FRASER RIVER GOLD MINES AND THEIR PLACE NAMES

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INTRODUCTION

In the spring and summer of 1858, thirty thousand to thirty-five thousand gold prospectors and others from California, Oregon, and Washington crossed into British territory (today British Columbia) to join the few who had been there since the previous year.[1] Many of them reached the Fraser River, where they began working placer gold deposits on bars from Chilliwack upstream. In 1858, most mining occurred near Yale, but there was activity as far upriver as Fountain, immediately above Lillooet, and prospectors reached well beyond Fountain to the mouth of the Chilcotin River. Working even further upriver in 1859, some prospectors discovered gold in paying quantities on the Quesnel River.[2] In the early 1860s, another rush, largely consisting of miners from Europe, moved into and developed mines in the Cariboo district drained by tributaries of the Quesnel and Fraser rivers. For the most part, standard histories of British Columbia and the gold rush written

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1 Marshall (2002) adapted this estimate from the reports by John Nugent, the US consular-resident in Victoria, who based his calculations on an interpretation of shipping records and the eyewitness reports of miners who came overland. A significant out-flux of individuals from nearly the beginning of the rush, however, meant that the maximum number of miners actively working was perhaps as low as one-third of this figure. Ongoing data collection and analysis indicate that the active mining population present at the river was a small fraction of the number of individuals who arrived in the territory and that transience was high.

2 This upstream expansion of mining was characterized by succeeding annual rushes: miners evacuated the goldfields each autumn to return the next spring accompanied by a new force of adventurers, which, in turn, produced a series of "rushes" in 1858, 1859, 1860, and 1861, all of which blended into the Cariboo rush.

through to the present day have focused on developments in the Cariboo in the 1860s and have largely ignored the establishment of a sustained and substantial mining industry along the Fraser River corridor (e.g., Bancroft et al. 1887; Howay 1914; and Ormsby 1971).

As the map that accompanies this article (Nelson, Kennedy, and Leinberger, this volume) shows, the Fraser remained an important focus of mining activity through the end of the nineteenth century. Based on both field and archival data, this map identifies the sites of most placer mining along the Fraser River from just east of Chilliwack to Quesnel, and up the Quesnel River into the heart of the Cariboo mining district. In 2009 Kennedy reported, in *BC Studies*, the results of his work recording surviving physical evidence of mining between Lytton and Big Bar. There, because aridity limited the growth of dense vegetation over top of mines, physical evidence of mining is still relatively obvious. Subsequently, Nelson (2011) attempted to extend Kennedy's (2009) mapping north to Quesnel and south beyond Yale; however, along these forested stretches of the river, the field identification of mining sites was more difficult. Believing that field investigations would be facilitated by knowledge of the approximate location of mines, we turned to the historical record. It directed much of our later fieldwork and aided our interpretation of the physical remains of placer mining (Nelson 2011). Combining physical and archival data has allowed us to create a map that shows the distribution of placer mining along some five hundred kilometres of the Fraser River with far more detail and precision than has been achieved heretofore. The result provides a new appreciation of the movement, duration, and extent of placer mining along the Fraser River.

PHYSICAL EVIDENCE OF MINING

Areas excavated by individual mines were mapped using ground-based observation and/or air photographs (Figure 1).[3] Over seven field seasons, we traversed most of both sides of some 520 kilometres of the Fraser River, surmounting steep canyons, walking through dense forest, and travelling very rough roads to discover and confirm mines in remote locations to which it was generally difficult to gain access. In addition, we examined the landscape from the river during a raft transect, identifying mines and possible mine sites that were later examined in detail.

In forested areas, mines were located by examining sites indicated in the historical record, by hiking transects next to creeks to find ditches

[3] Undoubtedly, mine sites and distinctive surface textures would be resolvable from LiDAR-based topography, which was unfortunately not available along the Fraser.

Figure 1. 1953 air photo of Browning's Flat showing the extent of excavation, parallel stacked piles of cobbles within the excavated area, and small groundsluice prospects. *Source*: British Columbia, Base Mapping and Geomatic Services Branch (1952).

and following the ditches to mines, and by searching uphill from tailings fans that protruded into the river. These mines were then mapped by walking their perimeters with a hand-held global positioning (GPS) unit. At small sites (approximately twenty metres to a side or smaller) where the precision of the GPS unit was inadequate to the task of mapping, edge distances were determined on the ground by tape and/or pacing and combined with a single GPS-derived location. Some mines in forested

regions were visible in early (1928-1950s) air photos made before vegetation re-growth obscured the site. In open territory, we examined the banks of the river from promontories that provided vantage points of sections of the river and sketched the identified boundaries of mines on air photos, although it was frequently necessary to hike in to mines to confirm details. Because Kennedy (2009) had already mapped mines between Lytton and Big Bar, polygons from that work were incorporated into this map.

Table 1 shows the criteria used to identify the presence of placer mines. The presence of diagnostic features at a particular site resulted in positive identification of mining activity. If only supportive features were apparent, mining activity was characterized as less certain. Three degrees of certainty are represented on the map. "Nearly certainly mined" locations are places in which there is strong indication that mining occurred in a clearly defined area. "Probably mined, poorly defined boundary" designates locations lacking diagnostic features and those with poorly defined boundaries, even though diagnostic features are present. "Possibly mined" locations are mapped on the basis of only a few supportive features that might have been produced by natural processes. In many cases, interpretation of mining activity at these locations is supported by the documentary record.

Different mining techniques and technologies left distinct landscape features. The different forms have been well described by Limbaugh (1999), Lindström et al. (2000), and Kennedy (2009). Our classification of the kind of mining that occurred at each of our sites is based on the relict morphology and is therefore tentative. Interpretations may not represent all forms of mining that occurred at sites that were worked for several years, or even decades, because later workings typically erased evidence of earlier activity. Furthermore, the landscape form left by some extraction methods grade into each other: for instance, the difference between a deep groundsluice and a shallow hydraulic mine is nearly impossible to discern solely on the basis of topography.

Some sections of the river were inaccessible.[4] These sections included the left bank between Trafalgar Flat and the Alexandra Bridge, both banks in the canyon between the Alexandra Bridge and Boston Bar, and both banks from just above North Bend to Edinburgh Flat (except a single site identified at Kanaka).[5] Nor did we attempt to map physical evidence of mines along the Quesnel and Cariboo rivers; our documentation of mining in this area relied exclusively on archival evidence.

