is a post abandonment intrusion, since applied colour labels date to after 1935 (Miller et al. 2000:8). A complete, aquamarine flask-shaped bottle was also found in the duplex privy test.

5.2.14.2 Faunal

Unidentifiable faunal remains included small fragments of bone, which could not be assigned to species. Burnt bone was also placed in this category since burning activity was, and still is, often practiced in a privy or at the dump to minimize odour and content. Small rodent bones were also placed in this category, as it is likely intrusive.

5.2.14.3 Metal Objects

The majority of metal objects were can fragments, mainly seams and body pieces. These were placed in the unidentified category as cans were used for other goods than just foodstuffs. A complete can, with "Coca-Cola" label, was found in the town dump test. Additional information could not be found for this can. In addition to cans, metal buckets were also identified in the front row privy test 1. Part of an aluminium novelty decorated with scrolls was recovered from the bakery interior test. A variety of metal hardware including screws, nuts and bolts was recovered, as were numerous pieces of wire.

5.3 Discussion

The artifacts recovered from Lille indicates that residents were enjoyed a variety of goods. Local as well as imported items were identified. The imported Italian goods

signify the Italian population's presence, and ability to purchase items that were familiar to them. This is similar to other industry-related sites with immigrant populations. In their study of a work camp located in Arizona, Jeffrey Hantman and Jeanette McKenna attempted to discern the ethnic composition of the Tonto region. The Tonto region, an Arizona construction camp located in the Tonto region, which was composed of an Anglo, Italian, African-American and Native American population. Documentary evidence from the Tonto region Camp illustrated a strict ethnic division of labour and housing. Once artifact patterning was conducted, ethnicity was visible in the amount of types of alcohol consumed. It was found that the Anglo population consumed the most beer (Hantman and McKenna 1985:91). The Italian community was consuming Branca bitters, from bottles identical to those found at Lille. Documentary evidence revealed that saloon keepers in the Tonto region imported Italian bitters for their Italian customers (Hantman and McKenna 1985). Traditional social theory holds that ethnicity will be downplayed, or at least homogenized, in industrial sites because individuals had similar positions in the general labour force; however boundary maintenance was maintained in Lille (Bell 1998:33). It is also important to note that people will behave differently in public than they will in private. Ethnic differences will likely be more visible within the household. The Italian community at Lille is evident from both the documentary record and the artifact assemblage. This is similar to Lille, as the Italian inhabitants reportedly lived on the fringes of town.

From the material evidence present at the different units, status indicators such as ceramics and subsistence-related faunal remains reveal that despite the town being stratified, residents were not necessarily living in the prearranged way. Items associated with higher status appeared in the privy deposits of the back row residents by

comparison with what appeared in the deposits of the duplex residents. It would appear that the back row residents had higher status items in their privy deposit, when compared with that of the duplex residents. The duplex residents did enjoy a wide variety of meat, yet also had a limited variety of ceramics, seen particularly in the absence of porcelain. In a recent study of a Los Angeles aqueduct construction camp, Thad Van Bueren also found residents differentiating themselves through material culture. The work camp was also stratified, and Van Bueren found that two households displayed status differences through ceramics; however, they were similar in tobacco and alcohol consumption (Van Bueren 2002:38). The findings from the back row cabins at Lille appear to parallel Van Bueren's findings. There was a variety of porcelain, yet the tobacco and alcohol consumption was similar to that of the front row cottage residents. Despite the separate housing areas within the community, the class distinctions were limited. While some social distance was maintained, it appears that residents of the camp shared many habits (Van Bueren 2002b:39).

Hardesty found *laissez-faire* individualism present in the silver mining sites that he studied in 1988. Hardesty investigated several silver mining camps in Nevada from the early 20th century. He (1988:101) saw a poorly developed sense of community. This is possibly because the sites he investigated were occupied mainly by adult males with high mobility and cosmopolitan origins. On the other hand, Lille can be thought of in a contrasting way-so it can be composed of both family households and single men. The archaeological assemblages illustrate a shared sense of values, and community, even though residents of the Crowsnest Pass were also highly mobile. Despite imposed status differences, residents could enjoy a drink together at the hotel, or be part of a hockey or soccer team. As previously stated, miners often form unique bonds as a result of the

type of work that they do. It is not surprising to see them share these bonds outside of the mine and hence shared values.

Perhaps what it is most interesting is how *similar* the deposits are. Despite imposed status separations, the privy assemblages left by Lille residents are quite comparable. This could be for a variety of reasons such as availability of goods, or status expression through means other than material culture. This may also indicate that status separations were not as strong as the company originally intended. In fact, was town planning a result of imposed status differences, or simple convenience? Residents of the back row privies quite possibly lived above the lower status they were assumed to have had. Lille was a company town, and the company was paternalistic in nature. Despite this, residents were evidently able to negotiate place within in their own terms. Given their identity as a working class community, residents of Lille were active participants in a dynamic environment.

People in mining communities did have agency outside of the union. Power relations are important; capitalism is based upon them. Residents of Lille were able to live making small positive changes that would raise their social status, and build bonds through groups such as the Italian Society and through the sports teams. Regardless of ~~rcvgtprkno~~ ~~ø~~ ~~r~~ ~~tgugpeg~~ ~~cpf~~ ~~"vjg"~~ ~~ctuj~~ ~~"tgcrlgu"~~ ~~qh'o~~ ~~kpl~~ ~~i~~ ~~'lves~~, residents were able to better their lives. Material culture can be seen as meaningful action (Metheny 2002:24). The material culture from Lille indicates that life was far from perfect, yet residents were able to choose how they would live within a company town with some degree of freedom.

~~Vjg'lr~~ ~~cn~~ ~~"tgrv~~ ~~kp~~ ~~uj~~ ~~kru~~ ~~dgy~~ ~~ggp~~ ~~"vjg"~~ ~~fl~~ ~~ht~~ ~~gpv~~ ~~"tgu~~ ~~kf~~ ~~gp~~ ~~cn~~ ~~:-c~~ ~~tcu~~ ~~ø~~ ~~qh~~ ~~'qy~~ ~~p'y~~ ~~kn~~ ~~'dg"~~
discussed in the following chapter. These relationships will be linked to the artifacts

recovered from the different excavation tests, with special attention being paid to the indulgence and ceramic categories as they relate to socioeconomic status.

Chapter 6

A Spatial Analysis of Lille

6.1 Spatial Analysis

Space is lived in and experienced. The built environment is a metaphor for complex social and symbolic relationships (Dawson 1997:16). K'ncp"q'knwutcvg'Nkngau" space not only by descriptive methods, but also through some simple statistical tests. In an attempt to explore the space within Lille, several different spatial analysis techniques have been employed. Residential and business areas of the town were identified through the use of archival photographs and maps, as seen in figure 6.1. These figures also indicate what the actual buildings looked like during their use. In several cases the photographs allow one to see the growth of the town, as buildings and larger trees appear. Several research questions that will be investigated include: Does the town site of Lille exhibit any spatial patterning, and if so what form does it take? How confident can I be that the pattern is not random? The location of Lille itself was dictated by the eqcm'hqecvqp and the rail line. It was also the only level area for a town and coke oven plant. However the space within was possibly dictated by social conventions. How were the status differences illustrated spatially?

6.1.1 Spatial Theory

There is a large literature about spatial theory and philosophy of space usage which spans many different disciplines 0"oF qo kpcvqp."tgukncpeg."gttkqtkrkv/."

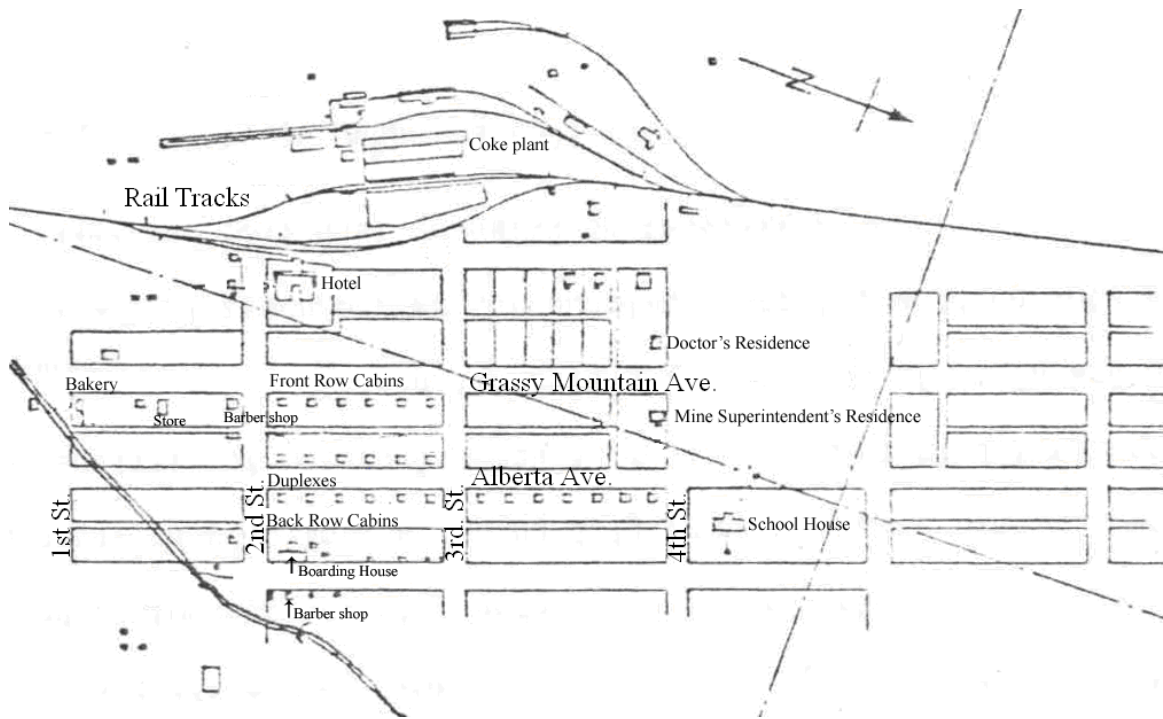


Figure 6.1 Plan of Lille town site, date unknown (adapted from Kennedy 1982).

appropriation and metaphor represent just a few of the ways that anthropologists, archaeologists, and human geographers have conceptualized the relationship between human beings and the built environment (Dawson 1997:13). David Clarke (1977:9) proposed that archaeology should concern itself strictly with spatial analysis as it deals with human activities at every scale. The following spatial analysis barely scratches the surface of possible options. The use of spatial analysis here is not an end to itself; rather it is included as an instrument which augments the artifactual analysis. In conjunction with the artifacts, the spatial relationships may indicate socioeconomic status differences and the possibility of paternalistic control.

In addition to observational theory, statistical analysis in archaeology is another way of perceiving space. Spatial analysis is an extension of observational equipment (Wheatley and Gillings 2002:125). Statistical spatial analysis attempts to identify

whether or not spatial patterning exists. Spatial analysis attempts to take out subjectivity

kp'o cr'cpcn{uku}*J qffgt'cpf'Q tqp'3;98<6+0"öKpwwkxg'cpcn{uku'qh'urceg'dqvj'öd{"

kpurgevkpö'qt'ög{gdcnkp i ö'ku'pq'hpigt'whekgpv.'pq t'cp'gp f'kp'kughö"E n tmg'3;99<7+0"

Several simple statistical tests were done in order to investigate any patterning in the

town. Further examination, through syntax analysis, was carried out. An introduction to spatial analysis of company towns will follow.

6.2 Spatial Analysis of a Company Town

Space should not be seen as a neutral container for human action, but instead as

c'o gcplp i hwn'b gflwo 'hqt"jwo cp'cevkpö(Wheatley and Gillings 2002:8). For example,

space would not exist without the buildings surrounding it. Beaudry and Mrozowski

(Beaudry and Mrozowski 2001) identify three moments of space; perceived, conceived

and lived. Perceived space is the concrete world in which daily life is lived. Conceived

space is planned space, such as maps and blueprints, and lived or representational spaces

are places which become the locus of social expressions. Examples of lived space

include theatres, museums, squares or plazas (Beaudry and Mrozowski 2001:120).

People often manipulate space in turn to influence the behaviours of other people living

within it. The human treatment of space is not regulated purely by physical

requirements of effort expenditure; öí "lk'ku_cnuq'chgevgf'd{ 'vj g'pggf'v'eqpukngpvw{"

differentiate between different categories of activity and between people of different

social status ö(Fletcher 1977:49).

The hypothetical town planner places houses in specific areas for a reason and

physical separation in a town may acquire symbolic significance (Jackman 1994:137).

The planner may understand the social differences and the relationship between parties

involved (Harvey 1985:176). The question may be why place things where they are and the answer would be the ideology of capitalism is one of class structure and status differences. Planners intended the structure of the company town of Lowell, Massachusetts, serve as an agent of social control (Beaudry and Mrozowski 2001:120). This may have been the case for Lille as well, although on a smaller scale. Nonetheless, the spatial ideology of the capitalists who planned it- with status separation; however, this social status may or may not necessarily have been strictly adhered to by its residents. One wonders whether or not the inhabitants accepted this imposition.

Leland Roth (1992:177) describes six planning categories for company towns: 1) layouts and housing designed by the company, 2) layouts designed by the company, housing designed by an architect, 3) layouts designed by a landscape architect, housing designed by locals hired by the company, 4) both the layout and the housing designed by two separate professionals, 5) both designed by one professional, and 6) conversion of an existing settlement. I am unsure whether Lille was designed as in number one or number two; however the former seems to be most likely. Lille was presumably planned by the company who owned the mine, West Canadian Collieries. The layout of company towns are important to the owners because they may need the land later for development (Allen 1966:50). Lille was built on flat terrain in a valley, with little need to worry about need to develop the land used for the town site later.

Often there are unwritten rules about how to plan space, as illustrated by Henry I. Glassie's work regarding the Georgian Order and social grammar (Glassie 1975). Glassie practiced structuralism, the theory that culture is governed by unspoken rules,

analogous to the relationship between grammar and language. The town of Lille appears to have been planned according to a social grammar. It was constructed with streets, *dm̩em̩u.'tqy u'qh'j qwugu.'cm'q ti cpk| gf 'kp̩q 'c'-'plegō'hk̩w̩g'eqo o wpk̩{* (The town had several named streets, including Grassy Mountain Avenue and Alberta Avenue, indicating both pride in the town, and a lengthy life expectancy. The most prominent feature in Lille was its hotel, which was located at the front of town, located on the main road to Frank. This hotel was very grand in appearance, suggesting the prosperity of the town; however it did face the redolent and dirty coke ovens. The business area was located in one area, also on Grassy Mountain Avenue. It included the bakery, liquor store, general store and a barber shop (as seen in figure 6.1). The three-room school house was located quite a distance from the rest of town. Lille also is reported to have had a hospital and recreation hall; however these are not identified on any of the available maps. The back row of cabins did not follow the grid organization. Although the boarding house was located on the grid, various other dwellings were located randomly. These cabins, called shacks in several of the maps, appear to have been placed with the logic of expediency and convenience, rather than any formal planning.

The nature of a company town has received attention from various historians (Allen 1966; Roth 1992), and historical archaeologists (Beaudry and Mrowzowski 2001; Knapp 1998). Mining communities may exhibit the following characteristics:

- 1) physical isolation, and a dispersed settlement system;
- 2) economic predominance of mining;
- 3) exacting, dangerous and periodic work;
- 4) occupational homogeneity and isolation;

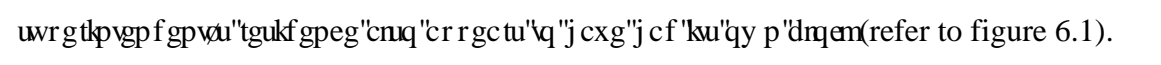
- 5) communal leisure activities (religious, sporting, drinking) where work remains the chief interest and topic of conversation;
- 6) sharply segregated family and gender roles;
- 7) economic and political conflict between miners and managers;
- 8) multiple and complex communal social relationships: solidarity, shared histories of work and living, inward focus. (Knapp 1998:6).

Lille exhibited many of these characteristics, but not all. As Lille was located in the Crowsnest Pass, it was part of a larger community of mining towns; however it was also isolated, being located away from the main valley. The economic focus was not only on coal mining, but coke production as well and after the coke market collapsed, so did the town. Sporting activities including the soccer team and hockey are illustrated in several historic photographs.

As a result of spatial separations which may be based upon status, people are likely to behave in a certain way. People of a higher social standing than they are. However, Lille was a small community, and it is unlikely that residents were confined to their homes and the immediate area surrounding it. Roland Fletcher (1977:62) studied a small scale settlement with different sub-groups within the community, and found that all must cooperate in order to survive. It is probable that residents of Lille behaved in a similar way, since it had a small population. An observational analysis of the house forms will now be briefly discussed.

6.3 Housing

House form is influenced by several different factors. In addition to sociocultural needs, architecture is also designed with environmental concerns in mind, including climate and available building materials (Dawson 1997:49). The houses of Lille were constructed using available materials such as wood in an architectural style common to the area in the early 1900s. Houses mean more than just the structure; they are created for a variety of complex purposes (Rapoport 1969:46). One of these purposes is to attempt to assert status. Some of the houses in Lille may have served as status symbols.

Spatial organization may be more important than architectural form (Rapoport 1969:46). The layout of the residential areas of Lille may have been stratified according to social status. Housing may have been an important symbol of the differentiation of status within Lille. It is assumed that the most prestigious house was for the mine superintendent. This house was also fairly far removed from the rest of town. Its nearest neighbour was the residence of the doctor, a person of some social standing. The  (refer to figure 6.1). The front two rows of housing may have been reserved for higher status employees of the mine and plant. It is also possible that employees with families were given these cabins. One privy was shared by up to four of these households. Behind the front two rows of housing was a row of six duplexes, which were inhabited by employees who may have been of lower occupational status than that of the previously mentioned employees. Duplex residents may also have been family units. Each duplex had its own privy. The back of town contained the boarding house, and a number of small log

cabins and dwellings, even though this was discouraged. Privies seem to have been located in various locations. The following observations are made from the use of historic photographs and maps. Like the majority of historical documents, these are communicative devices; they can be made with the intent to deceive, and as a result can be misleading. Their use, like that of photographs and other documents, has to be analyzed critically. It is noted that there are limitations in the available data.

6.3.1 Vjg'Uwrgtkpvgf gpa'gukf gpeg

Tjg'b'p'g'Uwrgtkpvgf gpa'j'q'wug'crrgctu'q'have been the largest residence in the town. From the photograph (figure 6.2), it is apparent that the house had two stories, and had its own privy. It was located in an area from which the rest of town was visible, possibly allowing for surveillance of the community. According to Allen (1966:79) the eqo rcp{ 'o cpcigt'j'q'wug'p'ku'w'wcm{ 'rger and imposing in company towns, and the uwrgtkpvgf gpa'j'q'wug'eqphq to u'p'vj'ku'tgi ctf0In addition, this particular house appears to be the only one of this design in the town.



Figure 6.2 The mine s'wrgtkpvgf gpa'gukf gpeg from the south, ca. 1910 (Provincial Archives of Alberta Negative # A.1753). The duplexes can be seen on the left, the hotel in the background righ v."cpf'vjg'f'qevq'p'gukf gpeg'qp'vjg'tki j'v0

6.3.2 Front Row Cottages

There appear to have been at least two rows of similarly constructed housing in Lille. These are identified as the twelve buildings northeast of the hotel (see figures 6.1 and 6.5). It is hypothesized that front row cottage residents were of a higher social status than others in town. For example one of the residents of the cottage pictured in figure 6.3 was the engineer for the Frank-Grassy Mountain rail line. However, one row of this style of cottages does face the duplexes. This may indicate that spatial separation based upon occupational status was not as critical as I originally expected.

The front row cottages were identical. They all appear to be the same colour as well; clapboard construction with white trim. It is not known whether residents were permitted to paint their houses. Allen (1966) found that in some company towns the painted houses had to be allocated to residents without their say, in order to stop arguments over a particular colour. Keeping a single colour for the houses may have been a strategy for keeping the peace. The elevation front row cottage plans were utilized to investigate differences between the ideal and reality. The actual house construction differs from the architectural front elevation, (see figure 6.3).

