Chapter 4

Site Reconnaissance

Introduction

The False Narrows bluffs are comprised of a series of steep, boulder strewn, heavily treed slopes, topped by vertical bedrock exposures of sandstone and conglomerate, separated from each other by narrow, relatively level benches. The escarpment can be roughly divided into upper, middle, and lower bluff systems. The upper and middle bluffs are comparatively short, irregular, and discontinuous, whereas the lower bluffs are longer, steeper, and more continuous, with higher rockfaces. Currently, vegetation along the bluffs consists of mixed deciduous and coniferous forest; identified species include broadleaf maple (*Acer macrophylum*), Douglas-fir (*Pseudotsuga mensiesii*), western red cedar (*Thuja plicata*), western yew (*Taxus brevifolia*), grand fir (*Abies grandis*), dogwood (*Cornus nuttallii*), and arbutus (*Arbutus mensiesii*). The understory contains huckleberry (*Vaccinium sp.*), oregon grape (*Berberis nervosa*), salal (*Gaultheria shallon*), and several varieties of ferns and mosses.

Recent human activity has altered the landscape in the vicinity of the False Narrows bluffs. The lowlands at the east end of the lower bluffs have been logged, as have the benches along the upper bluffs, in some cases right up to the toe of the rocky slopes; a housing development encroaches on the lower bluffs immediately west of the logged area. The slopes of the lower bluffs, particularly the section north of the housing development, may also have been selectively logged in the early historic period, as many old stumps and cut logs were observed during the survey.

The False Narrows bluffs had previously been surveyed by Wilson (1987), who identified 17 heritage sites in the area, including 3 burial sites (described in the previous chapter), 3 petroglyph sites, 10 inland shell middens, and an historic brickworks. Several other archaeological sites are located near the burial sites, and are possibly associated with them: DgRw 208, a small, shallow shell midden ca. 100 m east of DgRw 210; DgRw 209, an extensive, deep midden ca. 100 m south of DgRw 210; DgRw 198, a petroglyph site with at least 7 carved panels, ca. 60 m east of DgRw 199; DgRw 196, an extensive shell midden (now virtually destroyed) immediately south of DgRw 199; and DgRw 203, sparse, shallow midden deposits ca 50 m. south of DgRw 204.

Survey Results

A 3-km long section of the False Narrows bluffs was investigated during the burial reconnaissance, but burial features were found only at the eastern end of the survey area. Four burial sites (Figure 4.1) were identified, the three sites previously recorded by Wilson (1987), and one previously unknown site (DgRw 213). One of the sites (DgRw 204) is located on the upper bluffs and the remaining three are situated along the lower bluffs. No burial features were discovered along the middle bluffs; this area has a low potential for such sites, since rockface exposures are low, short, and discontinuous, and large boulders and boulder clusters are uncommon. Each burial site is described in detail below; individual feature descriptions may be found in Curtin 1991b: Appendix I.

DgRw 204

Five previously unknown burial features were identified on the upper bluffs in addition to the on recorded in 1987, referred to here as Feature 1 (DgRw