[4] Because property owners, cliffs, or days of hacking through bush blocked access.

[5] In fact, researchers locating the Cariboo Waggon Road continue to encounter new evidence of placer mining between Yale and Lytton.

TABLE 1
Criteria used to identify placer mines

	Diagnostic	Supportive	Necessary
Sluice	Manually stacked cobbles and boulders	Linear heaps of tailings	
Groundsluice	Manually stacked cobbles and boulders Ditches leading directly to the scarp edge	Gully-like erosional pattern in locations where water would not be naturally concentrated	
Hydraulic	Remains of headboxes, high pressure iron pipe, hydraulic monitors	Teardrop shaped depressions at terrace edges with high scarps	Water source with high flow and substantial head (may be quite distant)
All	Presence of original terrace level "buttes" or barriers between an eroded pit and the downhill direction Clearly constructed drains leading through barriers Remains of flumes, sluices	Ditches leading to or above the area "Unnatural" scarp patterns including sharp angles, freshness in areas where other erosion has not recently occurred, odd angles relative to nearby water features Nearby mining-era artifacts of human activity Soil and fines removed over an area leaving unorganized coarse (cobble-boulder) lag deposits	Plausibility of placer gold presence (unless the site is just of a prospect size) Plausibility of access to a reasonable quantity (defined by the scale of the site and technologies used) of water

HISTORICAL EVIDENCE OF MINING

Colonial and provincial records in the British Columbia Archives (BCA) and the Special Collections division of the University of British Columbia Library were searched for evidence relating to placer mining activity between 1857 and 1910. Initially, attention was focused on the Lytton-Big Bar section of the Fraser River and the Hope-Yale area. Later, we examined records pertaining to the Fraser from Big Bar north to Cottonwood Canyon and the Quesnel River.[6] Sources available in the archives included government agency ledgers kept in multi-year leather-bound volumes, loose sheets/maps, and bundles of free miners certificates (counterfoils). The most valuable of these – the ledgers – record mining claims, claim transfers, and water privileges and transfers, and they contain information on the location of claims and water sources (Figure 2). Early maps provided mining-era names of key landmarks, especially creeks (Figure 3). Table 2 lists the specific sources used in this project, their temporal and spatial coverage, and the type of record.

The Evidence Considered

These documents represent the official colonial view of mining along the Fraser River. Some, particularly early maps published in London, were propaganda designed to lure people to the new colonies. Most, however, represent the attempt of British colonial officials to understand, manage, and formalize the mining landscape in order to establish the administrative authority of the state.

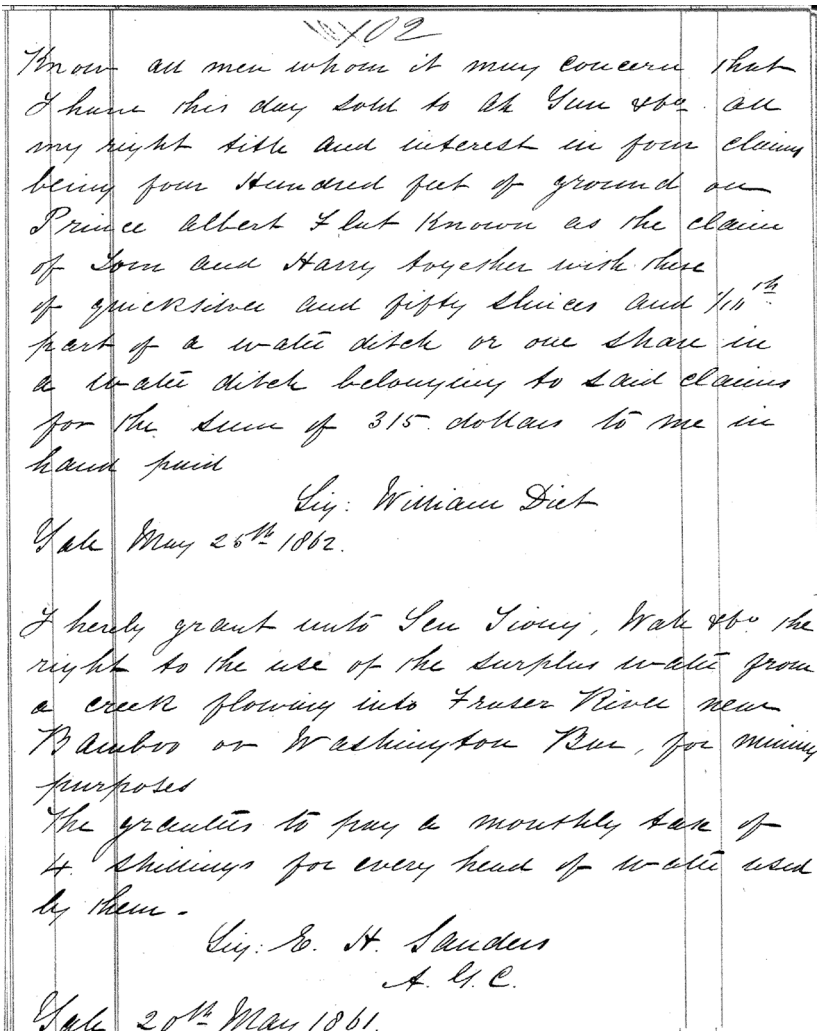
Table 2 lists the area and period covered by each record set. The record is fairly comprehensive for the period from 1858 through the mid-1860s, and from 1873 to the cessation of important mining activity. Little was recorded during the late 1860s and early 1870s, and it is no longer possible to say whether this reflects a lack of mining activity or of record keeping.[7]

The principal local colonial officials were the gold commissioners.[8] The office of gold commissioner was established by the Mining Act, 1859. It grew out of gold rush experiences in the colonial Antipodes and

[6] Conducted under contract by researcher Robert Galois.

[7] Assistant gold commissioners were largely attached to the leading edge of the rush and recorded mining on this frontier rather than the activity behind it.

[8] Actually, they were assistant gold commissioners who worked in the field and reported to a chief gold commissioner.