Space within buildings can also be examined; in this case a floor plan of a front row cottage was used. According to the floor plan shown in figure 6.4, the houses are 694.4 square feet in area, or 64.5m². Compared to today this would have been a fairly small space for a family, however contemporary homes would have been similar in size. The space inside a house is designated into specific activity areas. These cottages were planned to have two bedrooms, each with a closet, a living room, kitchen, bathroom and two porches. There were seven windows, two entrances and one fireplace. According to photographs, however, there were at least two less windows on the row of cottages

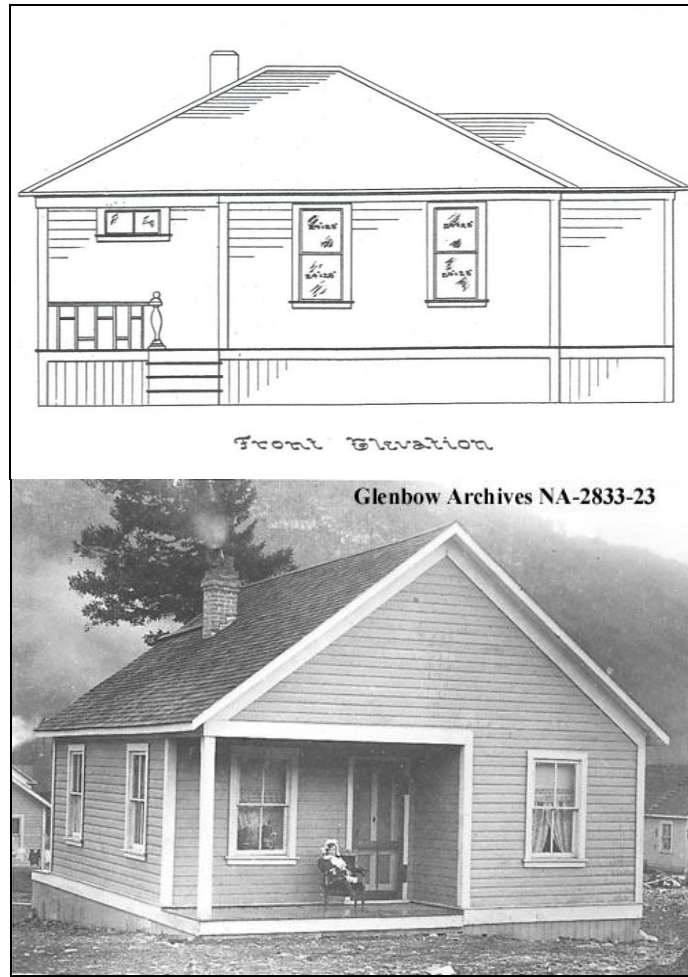


Figure 6.3 Front row cottage plan and actual cottage. (courtesy Glenbow Archives top unknown, bottom NA-2833-23).

facing the duplexes. The east side of these houses had no windows. Glassie found that houses in West Virginia had smaller and fewer windows over time (1975:140). In addition, the side entrance appears to have been situated at the back of the house. As the architectural elevation plans differ from reality, so too must have the interior. It is possible that the back entrance opened directly into the kitchen, thus eliminating the bathroom. It is further speculated that the back entrance would have been utilized more, as is common today. The degree to which the plan differs from the actual house is not known. One possible reason for the variance may have included cost efficiency. It

would have been interesting to compare the spatial interiors of the different house types in Lille, had the data been available.

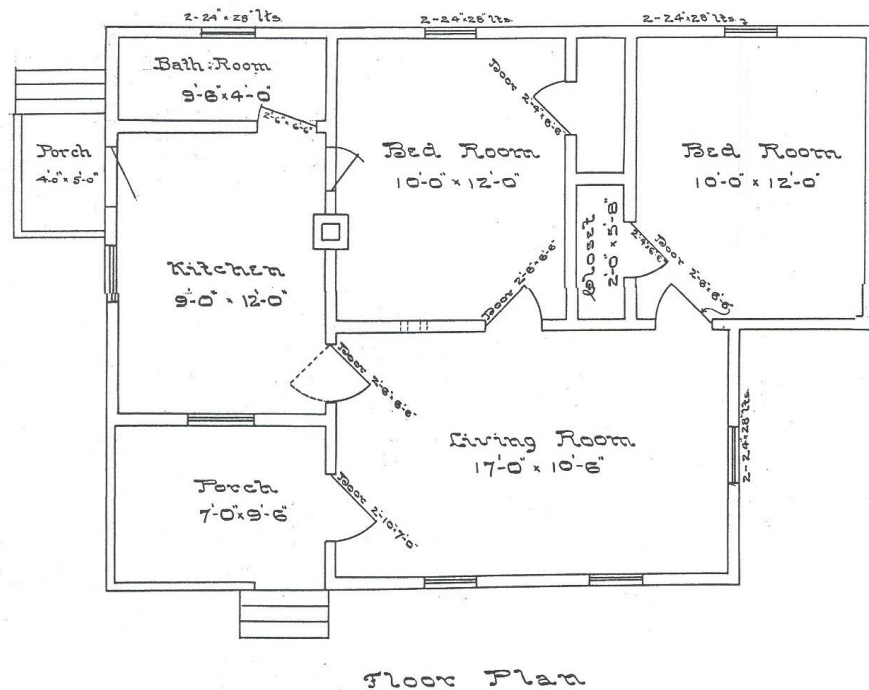


Figure 6.4 Floor plan of the front row cottages (courtesy Glenbow Archives).

6.3.3 The Duplexes

The residents of the duplexes are hypothesized to have been of a lower status than those of the front row cottages, and were probably employees of lower occupational status with families. Duplexes can be clearly seen from the overhead photograph of the town ca. 1906- 1909, as seen in figure 6.5, located behind the two rows of front row cabins. The duplexes were two-storey buildings, and appear to have been of similar area per floor as the front row cottages, as seen through maps and photographs. They also appear to have been of clapboard construction with white trim.

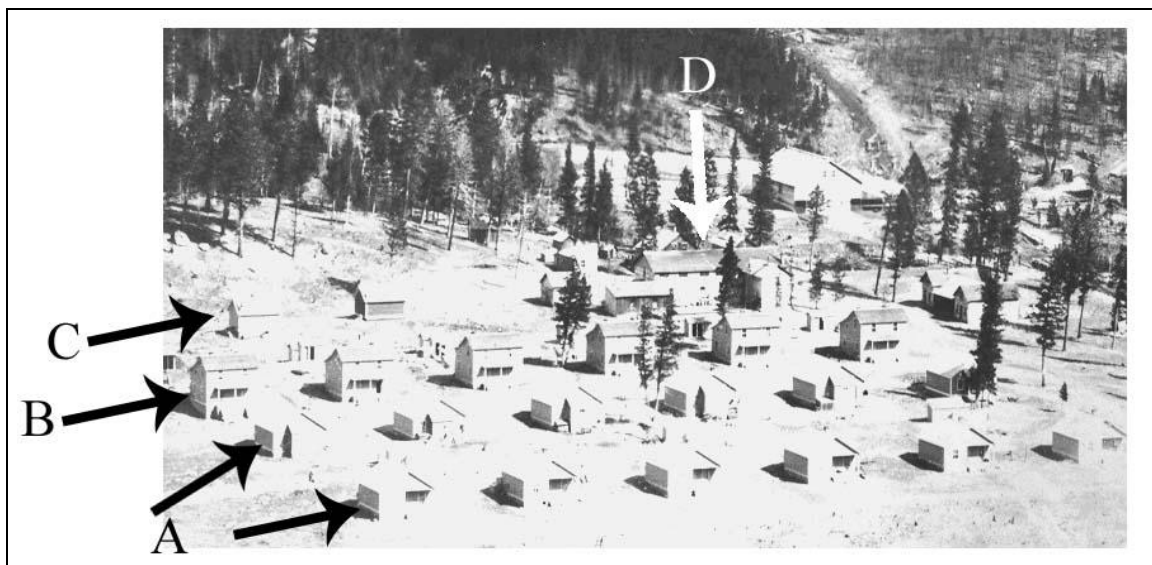


Figure 6.5 A) front row cottages, B) duplexes, C) back row cabins, D) the boarding house ca. 1906-1909 (photograph adapted from Glenbow Archives NA-2197-1).

6.3.4 The Back Row

The back-row cabins appear to be of similar construction, although they are located off the grid (figures 6.1 and 6.5). The boarding house was located at the back of the town, behind the duplexes, on the corner of 2nd Avenue and the back unnamed road. There are contemporary photographs of the boarding house (figure 6.6). Construction materials may indicate status as well. I rule out the wooden structure suggests that the closer to nature and living environment is, the further down the social scale one is (1975:125). The majority of the houses in Lille were built with sawn lumber; however, the boarding house was log construction.

There was a barber shop located next to the boarding house. This may also have had shower facilities, as did many barber shops of the day, which would have provided boarding house residents with a nearby bathing facility. It may also have been more convenient for the back row residents than using the barber shop located next to the front

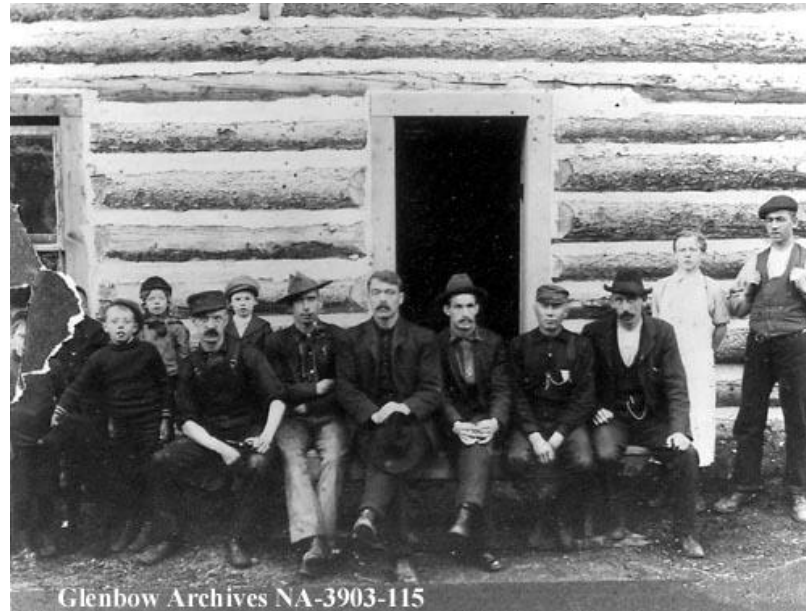


Figure 6.6 Men and boys in front of the boarding house, *eqmæu"j grgt'lp'y j kg."* ca. 1910-1911 (photograph courtesy Glenbow Archives NA-3903-115).

row cottages. Also worthy of note, there are more trees located at the back of town.

Building in this area may have been an attempt to escape surveillance by the superintendent.

6.4 The Image of the Town

Ceeqtfkpi "q'Cngpæu"tgugcte j (1966) companies rarely invested in beautification of their towns, giving profits to shareholders instead, so any improvements had to be done by residents. This may have been the case for Lille. Attempts to beautify the yards of Lowell were identified in the archaeological record (Beaudry and Mrozowski 2001:125); Lille did not demonstrate such beautification attempts. A paint brush head was identified in the second *æti g'fgr tguakp'pgzv\q'vj g'lwrgt'pvgp fgpæu"j qwugde* deposit; however, it was only 2.5cm in width, and was not necessarily used on a house. Trees and plants are not evident in modern or contemporary photographs of the town site. As far as yard maintenance is concerned there were no fences nor flowerbeds nor gardens

identifiable in photographs. Even the very prominent hotel had no real yard. Any trees present in the town appear to be natural. Tree growth is evident in several of the pictures, from figure 2.3 dated to 1906-1909, to those seen in figure 6.2, which probably dates later. Additionally, it may be that homes built of more expensive construction materials, lumber instead of log, were of a higher status. Although the house may not look *that* gran f .k'y cu'c'u{o dqn'qh'r qy gt'cpf'ucwu."gur gekm{ 'vj g'lwrgtkpvpf gpvu0" It can be assumed that displays of status were more obvious in the decoration of the interior of the home, as evidenced by the wallpaper recovered from a front row cabin privy test.

6.5 Spatial Syntax Experiments

A productive approach to exploring spatial relationships is through the use of spatial syntax, first introduced in 1976 (Hillier et al. 1978). Space syntax was created by John Hillier and Julienne Hanson. According to Dawson, Hillier and Hanson u{pvjguk|gf'Go kg'Fwtmjgkø øu'3: ;5*Division of Labour in Society* through the creation of space syntax (Dawson 1997:15). It attempts to examine theoretically and methodically the relationship between society and its architectural forms. Spatial syntax combines elements of observation with statistical analysis. It starts with mathematical principles which can then transform into patterns that the brain may not normally pick out. Spatial syntax attempts to represent spatial relationships numerically (Hillier and Hanson 1981:52). By using spatial syntax it is possible to investigate settlements through several unique perspectives, utilizing different aspects of space. Spatial syntax is used here to investigate the relationships between the different residential and business areas in Lille. Several spatial syntax experiments were performed on the floor plan of the front row cottages and the town plan.

The following is an example of how syntax analysis investigates building interiors. Tree networks illustrate how rooms within structures were arranged and related to each other. Rooms and entrances are represented symbolically as letters. Rooms which are accessible are connected with a line. The flow of traffic in the front row cottage is illustrated in this tree network (figure 6.7), as taken from the floor plan (figure 6.4). As previously mentioned, the planned interior likely differed in some respects from the actual cottage. As a result, this tree network illustrates the ideal arrangement for this style of house. The interior of the house is fairly well-connected with the living room and being the most central. Since a separate dining area was not present, meals were likely taken in the kitchen. The bathroom is the least accessible room. Rapoport says that the location of the bathroom illustrates ideas about privacy, and the body (1969). In this case it is located at the back of the house, and only accessible through several other spaces, indicating heightened privacy. It may also be indicative of the water line, and efficient plumbing. It would have been useful to compare the spatial interiors of the different house types in Lille, had the data been available.

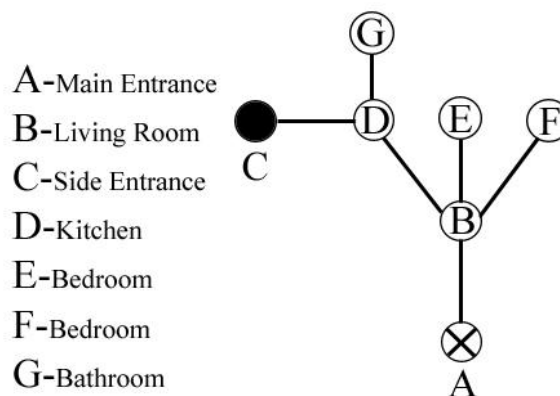


Figure 6.7 Tree network illustrating the flow and connectivity of the interior from the plan of the front row cottages.

Other spatial syntax analyses were carried out in order to investigate the relationship between the homes and businesses in the town. These relationships can be illustrated through the convex articulation, axial articulation, and relative asymmetry of the town. Convex articulation calculates how spread out, or incorporated the plan is as a whole. Convex space is the space or fattest possible space, in the system. A convex map is the fewest amounts of fat spaces. The Lille town map, (figure 6.1) has been transformed in the image below (figure 6.8). All that remains are buildings and the creek. The town site of Lille is composed of 22 convex spaces.

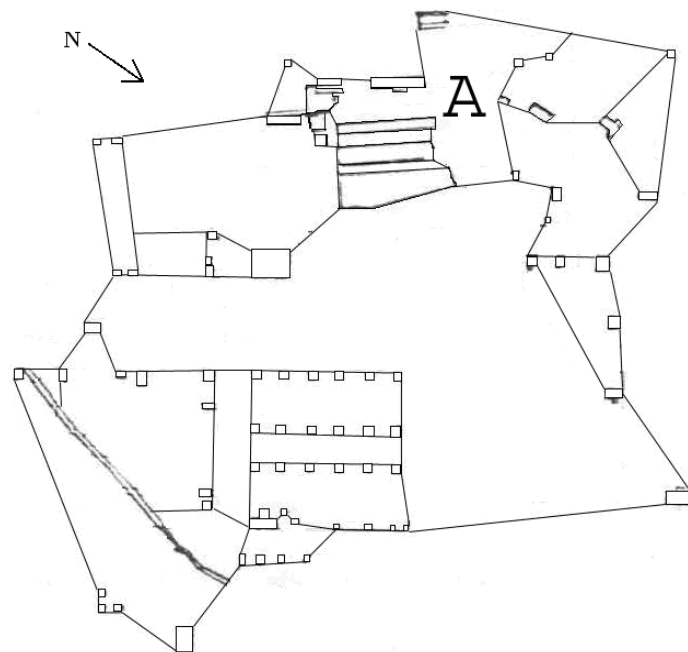


Figure 6.8 Convex map of Lille; A

In combination with convex space, axial space is needed. Axial space is the open space structure. It is the fewest numbers of straight lines which pass through each convex space. A straight line was placed through each convex space on the convex map. Repetition is not necessary, so there are fewer axial lines than convex spaces. An axial map illustrates these straight lines. The town site of Lille has eight axial lines, shown in figure 6.9.

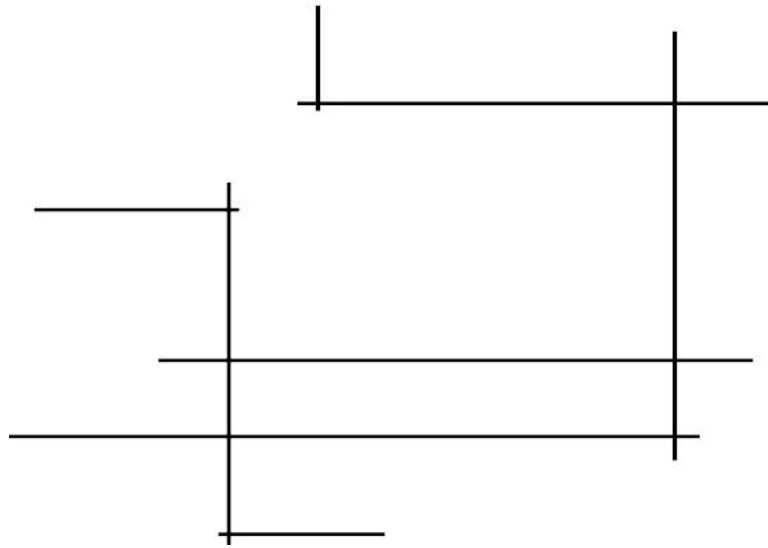


Figure 6.9 Axial map of Lille, same orientation as figure 6.8.

It is necessary to create both convex and axial maps, (as seen in figure 6.10) in order to investigate the space further through convex articulation and relative asymmetry. Creating these maps also makes one look at space differently, and become more familiar and intimate with the spaces being investigated.

Convex articulation is calculated by dividing the number of convex spaces by the number of buildings. Numbers should be between zero and one. Lower values indicate less break-up. The convex articulation of Lille is 0.29, indicating a synchronous plan.

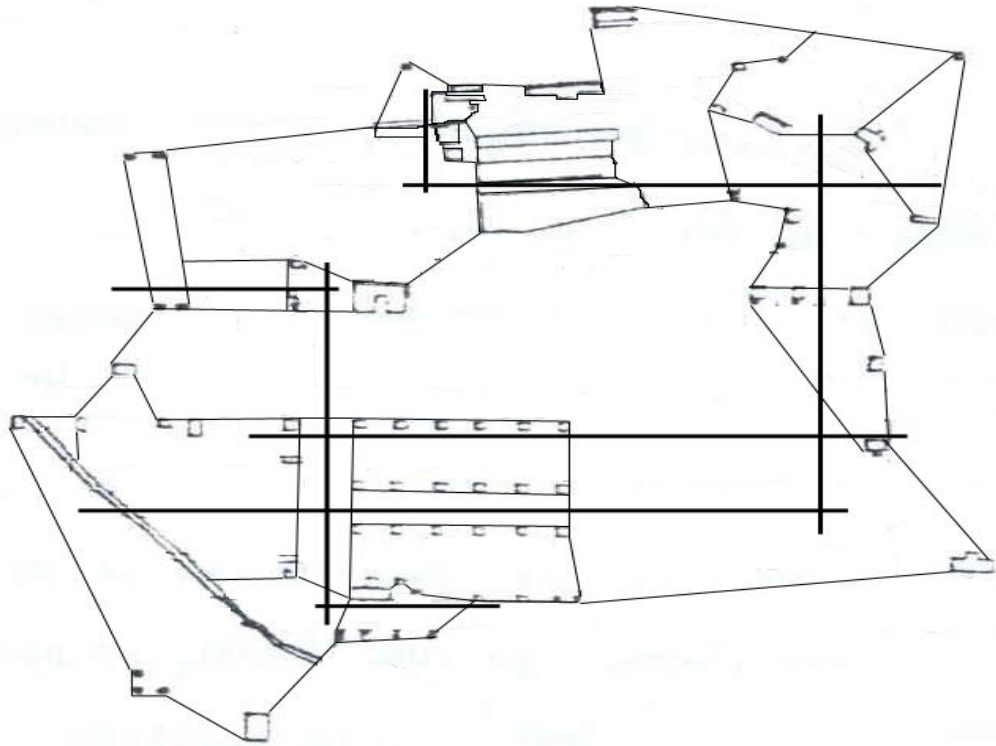


Figure 6.10 Convex/Axial map, same orientation as figure 6.8.