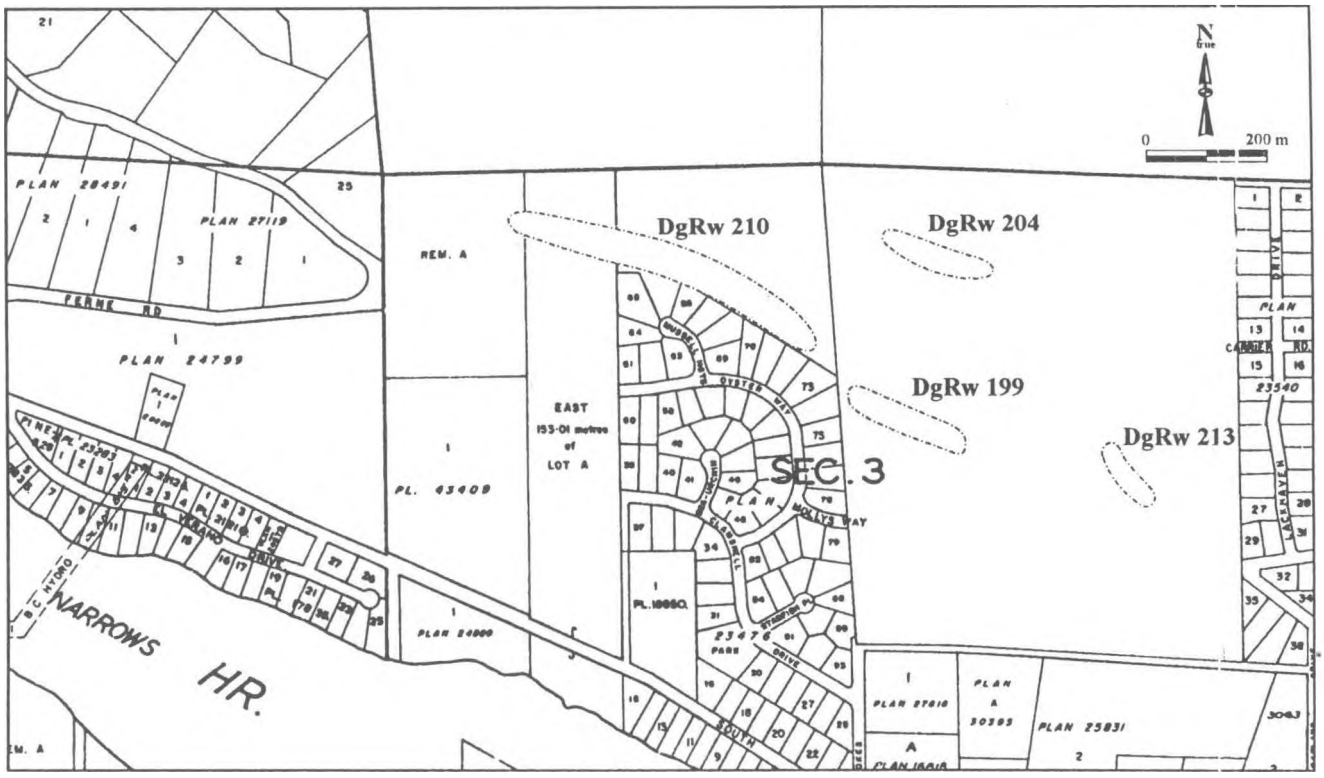

Figure 4.1 Gabriola Island cave/crevice burial site locations.