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Know all men whom it may concern that I have this day sold to Ah You & Co all my right title and interest in four claims being four hundred feet of ground on Prince Albert Flat known as the Claim of Tom and Harry together with these of quicksilver and fifty sluices and 1/10th part of a water ditch or one share in a water ditch belonging to said claims for the sum of 315 dollars to me in hand paid

Sig: William Diet

Yale May 26th 1862.

I hereby grant unto Leu Liouy, Wah & Co the right to the use of the surplus water from a creek flowing into Fraser River near Bamboo or Washington Bar, for mining purposes

The grantees to pay a monthly fare of 4 shillings for every head of water used by them.

Sig: G. H. Sanders

A. G. C.

Yale 20th May 1861.

Figure 2. Part of page 102 from a handwritten copy of the government agency ledger at Yale (GR-0252) held by University of British Columbia Library Special Collections (BRSC-ARC-1258 box 24, file 1). The text reads:

"Know all men whom it may concern that I have this day sold to Ah You & Co all my right title and interest in four claims being four hundred feet of ground on Prince Albert Flat known as the Claim of Tom and Harry together with these of quicksilver and fifty sluices and 1/10th part of a water ditch or one share in a water ditch belonging to said claims for the sum of 315 dollars to me in hand paid. Sig. William Diet[z]. Yale May 26th 1862

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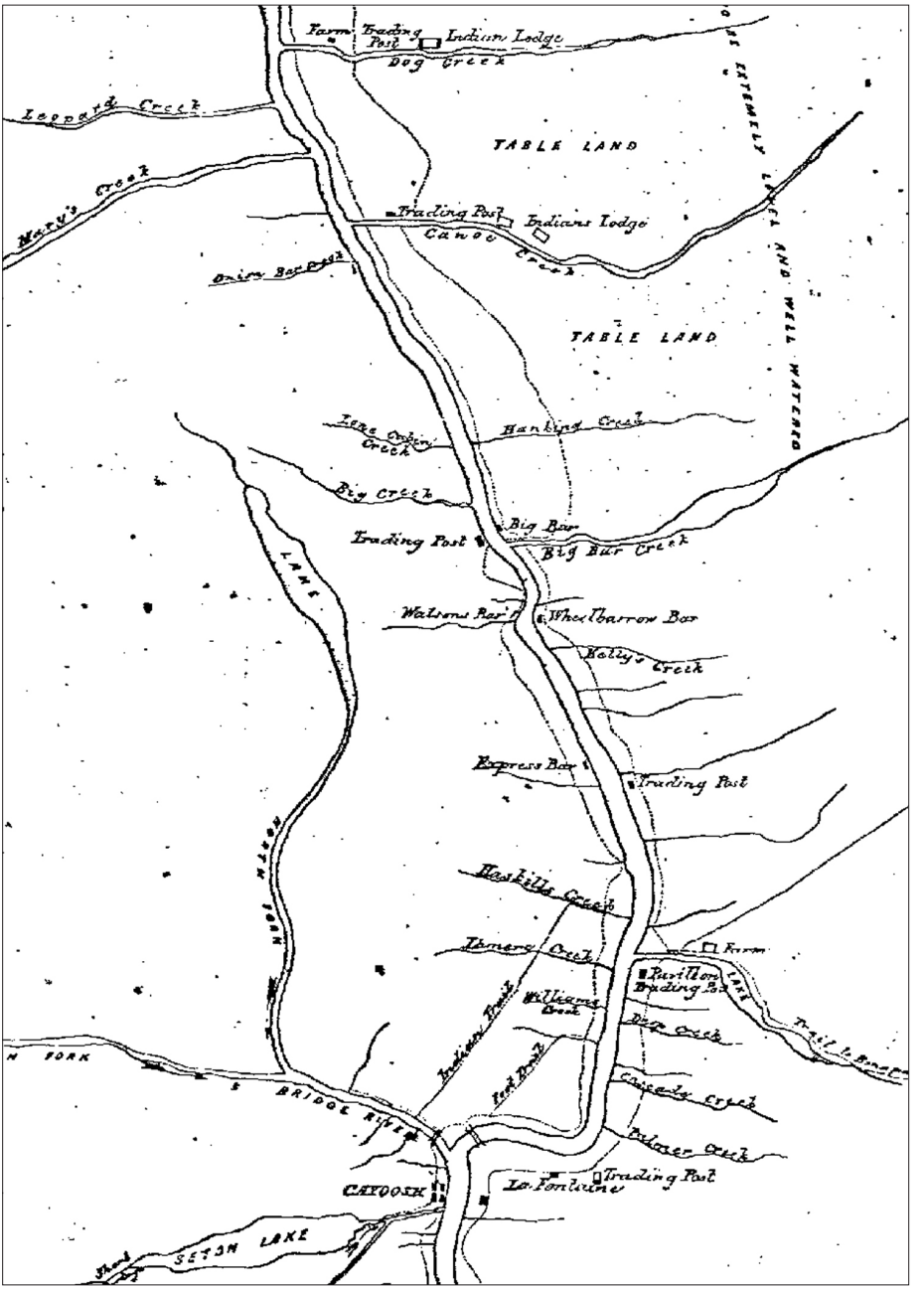

Figure 3. Detail of a map "Rough Sketch of the Cayoosh District" drawn by Corporal J. Conroy (1861) showing mining-era creek names and landmarks along Fraser River from Lillooet (Cayoosh on map) to Dog Creek. Many of the creek names on this map are no longer used.