Axial articulation is calculated by dividing the number of axial lines by the number of buildings. Numbers should range between zero and one, with lower values indicating a
 jki jgt'fgi tgg'qh'öczkkrk{öÖLille has an axial articulation of 0.1, reflecting a close
 reliance on a grid. These results indicate that Lille has a definite grid and that spaces are
 fairly well integrated into the larger space.

6.5.1 Relative asymmetry

Relative asymmetry investigates how incorporated individual spaces are in
 relation to the plan as a whole. In order to determine the relative asymmetry of a space,
 it is necessary to calculate the depth of each space. The way to determine depth is to
 assign a value to each area depending upon how many spaces it is away from the
 original space. In this case, the original space is the main coke plant area and rail line,

space **A** (see figure 6.8). This space was utilized mainly because it appears to have been the focal point of the community. Using the convex map, each area was given a number, based on the number of spaces it was away from space **A**. The values are relative to one another. Depth measurements were calculated in order to determine the relative

cu{o o gvt{ 'qh'vjg'b kpg'Uwrgtkpvgf gpvu'tgukf gpeg.'vjg'htqpvtqy 'eqwci gu.'je duplexes and the back row cabins (refer to figures 6.1 and 6.8). The number of spaces for each is listed in table 6.1.

Table 6.1 Number of Associated Spaces from Space A

Space	Number of Spaces from Space A
O kpg'Uwrgtkpvgf gpvu'urceg	1
Front Row C cdkpu'urceg	2
Fwrrgzø'urceg	2
Dcem'Tqy 'Ecdkpu'urceg	3

By using the depth measurements the relative asymmetry can be calculated, refer to equation 6.1. The following formula will give a value between 0 and 1. Values that are lower are more integrated into the system while higher values are less integrated. The final value is 0.09, illustrating that the residential area of Lille is quite oriented, syntactically speaking, to the coke plant area and rail line, space **A**, see figure 6.8.

$$RA = \frac{2(MD-1)}{k-2} \quad \text{where MD=mean depth, k=number of spaces (6.1)}$$

The rail line was used in this example, as it would have been a major method of conveyance for residents. It also shares space with the coke plant, which may have been the workplace for several residents. It is noted that not all residents worked at the coke plant. The mine s wr g t k p v g f g p w i t g u k f g p e g " j c f " v j g l o w e s t value and therefore was the closest to the rail line. The central residences, the front row cottages, and duplexes, have the same value, being only slightly further than the superintendent. The cabins are the furthest away from the rail line, or possibly the place of work.

By performing this syntax experiment it was illustrated that the superintendent was the closest to the possible place of work and rail line, followed by the front row cabins, duplexes and back row cabins. This is noteworthy, as the coke plant would have been loud, and dirty. This possibly attests to the fact that the coke plant was a symbol of pride for the town. Higher status residents had a shorter walk to work if they worked at the coke plant, or if they wanted to board the train.

6.6 Statistical Spatial Analysis

A statistical spatial analysis was also undertaken in order to determine if any statistical patterning was present in Lille. Statistical analysis assists researchers in removing the subjectivity present in spatial analysis. The eye can be misleading, finding patterns where they do not exist and vice versa. One of the first books on the use of spatial analysis in archaeology by Ian Hodder and Clive Orton, was written in the peak of processualism, in an attempt to go beyond culture history and subjectivity. The study of spatial patterns starts first from the assumption of randomness (Hodder and Orton 1976:30). It is assumed that map patterns reflect a system or order. It is important to add that just because a structured pattern is identified does not mean that it has been

explained. Statistical spatial analysis may be rejected because of its intimate association with processualism (Wheatley and Gillings 2002:125); however, the use of statistics here is not an end in itself. It is the interpretation of the results that differentiate a work from processual statistical studies. Use of statistics does not make one a processualist; rather, statistics have the ability to expand interpretation regardless of the theoretical background being utilized.

6.6.1 Point Pattern Analysis

There are various point pattern techniques. These include quadrat methods, nearest neighbour distances, and cluster analysis. Quadrat analysis involves placing a grid over the distribution and comparing the number of points that occur in each cell. Point pattern analyses allow for the search of structured patterns (Hodder and Orton 1976:35). This method is very useful for archaeologists, as archaeologists often collect information in this way anyway. However results vary based upon the size of the quadrat use, as well as the shape. Nearest neighbour distances are concerned with the distance from one specific point to its nearest neighbour. These distances are more sensitive than quadrat analysis to archaeological data. Cluster analysis identifies the degree to which points cluster. Various other tests may be applied including statistical approaches outlined in Shennan (1997).

6.6.1.1 Nearest Neighbour

A useful statistical tool for spatial analysis is that of nearest neighbour. This is a type of point pattern analysis y j k j "gzco kpgu"qpg"rqlpw"tgrv kpuj k to every other point. Point analysis is more detailed than simple eye observation and point base maps were often seen as an end in itself. However, eye analysis alone is fairly dangerous as patterns may be seen which do not exist, or patterns that do in fact exist remain

wpflueqxtgft'fwg'v'q'lxgunki cvqt'dlku0'C'r cwgt'p'ku'fghkpgf'cu'bvj cv'ej ctcvgtku'ke'qh'c"
 urcvkn'cttcpigo gpv'ixgp'd{ 'vjg'urcelpi'qh'kpfkxfwcu'kp'tgrcvkp'v'q'qpg'cpqvjgtö"

(Unwin 1981:37). Nearest neighbour distances attempt to establish patterns that can be numerically represented, and tests the intensity of a pattern. Nearest neighbour analysis identifies the relationships of one point to its nearest neighbour through distance.

Problems with nearest neighbour analysis include difficulty in delineating the size of the study area, subjectivity, and lack of outer parameters (Hodder and Orton 1976:41).

Although Lille appears to have a clearly delineated space some boundaries had to be drawn. The study area examined is outlined in figure 6.11, measuring 23, 0130.4 square metres.

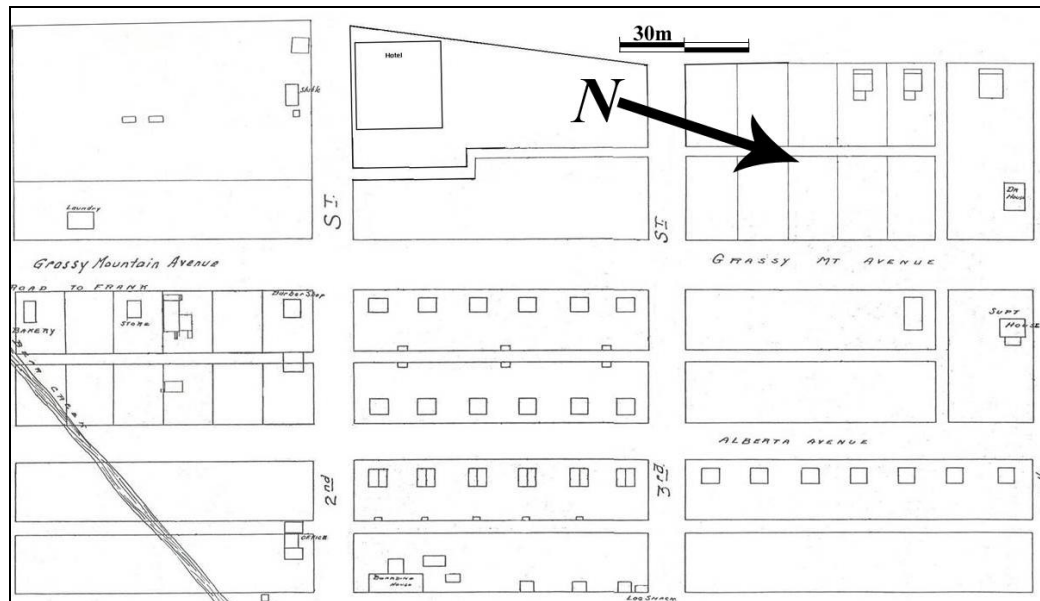


Figure 6.11 The study area for the point pattern analysis, 23, 0130.4m² (adapted from West Canadian Collieries map 031).

In this example several points on the Lille map were utilized. These include the hotel, bakery, a front row cottage, a duplex, a cabin, a residence. The results of this analysis are outlined in table 6.2.

Table 6.2 Contingency Table of Nearest Neighbours

Point	Nearest Neighbour	Distance
Office	Doctor	70m
Front Row Cottage	Front row cottage to the west	25m
Duplex	Duplex to the west	25m
Cabin	Cabin to the west	7.5m
Hotel	Hotel stable	45m
Bakery	Liquor store	60.1m

Worthy of note, the bakery, known to have been an Italian operation, is located at the extreme south of the business area, and at some distance away (60m) from the liquor store. Whether or not this was deliberate is unknown. It is on the corner of 1st Street and Grassy Mountain Avenue. The bakery used a traditional style bake oven, which would have been quite hot, making the area uncomfortable. The points appear to have been ranked by status, in the order of mine superintendent, front row cottages, duplexes and cabins. This stratification is also evident when nearest neighbour distances are taken into account. The Superintendent enjoyed the most space, with the nearest neighbour a full 70m away. The front row cottage, duplex and cabin only 7.5m away. However, its neighbour is still further away when compared to the

duplexes. Although duplexes were 25m apart, there were actually two households living in one building. The back row cabin residents would have enjoyed more privacy than the duplexes, even though the duplex residents are assumed to have had more status. If we take spaces out of the public sphere as an indication of privacy the Superintendent had the most and the Duplex residents had the least. Privacy may have been a status symbol in Lille. In addition, the Superintendent's office was able to view of the entire town, which may indicate surveillance. The back row cabins would have been out of the public eye located at the back of town, more trees were noted surrounding these dwellings.

6.6.2 Density and Distance

In yet another examination of point pattern analysis, both density and distance are combined (equation 6.2). Density can be utilised in analysing the distribution of the settlement, for example in determining whether it was clustered, or regular.

$$D = \frac{n}{A} \quad \text{Density of points, } n=\text{points, } A=\text{area.} \quad (6.2)$$

A

$$D = \frac{1}{230130.4} = 0.000002$$

230130.4m

Values closer to 1 indicate a higher degree of density. The density of Lille is 0.000002, proving that the town site is not statistically dense. In addition to the density, the distribution of a settlement can be investigated statistically. The randomness of the observed distribution is represented by equation 6.3.

$$r_o = \frac{\sum d_i}{n} \text{ and } r_e = \frac{1}{4c} \text{ where } \sum d_i = \text{sum of distances} \quad (6.3)$$

$R = \frac{r_o}{r_e}$ where R = distribution, r_e =expected distances, r_o =mean distances

r_e

$$\frac{38.8m}{111} = 0.35m$$

111

When $R=1$ the observation is random, if R is greater than one it is regular and if R is less than one it is clustered. Lille has a regular distribution, but the results have a large standard deviation of 23.8.

It is also interesting to look at values using different combinations. For example with just the residential buildings the results are $R=0.22$, or a regular distribution, and a density of 0.00001. When only the front row cottages, duplexes and cabins are examined the distribution is again regular with a value of 0.1, and density of 0.00001. It is interesting to note that at the edge of town, density varies slightly, yet the distribution is quite different.

The amount of yard space is also a possible indicator of status. The possible yard space of the front row cottages and duplex residents is approximately 19m x 37.6m. The cabins had various amounts of yard space as they are located in different locations. At most, it appears that they enjoyed the same yard space as the front row cottage and duplex residents, see figure 6.11, and at the least a mere 3m x 37.6m. This is all speculative, however, with the method used involving the splitting the blocks as

illustrated in the maps. Whether or not the entire block space was used is unknown.

Distances to the road could also be investigated. Observation shows that the front row cottages are the closest to the rail line and road while back row residents had further to go.

6.7 What the Artifacts Say

The artifacts considered here are from the study areas covered in this chapter; the front row cottages, duplexes, back row cabins, cpf"lwr gtpvgpf gpw"tgukf gpeg"ctgc0" They are examined with more emphasis on their spatial location than the discussion given in Chapter Five. The artifacts speak about the status of the households from the various residential areas. The following is a summary of the results of the analysis of the privies from the front row cabins, the duplex and back row cabin; the artifacts I focus upon here are ceramics and indulgence items 0"V j g"lwr gtpvgpf gpw"tgukf gpeg"ctgc'y cu" not investigated as it was not a privy deposit, and the sample was comparatively small, only 73 artifacts. I am aware of the various limiting factors on the data including disposal methods. An item found in the duplex privy does not mean that the duplex residents placed it there. In addition the privy may not have been the primary location for refuse disposal as there was a town dump. Although sample sizes differ, they are fairly representative. The third front row cabin privy is the largest sample with 1,599 artifacts, while the back row cabin privy had 665 artifacts.

Figure 6.12 represents the three tiers of the residential area and their porcelain and ironstone assemblages. The ceramics identified in Chapter Five are calculated as Minimum Number of Vessels identified by different patterns and rim sherds. Porcelain was compared to ironstone, as they represent different levels of expense, with porcelain the most expensive (Miller 1981, Henry, 1984, Spencer-Wood 1984). In turn these

items are seen by historical archaeologists as indicators of socioeconomic status.

Interestingly, the back row cabin privies had more porcelain than the duplex privy and even the front row cabin privy tests 1 and 2. It should be noted, however, that there was limited ceramic material in the duplex with a MNV of only 10. The high amount of porcelain found in the back row is surprising, possibly indicating that the residence was not occupied by a person of lower status.

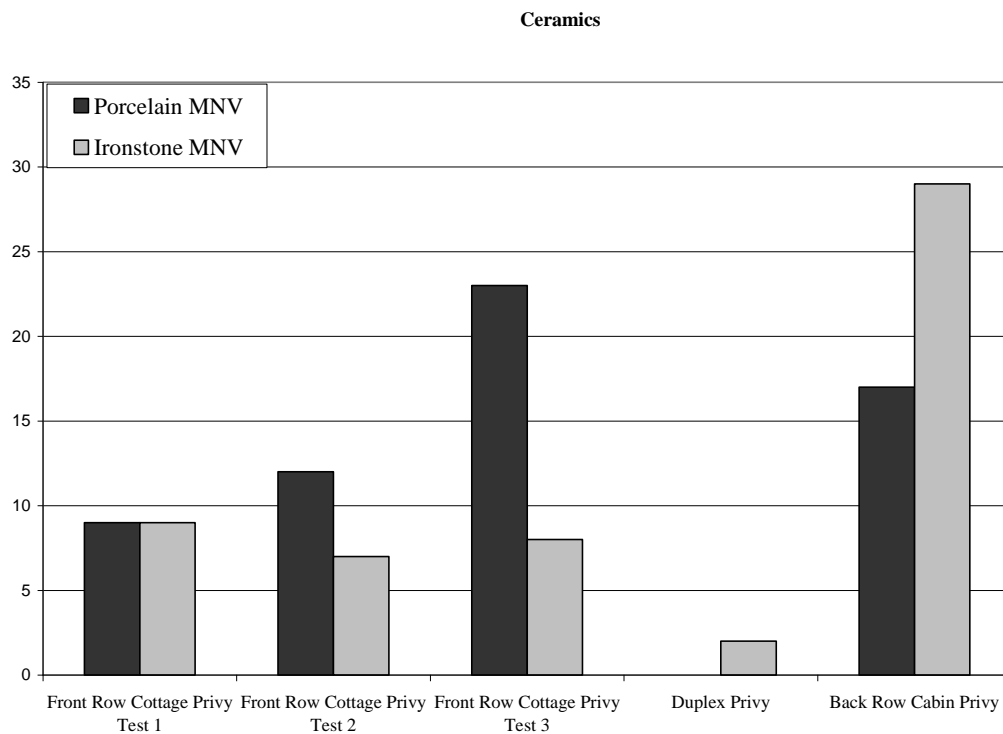


Figure 6.12 Porcelain and Ironstone frequency in the residential privy tests.

The indulgence items are represented by MNV of alcohol bottles and remains of tobacco consumption including snuff tins, pipe stems and tobacco cans (see figure 6.13). The outcomes of the above graphs were combined in figure 6.14, to illustrate the relationship between the amounts of porcelain, ironstone and alcohol consumption.

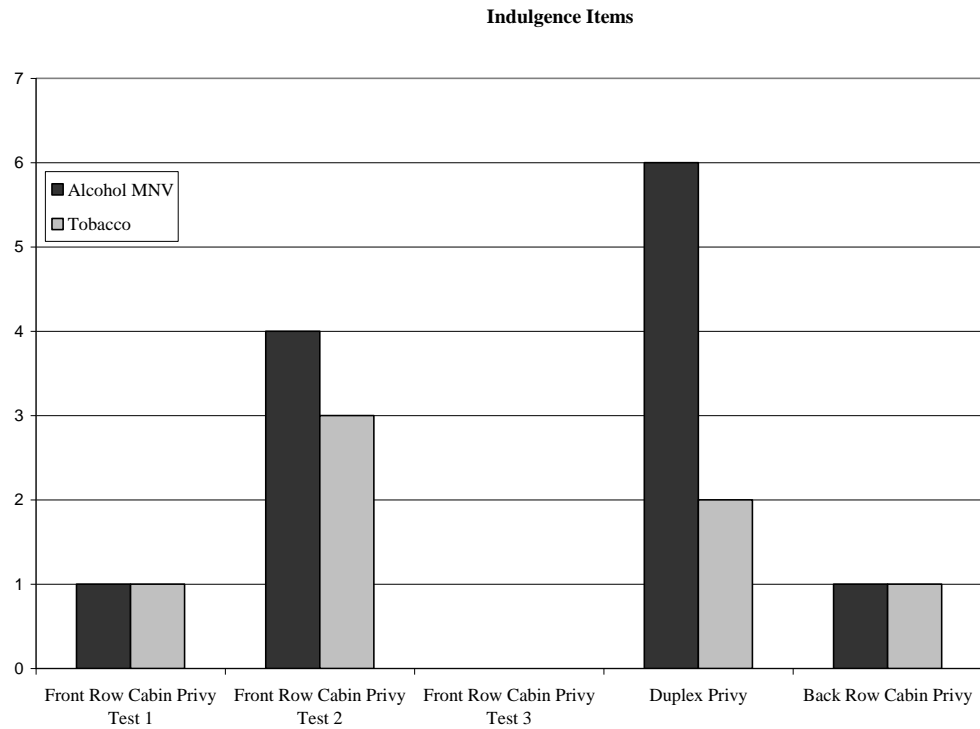


Figure 6.13 Indulgence item frequencies in residential privy tests.