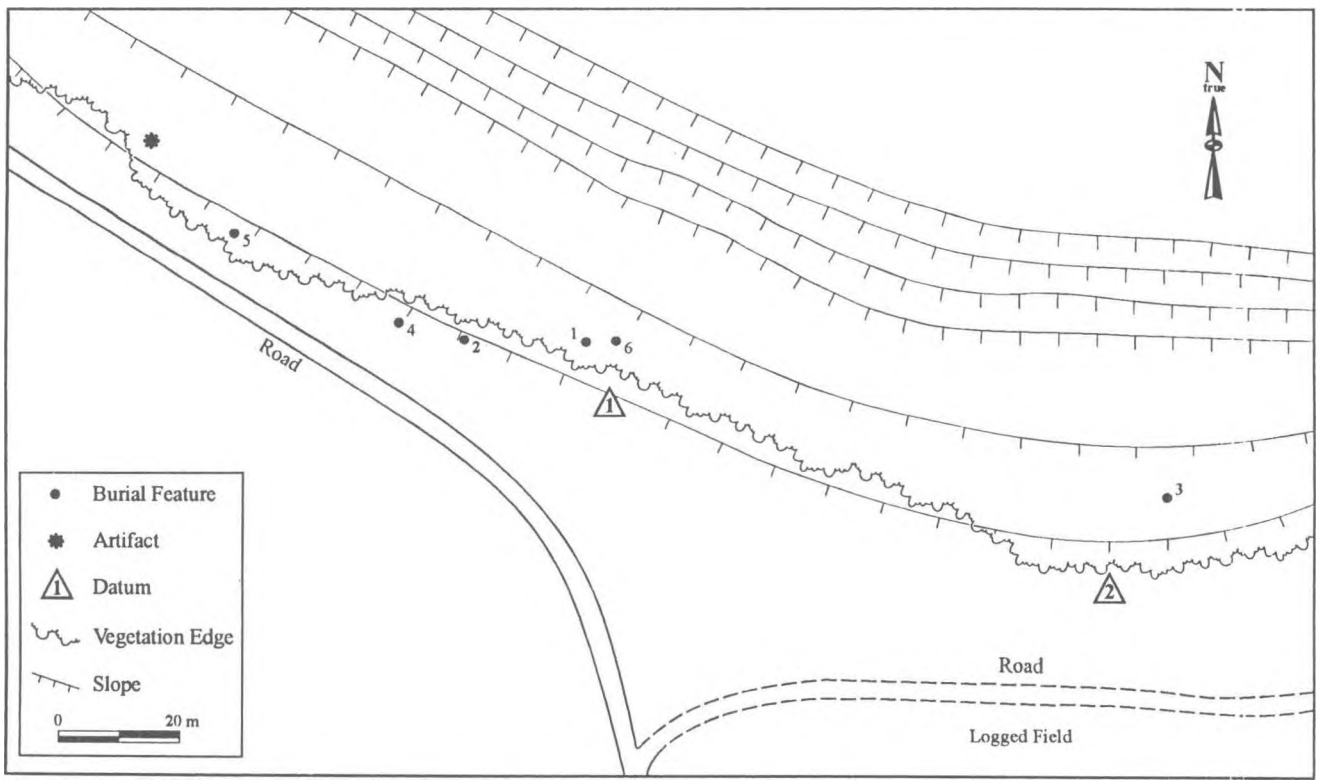

Figure 4.2 DgRw 204 burial feature locations.

Table 4.1 DgRw 204 burial feature summary.

FEATURE #	TYPE	CHAMBERS	HEIGHT	WIDTH	DEPTH	ORIENTATION	BURNING	ARTICULATION	MNI	INCLUSIONS	DISTURBANCE
1	I	1	0.83	4.50	2.28	210	A	A	1	shell, burnt bark	animal
2	I	2	0.22	1.30	1.60	118	A	A	2	shell	animal
3	II	1	0.33	1.71	3.30	223	A	A	1		
4	IV						P	A	1		
5	I	1	1.14	0.89	3.17	250	A	A	1	matting?	rockfall
6	I	2	0.72	0.52	4.60	180	A	A	1	charcoal	animal

204-F1). All five new features are located within 100 m of Feature 1, and are considered to be part of the same site (Figure 4.2); one isolated artifact, a complete antler tine wedge, was also discovered in a rock crevice at the north end the site approximately 50 m northwest of F4. Four of the features (F1, F2, F5, and F6) are classified as Type I, located in nooks and crevices between groups of boulders; one (F2) is in a shallow depression beneath a single boulder (Type II); and one (F4) is located on the open ground, not directly associated with a rock feature (Type IV), although it is surrounded by large boulders (Table 4.1). F4 is the only one at DgRw 204 where burnt bone was observed (six small skull fragments). It is possible that the location represents a cremation site, and that the bone fragments were overlooked when the burnt remains were collected for interment in a rock crevice. Alternatively, the bones may have been transported, through erosion or animal activity, out of a nearby rock feature that was overlooked in the survey.

Feature orientation ranges from 118° to 250°, but the tendency is to follow the trend of the slope, facing south or southwest towards False Narrows. Burial features at DgRw 204 tend to be larger than those from the other three sites, using chamber depth as an estimator of feature size. Mean depth at this site is 2.99 m, with a range of 2.28 to 4.60 m; three of the features (60%) have depths in excess of 3.0 metres. Three features (F1, F5, and F6) have spacious entrances and easily accessible burial chambers, but in two cases (F2 and F3) the openings are very low, and entry into the chamber would not be possible without some excavation at its mouth. The burial chamber in F2 may have been deliberately closed off by the placement of small sandstone boulders across the entrance. Two of the rock features (F2 and F6) contain two chambers, but in each case only one of the two chambers contains visible human remains.