TABLE 2
Sources used to define place names and locations[1]

Source	Record Time Period or Year Published	Locations	Type
GR-0224 Box 21	1859-1861	Lillooet	Mining Records
GR-0224 Box 22	1865-1867, 1887-1896	Lillooet	Mining Records
GR-0252 Box 12	1858-1872	Yale	Mining Records
GR-0252 Box 12a	1858-1866	Yale	Mining Records
GR-0252 Box 13	1873-1888	Lytton and Yale	Manual of Record
GR-0252 Box 14	1880-1890	Lytton and Yale	Manual of Record
GR-1054 Box 1 Folder 1	1859-1874	Lytton	Mining Records
GR-0216 vol. 30-33	1860-1862	Alexandria	Mining Records
GR-0216 vol. 76	1867-1899	Quesnellemouth	Mining Records
Annual Reports to the Minister of Mines	1874-1910	All	Mining Reports
Conroy	1861	Middle Fraser	Map
Bowman	1887	Cariboo (including Quesnel River)	Map
Epner	1862	All	Map
Nation	1910	Lillooet and Clinton dvs.	Map
Ward and Harris	2001 (a & b)	All	Map Collection
Canadian Topographic Maps 1:50,000	Various, Recent	All	Map Series
GeoBC	2011	All	Geographic Names Database
Bancroft et al.	1887	All	Published Narrative
Dawson	1889	All	Published Narrative
Howay	1926	All	Published Narrative
Howay	1914	All	Published Narrative
Haggen	1923	Quesnel River, Fraser near Quesnel	Published Narrative
Waddington	1858	Mid-Lower Fraser	Published Narrative
Victoria Gazette	1858-1859	Mid-Lower Fraser	Newspaper
San Francisco Evening Bulletin	1858-1859	Mid-Lower Fraser	Newspaper
Alta California (San Francisco)	1858-1859	Mid-Lower Fraser	Newspaper
Northern Light (Whatcom)	1858	Mid-Lower Fraser	Newspaper
Pioneer and Democrat (Olympia)	1858-1861	Mid-Lower Fraser	Newspaper
Marshall	2002	Mid-Lower Fraser	Thesis

[1] Mining records and manual of records consist of the (assistant) gold commissioners' ledgers, in which mining claims, water rights, and transfers of claims were recorded. The Mining Reports were annual summaries written by the gold commissioners, and they described developing and ongoing mining activity in their districts. Maps were drawn by Royal Engineers and gold commissioners. The published narratives of Waddington (1858); Bancroft, Nemos, and Bates (1887); Howay (1914); and Howay (1926) are early secondary descriptions of mining. Newspaper reports were published in Victoria, the Oregon Territory, and California, and they summarized developments in the gold rush, blatantly promoting the goldfields (and the shipping industry that connected people and supplies to the goldfields). The sources listed as GR-XXXX are government reports housed in the British Columbia Archives and are included in References.

came to encompass a complicated amalgam of roles, the principal of which was to issue mining licences and to register mining claims and water privileges. In addition, gold commissioners acted as stipendiary magistrates, justices of the peace, county court judges, deputy sheriffs, heads of the postal system, sub-commissioners of Crown lands and works, collectors of revenue and customs, receivers/cashiers for gold, electoral officers, and the primary point of contact with indigenous peoples. In sum, they were "agents of everyday authority" (Barman 1991, 77).

Likely candidates for the various less-senior offices in the newly formed administration of the Colony of British Columbia were typically interviewed in Britain by Colonial Office officials, and those among them who were successful were given supportive letters of introduction. On arrival in the new colony some of these "recommendees" were appointed as assistant gold commissioners by Governor Douglas and assigned to the goldfields (never more than seven were in appointment at any time). Characteristically, with some exceptions, they were Anglo-Irish, some thirty years of age, born to good families with country roots, well educated, and possessed of military or para-military experience. Commissioners were selected to project an image of quiet but obvious authority; physical stature, military posture, and a cultivated accent of the proper class were all attributes of critical importance (Ormsby 1950; Smith 1957). Following on the unfortunate experiences resulting from some unwise appointments in the frantic pre-colonial months of 1858, which led to early dismissal, those British citizens who had come through the California goldfields to British Columbia were never again given serious consideration (Begbie, in Loo 1994).[9] The new commissioners were thrown into a polyglot, racially mixed community of strangers whose members, like gold miners elsewhere, were often secretive and aggressive. But these commissioners succeeded in bringing a measure of order and civil behaviour to a mass migration that, elsewhere, was often characterized by a widespread culture of violence – a culture that prospered in the absence of formally administered law.[10] Their records and reports of gold-mining activity were inevitably filtered by their own vantage points and understandings, and cannot be taken to

[9] "Englishmen who lived in California … there is usually to be remarked among such persons an alteration in voice, in tone, and in manner … an accretion of prejudices as to colour and race, which I think render them unfit." See Begbie to Douglas, 18 May 1859, BCA, GR-1372, reel B-1307, f. 142h/7 (cited in Loo 1994).

[10] Notwithstanding the comparatively low levels of violent behaviour experienced in these gold rushes, episodes occurred between miners and Aboriginal people and between miners themselves. For a detailed reconstruction of the "Fraser Canyon War," see Marshall (2002) and Harris (1997).

reflect the views of all miners or to present a complete picture of mining activity (Prins 2007). The difference between the commissioners' and miners' views was probably especially pronounced where language and/or culture hindered communication. In their annual reports, the gold commissioners frequently complained of the difficulty of obtaining information about Chinese mining.[11]

Because most of the names given to places in the gold commissioners' records are typically not in use today, locations had to be determined on early maps, such as those by Conroy (1861), Epner (1862), Bowman (1887), and others in Ward and Harris (2001a and 2001b) that used the same toponymy as did the gold commissioners. Once we had mapped a number of nineteenth-century landmarks, and transferred them to a modern map, we were able to cross-reference records of mine locations and other geographic features in iterative succession. Each pass produced an increasingly complete picture of the mining landscape and increased the number of landmarks to which previously unlocated mines could be referenced.

Although descriptions of mine locations in the gold commissioners' records were often imprecise – "on the left bank of Fraser river about 7 miles below Quesnel" (GR-0216, vol. 76) – they usually allowed mine locations to be identified within approximately two kilometres. The gold commissioners described locations in relation to established reference points in a landscape defined by the river, a one-dimensional feature, thus locations were often identified by their direction and distance from a known location and by the side of the river (east/west or right/left bank) on which they occurred.

In the accompanying map, mines mapped from the documentary record as points are sited at what we consider the most probable location, after considering the historical description of the place, locations of probable placer gold accumulation, and locations where field survey identified evidence of mining. Landmarks used as reference points by gold commissioners are also identified on the map. These include elements of the nineteenth-century transportation infrastructure (ferries, bridges, stopping houses), natural features (creek and river confluences, rapids, canyons, bluffs), and settlements and trading posts.