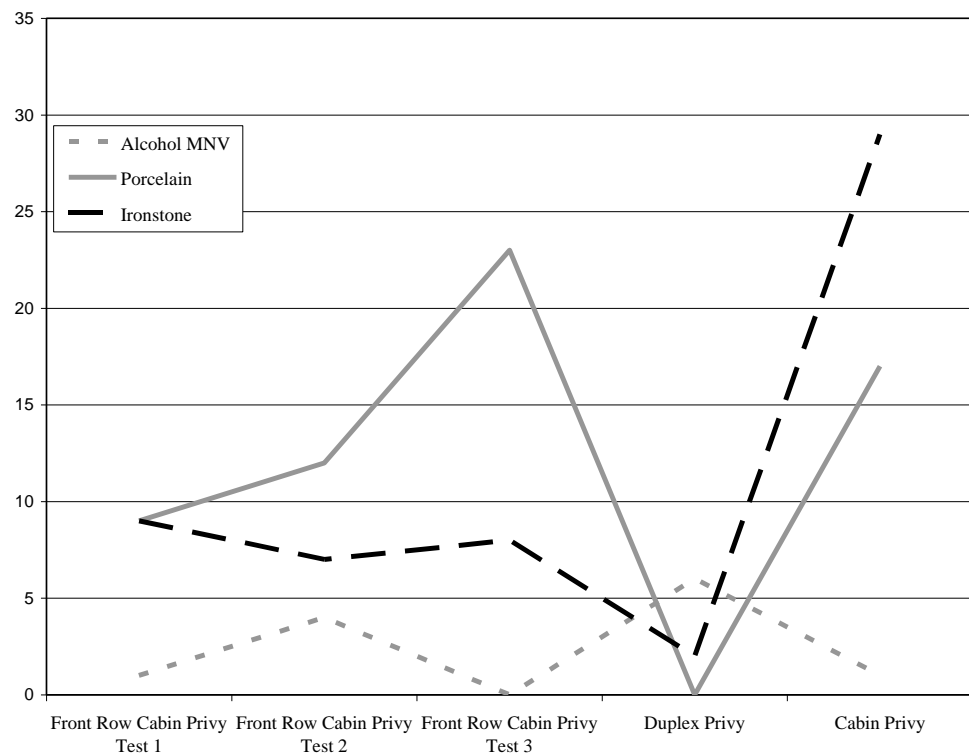


Figure 6.14 Distribution of the porcelain and ironstone assemblage in relation to the alcohol MNV.

C Rgctuppu correlation coefficient was performed, with an outcome of 0.834. Results indicate that there is a relationship between the amount of porcelain and alcohol. If one Compares the ceramics to the indulgence items, it appears that the assemblages with the more expensive porcelain have fewer indulgence items. However, this is also related to the total amounts of ceramics present in the assemblage. For example, the duplex only had a total of 10 MNV ceramic pieces, while the back row cabins had 64 items. Several complete alcohol bottles were located in the duplex privy, possibly attesting to concealed drinking behaviour, or maybe related to the actual digging of the privy, as they were located at the bottom of the deposit. Also, the residents of the front row may have enjoyed a drink at the hotel bar, or even disposed of the bottles at the dump.

6.8 Spatial Analysis Summary

Through the application of a variety of spatially analytical tests, the organisation qhNkmgau"ic{qww"j cu"dggp"gzco kpgf0Eyeballing ø'cpf"lucvukecn\guu"gzco kpgf"xc tkqu" aspects of the spatial relationships in Lille. Spatially, the social standings of the residents differed greatly, and this was evident in the areas of space allotted to each group. Further, houses could have served as status symbols, as did amounts of privacy. Vjg'o kpg'lwrgtkpwpf gpwu"tgukf gpeg'y cu'hqecvqf'hwtyjst from the rest of town. This residence was apparently the largest, and had the largest lot. It also had a view of the whole town, and the superintendent would have had the shortest trip to work.

Residents of the front row cottages enjoyed their own lot, with a cottage roughly 64.4 m² of space on one floor. They had to share their privies with at least one other household, possibly up to three more. Front row cottage residents enjoyed at least 25m of space around their house. The duplexes were two-storey buildings; residents of these would have enjoyed almost the same amount of interior space as the front row cottages

on one floor. Duplexes were spaced 25m apart as well; however they housed two, or possibly even four separate families. One can only imagine how thick the wall between would have been. This would have given the duplex residents very little privacy. As well, the residents of a duplex would have shared a privy. According to models put forward by Goffman and Portnoy, people regulate encounters with others through the division of spaces, the public vs. the private, what they term front regions and back regions (Dawson 1997:29). Residents of Lille had back regions in limited amounts, especially the duplex residents. The privy may have been a place in which to engage in ~~ōdcām'tgikpö"cevkkgu~~ Even in the privy, often a space to escape it all, duplex residents were not really alone. This may have affected the archaeological record; several complete liquor bottles were located stacked in the privy. This may have been one way in which residents could keep their drinking behaviour secret.

The back row cabins were placed throughout the back two rows of dwellings in roughly symmetrical locations. The boarding house and a barber shop were located at the back for residents. They at the least enjoyed 7.5m of yard space. These cabins ranged in size and some were quite small. Several privies are noted in figure 6.6 located in the back row. Who used the privies is unknown; it is likely that several households shared facilities.

Through density analysis it was seen that the main part of town was regularly distributed and had a clustered distribution. Dwellings were close together, possibly indicating social interaction between residents. This hypothesis is supported by the small population size. Residents likely had a high degree of contact between each other, evident by the numerous sports teams. ~~Kh'vj g'lwrgt pvgp fgpw'u'j qwug'ku'lpnwfgf'lp'vj g'~~ analysis, the distribution of the town site changed to a random one. Based upon his

location in Lille, it may be that the superintendent had less interaction with the community as a whole. This is similar to other company towns, for example, Lowell (Beaudry and Mrowzski 2001).

Beaudry and Mrowzski identified examples of town beautification in Lowell, Massachusetts. The town of Lille appears to have had little beautification. This may be for several reasons: 1) the season in which the pictures were taken, 2) the company did not invest in beautification of the town and residents were not encouraged to do so, 3) or the very nature of a coal town may have been detrimental to growing conditions, and traffic on very thin rocky soil would have increased erosion (2001:125). A combination of these factors may have been the case. The only trees present were those growing naturally. It appears that the town expected to remain in existence for some time, with its grand hotel and named streets with areas planned for future development. However, Lille was unable to survive because of

The spatial arrangement and housing in Lille may have mirrored the capitalist assertion of control and the need to impose status differences upon residents. The planning of Lille may have reflected the dominant ideology of the W. C. C. Though this may have been seen as rational planning to all parties involved, it was planned for a purpose. Dgcwf t{ "cpf O tq|qy unku considered that Lowell had social control planned into it, and the same might have been the case with Lille. It is possible however, based upon the archaeological remains, that the residents of Lille lived where they did for convenience rather than prearranged social conditions.

Through these spatial results an attempt at recreating daily life in Lille has been made. Observations were backed up with statistical data. According to the artifacts, some people who lived in an area with a higher ascribed status may not have conformed

to it. Furthermore these areas may not have been absolutely circumscribed. Given the close quarters and small population size, it is likely that residents often interacted with each other. Status may not necessarily have been displayed in material wealth, as seen in the archaeological record, but in other ways, possibly expressed through behaviour.

How people interpret space is subjective, yet it is hoped that this has demonstrated that spatial analysis is relevant in historical archaeology. Statistics, although intimidating, assist in supporting observations. Space is important, and makes one look at sites in different ways.

Chapter 7

Summary and Conclusions

Mining communities in the past have been studied through different lenses. Hardesty, for example, has studied silver mining communities by focusing upon power relations and economic networks such as the frontier model. Recently, attention has been called to the importance of studying the worker in industrial contexts (Metheny 2002, Shackel 2004). This thesis focused upon the daily lives of the residents of a small coal mining community. Further analysis of Lille has provided information regarding coal mining communities in the Canadian Rocky Mountains.

7.1 Summary

Lille was investigated with several research goals, which attempted to shed light upon life in a coal mining company town. Material culture analysis was carried out to illustrate consumer behaviour and availability of goods. Additional research questions attempted to illustrate socioeconomic status differences, as well as responses to the paternalistic practices of the company. This was investigated by utilizing theoretical aspects based loosely upon neo-marxism.

Investigating the availability of goods in the area was one of my research aims. It was originally hypothesized that based on its location, residents of Lille would have had limited access to a variety of goods. The archaeological assemblage revealed several outcomes. Although in a remote location, the Crowsnest Pass was a developed

area. The Pass also had trade networks via the various rail lines. As described in Babaian 1984, at least some of the residents could have access to high fashion brought in from New York. Evidently they were not limited in their access to goods despite their location in the Canadian West. Their close association with the C.P.R. integrated the Crowsnest Pass communities into a larger economic system. It was further hypothesized that residents may have purchased some goods from mail order catalogues, such as Sears Roebuck. However, it would appear that residents purchased the majority of their goods from the local stores. This was due to several factors. Miners were paid monthly, or in some cases every six weeks. Several companies went so far as to pay their workers with scrip, which was only usable at the company store, or even directly deposited paycheques at the store. Furthermore, goods at the Lille store were 5-7% (Felske 1991:481) more expensive than other Crowsnest Pass stores. These reasons made it necessary for miners and their families to purchase items from the company store on credit. The Lille store allowed up to six months credit (Felske 1991:481) and it was difficult for miners to ever get out of debt. As a result of this system, it is unlikely that residents were able to purchase many goods from mail order catalogues, as previously hypothesized, since payment had to be made at the company store.

The social stratification of Lille was investigated by analyzing the artifacts, as well as the spatial relationships present in town. To some degree the artifacts speak of this stratification. As investigated through ceramics, the front row cabin privy deposits contained the highest status items based on their expense. The back row cabin privy deposit also contained higher status items. The duplex residents, which I assumed were of higher ascribed status than the back row residents, had lower status goods present in the privy deposit. The ceramic assemblages from all privy deposits were similar, with

evidence of preference for matched sets and transfer printed wares. It is also evident that status separation based upon housing may have been superficial. Residents who lived in the front row cabins, duplexes and back row cabins may not necessarily have been of different statuses. If they in fact were, the artifacts do not indicate a great status separation between households. The back row residents' privy assemblage was similar to the front row cabin residents' privy assemblage.

Spatial syntax was introduced in order to examine its potential for spatial analysis in historical archaeology. It has been used extensively in Europe in medieval contexts, as well as in Northern Canadian arctic contexts (Hillier and Hanson 1981; Dawson 1997). Syntax offers numerous ways of analyzing historic communities, and has great potential, given the use of maps. The spatial relationships in Lille may illustrate the imposed paternalistic stratification. It was hypothesized that the town was planned with the subtle intent to control residents. The highest status resident, the mine superintendent, had the largest house and the most space surrounding his house. The residents of this house also had a good view of the whole town. The main residential area however was shown both statistically and through observation to have had less stratification. Although the company used different styles of housing, the tiered system was not reflected in the artifacts. When the artifacts from the residential privy units were compared to the spatial relationships a more dynamic story was told. Higher status items were found in all of the privy deposits. It would appear that despite ascribed status differences, residents held similar values, and as a result the archaeological assemblages were quite similar.

The final objective of this thesis was to investigate the possibility of paternalistic practices, as represented by the material culture found in, and spatial layouts of Lille. It is except for the treed areas at the back. West Canadian Collieries was a paternalistic company, and was pervasive in the daily life of Lille residents. Residents were expected to live in certain housing, and to shop at the local store, and behaviour such as drinking was discouraged. However, the recovered artifacts speak of resistance to these impositions. Regardless of housing, residents displayed status, through ceramics at least, as they wanted. In addition, residents were willing to travel to Frank to purchase goods at a lower cost. Most notably, drinking did occur at the town site, both in the hotel, and at the home. By utilizing elements of corporate paternalism theory it was shown that despite company ideology, residents lived the way they wanted. The Lille miners shared a sense of solidarity. Not only did the miners fraternize because they were miners, but also because many of them were immigrants from Italy. Where the coal companies and press tried to stress differences between the various ethnic backgrounds, the miners themselves focused upon the similarities. They joined a union in order to stand together against the company. They strove for fair wages, in an effort to make a life for their families free of debt. Metheny states that it is also important to look for worker agency outside of the union. Outside of work time residents enjoyed communal activities such as sports games. They showed no interest in civic concerns, such as the sanitation problems. This may illustrate agency as well. Lille was a company town and residents knew that the company would look after these problems without their intervention. Rgtj cru"tgukf gpw"y gtg"cdrg"vq"wg"vjg"rgtxcukxgpguu"qh"vjg"eqo rcp{au"rcvgtpcrkuo "vq" their advantage. This may also be tied to the migrant existence of the miners. People

would not have had a vested interest in civic affairs if they knew that they would be leaving in a few years.

O gvjgp{ø"y qm"hwugu"qp"vjg"ko rqtvcpeg"qh"vjg"rqukkg"ejcpigu"vjcv'y gtg" made by miners, stressing the importance of worker agency, as well as identifying aspects that they were not able to change (2002). This stance was taken in response to the large amount of literature that analyzes the negatives of coal mining and coal mining communities (see Corbin 1981, Walker et al. 2003). The mining lifestyle was not easy. Miners in the Crowsnest Pass were fatalistic (Green 1990, Buckley 2004), in an attempt to deal with the dangers of underground mining. Accidents were seen to be an inevitable part of life. Possibly in an effort to forget, residents of mining communities turned to alcohol. What is important is to see both sides of existence in a mining community. Miners wanted to better their families, and yet were powerless to make large changes. Through study of Lille from a neo-marxist perspective, and corporate paternalism an attempt has been made to illustrate daily life. Through individual and union actions changes were made to the coal mining industry in the Crowsnest Pass. Studying individual agency is important to a social archaeology approach.

7.2 Conclusions

Nkmgou"jkwqt{ 'ku'rctv'qh'c'rtigt'wqt{ 'cdqvw'vjg'Ecpcfkcp'y gu0"Analysis of Lille provided the unique opportunity to investigate a company town from the perspective of corporate paternalism. By utilizing the wealth of available resources including documentary and archaeological evidence, Lille was studied through various means. The present study attempted to illustrate life in a company town which had a paternalistic ideology. Further links were made to demonstrate how this may have been reflected in the archaeological record. Sites such as this provide the setting for

numerous investigations. Future endeavours may focus upon studying the ethnic diversity of the area, or illustrate gender relations from artifacts found from the household units.

This project has attempted to fulfill goals discussed by the original investigators who excavated Lille and add to the current understanding of the area. Histories of the Crowsnest Pass are abundant, focusing upon the socialist and union element present (Seager 1981, Ramsey 1990), the processes involved in the creation of the Pass as a centre of coal mining (Felske 1991) and the reasons for and effects of the numerous mine disasters (Green 1990, Buckley 2004). Throughout this thesis project, residents have been drawn as social actors and contributors to the mining lifestyle of the Pass through archaeological analysis. Although this project focuses specifically on the town of Lille, it is representative of mining communities in the Crowsnest Pass. Miners in the Pass were highly mobile, moving from mine to mine depending on where the work was. Miners were able to negotiate place through their actions in response to company goals. Lille, like the other towns, had a large immigrant community, which helped to create the rich history of the Crowsnest Pass. The Pass was defined by mining, and is a large part of the history of the Canadian West. This thesis has attempted to illuminate coal mining communities of the West in a context that appreciates the nature of coal mining, and life in a company town. The lives of the residents of Lille were not defined only by their work or the company, but also on their own terms.

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Appendix A: Artifact Inventory

The Residential Excavation Units

Cabin Privy n=661

Personal (n=22)

Accessories (n=6)

- Porcelain trinket lid, moulded with a polychrome transfer print under a clear glaze with gold gilding around the edge, n=1.
- Opaque black glass ornament, 2.5cm in diameter, with one hole on the lateral edge, decorated on both sides with a faceted leaf design, n=1.
- Notes: As the hole is not completely through the object it may have been suspended.
- Light blue pound beads, 0.9cm in diameter, with a 0.3cm bore, n=3.
- Non-ferrous metal pocket watch face, 4.3cm in diameter, n=1.

Clothing fasteners (n=5)

- Non-ferrous metal button cover with leaves and a knot motif, 2.2cm diameter n=1.
- Ferrous metal buttons with a shank, 1.8cm in diameter, n=2.
- Ferrous metal garter clasp, n=1.
- Ferrous metal buckle, 2.7cm wide, n=1.

Clothing textiles (n=1)

- Black textile fragment, n=1.
- Notes: According to burning tests the black garment was wool with cotton trim (Corbman 1979:24-26).

Footwear (n=10)

- Stacked heel, n=1.
- Black leather shoe fragments consisting of the upper and lace stay, with metal eyelets, n=9.

Health and Hygiene (n=4)

Grooming(n=2)

- Cswc'ò c tkgHtqunkrc "dqwg'dqf{ 'hrc i o gpw.'rncg'b qwrf.'ukfg'go dqungf'õJ OLO' JQ *N+ö .p? 40"

Medicine bottles (n=1)

- Complete colourless bottle, patent lip, three-part oval mould with one flat side, 336eo "j ki j .go dqungf'xgtvkcmm'qp'vjg'dqf{ 'dgukfg'vjg'hrcwpggf'ukfg'õEE .'62.'42.'" 32.'533.'5.'3ö.'vjg'dcug'ku'go dqungf'õP cwkqpcn32; 4D Qxcrö 'p? 30

Toilet Paper (n=1)

- Newspaper fragments, black and white, in English, n=1.

Indulgence (n=6)

Alcohol consumption (n=5)

- Amber bottle base, two-part mould, pontil mark, embossed R & CO 47, n=1.
- One dark green 2 part hand tooled gin bottle finish, short tapered neck, n=1.
- Amber bottle base embossed &, n=1.

-Fragments of an amber bottle base, pontil mark, embossed CO 46, (probably R & CO), n=2.

Tobacco consumption (n=1)

-Snuff can slip lid, 6.9cm in diameter with a central design similar to that of the Copenhagen brand, n=1.

Recreation (n=4)

Hunting (n=1)

-Lead foil fragment from a shotgun casing, n=1.

Music (n=1)

-Non-ferrous metal draw reed fragment from a mouth organ, n=1.

Toys (n=2)

-O gmgf"ecvū"ḡ{g'b c tdrḡ."ḡwḡ."y j kḡ"cpf"lḡmḡy .p? 30"

Notes: Unable to tell if it is machine or hand made.

-Porcelain doll part, rim fragment, non-lead pink glaze, n=1.

Notes: This is similar to other fragments.

Foodways (n=89)

Single-use food storage containers (n=15)

Hole-in-top Cans (n=11)

-Hole-in-top cans, single end seams, internal side seams, n=10

-Hole-in-top cans, stamped on to r'y kj 'ōENCTMḡU'RTGRCTGF HQQFU."

OQPVTGCNö.'ḡpg"cewcmḡ'ku'ōY ŌaŌENCTMḡUí ö'ukḡiḡ"ḡpf'ugco u."cpf'ḡvḡtpcn'" side seams, n=1.

Key Cans (n=1)

-Key from a key closure type of can, measuring 9.8cm long, n=1.

Open Top Cans (n=1)

-Open top can end, n=1.

Other (n=2)

-Complete imported Italian olive oil can, with rectangular box seams, and a handle on top, it also has a hole in a top corner for pouring, and discernable labelling says ḡQNKḡ'F ḡQNKḡḡḡḡḡḡ.'RWTḡV[.'UWRGTHḡḡḡḡḡḡö'p? 30"

Subsistence Related Faunal Remains (n=12)

See Table 5.4.

Tableware (n=62)

Ceramic (n=62)

Earthenware (n=5)

-White earthenware rim sherd of indeterminate vessel form with a floral green transfer print under a clear glaze, n=1.

-White earthenware fragments with a clear glaze, n=2.

-Earthenware flatware rim and foot rim fragments of a polychrome transfer print of roses under a clear glaze, n=2.

Ironstone (n=29)

-Half of an ironstone cup with a clear glaze, n=1.

-Rim fragment of an ironstone indeterminate vessel form with a light blue-grey hand painted pattern under a clear glaze, n=1.

-Ironstone fragments, clear glaze, n=17.

- Ironstone bowl rim fragments with a clear glaze, 16cm diameter, n=2.
- Ironstone hollowware fragments with a moulded wheat pattern scalloped edge, and clear glaze, n=4.
- Ironstone flatware rim and body fragments with a moulded and scalloped edge and clear glaze, n=3.
- Ironstone flatware body fragment with a brown under glaze transfer print of a branch with leaves, under a clear glaze, n=1.

Vitrified Earthenware (n=13)

- Mended vitrified earthenware hollowware fragments with a polychrome transfer print of lilacs and leaves under a clear glaze, n=2.
- Vitrified earthenware body and foot rim fragments with a clear glaze, n=9.
- Vitrified earthenware fragment of indeterminate vessel form with what appears to be a stamped, mint green pattern under a clear glaze, n=1.
- Vitrified earthenware fragment of indeterminate vessel form with a teal transfer print under a clear glaze, n=1.