From the surface remains, it was estimated that a minimum of seven individuals, all adults, were interred at this site. At five of the burial features, the visible remains are consistent with a single individual, but F2 contains the remains of at least two people, based on the presence of three innominates and two crania. No skeletal anomalies or pathologies were observed. None of the exposed bones is in correct anatomical order, which suggests that they are either from secondary burials or have undergone significant disturbance since interment. The presence of animal faeces indicates that at least three of the features have served intermittently as animal dens, which may account for the disarticulation of the skeletal elements contained within. Possible cultural associations include shell fragments in F1 and F2, pieces of burnt bark or other organic material in F1 and F5, and chunks of charcoal in F6.

The burial features at DgRw 204 appear to have been utilized over a relatively short time span during the early Marpole period of Coastal prehistory. Small bone fragments from three of the burial features

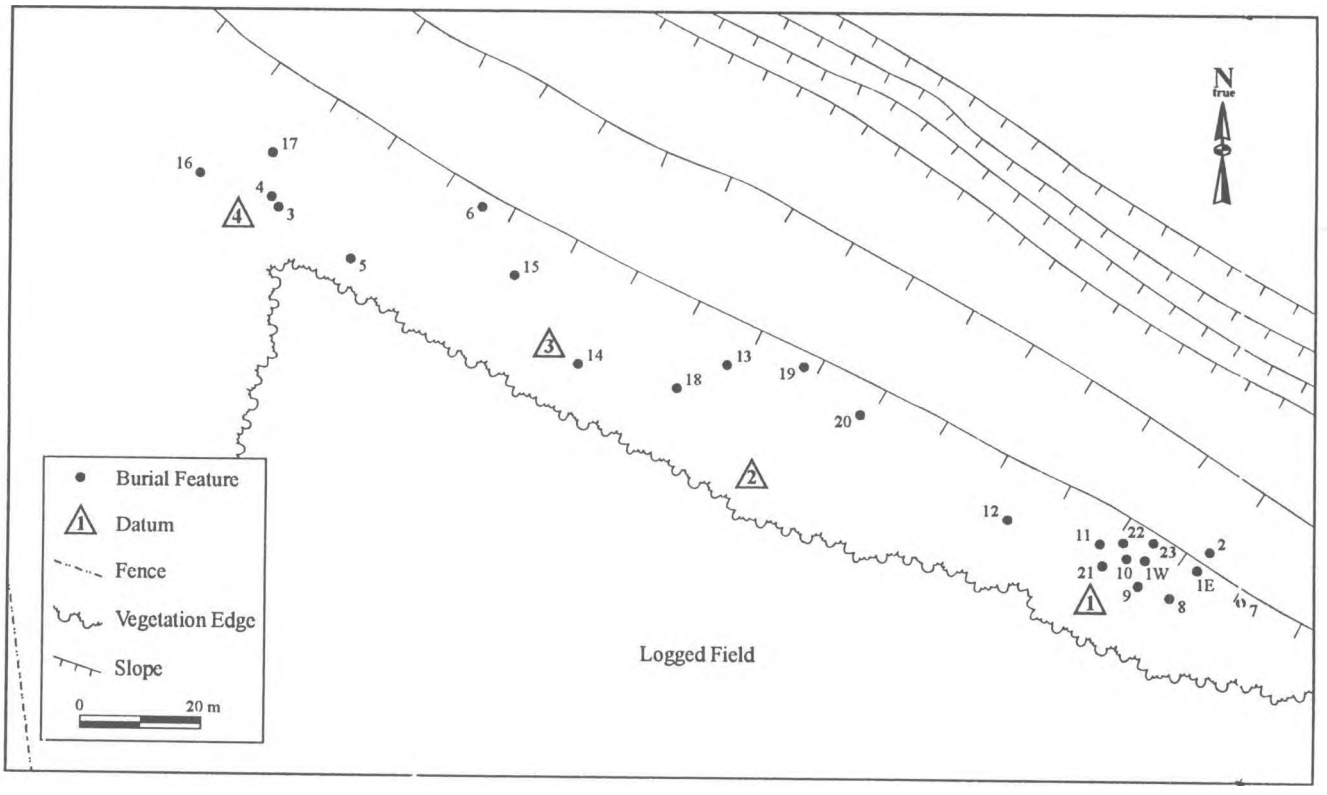

Figure 4.3 DgRw 199 burial feature locations.