[11] It is also possible that gold commissioners under-reported mining by Chinese and Aboriginal miners. These miners often worked in areas remote from the commissioners' offices, which the commissioners may have rarely, if ever, visited. Furthermore, miners themselves probably under-reported their own activity in order to avoid taxation. If the commissioners were unable to collect the appropriate tax revenue from these miners, it would have been to their advantage to understate the amount of mining that had been done.

Historical creek names are included. Where historical names have been superseded, they are shown in parentheses alongside the modern name. Some names were applied to several locations; for example, there are at least four locations called "French Bar." In such cases the name is applied to all features on the map where documentary descriptions are explicit enough to differentiate separate locations.

RESULTS

The results of this research are presented in the accompanying map "Fraser River Gold Mines and Their Place Names" (Nelson, Kennedy, and Leinberger, this volume). It provides basic information about the spatial and temporal extent of placer mining along the Fraser, shows that the mining industry was important along a considerable stretch of the river, and that mining occurred nearly continuously from 1858 into the first decade of the twentieth century. Mine sites identified from historical records are shown as points with labels indicating the site name and time of mining; mine excavations identified through field survey are shown as polygons outlining the extent of excavations.

Historical records allowed the identification of 503 mine locations along six hundred kilometres of the Fraser and Quesnel rivers. Along the Fraser River, the density of named sites generally decreases from south to north; there are marked clusters of activity near Yale, Lytton, Lillooet, High Bar and Big Bar, the Chilcotin confluence, and from ten kilometres south of Kersley to the confluence of the Cottonwood River. Along the Quesnel River, there are clusters of named sites in the first twenty kilometres upstream from the confluence with the Fraser, at and near the mouth of Cantin (Twenty-Mile) Creek, downstream of the Beaver River confluence, and near Quesnel Forks.

Field research identified 457 distinct placer mining excavations, with an average area of twenty-six hectares, along the Fraser between the town of Hope and Cottonwood Canyon. Eighty-one of these excavations occur in locations coincident with sites identified from the documentary record. These eighty-one sites often encompass multiple named sites. Most identified mine excavations are located close to the river (on the first or second terrace), but some are on terraces high above the river. There is no field evidence of many sites worked with pans and rocker boxes along the banks of the river, and, unless these appear in the historical record, they have not been mapped. Some areas worked by sluices or dredges operated below the high water line have not been

located because the sites were covered by water during fieldwork or have been obliterated by river action. Physical evidence of mining occurs in clusters that are similar to but not identical with the clusters identified by the historical evidence. These clusters occur between Hope and just north of Yale, at Boston Bar and North Bend, from Lytton and Fountain Bend just north of Lillooet, from High Bar to Crows Bar, from Canoe Creek to Iron Canyon, and from Kersley Creek to Cottonwood Canyon.

The map suggests something of the spatial and temporal distribution of mining discoveries and techniques. The earliest gold discoveries and mining developments moved upstream between 1858 and 1861. A shift from early in-river mining (which was largely done with pans and rocker boxes) to the later activity, which used sluices, groundsluices, and hydraulic operations to work the river banks, is reflected in the tendency for river bar names to pre-date names of flats and individual large mines. For example, from Quesnel to Narcosli Creek thirteen miles (21 km) downriver, six bars were named in the 1860s; one flat was named in the 1870s and two more in the 1880s; and twenty-two companies were named working on flats during the 1880s and 1890s. Hydraulic leases began to appear all through the mapped region in the mid-1880s and are recorded in large numbers through the first decade of the twentieth century.

Places in the mining landscape were named after people (52 percent), the character of the place (15 percent), the ethnic or national origin of those who worked the site (13 percent), other places (7 percent), a simple geographic description of the location (6 percent), other objects (5 percent), and historical events that had occurred at the site (2 percent). Most of these names indicate the presence of many ethnicities and nationalities. A preliminary assessment suggests the following frequencies: English language – including English, American, Canadian, Australian, Scottish, Cornish, and Irish – 66 percent; Chinese, 16 percent; French, 7 percent; Aboriginal, 5 percent; Spanish and Portuguese (probably most of these having come through California), 2 percent; Western European, 2.5 percent; Italian, 0.5 percent; Eastern European, 0.3 percent; and Hawaiian, 0.3 percent. The pattern of ethnic and national names generally follows what is known about the origins of the early and/or dominant groups of miners who worked in different regions (Figure 4). English-language names dominate all areas except along the Fraser River from the Cottonwood Canyon to Soda Creek, where Chinese names from the 1880s and later dominate. Explicitly American names, which often refer to locations in California, are the most common downriver from Hell's Gate, where most of the miners in the 1858 rush