Porcelain (n=15)

- Porcelain saucer foot rim fragment with moulding and a clear glaze, n=1.
- Porcelain flatware rim fragment with a scalloped edge, moulded pattern on the edge, hand painted gold gilding around the edge and a clear glaze, n=1.
- Porcelain cup body fragment with hand painted pink blossoms under a clear glaze, n=1.
- Porcelain hollowware body fragments with a clear glaze, n=7.
- Porcelain saucer rim and foot rim fragments with a scalloped edge, moulded pattern on the edge and two bands of gold gilding, n=2.
- Porcelain cup rim and body fragments with a scalloped rim, moulded edge, gold gilding, and polychrome transfer print of yellow roses under a clear glaze, n=3.

Architectural (n=51)

Building materials (n=23)

- Wire nails, ranging in length from 3.5cm to 10.4cm, n=23.

Door hardware (n=1)

- Round ceramic door knob made of clear glazed porcelain parian ware (Light 2000:89), n=1.

Window materials (n=27)

- Fragments of colourless, 2- 2.7mm thick flat glass, n=8-19.

Unidentified (n=489)

Container Glass (n=327):

Container Fragments (n=344)

- Light green bottle fragments, n=44.
- Colourless bottle fragments, n=48.
- Aqua marine bottle fragments, n=2.
- Purple bottle fragments, n=16.
- Green bottle fragments, n=15.
- Colourless body and base bottle fragment, 2 part mould, 4.9cm from base to uj qwnf gt.'dcug'go dquugf 'õK4227MRö.'p? 30"
- Dark green bottle fragments, n=62.

- Light blue bottle fragments, n=27.
- Amber bottle body sherds, mould seams, n=100.
- Rim and body sherds of a milk glass jar, 2 part mould, vessel had a lid, n=2.

Faunal Remains (n=2)

- Unidentifiable non-bird bone, n=2.

Glass (n=14)

- Colourless glass sherds, three are thin, n=5.
- Colourless glass rim sherd of an indeterminate vessel, with a scalloped edge and flat side, n=1.
- Melted sherd of colourless glass with a starburst pattern from an indeterminate vessel, n=8.

Metal (n=107)

Ferrous (n=107)

- Circular ferrous metal plate, with a diameter of 22.5cm, with a latch on one side, n=1.
- Ferrous metal fragment, bowl shaped, n=1.
- Ferrous metal fragment with an oval handle, n=1.
- Ferrous metal fragments, several crimped with punched holes, n=104.

Metal Closures (n=12)

- Crown cap bottle closure, n=1.
- Threaded top can closure from a large can, n=1.
- Slip lid can closures, diameters of 15.5cm, 12.5cm, and 4.1cm, n=3.
- Push in lids, n=5.
- Can sprinkler top and shoulder with a hexagon top and painting on the cap and shoulders, obliterated by rust, n=1.

Metal Containers (n=25)

Complete to Almost Complete Containers (n=2)

- Complete cans with a lapped side seam, one squashed, the other with single end seams and a push in lid, n=2.

Container Fragments (n=23)

- Can fragments with single end seams, n=10.
- Can handle, similar to the one found on the olive oil can, n=1.
- Can fragment, n=1.
- Can fragments with single end seams and internal side seam, n=9.
- Can fragment with double end seams and internal side seam, n=1.
- Body fragment of a ferrous hollowware vessel with a rolled rim and bail lug, n=1.

Organic (n=2)

- Black rubber hose fragment with diagonal ridges, n=2.

Duplex Privy (n=1135)

Personal (n=9)

Clothing fasteners (n=7)

- Complete opaque black glass four-hole buttons, depressed centre, 1.5cm diameter, n=3.
- Complete milk glass four-hole buttons, depressed centre, and 1.1cm diameter, n=2.
- Ferrous metal overall-style buttons and hooks, n=2.

Clothing textiles (n=1):

-Fragment of black, green and rust coloured textiles, burning tests revealed that the black trim fibres are silk, the green fibres a cotton blend, and the rust fibres wool (Corbman 1979:24-26), n=1.

Footwear (n=1):

-Black leather shoe upper fragment, metal eyelets and hooks, n=1.

Health and Hygiene (n=6)

Medicine bottles (n=6)

-C qo rrvvg'cswc'b c t kpg.GpqaHtwkUcn'dqwg.'lpenwflpi 'vjg'lnqrrgt.'jcpf'pplied hpkuj.'tgevpwrt'5'rctv'b qwnf.'ejco lgtgf'eqtpgtu.'cpf'Gpqa'v'rg'lnqrrgt.'" go dqungf'öGPQ d'HTWK'UCNVö.'dcug'öY Ö05ö.'lnqrrgt'öRCVGPVGF D[" GPQ d'ö "Jones and Sullivan 1985:153), n=1.

-Complete Bromo mineral bottle, colourless, milk bottle shape, Qy gpau'uect.'" ugrc tcvng'crrngf'hpkuj.'5'rctv'b qwnf.'ecr'ugcv'dq tg.'go dqungf'qp'ltqpv'öDO ö 'lp" cp'qxcn.'öDTQO Q 'O KPGTCNö.'ö3ö 'lpukf'g'qh'vjg'Qy gpau'uect.'p? 30"

-C qo rrvvg'eqnwtngui'dqwg.'8öeo 'xcm.Qy gpau'uect.'5'rctv'b qwnf.'jcpf'crrngf" finish, prescri rvkp'kr.'dcug'go dqungf'ö3:6ö.'ejwpmf'y j kg'lwv'h'ku'lvkn'lp'vjg'dqwg.'" n=1.

-Complete colourless bottle, rectangular 3 part mould, chamfered corners, stepped uj qwnfgt.'xrgtgf'pgen.'rcvppv'kr.'dcug'go dqungf'ö452 Vö.'p? 30"

-Almost complete colourless bottle, 2 part mould, patent lip, cork present, n=1.

-Complete colourless bottle, rectangular 3 part mould, rounded corners, flanged lip, base embossed 33B, moulded side panel for label, n=1.

Indulgence (n=92)

Alcohol consumption (n=88, MNV=8):

Complete to Almost Complete Bottles (n=41)

-Complete green Branca Bitters bottle, turn mould, string neck, hand applied finish, jcpf'crrngf'lxco r=öHTCVGNK,O KNCPQ ,DTCPECö'c tqwpf'c'ltqy gt.'Kcrkcp" company, n=1.

-E qo rrvvg'i kp'ecug'dqwg.'go dqungf'öGöMKFGTNGP TQVVGTF CO ö.'Fwvej'i kp.'4" part plate mould, 2 part hand applied finish, n=3.

-E qo rrvvg'co dgt'dqwg.'4'rctv'b qwnf.'i j quv'ugco .'b cej kpgf'e tqy p'hpkuj.'Qy gpau'uect.'go dqungf'öND'(' O 'Eq NVF ö.'p? 30"

-Complete very dark green bottle, Ricketts-type mould, hand applied finish, o co grqp.'dcug'go dqungf'öHÖEQWVVU'(' UQPUö.'p? 30"

-Complete amber bottle, 2 part mould, crown finish, pontil mark, roughly cylindrical pgen.'tqwpfgf'eqtpgtu.'dcug'go dqungf'ö72 CÖÖE q'2:9ö.'Co gtlkcp'Dqwg'E qo rcp{ " c.1905-1916) (Glassmaking and Glassmakers) , n=1.

-One partially complete mended gin case bottle, n=19.

-One partially complete mended gin case bottle, n=15.

Bottle Fragments (n=47)

-Gin case bottle fragments, n=47.

Tobacco consumption (n=4)

-Composite curved pipe stems, hard black rubber, one has a band, and cork, n=2.

-Pipe stem fragments composed of cork and hard black rubber, n=2.

Recreation (n=15)

Hunting (n=15)

- Ø2 "i cwig'ectvtkf ig'eculpiu.'ko r tguugf'ðY ØCØEQ '5'Y ØHØ "j gc f'lxco r." (Winchester Repeating Arms Company), all are centre fire, non-ferrous with copper, n=13.

Notes: Ten are paper covered, obliterating the head stamp. Several still have the gunpowder present, and have not been fired. The paper may be a result of the nature of the unit.

- 8-gauge shotgun shell casing base, of non-ferrous cuprous metal, n=1.

-Hawk (*Buteo* sp.), bone, n=1.

Foodways (n=538)

Multi-use food storage containers (n=166)

Cans (n=1)

-Olive oil can handle, n=1.

Crockery (n=165)

-Fragments of stoneware crockery with external Bristolware glaze, internal brown inc /g.'qpg'rckpvgf'kp'dwgy kj 'ðKØ RG*TKCN+ö 'kp'c'dqz.'p?165.

Single-use food storage containers (n=11)

Can Closures (n=1)

- Ukr'hkf.'36Øeo 'fkco gvgt.'lxco rgf'ðGØF ØUØ KJ ö.'y kj'c'tq i q.'ðY KQPC QPVö." n=1.

Hole-in-top Cans (n=4)

-Hole-in-top cans with single end seams, n=3.

-Hole-in-top can end, n=1.

Rectangular Cans (n=5)

-Rectangular cans with double end seams, n=5.

Other (n=1)

-C qo rrgvg'ecp.'lup i ng'gp f'ugco u.'kpgtpcn'lkfg'ugco u.'lxco rgf'qp'q r'ðVCP 'aQCö." cut open with an X, n= 1.

Subsistence Related Faunal Remains (n=351)

See Table 5.4.

Tableware (n=10)

Ceramic (n=10)

Earthenware (n=3)

-Earthenware flatware foot rim fragment with a floral blue transfer print under a clear glaze, n=3.

Ironstone (n=2)

-Ironstone fragments with a clear glaze of an indeterminate vessel form, n=2.

Vitrified Earthenware (n=5)

-Vitrified earthenware cup with its handle body and base, with a clear glaze, n=1.

-Vitrified earthenware sherd with a clear glaze, n=1.

-Vitrified earthenware fragment with a flow blue under glaze transfer print, clear glaze, n=1.

-Vitrified earthenware cup fragments with a light reddish-brown transfer print, hand painted gold gilding, under a clear glaze and a moulded edge, ribbed body, the pattern looks oriental, n=2.

Commerce (n=4)

Electrical System(n=3)

- Fragments of 0.3-0.6cm thick non-ferrous electrical wire, coated with black rubber, n=3.
- Fragment of an aqua marine electrical insulator, n=1.

Architectural (n=206)

Building hardware (n=134):

- Wire nails, ranging in length from 3.2cm to 10.5cm, n=134.

Window materials (n=72)

- Fragments of 2mm thick colourless flat glass, n=72.

Industry and Maintenance (n=1)

Machinery (n=1)

- Large cast iron brake pad from heavy machinery (weighs ~1kg), n=1.

Unidentified (n=279)

Container Glass (n=34)

Complete to Almost Complete Containers (n=5)

- Complete aqua marine bottle, 3 part mould, 2 part hand applied finish, bulged neck, tqwpf g f'uj qwnf g tu.'b co grqp.'go dqugf'öNö.'p? 30"
- Complete aqua marine bottle, flask shape, 3 part mould, hand applied finish, base go dqugf'ö445Eö.'p? 30"
- Mended aqua marine bottle body and base sherds, rectangular with chamfered E qtpgtu'cpf"j ggn.'dcug'go dqugf'ö398ö.'p? 50"

Bottle Fragments (n=29)

- Green bottle fragments, n=9.
- Amber bottle fragments, n=11.
- Patinated amber bottle body sherds, 2 part mould, n=3.
- Light green bottle fragments, n=3.
- Colourless bottle fragments, n=1.
- Dark green turn mould bottle body fragments, n=2.

Faunal remains (n=113)

- Small Aves sp. bone, n=11.
- Unidentifiable bird bone, n=93.
- Unidentifiable non-bird bone, n=6.
- Unidentifiable burnt bone, n=3.

Glass (n=36)

- Colourless glass sherds, n=5.
- Very small aqua marine ribbed glass sherd, n=1.
- Purple glass fragments, one is thick, and four have a pressed diamond design, n=9.
- Amber glass sherds, n=20.
- Fragment of colourless glass with a non-ferrous metal frame, n=1.

Metal (n=24)**Ferrous (n=23)**

- Ferrous metal bail fragment, 3mm thick, n= 1.
- Hgttqwu'ecuw'ktp'dckn.lwco rgf'õRCV'KP WU'CPF HQTGKI P'EQWPVTKGÜö.'p? 30"
- Ferrous metal cast iron handle, n=1.
- Ferrous metal bar, 3.7cm wide, punched holes, n=1.
- Ferrous metal fragments, n=16.
- Ferrous metal pipe end, 4cm bore, n=1.
- Ferrous metal hook, 6.5mm thick, n=1.
- Ferrous piece of wire, 2 and 3mm thick, n=1.

Non-ferrous (n=1)

- Aluminium metal fragment, n=1.

Metal Closure (n=6)

- Crown cap closure, n=1.
- Slip lids, various diameters, n= 5.

Metal Container (n=61)**Complete to Almost Complete Containers (n=1)**

- Complete pail, looks like a paint can, rolled top seam, lapped side seam, bail present, bottom lined with tin foil, many nail holes in base, 18.5cm diameter, 20cm high, n=1.

Notes: this may have been adapted as some sort of strainer.

Container Fragments (n=60)

- Can fragments, n=59.
- Rectangular hole-in-top can end, n= 1.

Metal Hardware (n=1)

- Ferrous 4.5cm diameter metal washer, n=1.

Organic (n=2)

- Complete cork stopper, 15mm thick at tightest point, n=1.
- Shrivelled up black leather fragment with nail holes, n=1.

Front Row Cabin Privy Test 1 (n=1438)**Personal (n=44)****Adornment (n=2)**

- Complete red glass multi-faceted bead, 6.6mm diameter, n=1.
- Non-ferrous metal pocket watch face, 4.3cm diameter, n=1.

Clothing fasteners (n=9)

- Complete opaque black glass four hole button with a depressed centre ring, 1.4cm diameter, n=1.
- Ferrous metal garter clasps, n=3.
- Mother-of-pearl buttons, all have a depressed centre ring, two are two-hole buttons, ranging in diameter from 1.4cm to 1.5cm, n=5.

Clothing textiles (n=3)

- Fragments of black woven wool fibres, n=2.
- Fragment of tan stockings made of silk blend fibres, n=1.

Footwear (n=30)

- Complete black leather work boot, high top, cleats on sole, n=1.

Notes: This is called a *õO łpgtǎDqqvö'łp* the 1897 Sears catalogue (Sears 1897).

-Patterned black rubber boot fragment, n=1.

-Black leather lace stays with eyelets, n=2.

-Shoe upper fragments of black leather, n=19.

-Black rubber stacked heel layers, n=7.

Health and Hygiene (n=2)

Medicine bottles (n=1)

-Cswco c tpg'GpqǎH twk'Ucn'dqwg'dqf {ǎnd chamfered corners fragment,
go dqungf'õGö.'õTWö.'p? 30

Toiletries(n=1)

-Pewter shaving mug, engraved with a D, moulded handle, n=1.

Notes: This is possibly lead pewter due to pock marks present; this is called pewter disease and is common with lead based pewter (Light 2000:15-16).

Indulgence (n=15)

Alcohol consumption (n=14, MNV=1)

-Fragments of an amber whisky flask, n=14.

Tobacco consumption (n=1)

-Snuff can slip lid, n=1.

Recreation (n=9)

Hunting (n=3)

-.30 gauge cartridge casing, centre fire, constricted neck, impressed head stamp, 250-3000, SA Corp (Manufactured by Savage), n=1.

-Jack rabbit (*Lepus townsendii*) bones, n=2.

Sport (n=1)

-Ferrous metal skate blade, 31cm long, missing the foot plates and clamps, n=1.

Toys (n=5)

-Green glazed earthenware toy teacup fragments=3.

-Complete rubber ball, mould seam, originally red or orange in colour, n=1.

-Porcelain, non-lead pink glaze, doll part fragment, n=1.

Foodways (n=280)

Kitchenware (n=3):

-Complete tinware bowl, dark ground coat, several coats of white enamel, navy blue beading, flanged lip, 22.5cm rim to rim, n=1.

-Complete tinware bowl, light blue enamel, white stippling, straight high sides, rolled rim, ribbed centre, 18cm diameter at rim, one nail hole at rim, n=1.

-Complete tinware bowl, dark ground coat, several coats of white enamel, navy blue beading, rolled rim, 15.8cm diameter at rim, n=1.

Multi-use food storage containers (n=10)

Cans (n=3)

-Complete oval tin can with external seams, single end seam on bottom, rolled seam on top, 17cm wide, 9.2cm high, 12.2cn long, two handles, would have had a slip lid, n=1.

-Large rectangular can top, hole in corner, similar to olive oil can top, n=1.

-Can top with a pouring spout and handle, possible from an olive oil can, 21cm square, n=1.

Crockery (n=6)

-Mended vitrified grey earthenware crockery fragments, clear glaze on body and rim, brown glaze on interior and neck, has a bail lug, n=2.

-Stoneware hollowware sherd with a metallic orange and black glaze, n=2.

-Exterior stoneware crockery body fragment with exterior Bristol glaze, internal brown glaze, n=2.

Water bottles (n=1)

-Complete canister, top external and base internal side seams, threaded cap, 3 lugs on body, top cone attached to body with a single seam, n=1.

Single-use food storage containers (n=63)

Hole-in-top Cans (n=54)

-Complete hole-in-top, double end seams can, n=1.

-Complete hole-in-top cans, single end seams, n=7.

-Hole-in-top internal side seam, single end seams can fragments, n=38.

-Hole-in-top can ends, n=8.

Key Cans (n=1)

-Long can key with the lid wrapped around it, n=1.

Open Top Cans (n=1)

-Complete open top imported tomato can, double end seams, lapped side seam, red rckpv.'hcdgngf'õE J QKEG.'SWCNK/[ö.'vj grest of lettering is Italian (see Bakery Privy), n=1.

Rectangular Cans (n=6)

-Short rectangular cans, n=6.

Other (n=1)

-C cp'ukfg.'y tkkp i'cpf'c'hq i q.'õaQNK&G'QKN'KP VJ G'Y QTNF ö.'õHCWNVNGUU" EQO RNGZKQP ö.'b cpau'hceg'cdqyg.'p? 30"

Subsistence Related Faunal Remains (n=9)

See Table 5.4.

Tableware (n=112)

Ceramic (n=108)

Earthenware (n=27)

-White earthenware body sherd, clear glaze, hand painted burgundy design over glaze, decoration has bubbled, n=1.

-Earthenware fragments, n=3.

-Earthenware body spalls, orange transfer print under a clear glaze, hand painted gold gilding, design with leaves, n=2.

-White earthenware flatware foot rim, blue transfer print under a clear glaze, n=1. dcucn'htc i o gpv'qh'ktqpuwpg'hrcvy c tg.'rc tv'qh'c'õ c mgtau'õ c m.'dncm'ekterg.'õTö'qt" õDö.'c'uy kn'cpf'õaRG TUö.'p? 30"

-Red earthenware tea pot fragments, with a Jackfield ware glaze (black metallic), n=19.

Ironstone (n=34)

-Ktqpuwpg'ucwegt'y kj 'c'ergc t'i r /g.'õ c mgtau'õ c m'qh'Crhtgf'O gcmkp'NyfOGpi rcpf.'" n=1.

-Ironstone fragments, clear glaze, n=27.

-Ironstone bases with the *õT & R Boote England* *ö o cngtəu'b c tm.'p?5.*

-Ironstone flatware base, clear glaze, CPR, (Canadian Pacific Railway) design, n=1.

Vitrified Earthenware (n=38)

-Vitrified earthenware rim sherd of an indeterminate vessel, blue transfer print, under clear glaze, Willow design, 1880 on, two are a different shade of blue (Sussman 1979:249) n=17.

-Vitrified earthenware flow blue under clear glaze body sherd, n=2.

-Vitrified earthenware body sherd, blue transfer print under a clear glaze, n=1.

-Vitrified earthenware cup body spall fragment, dark green transfer print under a clear glaze, n=1.

-Vitrified grey earthenware teapot fragments with a metallic brown glaze, n=4.

-Vitrified earthenware fragments with a clear glaze, n=13.

Semi-Porcelain (n=3)

-Semi-porcelain cup rim fragment, moulded edge, gold gilding on handle, blue glaze, n=1.

-Semi-porcelain hollowware rim and body fragments, polychrome transfer print under a clear glaze, green paint is gradient from rim down, design is of peach, pink and green flowers, n=2.

Porcelain (n=10)

-Porcelain fragments with a clear glaze, n=8.