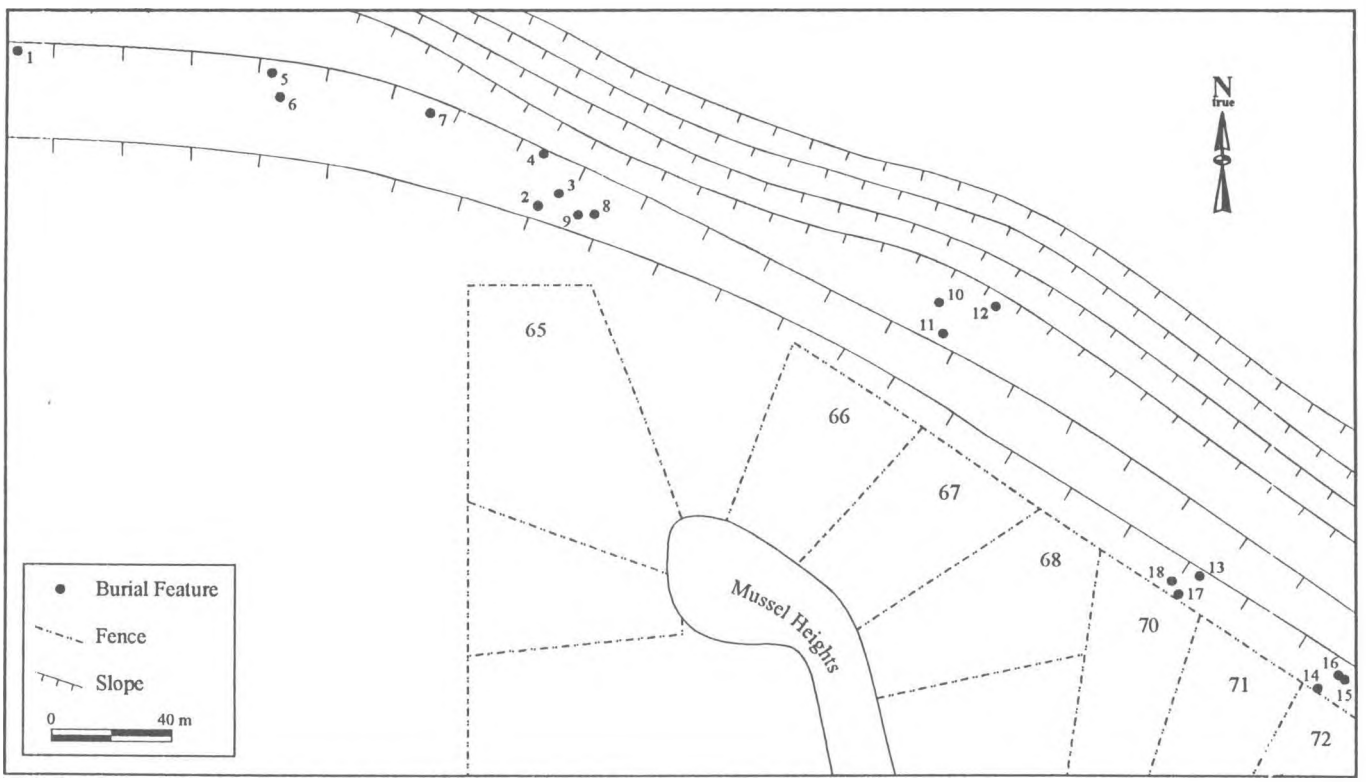

Figure 4.4 DgRw 210 burial feature locations.

showed some degree of post-depositional disturbance: half contain animal faeces indicative of prior use as a lair or den, while pothunters' holes and digging implements at F1and F9 indicated disturbance by humans.

The burial features at DgRw 199 tend to be structurally complex (Table 4.2). Fewer than half (10/23 or 43%) are single-chambered, whereas 22% (5/23) contain three or more chambers, although burial remains were not observed in each chamber of the multi-chambered features. Most of the features are relatively accessible; only four (17%) have entrances 30 cm or lower in height, too low to permit entry without excavation. At F15, the entrance had been deliberately sealed off by a wall of sandstone slabs and conglomerate cobbles. Piles of sandstone rubble that may represent the remains of sealing walls were observed near the entrances to three additional features: F12, F13, and F19. Entrance orientation is variable, ranging from 96° to 300°, but the majority (18/23 or 70%) face roughly south or southwest, down slope towards False Narrows. Mean chamber depth of 2.86 m (range 1.20-9.25) is smaller than at DgRw 204, but larger than the other two burial sites. However, this value is somewhat skewed by the presence of the largest feature in the entire study area (F1), and the majority (74%) of the burial features at this site are less than 3.0 metres deep.