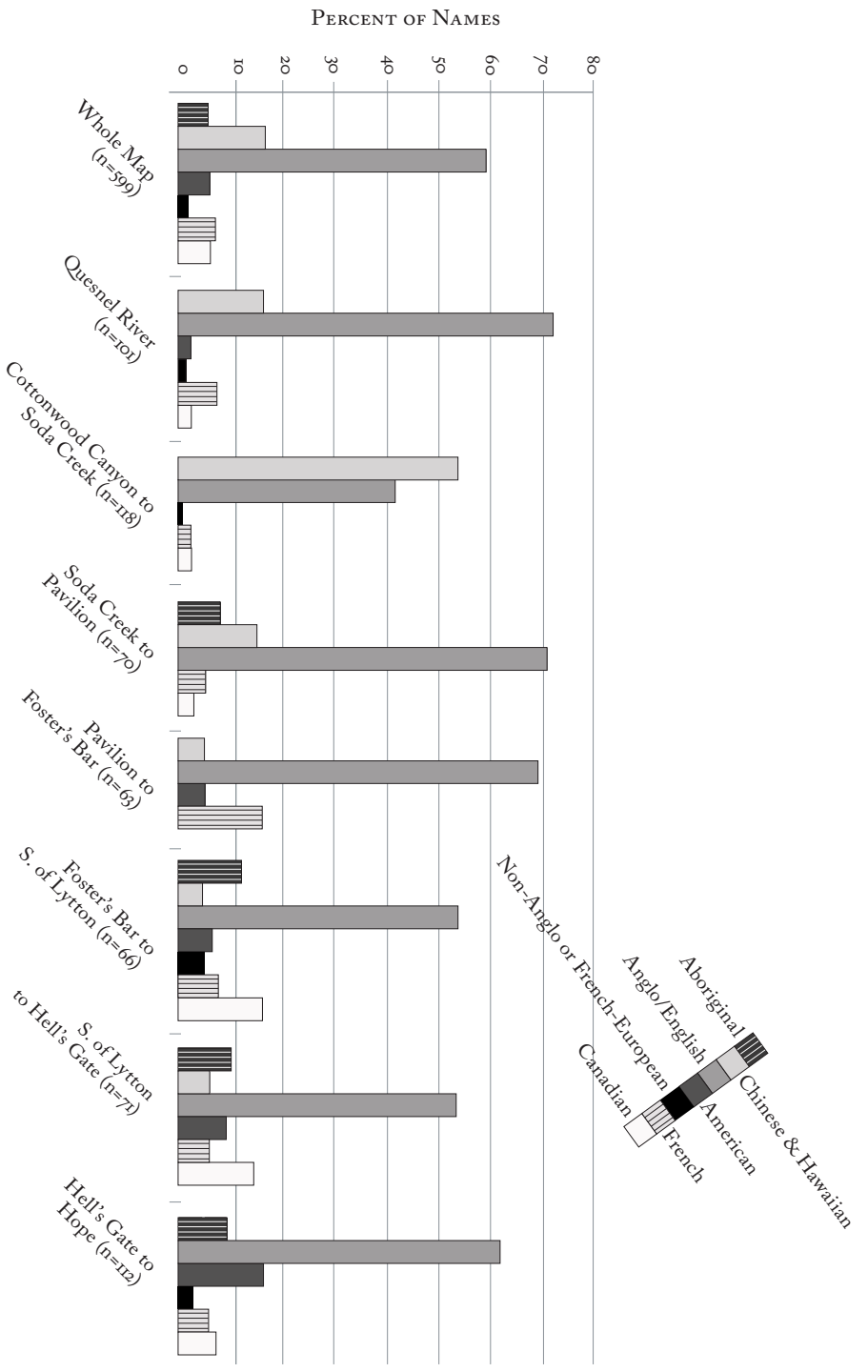

Figure 4. Linguistic-ethnic provenance of mining names along the Fraser River.

worked (cf. Marshall 2002). Canadian names are spread across all regions except the dry grasslands from Soda Creek to Pavilion. Non-Anglo or French-European names are relatively common from Foster's Bar to Lytton. French names are most common along the Quesnel River and from Pavilion to Lytton.

DISCUSSION

Evidence Relating to the Mining Industry

The map reveals temporal change in mining techniques, and it firmly establishes the presence of an extensive and long-term mining industry that followed the early rushes of the late 1850s and continued into the first decade of the twentieth century.

The sequence of mine establishment and place names reflects a typical gold-rush-to-industrial-gold-mining sequence (e.g., Galois 1970; Steffen 1983; Limbaugh 1999; Jung 1999). An initial high-stakes, low-capital gold rush dominated by individual miners quickly gave way to an industry requiring modest capital investment and transportation infrastructure and dominated by small joint-stock companies. That was replaced, in turn, by a heavily capitalized hydraulic mining (and limited dredging) industry in the 1880s and 1890s following the arrival of the Canadian Pacific Railway and the improvement of roads, the injunction against hydraulic mining in California in 1884 (which deflected hydraulic mining elsewhere) (Pisani 1999), and the establishment of the Mineral Amendment Act, 1890 (which provided a supportive regulatory framework for hydraulic mining) (British Columbia, Department of Mines 1890, 376). All of these mining techniques were well established in California by 1858. The sequence of their introduction along the Fraser principally depended on improvements in transportation, on changing legal frameworks, and on the availability of capital.

Discrepancies between the physical and historical evidence for placer mining may have the following explanations. The historical record is discontinuous; moreover, distance and cultural barriers posed significant problems for the gold commissioners. Some physical evidence (especially that associated with small-scale mines) has been obliterated by river sedimentation or erosion; forest regrowth; or highways, railways, and town development. In the grasslands north of Fountain there is much more physical than historical evidence of mining. In this region, mine excavations are easily located. Furthermore, the region was very

remote from the gold commissioners' offices at Clinton and Lillooet, and, though initially part of a mining and transportation corridor along the Fraser, the area became peripheral with the construction of the Cariboo Waggon Road. From Yale to Lytton, there is much more historical than physical evidence of mining, a reflection, probably, of much small-scale mining on the bars and banks of the river in the area and of the relatively easy access provided by the Cariboo Waggon Road (and, later, the Canadian Pacific Railway).

Small-scale rocker box mining was carried on along the entire mapped corridor. Rocker box activity does not typically leave a distinct footprint on the landscape and was often transitory. Many places that were worked with rocker boxes reveal little landscape evidence of mining. Small-scale mining is therefore under-represented on the map.

No attempt was made to map the physical evidence of mining along the Quesnel River. Even along the Fraser, where the physical evidence of mining has been carefully mapped, some sites under closed-canopy forest likely remain undetected.

Toponymy

Between 1857 and 1865, from the lower Fraser River to its tributary gold streams in the Cariboo Mountains, every prominent physical feature, stream, gravel bar, and bench was named. This process blended the organized effort of the new colonial government with the less structured place-naming of successive waves of incoming miners. These toponymies were imposed over pre-existing Aboriginal and fur trade place names.

The overwhelming use of surnames and ethnic identifiers (65 percent of all names) in the placer mining toponymy reveals the changing focus of political power (cf. Vuolteenaho and Berg 2009). By naming places people were possessing them either implicitly (by bringing them within their orbit of familiarity) or explicitly (by taking them into legal possession within the terms of the Mining Act, 1859). The 1858-59 rush toponymy (between the confluences of the Chilliwack and Chilcotin rivers with the Fraser) includes a large proportion of American toponyms,[12] frequently transferred from camps in northern California (Marshall 2002, 2007[13]).

[12] A sense of the internal conflict and balkanization surrounding "America" as an identity may be inferred by the number of toponyms that reference local regions (e.g., Santa Clara, New York, Ohio Bar) in comparison to the rare application of "American" or "America" to river corridor features (cf. Zhu 2000).