-Porcelain body and rim fragments with a clear glaze and hand painted gold gilding, n=2.

Metal (n=4)

-Enamelled tinware pitcher body and handle, painted blue with a dark ground coat, design of cream coloured hand painted flowers, n=1.

-Ferrous metal fork, missing the tines, n=1.

-Ferrous dessert forks, missing their tine ends, plain tipped design, n=2.

Notes: probably tinned steel rather than actual silverware due to the amount of decomposition.

Furnishings (n=2)

Heating (n=1)

-Circular cast iron stove lid with a handle slot, 21cm diameter n=1.

Lighting (n=1)

-Colourless lamp chimney upper rim fragment with a beaded design (Woodhead et al. 1984:61), n=1.

Household Maintenance (n=1)

Laundry (n=1)

-Metal clothes pin spring, n=1.

Transportation (n=1)

Animal powered (n=1)

-Complete ferrous metal horse shoe, n=1.

Commerce(n=2)

Currency (n=1)

-Complete 1882 British penny, H die, n=1.

Water System (n=1)

-Complete brass globe valve, 2 cm bore, F stamped in a triangle, n=1.

Architectural (n=539)

Building hardware (n=201)

-Wire nails, ranging in length from 4.5cm to 15.5cm, n=198

Notes: one nail has 2mm thick wire wrapped around it and wood attached to the shank.

-Machine cut nails, hand applied heads, and one has an L shaped head, and is 10.5cm long, n=2.

-Wire tack, 2.6cm long, n=1.

Door hardware (n=1)

-Heavy-duty door hinge, T strap with plain strap ends, 7.9cm high, one span measures 22cm (Priess 2000:57), n=1.

Window materials (n=337)

-Fragments of colourless 2mm thick flat glass, n=337.

Industry and Maintenance (n=2)

Machinery maintenance (n=1)

-Oil can with a thin spout, threaded cap closure, double shoulder seam, external side seam, 30cm high, a bail was present, n=1.

Tools (n=1)

-Forged iron wrench, Diamond Head, n=1.

Unidentified (n=552)

Ceramic (n=2)

-Porcelain hollowware base, clear glaze, lobed resting point, 3 lobes have hand painted gold gilding, incised 01000/21/2 ä painted M.Z. Austria öin green, Moritz Zdekauer, 1884-1945 (Kovel and Kovel 1986:23), n=1.

-Porcelain bowl, clear glaze, hand painted gold gilding on edge, straight sides, 2cm high, and 4cm diameter, n=1.

Container Glass (n=189)

Container Fragments (n=189)

-Blue bottle body sherd, n=1.

-Milk glass sherds; one is a moulded edge sherd, n=2.

-Colourless bottle fragments, n=95.

-Amber bottle fragments, n=50.

-Aqua marine bottle fragments, n=9.

-Purple bottle fragments, n=7.

-Light green bottle fragments, n=2.

-Light purple square or rectangular bottle base and heel fragment, rounded heel, mould seam on inside, n=1.

-Green bottle fragments, n=8.

-Dark green bottle fragments, n=10.

-Solarized colourless body sherds, n=4.

Faunal Remains (n=7)

-Unidentifiable non-bird bones, n=7.

Glass (n=8)

-Colourless glass sherd, n=1.

-Colourless melted glass sherd, n=1.

-Melted colourless glass sherds, rim, base, foot rim, pressed starburst pattern, shallow, maybe candy dish or ashtray, n=3.

-Melted amber glass sherd, n=1.

-Thick aqua marine glass sherd, moulded rings on inside, possible insulator sherd, n=1.

-Reddish pink sherd of transparent glass, n=1.

Metal (n=51)

Ferrous (n=46)

-Cast iron plates connected to each other by a bolt in each corner, 5.1cm by 4.6cm, n=2.

-Rectangular cast iron plate, 2 square holes in ends, 6.2cm long, 0.4cm thick, n=1.

-Large chain links, each 0.9cm thick, 4.5cm wide, n=3.

-Complete ferrous metal bracket, 2cm wide, n=1.

-Complete metal buckles, one 6.5cm wide, the other 1.8cm square, n=2.

-Complete cast iron latch, 4mm thick, n=1.

-Unidentifiable cast iron object, n=1.

-Solid cast iron bar, 1.8cm thick, 34cm long, bent at 19cm, circular in cross section, n=1.

-Complete cast iron ring, three spokes, 5.5cm diameter, n=1.

-Crimped ferrous metal fragments, n=2.

-Angled ferrous metal hoop, 26cm diameter at top, 28cm and bottom, n=1.

-Ferrous metal rectangular shaped object with an attached hook, n=1.

-Ferrous metal u-notched object, n=1.

-Ferrous metal pipe end, threaded, n=1.

-Ferrous metal sheeting fragments, one is folded on three sides, and has cut rectangular holes, n=3.

-Ferrous metal strapping fragments, 1.6cm wide, holes, n=7.

-Ferrous metal tube, 0.7 cm bore, n=1.

-Large pieces of ferrous metal, n=13.

-Fragment of wire, 2mm-5mm thick, n=3.

-Ferrous wire metal ring with a hanger, wire is 2mm thick, n=1.

Non-Ferrous (n=5)

-Unidentifiable non-ferrous metal objects, two are painted silver, n=3.

-Cylindrical metal tube with green paint, slip lid, n=1.

-Thin, squashed cuprous tube, n=1.

Metal Closure (n=15)

-Crown cap bottle closures, n=2.

-Push in lids, 2.5-16cm diameters n=10.

-Sprinkler can closure, n=1.

-Slip lid closures, n=2.

Metal Container (n=271)**Complete to Almost Containers (n=10)**

- Sheet metal bucket, lapped side seam, n=1.
- Almost complete can with single end seam, internal side seam, n=1.
- Almost complete can with double end seams, 2 holes in top, n=1.
- Almost complete open top can, lapped side seam, double end seams, n=1.
- Almost complete cans double end seams, internal side seams, n=4.
- Almost complete ferrous metal pails with bail lugs would have had a slip lid, n=2.

Container fragments (n=260)

- Open top can, lapped side seam, double end seam fragments, n=39.
- Can body fragments, single end seams, internal side seams, n=20.
- One internal side seam can fragment, n=1.
- Can double end seam, internal side seam body fragment, n=1.
- Single end seam, lapped side seam can fragment, n=1.
- Metal can end fragments, rolled seams, n=9.
- Can fragments, n=169.

Other (n=1)

- Squashed ferrous metal can spout, 14.5cm long, n=1.

Metal Hardware (n=6)

- Non-ferrous metal bolt missing its head insert, 2.3cm long, and 2.4cm head, n=1.
- Wire bolt, rounded head, bottom 2cm of shank threaded, 6.2cm long, 1.4cm head, n=1.
- Wire bolt, 35cm long, bottom 2.8cm of shank threaded, 1.4cm head, n=1.
- Square metal nut, n=1.
- Slot head screws 3.1-, 5cm long, n=1.
- Non-ferrous metal washer, n=1.

Organic (n=2)

- Half of a cork circle, broken into 1/4s, like a widget, n=1.
- Black leather fragment, pointed end, 2.3cm wide, n=1.

Front Row Privy Test 2 (n=918)**Personal (n=29)****Adornment (n=1)**

- Black leather belt fragment, hole present, 1.9cm wide, n=1.

Clothing fasteners (n=3)

- Ferrous metal shank buttons, 1.7cm diameter, n=2.
- Mother-of-pearl button cover, 1.8cm diameter, n=1.

Clothing textiles (n=1)

- Black leather belt strap, n=1.

Footwear (n=24)

- Black leather shoe fragments, n=11.
- Brown leather upper fragments, metal eyelets, n=3.
- Black rubber shoe fragments, n=10.

Health and Hygiene (n=4)

Grooming (n=2)

-Mirror sherds, n=2.

Medicine bottles (n=2)

-E qo rrgv'F t0P 0Vj qo cuøGergevke"Juke_Q kn'eqnwtnguu."tgexpiwrt."ejco lgtgf"
co tpgtu."4"rc tv'ø qwnf."tqwpfgf"4"rc tv'hpkuj."qpg'ukfg'go dquugf"õKpvgtpcrö."vjg"
qvjgt"õGzvgtpcrö."p? 30"

-E qo rrgv'Ø kpc tfauNkploi pv'dqwg."eqnwtnguu."rcvpgv'hr.Q y gpau'uect."4"rc tv"
mould, one side of this circular bottle has eight oval facets, base embossed 33;ö."
n=1.

Indulgence (n=11)

Alcohol consumption (n=7, MNV5)

-Qpg'fc tm'i tggp'dqwg'dcug.Q y gpau'uect."rwuj 'wr'dcug."go dquugf"õaVGT"

FCYUQP NVF ö0'Rgvt'F cy uqp'Y j kmf."drgpf'gf'ueqvj.Ueqwkuj 'lo r q tv."p? 30

-Gin case bottle body fragment, dark green, n=1.

-Mended Imperial Whisky flask fragments, amber, turn mould, pontil mark, 2 part
hand applied finish, rounded shoulders, n=3.

-Almost complete whisky flask, amber, 3 part mould, 2 part finish, stopper finish,
embossed B on base, n=1.

-Complete bottle, dark green turn mould, 2 part finish, and bulged neck, mamelon on
base, n=1.

Beverage Consumption (n=1)

-One orange Fanta crown cap with a rubber liner. It has a terminus post quem of
1974, as the labelling is bilingual (Treasury Board of Canada Secretariat 1996),
n=1.

Tobacco Consumption (n=3)

-Copenhagen snuff tin slip lids, one with centre s {o dqn.'uxco rgf"õaWHH."aEQRGaö0"
Copenhagen Snuff, n=2.

-E qo rrgv'Ø eF qpcrfauDtkgt'EwvUo qmki'Vqdceeq'ecp."p? 30

Recreation (n=3)

Hunting (n=2)

-Cartridge casing, .30 gauge, centre fire, rimless straight, impressed head stamp,
W.R.A.CO. 3 W.C.F., (Winchester Repeating Arms Company, New Haven
Connecticut), n=1.

Jack rabbit (*Lepus townsendii*) bone, n=1.

Music (n=1)

-Mouth organ draw reed fragment, n=1.

Foodways (n=126)

Kitchenware (n=1)

-One metal kettle lid, containing copper, n=1.

Multi-use food storage containers (n=31)

Cans (n=2)

-Almost complete can with a slip lid and bail holes, n=1.

- *Ego rrgv Uy hhuUkxgtNgch'ic tf'rckn.'tqmgf'vqr'ugco .l'pvgtpcn'likfe seam, double end seam, 1.8kg capacity, n=1.*

Crockery (n=21)

-Fragments of stoneware hollowware with external Bristol glaze, internal brown glaze, and four are mended, n=20.

-Stoneware hollowware neck sherd, brown glaze on both surfaces, n=1.

-Stoneware hollowware rim, neck, shoulder fragment, external clear glaze, internal brown glaze, n=1.

Jars (n=2)

-Colourless glass jar, 6.1cm diameter at lip, 3 part mould, threaded finish, n=1.

-One aqua marine string rimmed jar, rim fragment, 8cm diameter, n=6.

Single-use food storage containers (n=36)

Hole-in-top Cans (n=25)

-Hole-in-top cans, two with single ends seams, n=4.

-Almost complete hole-in- vqr'ecpu'cpf'ecp'htc io gpw.'qpg'l'xco r'gf'y kj'c'öD'f'rö.'" n=16.

-Complete hole-in-top can, double end seams, 7.2cm diameter, 9.8cm high, n=1.

-Hole-in-top can ends, n=3.

Key Cans (n=7)

-Can keys, one threaded, one 9.3cm long, n=3.

-Short round can fragment, key strip, n=1.

-Almost complete rectangular can, double end seam, n=1.

-Almost complete short rectangular cans, key strip closure, single end seam, n=2.

Open Top Cans (n=2)

-Can end, open top, n=2.

Other (n=3)

-Rectangular can, single end seam, lapped side seam, high sides, n=1.

-Almost complete can, single end seams, 7.6cm diameter, 11.2cm high, n=1.

-Can body fragment, single end seam, n=1.

Subsistence Related Faunal Remains (n=24)

See Table 5.4.

Tableware (n=35)

Ceramic (n=32)

Earthenware (n=4)

-Earthenware flatware rim, scalloped rim, clear glaze, n=1.

-Earthenware saucer foot rim fragment, clear glaze, n=1.

-Earthenware hollowware rim/spout fragment, hand painted pink floral design, n=1.

-Earthenware fragment, clear glaze, two parallel pink stripes on both surfaces, parallel to rim, n=1.

Ironstone (n=7)

-Ironstone fragment, clear glaze, moulded, n=5.

-Ironstone flatware rim fragment, clear glaze, scalloped edge, n=1.

-Ironstone cup rim, clear glaze and hand painted gold gilding, n=1.

Vitrified Earthenware (n=10)

-Vitrified earthenware hollowware fragment, with a green under clear glaze transfer print, moulded, n=1.

-Vitrified earthenware body fragment, hand painted gold gilding, n=1.

-Vitrified earthenware flatware rim fragment, scalloped edge, polychrome under glaze transfer print, n=2.

-Vitrified earthenware fragments, clear glaze, n=4.

-Vitrified earthenware rim and body fragment, moulded, hand painted pink glaze, n=1.

-Vitrified earthenware flatware foot rim and base fragment, blue under glaze transfer print, Willow pattern, (Sussman 1979:249)n=1.

Porcelain (n=11)

-Mended porcelain saucer rim, foot rim and base fragments, clear glaze, hand painted gold gilding, unidentifiable makers mark, n=5.

-Porcelain fragments with a clear glaze, n=5.

-Porcelain cup rim, moulded, blue glaze, n=1.

Glass (n=1)

-Tumbler rim fragment, colourless, thin, turn mould, n=1.

Metal (n=2)

-Tinned steel fork, rounded end, four tines, n=1.

-Tinware cup, handle, rolled rim, external side seam, handle studded on, missing base, n=1.

Household Maintenance (n=6)

Laundry (n=6)

-Mended aqua marine washboard glass sherds, moulded ribs with cross hatching, n=5.

-One small sad iron, 203.5 grams, and no markings, n=1.

Transportation (n=1)

Animal powered (n=1)

-Draft horse, horse shoe, n=1.

Architectural (n=73)

Building hardware (n=70)

-Wire nails and spikes, ranging in length from 3.5cm to 15cm, n=69.

-Machine cut nail, with a rounded head, n=1.

Window materials (n=3)

-Colourless flat glass sherds, n=3.

Unidentified (n=667)

Ceramic (n=1)

-Melted porcelain fragment with a clear glaze and oblong shape, n=1.

Container Glass (n=250):

Container Fragments (n=250)

-Light green bottle fragments, n=16.

-Colourless bottle fragments, n=48.

-Amber bottle fragments, n=42.

-Aqua marine bottle fragments, n=14.

-Colourless, solarized bottle fragments, n=12.

-Green bottle fragments, n=11.

- Colourless, patinated bottle body sherds, n=11.
- Dark green bottle fragments, n=11.
- Bottle body sherds, light green, patinated, n=23.
- Bottle body fragments, amber, patinated, n=54.
- Bottle body sherd, light green, patinated, n=1.
- Bottle fragments with amber, light green and dark green glass, one is flask shaped, one is conical shaped, and another has a dome basal profile, n=7.

Faunal Remains (n=3)

- Unidentifiable non-bird bones, n=3.

Glass (n=39)

- Glass sherds, colourless, n=13.
- Glass sherds, colourless, patinated, thick, n=16.
- Glass sherds, colourless, solarized, n=8.
- Milk glass sherds, n=2.

Metal (n=110)

Ferrous (n=110)

- Fragments of ferrous wire, n=9.
- Ferrous metal stud, may have been fabric covered, 0.8cm head, n=3.
- Wire bails, n=2.
- Ferrous metal fragments, n=89.
- Ferrous metal clamp, rectangular holes, 1.8cm thick, n=1.
- Fragment of ferrous metal strapping, 1.7cm wide, nail hole, n=1.
- Ferrous metal plate, shaped like an arrow, 0.4cm thick, n=1.
- Large iron bracket, n=2.
- Ferrous metal pipe and stopper fragments, 1.4cm diameter, 1.2cm bore, n=2.

Metal Closure (n=4)

- Can slip lids, n=2.
- Can push in lid, n=2.

Metal Container (n=252)

Complete to Almost Complete Containers (n=5)

- Almost complete can, single end seams, lapped side seam, n=3.
- Almost complete can, double end seams, n=1.
- Almost complete can, double end seams, internal side seam, 8.5cm diameter, 5.5cm high, n=1.

Container Fragments (n=247)

- Can fragments, n=47.
- Can fragments, single end seams, internal side seam, n=25.
- Can ends, double end seam, n=12.
- Can fragments, single end seams, n=115.
- Can end fragment, open top, n=1.
- Can body and slip lid closure fragments, n=38.
- Can body fragments, interlocked side seams, n=9.

Metal Hardware (n=4)

- Fillister head screw, n=1.
- Rj kkr̥aɪ'j gcf'ʔetgy .ʔ0ʔeo 'tqpi .ʔpʔ 30"
- Screw with an eye, 7cm long, n=1.
- Square nut, 2.1cm square, 1cm thick, n=1.

Non-Metal (n=1)

- Black unidentifiable object, (possibly rubber wire coating?) n=1.

Organic (n=4):

- Black rubber fragments, 8mm wide, moulded with four lines on one side, n=2.
- Black leather fragments, 2cm wide, n=2.

Front Row Cabin Privy Test 3 (n=1587)

Personal (n=27)

Accessories (n=2)

- Milk glass bead, 0.7cm in diameter, n=1.
- Trinket box, n=1.

Child Rearing (n=1)

- Soother, n=1.

Footwear (n=22)

- Black leather sole fragments, n=6.
- Drcen'lgcvjgt'rc fkgu'ghv'ucpfcñvrrrgt'htc i o gpvu.'fqwdrg Vstrap with vamp cut-outs, (Rexford 2002), n=4.
- Black rubber shoe fragments, stitching holes, n=10.
- Black leather shoe upper fragment, n=2.

Miscellaneous (n=2)

- Squeeze bulb, n=1.

Health and Hygiene (n=2)

Grooming (n=1)

- Comb, n=1.

Medicine Bottles (n=1)

- E jco dgtrckpau'E qwi j Tgnedy Bottle body fragment, aqua marine, embossed ðaTNCKP ðUTGO GF [ö.'p? 30

Recreation (n=53)

Family Pet (n=5, MNI 1)

- Felis domesticus bones, n=5.

Hunting (n=43)

- Snowshoe hare (Lepus americanus), bones, n=19.
- Martes sp., bones, n=11.
- Probable Martes os coxa, n=13.

Music (n=1)

- One mouth organ draw reed fragment, non-ferrous metal and wood, n=1.

Toys (n=4)

- Porcelain doll fragments with a non-lead light pink glaze, n=3.
- Marble, n=1.

Foodways (n=276)

Kitchenware (n=1)

- Ferrous metal frying pan handle, wire wrapped with metal, n=1.

Multi-use Food Storage Containers (n=15)

Cans (n=1)

-Magic Baking Powder can with a slip lid, n=1.

Crockery (n=13)

-Vitrified yellow earthenware fragments, buff glaze, n=7.

-Coarse earthenware body fragment, brown glaze, n=2.

-Stoneware hollowware fragments, brown glaze, n=2.

-Two coarse earthenware sherds with a brown glaze, n=2.

Jars (n=1)

-One complete sealer, threaded finish, green glass, embossed *Mathias & Harrison* 20oz. Patent *g* n=1.

Single-use food storage containers (n=2)**Open Top Cans (n=2)**

-Complete, can, punch opening, contained milk, n=1.

-Complete rectangular can, n=1.

Subsistence Related Faunal Remains (n=161)

See Table 5.4.

Tableware (n=98)**Ceramic (n=93)**Earthenware (n=27)

-Mended earthenware fragments, moulded, clear glaze, n=21.

-Earthenware fragments, blue transfer print, moulded, n=2.

-Earthenware hollowware rim and body fragment, green glaze, moulded design, n=1.

-White earthenware flatware fragment, clear glaze, purple under glaze transfer print, n=1.