Shellfish remains were observed at six of the features from DgRw 199: F1, F5, F11, F17, and F23. A possible wooden plank fragment was recorded at F23, and a charred, whittled stick, similar to those found in a cache at DgRw 213 (see below) was found at F1.

The estimated minimum number of individuals (MNI) represented by the visible surface remains at DgRw 199 is 45: 30 adults, 3 adolescents, 8 children, and 4 infants. Eleven features (48%) appear to contain a single individual, five (22%) contain two, five (22%) contain three, and the remaining two features contain a minimum of four and five individuals respectively. Bones at four of the features (F1, F11, F21, and F22) exhibit evidence of burning that may be the result of deliberate cremation (in secondary or compound burial, cremation is one method of reducing the corpse to bone fragments prior to final disposal). Not all of the human remains are secondary interments, however. At F17 the visible skeletal elements (vertebrae and ribs) are still in anatomical order, indicating that the body was articulated when interred. Given the amount of visible disturbance from animals, humans, and natural occurrences such as rockfalls, it is possible that some of the other, currently disarticulated remains were originally intact primary burials.

Since most of the skeletal remains visible at these sites were not accessible for close inspection, no attempt was made to systematically record skeletal pathologies or other anomalies; where such traits were visible, however, they were noted. Two of the crania from DgRw 199, a child's skull in F15 and an adult's skull in F18, appear to have been artificially deformed by anteroposterior compression, in a manner typical of ethnographic Coast Salish. This cultural practice first becomes apparent in the archaeological record about 2500 BP, and is characteristic of both Marpole and Gulf of Georgia Culture Types. The child's skull also exhibits a small, *ante mortem* perforation of the occipital bone above *inion*, a defect that may be related to the effects of the pressures imposed on the developing skull during the deformation process (Curtin 1990b).

Radiocarbon dates derived from bone collagen have previously been reported for two features (F1, F9) from the east end of the site (Skinner 1991: 47); they range in age from 2170 ± 70 to 2760 ± 60 BP. During the current project two more bone collagen dates were obtained on features near the middle (F14) and west end (F17) of DgRw 199. Both dates are younger than those reported by Skinner: 1970 ± 60 BP (F14) and 1720 ± 60 BP (F17). The radiometric evidence therefore suggests a chronological progression of feature utilization from east to west over a period of about a thousand years, from the middle/late Locarno to late Marpole.

DgRw 210

The 18 burial features at DgRw 210 are distributed discontinuously over approximately 240 m. They tend to occur in small, discrete clusters of between two and five features, at irregular 20-50 m intervals (Figure 4.4). As was the case at DgRw 199, most of the burial features at DgRw 210 (16/18, or 89%) are located in crevices between clusters of boulders (Type I). The two exceptions are F18, located in a depression beneath a single boulder (Type II), and F7, located on a ledge in the vertical rockface near the top of the bluffs (Type III). The latter is the only example of a rockface burial feature in the entire study area. The burial features from DgRw 210 tend to be smaller and less complex than those from DgRw 199: 72% (13/18) are single-chambered, and none has more than two chambers (Table 4.3). Mean chamber depth is 1.41 m (range 0.11-2.30 m); only DgRw 213 has smaller burial chambers. Half of the entrances (9/18) are less than 30 cm high, too low to permit easy access. This relative inaccessibility probably accounts for the fact that these features tend to exhibit less post-depositional disturbance than those from DgRw 199. Animal dis-

Table 4.2. DgRw 199 burial feature summary.