[13] Following foundational work on the political and historical geographies of The Lower Fraser River (Marshall 2002), Marshall (2007) re-examined the toponymy of the period in the framework of "critical toponymy."

All represent a general expression of claims against prior occupants: Aboriginal people, the Hudson's Bay Company, and, especially, the newly formed colonial government. Equally, the naming of places, especially mining claims and recorded water named after individual miners (e.g., "Crow's Bar", "Haskell's Creek"), represented space making/claiming contests between miner and miner.

Practical, everyday toponymy was filtered through the gold commissioners, who incorporated it into the formal written record. Although many (and in some places almost all) miners were not English speakers, the place names recorded by the gold commissioners were nearly always in English. The notable exception is provided by the transliteration of Chinese surnames and company names into English as claim titles (e.g., "Ah Yott claims" and "Hap Duck Co.").

Today, the gold mining toponymy has almost as little presence as had Aboriginal names during the heyday of placer mining. Even as early as 1887, Bancroft, Nemos, and Bates noted that many of the bar names on the lower Fraser had been lost. Today, almost all the names by which the miners knew the areas in which they worked have been erased, except those given to the creeks of the Cariboo Mountains. Only seventy-one names of creeks, settlements, river bars, and other features established during the mining era appear on current National Topographic System maps.

In this toponymic sense, the influx of mining activity seems more like a short-term "raid" rather than a lasting land seizure. This reflects the ephemeral nature of placer mining and the fact that miners were sojourners in the landscape and not settlers. Perhaps landmarks along the river became irrelevant as transportation corridors away from the river were developed, while mine names became irrelevant once the paying ground was worked out. Creeks and some of the ditches connecting them to terraces where mining occurred are of enduring value for agricultural irrigation, but, typically, they have also been given post-gold mining names (e.g., Lee, St. Marys, and China creeks have become Williams, Churn, and Buxton creeks, respectively), perhaps because of the passage of time between the end of mining activity and the development of irrigated agriculture.

CONCLUSION

We have located 503 mines identified in the historical record along six hundred kilometres of the Fraser and Quesnel rivers, and 456 distinct placer mining excavations identified by field investigation along the Fraser River between Hope and Cottonwood Canyon. Our

investigations document an extensive and long-lived mining industry, concentrated initially on the bars of the Fraser River and evolving into widespread hydraulic mining requiring considerable investments of time and capital on the river benches in the 1880s and later.

Most places in the landscape were named after people, places, and ethnic groups. These names represent contests for control of the space at scales ranging from miner versus miner to nation-state versus nation-state, ethnic community, and corporation. The placer era toponymy ignored pre-existing Aboriginal and fur trade toponymies but has been quickly forgotten.

Many aspects of the rich stories starkly summarized in our maps remain to be explored. These include more detailed work on the ethnicity of miners, reconstructions of the lives of individual miners, and the stories of particular sites. Because many of these mining sites have been little disturbed since their abandonment, archaeological work (e.g., LaLande 1985; Chen 2001) could help to enlarge our understanding of early mining by documenting the shelter, diet, supply sources, local economies, connections to trade networks, and origins of the miners. Detailed mapping of individual mine sites would be an important initial contribution to understanding the industrial archaeology of gold extraction along the Fraser River. Consideration of the mapped data relative to work that has been done regarding Aboriginal land use and reserves along the Fraser and colonial contact (e.g., Harris 1997, 2003) may illuminate current conversations about the micro-geography of colonial frontiers and legal questions regarding Aboriginal access to land and resources. In sum, our map is a first step towards elucidating the complex histories of the placer mining industry along the Fraser River.

REFERENCES

Alta California or *Daily Alta California* (San Francisco, California) 1849 to 1891. UBC Library, Koerner (microfilm), Vancouver, BC.

Bancroft, H.H., W. Nemos, and A. Bates. 1887. *History of British Columbia.* Vol. 32: *The Works of Huber Howe Bancroft.* San Francisco: The History Company.

Barman, J. 1991. *The West beyond the West: A History of British Columbia.* Toronto: University of Toronto Press.

Bowman, A. (assisted by J. McEvoy). 1887. "Map of the Cariboo Mining District, British Columbia." Ottawa: Geological and Natural History Survey of Canada.

British Columbia, Assistant Gold Commissioner, Mining Records, Manual of Record, 1873-88, Lytton and Yale, BCA, GR-0252, box 13 (ledger), Victoria, BC.

——. 1880-90, Lytton and Yale, BCA, GR-0252, box 14 (ledger), Victoria, BC.
——. 1858-66, Yale, BCA, GR-0252, box 12a (ledger), Victoria, BC.
——. 1858-72, Yale, BCA, GR-0252, box 12 (ledger), Victoria, BC. (See also BRSC-ARC-1258, box 24, file 1, UBC Library Special Collections, Vancouver, BC.)
——. 1859-61, Lillooet, BCA, GR-0224, box 21 (ledger), Victoria, BC.
——. 1859-74, Lytton Division, Yale District, BCA, GR-1054, box 1, fol. 1 (ledger), Victoria, BC.
——. 1860-62, Alexandria District, BCA, GR-0216, vol. 30-33 (ledgers), Victoria, BC.
——. 1865-67, 1887-96, Lillooet, BCA, GR-0224, box 22 (ledger), Victoria, BC.
——. 1867-99, Quesnellemouth Division, Cariboo District, BCA, GR-0216, vol. 76 (ledger), Victoria, BC.
British Columbia, Base Mapping and Geomatic Services Branch (1952), S84-R1 95 [aerial photograph] 1:13,000. Victoria, BC Ministry of Agriculture and Lands.
British Columbia, Department. of Mines, 1874-1910. *Annual Report of the Minister of Mine* (various years). Victoria: Government Printing Office.
British Columbia, GeoBC. 2011. "BC Geographic Names." Database. Available online at http://archive.ilmb.gov.bc.ca/bcnames/ (accessed February 2011).
Chen, Y.Y. 2001. "In the Colonies of Tang: Historical Archeology of Chinese Communities in the North Cariboo District, British Columbia, 1860s-1940s." PhD diss., Simon Fraser University.
Conroy, J. 1861. Rough Sketch of the Cayoosh District (both original and one presumably annotated by R.C. Harris) R.C. (Bob) Harris Fonds, UBC Library, Special Collections, Vancouver, BC.
Dawson, G.M. 1889. "The Mineral Wealth of British Columbia: With an Annotated List of Localities of Minerals of Economic Value." In Geological Survey of Canada, *Annual Report* (n.s.) vol. 3, pt. 2, report R (1889). Montreal: William Foster Brown and Co.
Epner, G. 1862. Map of the Gold Regions in British Columbia (reproduction). Historical Map Society of British Columbia (1981) Facsimile No. 1. Victoria: Morris Printing Co. Ltd.
Galois, R.M. 1970. Gold Mining and its Effects on Landscapes of the Cariboo. MA thesis. University of Calgary
Haggen, E.A., ed. 1923. *Mining and Engineering Record* 38, 1.
Harris, R.C. 1997. "The Fraser Canyon Encountered." In *The Resettlement of British Columbia: Essays on Colonialism and Geographical Change*, 109-14. Vancouver: UBC Press.
——. 2003. *Making Native Space: Colonialism, Resistance, and Reserves in British Columbia*. Vancouver: UBC Press.
Howay, F.W. 1914. *British Columbia from the Earliest Times to the Present*. Vol. 2. Vancouver: S.J. Clarke Publishing Co.
——. 1926. *Early History of the Fraser River Mines.* Victoria: Charles F. Banfield.
Jung, M.A. 1999. "Capitalism Comes to the Diggings: From Gold-Rush Adventure to Corporate Enterprise." In *California History*. Vol. 79: *A Golden State: Mining and Economic Development in Gold Rush California,* 52-77. Berkeley: University of California Press.