-Complete white earthenware saucer, clear glaze, over glaze hand painted gold *i kɸɸ i 'cpɸ 'ur tki ø'fɸukip . 'uɛcɸrɸgf 'gf i g. 'b cɸgtɸ' b c tɸ. Tq{cnUgo kPorcelain, Dudson Wilcox and Till Ltd. Hanley England, 1902-1926 (Kovel and Kovel 1986:48), n=1.*

- *E qo rɸgɸ'gc tvj gpy c t g' b wi . 'dɸwɸ'wɸf g t' i nɸ / g' v t c p u l g t' r t k p v. 'e r g c t' i nɸ / g. 'b c m g t a u'* mark Dudson, Wilcox and Till, 1902-1926, (Kovel and Kovel 1986:48) n=1.

Ironstone (n=6)

-Ironstone fragments, clear glaze, n=4.

-Almost complete ironston *g' d q y n. 'b c m g t a u' b c t m. 'L q j p u q p' D t q u O G p i n c p f. '3 : : 5* present (Kovel and Kovel 1986:12) n=1.

-Ironstone hollowware body fragment, navy blue under glaze transfer print on both surfaces of cartouche and leaves design, clear glaze, n=1.

Vitrified Earthenware (n=34)

-Vitrified earthenware tureen lid, clear glaze, under glaze green floral transfer print, n=1.

-Vitrified grey earthenware teapot fragments, brown glaze, n=15.

-Vitrified earthenware fragments, flow blue under glaze transfer print, n=2.

-Vitrified earthenware flatware rim, clear glaze, moulded, n=1.

-Vitrified earthenware body fragments, blue under glaze transfer, clear glaze, n=2.

-Vitrified earthenware flatware rim fragment, scalloped edges, gold hand painted gilding, green under glaze transfer print of leaves, clear glaze, n=1.

-Vitrified earthenware rim sherd, clear glaze, reddish brown over glaze transfer print, hand painted gold gilding, n=1.

-Almost complete Vitrified earthenware serving platter, clear glaze, green under glaze transfer print, hand painted gold gilding, n=1. (Kovel and Kovel 1986:70) n=1.

-Vitrified earthenware body sherd, dark teal under glaze transfer print, clear glaze, n=1.

-Vitrified earthenware, hollowware body sherd, brown glaze, unglazed interior, n=1.

-Vitrified earthenware plate rim fragment, polychrome under glaze transfer print, clear glaze, moulded scalloped edges, n=1.

-Vitrified red earthenware teapot rim fragments, brown glaze, n=7.

Semi-Porcelain (n=6)

-Semi-porcelain bowl fragment, clear glaze, polychrome under glaze transfer print, n=1. (Costello and Maniery 1988) n=1.

-Semi-porcelain cup fragments, clear glaze, hand painted gold gilding, n=4.

Porcelain (n=20)

-Porcelain body fragment, clear glaze, polychrome under glaze transfer print, n=1.

-Porcelain fragments, clear glaze, n=12.

-Porcelain hollowware rim fragment, under glaze hand painted design in reddish-brown and brown, gold gilding on internal surface, clear glaze, n=1.

-Porcelain fragments, clear glaze, hand painted gold gilding, moulded, n=6.

Glass (n=3)

-Tumbler rim and body, base and heel fragments, colourless, moulded fluted design 7cm rim diameter, n=3.

Metal (n=2)

-Complete tinned steel serving spoon, plain tipped decoration, n=1.

-Ferrous metal cutlery handle, plain tipped decoration, n=1

Furnishings (n=2)

Heating (n=1)

-Cast iron stove handle, n=1.

Lighting (n=1)

-Chimney lamp part, colourless glass, n=1

Household Maintenance (n=1)

Laundry (n=1)

-Complete bottle, light blue, cup bottom mould, patent lip, rounded shoulders, n=1. (as seen on modern bottles) n=1.

Communication (n=1)

Letter Writing (n=1)

-Ink bottle, n=1.

Architectural (n=118)

Building hardware (n=87)

-Wire nail and wire nail fragments, complete nails ranging in length from 3cm to 15cm, two in wood, n=87.

Window materials (n=31)

-Fragments of colourless 1-2mm thick flat glass, n=31.

Industry and Maintenance (n=3)

Machinery (n=2)

-Cast iron machine gear part with cogs, n=2.

Machinery maintenance (n=1)

-Complete oil can, with threaded cap, spout, and single rolled shoulder rim, n=1.

Unidentified (n=1116)

Ceramic (n=1)

-Porcelain fragment with a clear glaze, moulded, possible doll part, n=1.

Container Glass (n=394)

Complete to Almost Complete Containers (n=2)

-Complete colourless bottle, oval shape, 3 part mould, 2 part finish, flanged lip, base embossed BFG Co, T, (Beaver Flint Glass Company, Toronto, Ontario, c. 1897-1948), n=1.

-A complete bottle, green, crown finish, n=1.

Container Fragments (n=392)

-Colourless bottle fragments, n=90.

-Green bottle fragments, n=114.

-Amber bottle fragment, n=57.

-Light blue, bottle fragments, n=81.

-Colourless bottle *dcug.'eqnwtggu.'Qy gpau'uec t.'go dquugf'kp'egpvtg'qh'uec t'y kjj "*
Diamond D logo, 5 above, n=1.

-*Dqwg'dcug'htci o gpwu.'rwtrrg.'Qy gpau'uec t.'p? 50"*

-Dark green bottle fragments, n=2.

-Bottle heel and base fragment, light green, concave basal profile, turn mould, n=1.

-Bottle body sherds, colourless, solarized, n=14.

-Aqua marine bottle fragments, n=23.

-Bottle base, dark green-amber, concave basal profile, pontil mark, mamelon, n=1.

-Bottle base, amber, 2 part mould, pontil mark, base embossed *ōND(D'E q0Nvf0i."*
go dquugf'ō4ō'cdqyg'j ggn.'p? 30""

-*Tgewpiwrc t'dqwg'dcug.'eqnwtggu.'4'rc tv'b qwnf.'ej co lgtgf'eq tpgtu.'Qy gpau'uec t."*
go dquugf'F kco qpf'F'hq i q.'y kjj 'c'ō3ō'cdqyg.'p? 30"

-Milk glass rim, n=1.

-Jar rim fragments, colourless, n=2.

Faunal remains (n=316)

Unidentifiable bone fragments, n=45.

Aves sp. bones, n=92.

Small to medium mammal rib, unfused, n=1.

Aves or small mammal ribs, n=38.

Small mammal bones, n=134.

Small mammal, possible Felis, bones, n=5.

Small mammal (rodent), calcaneous, n=1.

Glass (n=38)

-Glass body sherd, purple, partly opaque, moulded floral design, n=1.

-Glass sherds, colourless, n=36.

-Glass sherds, purple, moulded, fluted design, n=3.

-Glass sherd, milk glass, ribbed, n=2.

-Glass sherd, light green, n=1.

-Glass sherds, dark green, n=3.

-Glass sherds, aqua marine, n=2.

Metal (n=49)

Ferrous (n=46)

-Fragments of ferrous sheet metal, crimped seam, holes, n=8.

-Fragments of wire, 0.03-3mm thick, n=32.

-Cast iron bars, n=2.

-Ferrous metal plate fragments, 17x17cm square, 1mm thick, has a nailed portion, n=4.

Non-ferrous (n=2)

*-Non-
lgt tqwu'o gxcn'qenu'y j k e j 'c tg'ixco rgf'õr'v'j g'f qvö 'p? 40"*

Metal Closure (n=1)

-Crown cap bottle finish with a globe painted on top, n=1.

Metal Container (n=306)

Can Fragments (n=306)

-Tin can fragments, open top, n=160.

-Tin can fragments, n=146.

Metal Hardware (n=4)

-One machine cut hand applied head, bolt, 8.6cm long, n=1.

-Bolt, square head, threaded bottom half, 19.2cm long, n=1.

-Slot head screw, 4.5cm long, n=1.

-Complete wire tack, n=1.

Organic (n=2)

-Black leather fragment, hard, n=1.

-Unidentified non-metal object, may be part of a barrette, n=1.

O lpg'Uwr gtlpvgp f gpwrt gukf gpeg(n=71)

Personal (n=3)

Accessories (n=1)

-Ironstone trinket box cover fragment with a clear glaze, moulded and hand painted gold gilding, n=1.

Footwear (n=2)

-Black leather lace stay with metal eyelets, n=1.

-Complete ferrous metal shoe horn, its stamp is obliterated by rust, n=1.

Indulgence (n=1)

Tobacco consumption (n=1)

- *E qo rŋvŋ'Ō eF qpcnfəu'EwvDtkgt'Uo qnkp i 'Vqdcee q'ecp.'ō kulkpi 'lŋkr 'hkf.'lŋp i ŋ'gp f''*
seam, internal side seam, 10.3cm diameter, 10cm high, n=1.

Foodways (n=36)

Single use food storage containers (n=1)

- *Hole-in-top can end*, n=1.

Subsistence Related Faunal Remains (n=18)

See Table 5.4.

Tableware (n=17)

Cutlery (n=17)

Earthenware (n=1)

- *White earthenware flatware rim fragment, clear glaze, light blue under glaze transfer print, and gold gilding*, n=1.

Ironstone (n=10)

- *Ironstone body fragments, clear glaze*, n=10.

Vitrified Earthenware (n=4)

- *Vitrified earthenware hollowware body with handle fragments, clear glaze, moulded*, n=2.
- *Vitrified earthenware flatware rim fragments, light brown under glaze transfer print, gold gilding, moulded edge*, n=2.

Porcelain (n=2)

- *Porcelain hollowware body fragment, clear glaze, polychrome under glaze transfer print*, n=1.
- *Porcelain cup foot rim, clear glaze*, n=1.

Household Maintenance (n=1)

Laundry (n=1)

- *Clothes pin spring*, n=1.

Architectural (n=20)

Building hardware (n=19):

- *Wire nails ranging in length from 10.7cm to 13.3cm*, n=18.
- *Complete wire spike, 18.7cm long*, n=1.

Window materials (n=1):

- *Fragment of colourless flat glass*, n=1.

Unidentified (n=10)

Container Glass (n=3)

Bottle Fragments (n=3)

- *Bottle body fragments, colourless*, n=2.
- *Bottle finish, colourless, 2 part finish*, n=1.

Faunal Remains (n=1)

- *Unidentifiable non-bird bone*, n=1.

Glass (n=1)

- *Moulded, ribbed glass sherd, colourless*, n=1.

Metal (n=2)

- Fragment of ferrous metal strapping, 1.3cm wide, hole in one end, n=1.
- Fragment of 2mm thick ferrous wire, n=1.

Metal Container (n=2):

- Can body fragments, single end seams, n=2.

Metal Hardware (n=1)

- Screw, unknown head, 2.7cm thick, n=1.

Second Large Depression (n=309)**Health and Hygiene (n=2)****Medicine Bottles (n=1)**

- Complete rectangular colourless bottle, 2 part mould, with rounded corners, ghost seam, prescription lip, hand tooled finish, recessed front, n=1.

Toiletries (n=1)

- Complete colourless 2 part mould, rectangular bottle with chamfered corners, a prescri r₁q₁p₁'H₁K₁"cpf"cp'Q₁y gp₁u₁'uect.'gnbossed, ãFrostilla, Elmira, N.Y. U.S.A ä and ãHolmes Fragrant öon the sides, n=1.

Indulgence (n=1)**Tobacco Consumption (n=1)**

- Complete slip lid, single end seam, internal side seam, 13.5cm high, 9cm diameter
ecp'y kj 'q tcp i g'rc₁k₁p₁v.'rdgmgf'k₁p'dr₁em'y kj 'õK₁O RGT *KN+O KZV*WTG+JWFUQP "
UVQ *TG+ö .p? 30

Recreation (n=1)**Hunting (n=1)**

- E c t v t k f i g'ecup i . 'G : 'urgekn.'egpvtg'hkg.'tko rguu.'ko r tguugf'jgc f'uxco r 'õY G'G'CO'
CO. .38- 77ö .p? 30'

Foodways (n=56)**Multi-use food storage containers (n=49):****Cans (n=13)**

- Htc i o gpw'htqo 'c'ecp'ur₁k₁'H₁k₁.'õLOUOHt{"cpf'Uqpu'E j qeqrcvg'cpf'E qeqc."
O cpw₁h₁c₁ewt₁gtu'q"J O O 0vjgM₁k₁p₁i .Dtk₁uqnG₁p₁i rcpfö .p? 340"

- Complete can with a hinged slip lid and internal side seams, crimped bottom, 10.5cm high, 7.7cm wide and 2 cm long, and oval in shape, n=1.

Notes: This may be c'b kpgt₁u₁'wpej 'rck₁0

Crockery (n=31)

- Fragments of Bristol glazed stoneware crockery, n=30.
- Brown glazed, ridged lip, pointed top, 10.5cm diameter crockery lid, n=1.

Jars (n=1)

- Sealer ring fragments, 1.1cm thick from a 12.5 cm sealer, which fit together, n=5.

Single-use food storage containers (n=5)**Hole-in-top Cans (n=5)**

- Can fragments from a hole-in-top can, n=3.

-Almost complete and complete hole-in-top can with single end seams, internal side seams, 8.5cm high, 7.4cm diameter, n=2.

Subsistence-related Organic (n=2)

-Soil samples of sealer contents, n=2.

Notes: Flotation analysis revealed that both contained grape seeds (*Vitis sp.*) (Martin and Barkley 1961:112), as well as skins and stems, eggshell, colourless glass fragments, coal and coal slag. One sample also contained 2 small rodent ribs and several insect parts.

Furnishings (n=2)

Wall treatments (n=2)

-Fragments of embossed wall paper with blue green and brown scrolls. Part of a
o cmgtəu'b c mTCQ .p? 40

Household Maintenance (n=1)

Painting (n=1)

-Paint brush, 2.6cm wide, missing the handle with natural bristles, n=1.

Communication(n=1)

Newspaper (n=1)

-Newspaper fragment, Italian language, words include importatori (importers), Penna (pen), (s) egretario (secretary), n=1.

Transportation (n=1)

Railway (n=1)

-Complete 25cm long railway spike, machine cut with a hand applied rounded square head, n=1.

Commerce (n=1)

Currency (n=1)

-1916 Canadian penny, n=1.

Note: This is probably due to moving of buildings off site post abandonment.

Architectural (n=92)

Building hardware (n=30)

-Wire nails ranging in length from 6.5cm to 10.6cm, n=29.

-Wire spike, 15cm long, n=1

Window materials (n=62)

-Fragments of 0.2cm thick colourless flat glass, n=62.

Unidentified (n=152)

Container Glass (n=130)

Complete to Almost Complete Containers (n=38)

-Mended fragments of an aqua marine bottle, mould seams, ghost seam and crown cap closure, n=37.

-Small (4.7cm) colourless glass bottle missing its neck and finish, n=1.

Container Fragments (n=91)

- Dark green turn moulded bottle shoulder and 11 body sherds, n=2.
- Rectangular aqua marine bottle base, embossed "CAS" n=1.
- Amber bottle fragments, n=35.
- Colourless bottle fragments, n=22.
- Solarized colourless bottle fragments with a neck ring, champagne shoulder, mould seams, which mend, n=31.

Faunal Remains (n=2)

- Unidentifiable non-bird bone, n=2.

Metal (n=10)

Ferrous (n=9)

- Cast iron fragment, n=1.
- Complete cast iron plate with a 3.9cm diameter, n=1.
- Ferrous metal strap 1.1cm wide, n=3.
- Complete rectangular wire bail, n=1.
- Fragment of ferrous wire, 0.2cm thick, n=1.
- Complete wire staple, 4.2cm long, with 0.4cm thick wire, n=1.
- Ferrous-metal-fragment, n=1.

Non-ferrous (n=1)

- Fragment of 0.1cm thick non-ferrous wire, n=1.

Metal Closure (n=4)

- Crown cap closure, n=1.
- Push on can lid, 8.5cm diameter n=1.
- Fragments of a plug in can lid, n=2.

Metal Container (n=2)

Complete to Almost Complete Containers (n=1)

- Complete can missing bail and lid with bottom single end seam, lapped side seam, 12.2cm high, side seam split open, n=1.

Container Fragments (n=1)

- Can body fragment with internal side seam, n=1.

Metal Hardware (n=4)

- Metal bolt, 5cm long, n=1.
- Heavy-duty octagonal nut and bolt, which has been sheared off, n=1.
- Slot head 2.9cm long screws, n=2.

The Public and Business Area Excavation Units

Bakery Interior, n=221

Foodways (n=13)

Tableware (n=4)

- Rim and body sherds of clear glazed earthenware, flatware vessel form, n=3.
- Pressed glass tumbler body fragment with a fluted bottom, n=1.

Subsistence-related faunal remains (n=9)

See Table 5.4.

Recreation (n=1)

Hunting (n=1)

- Centre fire rimless straight .38 special cartridge casing. Impressed head stamp *αD*.
C. Eq'5: 'U'('Y ö(Dominion Cartridge Company, Smith and Wesson), n=1.

Architectural (n= 124)

Building hardware, n=48

- Wire nails ranging in length from 3.3mm to 10.3mm, n=48.

Window materials, n=76

- Fragments of colourless flat glass, 2mm thick, n=76.

Unidentified (n=84)

Ceramic (n=1)

- Coarse earthenware corner fragment of indeterminate vessel form, n=1.

Container Glass (n=48)

Container Fragments (n=48)

- *E qnqwtgrui'dqwr'g'dqf{''ujgtf'go dquugf'~aKPMUaø'p? 30"*
- Colourless bottle sherds, n=12.
- Amber bottle sherds, n=27.
- Colourless embossed bottle body sherd embossed with *ōa[GTUaä* a Maltese cross, and an X or Y, n=1.
- Colourless straight bottle rim, 6cm in diameter, n=1.
- Colourless ribbed bottle body sherd, n=1.
- Light green bottle body sherd, n=1.
- Amber bottle base fragments, with a pontil mark embossed with an *æ ö* or *æ ä*
n=4.

Faunal Remains (n=6)

Unidentifiable non-bird bone, n=3.

Unidentifiable burnt bone, n=3.

Glass (n=16)

- Crizzled, colourless glass fragment, n=1.
- Dark green glass fragment, n=1.
- Colourless glass fragments, n=7.
- Solarized colourless glass fragment, n=1.
- Blue glass fragment, n=1.
- Aqua marine glass fragments, n=2.
- Purple glass fragments, n=2.
- Colourless melted glass fragment, n=1.

Metal (n=5)

Ferrous (n=4)

- Ferrous metal fragments; one piece is 4.2cm long, 1.8cm wide, 0.4cm thick, n=2.
- Ferrous metal pan handle, with a hole in one end, n=1.
- Unidentifiable ferrous metal object with a ring in one end, n=1.

Non-ferrous (n=1)

- Corner fragment of a thin aluminium novelty, possibly a picture frame, decorated with a moulded scroll motif, and a folded edge, n=1.

Metal closure (n=2)

-Fragments of half of a crown cap closure, n=2.

Metal hardware (n=5)

-Threaded bolt with a slot head, 1.9cm long, n=1.

-Slot head screw, 5.1cm long, n=1.

-Square nut, 1.7cm wide, n=1.

-Ferrous metal washer, with a 5.1cm diameter and 2.3cm bore, n=1.

-Non-ferrous metal washer with a 1.1cm diameter, 0.3cm bore, n=1.

Organic (n=1)

-Unidentifiable non-metal object, thin, check stamped, appears to be organic, n=1.

Bakery Privy (n=288)

Personal (n=16)

Footwear (n=16)

-Small sized (ladies 5?), full vamp fragment of a ladies left shoe, black leather, with a rounded toe, low stacked heel and decorative toe cap (Rexford 2000), n=1.

-A black leather, right, small sized shoe rounded toe fragment with a decorative toe cap, n=1.

-A low stacked heel and sole, n=1.

-Black leather shoe upper fragments, n=10.

-Sole fragments of a black rubber boot with a white textile lining, n=2.

-Small sized black rubber shoe sole, n=1.

Health and Hygiene (n=1)

Toiletries (n=1)

-Light blue oval bottle base with a round body, n=1.

Indulgence (n=4)

Alcohol consumption (n=4)

-Amber bottle base fragments with a pontil mark embossed *RR & CO 46* n=2.

-Amber bottle base fragments with a pontil marked and mirrored embossment *RR & CO 26* n=2.

Notes: R & Co stands for Reed and Company, Massillon Ohio (1888-1904) who exclusively produced amber beer bottles for export. (Whitten).