FEATURE #	TYPE	CHAMBERS	HEIGHT	WIDTH	DEPTH	ORIENTATION	BURNING	ARTICULATION	MNI	INCLUSIONS	DISTURBANCE
1	I	3+	1.10	0.66	9.25	300	P	A	5	shell, burnt stick	animal, human
2	II	1	0.18	2.14	2.57	202	A	A	3		human
3	I	1	1.04	1.29	1.70	264	A	A	2		
4	1	1	0.43	3.53	1.90	228	A	A	2		
5	I	2	0.72	2.54	2.56	170	A	A	3	clam shell	animal, human
6	I	1	0.42	1.47	1.91	220	A	A	1		
7	I	3	0.30	1.80	2.36	130	A	A	1		animal
8	I	1	0.23	1.70	2.46	115	A	A	1		possible?
9	I	1	0.90	2.46	2.50	120	A	A	3		human
10	I	2	0.60	1.10	1.20	233	A	A	2		animal
11	I	3	0.77	0.40	1.52	242	P	A	4	shell	animal
12	I	1	0.50	1.12	2.53	160	A	A	2		animal
13	I	2	0.57	1.20	3.10	193	A	A	1		animal
14	I	2	0.33	1.22	4.00	180	A	A	1		
15	II	1	0.30	1.41	1.75	96	A	A	3		animal, rockfall
16	II	2	0.39	2.78	2.52	202	A	A	1		animal
17	I	2	0.55	1.06	3.75	181	A	P	2	shell	animal
18	I	3	1.86	1.95	1.65	176	A	A	1		animal
19	I	2	0.43	0.62	2.60	118	A	A	1		
20	I	1	0.50	1.36	2.87	246	A	A	1		
21	I	2	0.55	0.38	1.90	206	P	A	1		
22	I	3	1.11	0.44	5.00	216	P	A	1		
23	I	1	0.40	0.82	4.23	221	A	A	3	cedar plank, shell	animal, rockfall

turbance was noted at only four of the features, and there was no direct evidence of pothunting, although human intervention may have been responsible for some of the skeletal disarticulation observed at two of the more accessible features. Piles of sandstone rubble that may represent the remains of sealing walls were observed near the entrances of F1, F11 and F17. Entrance orientation ranges from 145° to 280°, but the majority (15/18 or 83%) face south or southwest down slope towards False Narrows.

Based on visible surface remains it is estimated that a minimum of 29 individuals were interred at DgRw 210: 16 adults, 3 adolescents, 6 children, 3 infants, and 1 individual of indeterminate age. These are distributed as follows: ten features (55%) with an MNI of 1; five (28%) with an MNI of 2; and three (17%) with an MNI of 3. Burnt bone in some of the features (F4, F5, F7, F13, and F14) and articulated skeletal elements in others (F10, F11, F15, and F17) suggests that both primary and secondary burials are represented at this site.

Apart from the degenerative changes typical of osteoarthritis, which are relatively common in older