Kennedy, Michael. 2009. "Fraser River Placer Mining Landscapes." *BC Studies* 160: 35-66.

LaLande, J.M. 1985. "Sojourners in Search of Gold: Hydraulic Mining Techniques of the Chinese on the Oregon Frontier." *Journal of the Society for Industrial Archaeology* 11, 1: 29-52.

Limbaugh, R.H. 1999. "Making Old Tools Work Better: Pragmatic Adaptation and Innovation in Gold-Rush Technology." In *A Golden State: California History*. Vol. 77: *Mining and Economic Development in Gold Rush California*, edited by R.J. Orsi and J.J. Rawls, 24-51. Berkeley: University of California Press.

Lindström, S., J. Wells, and N. Wilson. 2000. "Chasing Your Tailings: A Review of Placer Mining Technology." *Proceedings of the Society for California Archaeology* 13: 59-83.

Loo, T. 1994. *Making Law, Order, and Authority in British Columbia 1821–1871.* Toronto: University of Toronto Press.

Marshall, D. 2002. "Claiming the Land: Indians, goldseekers, and the rush to British Columbia." PhD diss., University of British Columbia.

——. 2007. "Mapping the New El Dorado: the Fraser River Gold Rush and the appropriation of Native Space." In *New Histories for Old,* edited by T. Binnema and S. Neylan. Vancouver: UBC Press.

Nation, H.T. (draftsman). 1910. "Sketch Map of the Lillooet and Clinton Mining Division of BC," Bureau of Mines, Victoria, BC." In *Annual Report of the Minister of Mine for the Year Ending December 31st 1910.* Victoria: BC Department of Mines and Petroleum Resources.

Nelson, A.D. 2011. "The Environmental History and Geomorphic Impact of 19th-Century Placer Mining along Fraser River, British Columbia." MSc. thesis, University of British Columbia.

Nelson, A., M. Kennedy, and E. Leinberger. 2012. "Fraser River Gold Mines and Their Place Names: A Map from Hope to Quesnel Forks," *BC Studies* 172: insert in back cover.

Northern Light (Whatcom (Steilacoom), Washington Territory). 1858. UBC Library, Koerner (microfilm), Vancouver, BC.

Ormsby, M.A. 1950. "Some Irish Figures in Colonial Days." *British Columbia Historical Quarterly* 14, 1 and 2: 61-82.

——. 1971. *British Columbia: A History.* Vancouver: Macmillan.

Pioneer and Democrat (Olympia, Washington Territory). 1858-61. UBC Library Koerner (microfilm), Vancouver, BC.

Pisani D.J. 1999. "The Gold Rush and American Resource Law." In *California History.* Vol. 77: *A Golden State: Mining and Economic Development in Gold Rush California*, edited by R.J. Orsi and J.J. Rawls, 123-48. Berkeley: University of California Press.

Prins, M. 2007. "Seasons of Gold: An Environmental History of the Cariboo Gold Rush." MA thesis, Simon Fraser University.

San Francisco (Daily) Evening Bulletin, 1855-95. UBC Library Koerner (microfilm), Vancouver, BC.

Smith, D.B. 1957. "The Journal of Arthur Thomas Bushby, 1858-1859." *British Columbia Historical Quarterly* 21, 1-4: 83-198.

Steffen, J.O. 1983. "The Mining Frontiers of California and Australia: A Study in Comparative Political Change and Continuity." *Pacific Historical Reviews* 52: 428-40.

Victoria Gazette, 1858-59. UBC Library Special Collections and UBC Library Koerner (microfilm), Vancouver, BC.

Vuolteenaho, J., and Berg, L.D. 2009. "Toward Critical Toponymies." In *Critical Toponymies: The Contested Politics of Place Naming*, edited by L.D. Berg and J. Vuolteenaho. Surrey, UK: Ashgate.

Waddington, A. 1858. *The Fraser River Mines Vindicated, or, The History of Four Months*. Victoria, P.DR. Garro.

Ward, B., R.C. Harris. 2001a. "Interior Fur Trade." In *Early Maps of British Columbia Area* 6 (cartographic material), UBC Library Special Collections, Vancouver, BC. (A project listing all known maps, charts, and reconnaissance sketches of early exploration and settlement during the precolonial and colonial eras to 1871.)

——. 2001b. "Cariboo." in *Early Maps of British Columbia Area* 13 (cartographic material), UBC Library Special Collections, Vancouver, BC. (A project listing all known maps, charts, and reconnaissance sketches of early exploration and settlement during the precolonial and colonial eras to 1871.)

Zhu, L. 2000. *A Chinaman's Chance: The Chinese on the Rocky Mountain Mining Frontier*. Denver: University of Colorado Press.