Foodways (n=12)

Single-use food storage container (n=4)

Hole-in-top Cans (n=3)

-Flattened, complete hole-in-top, double end seam can, n=1.

-Hole-in-top can ends, n=2.

Open Top Cans (n=1)

-Complete, open top, double end seam can with lapped side seams, painted red, *rdgmgf"õE jqlæg"cpf'Swcrk{ö."vjg"tguv'qh'vjg'tgwgtkpi'ku'kp'Kcrkcp."c'xqo cq'ècp."*
qr'uwo rgf"õO cfg'kp'Kcrfö".p? 3"

Subsistence Related Faunal Remains (n=8)

See Table 5.4.

Furnishings (n=1)

Furniture (n=1)

- Furniture leg containing copper, 19cm long, 2.3cm diameter, n=1.

Architectural (n=20)

Building hardware (n=10)

- Wire nails, ranging in length from 6.5 to 10.8cm, n=8.
- Wire spikes, 15cm long, n=2.

Window materials (n=10)

- Fragments of 2mm thick flat glass, n=10.

Industry and Maintenance (n=8)

Machinery maintenance (n=8)

- Fragments comprising of a ferrous metal gas can with crimped tubing, stamped on
qp g'ukf g'p'cp'qxcn'öRCVGP VGF '3: ; :- 3; 22ö ".p? :

Unidentified (n=226)

Container Glass (n=184)

Container Fragments (n=184)

- Dark green bottle fragments, n=3.
- Colourless bottle fragments, n=39.
- Aqua marine bottle fragments, base fragment, embossed $\overline{d} 2 \ddot{a}$ n=38.
- Green bottle rim fragment with a crown finish, n=1.
- Light blue bottle fragments, n=4.
- Dark amber oval shaped bottle base, embossed with a $\overline{w} \ddot{o}$ inside of an oval, n=1.
- Purple bottle body sherds, n=3.
- Light purple bottle body sherds, n=8.
- Amber bottle sherds, n=86.
- Purple jar finish and neck fragment with a ground rim, n=1.

Lithic (n=1)

- Heat treated (waxy lustre) pink chert core fragment, n=1.

Metal (n=16)

Ferrous (n=16)

- Ferrous metal buckles with rounded corners, 2.6cm square, n=2.
- Cast iron pipe rim, n=1.
- Complete cast iron spout, n=1.
- Ferrous metal bar, with a hole in each end, about 30cm long, 2.2cm wide and 0.3cm thick, n=1.
- Ferrous metal fragment with punched holes and a crimped edge, n=1.
- Ferrous metal rings, 4mm thick, 3.4cm diameter, n=2.
- Cut and punched ferrous sheet metal fragments, n=7.
- Fragment of ferrous wire, 2.5mm thick, n=1.

Metal container (n=4)

- Can body fragment with external side seams and a push in lid, n=1.
- Fragments of a flattened push in lid can, n=3.

Metal hardware (n=2)

- Square head bolt, 9.5cm long, n=1.
- Square head bolt, 25cm long, n=1.

Organic (n=19)

- Unidentifiable non-bird bone, n=19.

Bakery Veranda (n=181)

Personal (n=1)

Clothing fasteners (n=1)

- Ferrous metal garter clasp, n=1.

Furnishings (n=2)

Lighting (n=2)

- Lamp chimney rims, one colourless, one purple, both with moulded beading (Woodhead et al. 1984:61), n=2.

Architectural (n=16)

Building hardware (n=16)

- Machine nail, with a flat head and thickened middle, 10cm long, n=1.
- Wire nails ranging in length from 5.8cm to 10cm long, n=15.

Unidentified (n=162)

Container Glass (n=148)

Container Fragments (148)

- Colourless bottle body sherds, n=22.
- Amber bottle sherds, n=104.
- Purple bottle body sherds, n=11.
- Light green bottle body sherds, n=2.
- Green bottle body sherds, n=2.
- Dark amber/green bottle body sherds, n=3.
- Light purple bottle body sherds, n=4.

Glass (n=9)

- Pressed glass sherd, n=1.
- Patinated glass sherds of an indeterminate vessel, n=8.

Metal (n=4)

Ferrous (n=3)

- Ferrous metal bar with a U notch, 9.2cm long, 0.3cm thick, n=1.
- Ferrous metal fragments, n=2.

Non-ferrous (n=1)

- Non-ferrous metal fragment which looks like a conductor plate, n=1.

Metal closure (n=1)

- Crown bottle cap, n=1.

Hotel Terrace n=402

Indulgence (n=20)

Alcohol consumption (n=20 MNV 4)

- Fratelli bitters bottle hand stamp, green, n=1.
- Whisky bottle foil fragment with pink writing, n=1.
- Beer bottle base, amber, cup bottom mould, R & Co, 40 (Reed and Company), n=1.
- Case bottle body fragments, dark green, plate mould, n=16.
- Case bottle base, dark green, plate mould, embossed with a large * and six dots, n=1.

Foodways (n=14)

Subsistence related faunal (n=1)

See Table 5.4.

Subsistence related organic (n=1)

- Eggshell fragments, n=1.

Tableware (n=12)

Ceramic (n=12)

Ironstone (n=2)

- Ironstone fragments, clear glaze, n=2.

Vitriified Earthenware (n=2)

- Vitrified earthenware hollowware body fragment, clear glaze, blue under glaze transfer print, hand painted gold gilding, n=1.
- Vitrified earthenware flatware foot rim fragment, clear glaze, n=1.

Semi-Porcelain (n=1)

- Melted, semi-porcelain hollowware rim fragment, clear glaze, n=1.

Porcelain (n=6)

- Melted, porcelain hollowware body sherd, clear glaze, n=1.
- Porcelain hollowware body sherd, clear glaze, n=1.
- Porcelain hollowware body sherds, blue non-lead glaze over a clear glaze, (small teacup?) n=2.
- Porcelain hollowware fragments, clear glaze and blue glaze, n=2.

Transportation (n=1)

Railway (n=1)

- L head railway spike, 11cm long, n=1.

Architectural (n=68)

Window materials (n=7)

- Fragments of colourless flat glass, 2mm thick, n=7.

Building hardware (n=61)

- Wire nails, ranging in length from 3cm to 10.5cm, 2 in wood, n=61.

Unidentified (n=299)

Container Glass (n=283)

Container Fragments (n=283)

- Amber bottle fragments, n=86.

- Colourless, bottle fragments, n=23.
- Aqua marine, bottle fragments, n=98.
- Bottle body fragment, amber, painted coat of arms, n=1.
- Dark green bottle fragments, n=6.
- Bottle finish, light green, champagne finish, n=1.
- Bottle finishes, colourless, solarized, 2 part finish, n=2.
- Bottle fragments, green, n=66.

Glass (n=5)

- Melted glass sherds, amber, n=5.

Metal (n=5)

Ferrous (n=5)

- Ferrous metal fragment, n=1.
- Complete wire tack, 1.6cm long, n=1.
- Fragments of 4mm thick wire, n=3.

Metal Closure(n=2)

- Crown cap bottle closures, rubber liners, n=2.

Organic (n=4)

- Ridged wood fragment, n=1.
- Cork fragments, n=3

Town Dump (n=1300)

Personal (n=35)

Accessories and adornment (n=2)

- Pocket watch gear, 2.2cm diameter n=1.
- Bead chain, 10 beads, dark navy opaque glass, beads are 4mm in diameter, non-ferrous metal links, n=1.

Clothing fasteners (n=6)

- Garter clasp n=1
- Non- lgt tqwu"b gxcn"i c tvg t'ercur.'lxco rgf"öRCV'WN[":.'3:::ö"c tqwpf"e'ekterg." n=1.
- Button with shank, non-ferrous metal, square, floral edging, missing centre, n=1.
- Buckle fragment, ferrous, 4.3cm high, n=1.
- Ferrous metal button, black leather attached to shank, 1.7cm diameter, stamped
öM&P I QH'VJ G TQCF ö.'p? 30
- Complete black opaque glass button, 15mm diameter, depressed centre, four holes, n=1.

Clothing textiles (n=3)

- Fine weave, silk-cotton blend, black trim, n=1.
- Rust coloured wool-cotton blend, n=1.
- Black wool fibres, n=1.

Footwear (n=24)

- Black leather stacked heel and upper fragments (metal eyelets) n=1.
- Black leather stacked heels n=2.
- Black leather toe and vamp fragment, rounded, decorated toe, n=1.
- Black leather sole and upper fragments, right side, 25cm long, n=1.
- Black leather upper fragments, n=12.

- Black leather sole fragments, n=3.
- Black leather upper and lace stay fragment, metal eyelets, n=4.

Health and Hygiene (n=1)

Grooming (n=1)

- Toiletry bottle base fragment, two part oval mould, moulded gothic arches around bottom of body, n=1.

Indulgence (n=27)

Alcohol Consumption (n=21)

- Bottle base, amber, pontil mark, two part mould with separate base part, embossed *DR & CO 37* (Reed and Company), n=1.
- Bottle body fragments, dark green, plate mould, gin bottle, n=20.

Beverage Consumption (n=6)

- Pepsi cola crown cap bottle closures, painted *YOU MIGHT WIN* n=3.
- Pepsi cola bottle, colourless, machine moulded, two part mould, stippled resting point, base embossed *©-15 1968* "fko qpf F": "fqv beneath 2893 10" (pair #9, Redcliffe plant, March/April 1968, mould # 2893), n=3.

Recreation (n=3)

Music (n=1)

- Mouth organ draw reed, n=1.

Toys (n=2)

- Porcelain body fragment, clear glaze, moulded, looks like a doll part, n=1.
- Porcelain doll part fragment, light pink non-lead glaze, n=1.

Foodways (n=280)

Multi-use food storage containers (n=19)

Crockery (n=19)

- Stoneware hollowware body and base fragments, salt glaze, unglazed base n=3.
- Stoneware body sherd, brown glaze n=3.
- Stoneware fragments, non-lead glaze, n=1.
- Stoneware fragments, Bristol glaze, internal brown glaze, n=9.
- Stoneware hollowware body fragment, clear glaze, n=3.

Single use food storage containers (n=62)

Hole-in-top Cans (n=58)

- Hole-in-top cans and can fragments (single end seams) n=17.
- Hole-in-top can ends, n=30.
- Hole-in-top can end, single end seam, n=2.
- Hole-in-top can end and body fragments, flattened, n=3.
- Rectangular can fragments, hole-in-top, single end seam, n=3.
- Complete can, flattened, hole-in-top, single end seams, n=3.

Key Cans (n=2)

- Can key, n=1.

Rectangular Cans (n=3)

- Rectangular can seam fragments, n=2.
- Rectangular can top fragment, top rolled up from key, n=1.

Subsistence Related Faunal Remains (n=105)

See Table 5.4.

Tableware (n=93)

Ceramic (n=91)

Earthenware (n=28)

- Red earthenware, (possibly lusterware) fragment, copper looking metallic glaze, n=1.
- White earthenware body fragment, brown transfer print, clear glaze, floral motif, indeterminate vessel form, n=1.
- White earthenware flatware rim fragment, gold-coloured under glaze transfer print, gold gilding around edge, clear glaze, n=1.
- White earthenware fragments, clear glaze, n=18.
- White earthenware hollowware rim fragment, inner edge for lid, brown under glaze transfer print, clear glaze, n=1.
- White earthenware mended hollowware rim fragments, brown under glaze transfer print, moulded external, clear glaze, n=4.
- White earthenware hollowware rim sherd, purple under glaze transfer print, clear glaze, coat-of-arms type motif, n=1.
- White earthenware flatware rim fragment, gold under-glaze transfer print, clear glaze, gold gilding around rim, floral motif, n=1.

Ironstone (n=34)

- Ironstone hollowware rim, body and foot rim, clear glaze, part o hōV0((R.) Boote Y cvgtmqō "ō cmgtāu"ō c tm."rquikdn{ "c'xgt{ "fggr 'ūcwegt'q t'uj cmqy "dqy n.'p? 30"
- Ironstone cup handle, clear glaze, moulded n=1.
- Ktqpūqpg'rūc'g"tkō "cpf'dqf{ 'ujgtf.'ērgct'i'nc/g.'rc tv'kcn'ō cmgtāu"ō c tm"VOT0Dqqvg+"ōGp i'ncpf'Y cvgtmq Rqwg tkguō 'p? 30
- Ironstone, pink under glaze transfer print, clear glaze, soup tureen cover, n=1.
- Ironstone fragments, clear glaze, several moulded, n=24.
- Ironstone body fragments, clear glaze, blue under glaze transfer print, n=2. -
- Ironstone hollowware ba ug"cpf'dqf{ 'htc i o gpw."qdnpi 'ujcrg."ērgct'i'nc/g."ō cmgtāu" o c tm'ōV0(T0Dqqvg'Rqwg tkguNvfōi'ōC0Y0Y krg{ "cpf'E q0Nvf.'O qpvtgcrö.'p? 50"
- Ktqpūqpg'h'c'v'c tg'h'qv'tkō ."ērgct'i'nc/g.'rc tv'qh'ō cmgtāu"ō c tm."ōaQPUō.'p? 30"

Vitrified Earthenware (n=31)

- Vitrified earthenware plate fragments, under glaze hand painted floral pattern with o gwnkē"j cpf'rckpvgf "i kfpki .ø'p? 320"
- Vitrified earthenware hollowware body sherd, blue under glaze transfer print, clear glaze, n=1.
- Vitrified earthenware, hollowware rim fragment, under glaze green transfer print, clear glaze, n=2.
- Vitrified earthenware hollowware rim fragments, clear glaze, gold gilding, n=2.
- Vitrified earthenware cup rim and part of handle fragments, clear glaze, pink smear, n=2.
- Vitrified earthenware flatware rims, green under glaze transfer print, scalloped and moulded edge, n=4.
- Vitrified earthenware flatware foot rim and base fragment, flow blue under glaze vtcpulgt'r tkpv."ō qwnfgf.'Y 0I 0I tkpfrg{ "cpf'E q0Nvf'ō cmgtāu"ō c tm"*3: ; 31914), same pattern as other flow blue in this level, n=5.

- Vitrified earthenware fragments, clear glaze, moulded, n=2.
- Vitrified earthenware flatware rim, body and foot rim fragment, navy blue under glaze transfer print, scalloped edge, moulded dots, gold gilding around edge, n=1.
- Vitrified earthenware flatware foot rim, brown under glaze transfer print on base, clear glaze, n=1.
- Vitrified earthenware hollowware body fragment, clear glaze, melted, n=1.

Porcelain (n=4)

- Porcelain hollowware body fragment, blue transfer print under a clear glaze n=1.
- Porcelain body fragment, polychrome (light brown and green) under glaze transfer print, n=1.
- Porcelain saucer rim, body and foot rim fragment, violet under glaze transfer print, clear glaze, moulded edge, n=1.
- Porcelain hollowware rim and body fragment, clear glaze, gold gilding around

Glass (n=1)

- Tumbler fragment, colourless, pressed glass, ribbed, n=1.

Metal (n=1)

- Enamelware cup, white lead glaze, missing handle, 9.8cm diameter, n=1.

Furnishings (n=7)

Heating (n=1)

- Cast iron stove part n=1.

Lighting (n=6)

- Chandelier claw, non-ferrous, bronze, filial, n=1.
- Lamp chimney upper rim, colourless, moulded beading, (Woodhead et al. 1984:61) n=1.
- Lamp thumbscrew, non ferrous metal, 5.9cm long, with three cogs, two of which are smaller and star shaped, n=1.
- Lamp stem fragments, colourless, moulded/pressed glass, fit together, n=3.

Household Maintenance (n=1)

Laundry (n=1)

- Clothes pin spring n=1.

Communication (n=1)

Letter Writing (n=1)

- Rectangular pencil lead fragment, 4cmx6cmx0.26cm, n=1.

Transportation (n=2)

Animal powered (n=1)

- Ferrous metal horse shoe fragment n=1.

Railway (n=1)

- Railway spike, L head, n=1.

Architectural (n=93)

Building hardware (n=87)

- Wire nails, 3.25-10.8cm long n=85.

-Machine cut nail, (poorly preserved) n=1.

-Wire spike, 15.5cm long, n=1.

Building materials (n=2)

-Brick fragments, no brand, n=2.

Door hardware (n=3)

-Cast iron door latch fragment, n=1.

-Door hinge, n=1.

-Ferrous metal hinge, 2.5x3cm, wood and nails attached, n=1.

Window materials (n=1)

-Flat colourless glass shard, n=1.

Industry and Maintenance (n=3)

Mining (n=3)

-Slag, n=3.

Unidentified (n=850)

Container Glass (n=205)

Container Fragments (n=205)

-Dark green bottle fragments, n=20.

-Colourless bottle neck and shoulder fragment, turn mould, cylindrical neck, rounded shoulder, enamelled with a black and white circular logo, triangles around a border, a post abandonment intrusion (Miller et al 2000:8), n=1.

-Colourless bottle fragments, n=94.

-Amber bottle fragments, n=26.

-Aqua marine bottle fragments, n=31.

-Green bottle fragment, green, patinated, n=1.

-Green bottle fragments, n=10.

-Bottle fragments, purple, n=3.

-Bottle fragments, light green, patinated, n=3.

-Bottle body and shoulder fragments, amber, patinated, n=8.

-Jar rim and body sherds, milk glass, 7.5cm high, enamelled label in green and navy, *öWUCö .p? 90"*

-Jar closure, colourless, concave circle on top, base 4.2cm diameter, top 5.3cm diameter, n=1.

Faunal remains (n=91)

Unidentifiable non-bird bone, n=81.

Unidentifiable Aves sp. bone, n=2.

Unidentifiable burnt bone, n=7.

Foetal bone, n=1.

Glass (n=27)

-Glass shards, colourless, several melted n=16.

-Glass shards, amber, melted, n=3.

-Glass vessel finish and body fragments, colourless, cracked off lip, horizontal shoulder, n=3.

- *O gngf "i ncu'htc i o gpw."eqnqwtgüi"cpf "c swc "ö c tlp g."c swc 'uj gtf "go dquugf "öRGTö."* n=5.

Metal (n=19)**Ferrous (n=15)**

- Ferrous metal fragment, thick n=3.
- Ferrous metal bar, 0.4cm thick n=1.
- Ferrous metal closure, 2.5cm diameter bore, n=1.
- Ferrous metal strapping with rivets, 2cm wide, n=2.
- Ferrous metal wire, n=4.
- Cast iron piece, n=1.
- Ferrous metal rod, 1.3cm thick, n=1.
- Ferrous metal handle, looped, n=1.
- Ferrous metal pin, n=1.

Non-ferrous (n=4)

- Non-ferrous metal rivet, 1.4cm long n=1.
- Metal fastener, cuprous, looks like a buckle part, n=1.
- Non-ferrous tack/rivet, hollow shaft, 1.4cm head, n=1.
- Brass pipe neck, n=1.

Metal Container (n=495)**Complete to Almost Complete Containers (n=2)**

- Complete can, single end seam, press over lid, squashed, n=1.
- Ego rirvg"ecp."tqngf"ugco u.'uxco rgf'õF glkpeg.Rcvgpvgf'3;22 Vjg'Y Ø OE tqy p"
Co. Limited Bellvill g'QpW.'p? 30"

Container Fragments (n=493)

- Can fragments, and end seams n=323.
- Can body fragment, n=154.
- Can body fragment, blue paint, crimped body, n=1.
- Can double end seam and internal side seam fragments, n=9.
- Can handle and body fragment, similar to the olive oil can, n=1.
- Can end fragment, oval, n=1.
- Can end fragments, n=4.

Metal Closure (n=1)

- Crown closure bottle cap, n=1.

Metal Hardware (n=11)

- Thin bolt with latch, eye closure, tri-lobed latch, n=1.
- Bolt, rounded head, 14.7cm long, bottom 3 cm threaded, 2 cm head, n=1.
- Nut, square, 3.9cm square, 2.4cm high, 2cm bore, n=1.
- Slot head screw, 3.3cm long, n=1.
- Screws, broken n=2.
- Square head spike, 30cm long, n=1.
- Wire spikes, n=2.
- Non-ferrous metal washer, 1.6cm diameter, 1.1cm bore, n=1.
- Ferrous metal washer, 3.2cm diameter, 1.4cm bore, n=1.

Organic (n=1)

- Cork stopper, 4cm long, 2cm diameter, n=1.