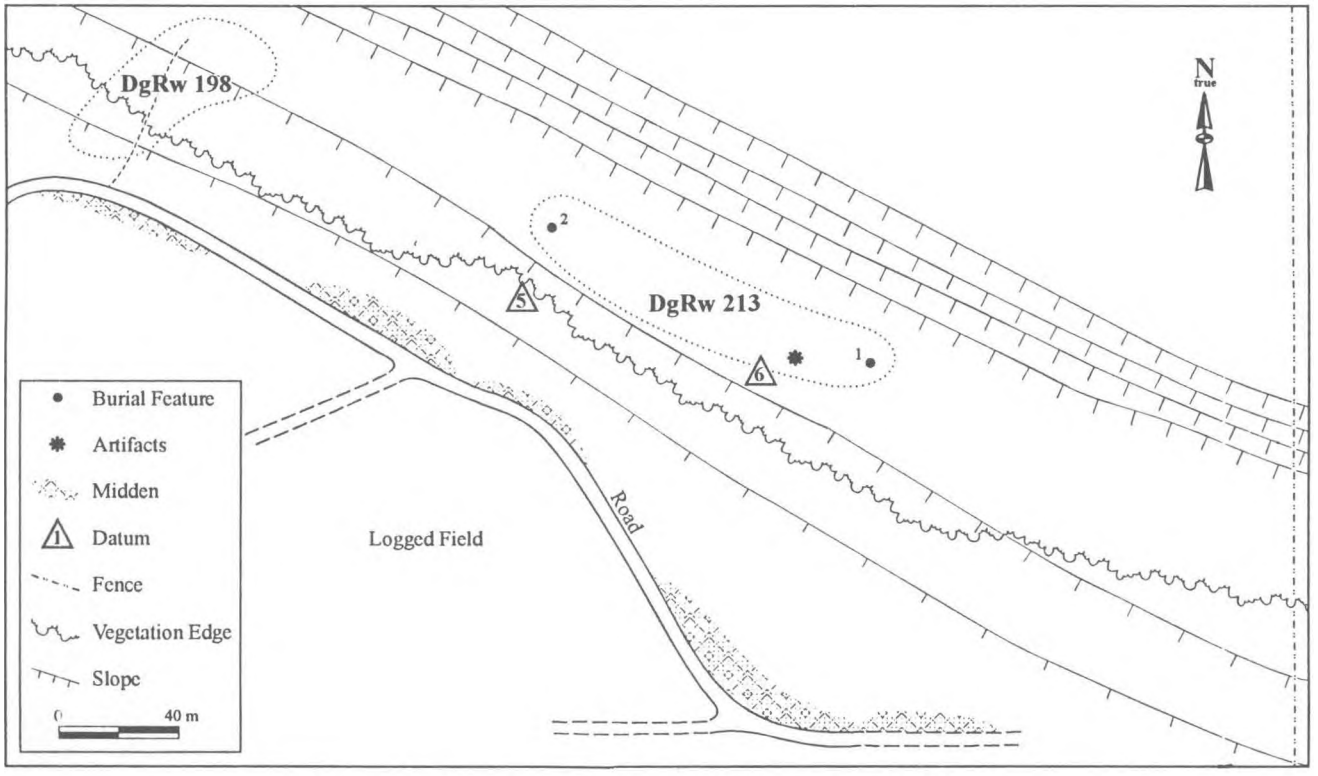

Figure 4.5 DgRw 213 burial feature locations.

individuals, the only pathological condition observed in the skeletal material was a severe inflammatory response in the fibula and tibia of a child from F16. Both bones have very swollen diaphyses as a result of subperiosteal deposition of coarse, disorganized fibre bone. Several pathological conditions could trigger such a response, and no diagnosis is suggested (but see Ch. 8).

The only definite burial inclusion was a basalt projectile point fragment found in F7.

Radiocarbon dates were obtained on bone samples from three areas of the site: the east end (F15: 2280 ± 60 BP), the east-central cluster (F11: 2140 ± 60 BP), and the west-central cluster (F9: 2220 ± 60 BP). Unlike DgRw 199, the burial features at DgRw210 appear to be roughly contemporaneous, with a relatively restricted time span; all fall within the known age range of the Marpole period of Northwest Coast prehistory.

DgRw 213

One new burial site, DgRw 213, was discovered in the course of the survey of the lower bluffs, at the extreme eastern end of the study area approximately 200 m east of DgRw 199 (Figure 4.5). The site consists of two widely separated features (Table 4.4): F1 is of the "single-boulder" type (Type II), and F2 is located in a crevice between a fallen boulder and a bedrock outcrop (Type I). Both contain a single burial chamber, and both have entrances too small to admit any of the crew members, so information on their contents is limited. At least three adults are represented: two in F1 and one in F2. The visible bones do not appear to be articulated, nor do they appear burnt, and no direct evidence of disturbance was seen. The burial chambers are the smallest recorded in the study area, with a mean depth of 1.18 m (range 0.95-1.40 m). Both entrances face southwest towards False Narrows

A bone sample from F1 was radiocarbon dated at 2050 ± 60 BP (middle Marpole), making it slightly younger than the dated burial features at DgRw 204 and DgRw 210, but within the range of dates for DgRw 199.

Although no artifacts or other cultural inclusions were observed in either of the two burial features, a cache of 16 partially charred, whittled cedar stakes was discovered in a rock crevice about 25 m west of F1. One end of each stake had a rectangular cross-section and was blunted and charred; the other end was round in section and had been whittled down to a dull point. They ranged in length from 16 cm (broken) to 53 cm (whole). The age and function of these objects is unknown; they were left *in situ*.

Table 4.3 DgRw 210 burial feature summary.

FEATURE #	TYPE	CHAMBERS	HEIGHT	WIDTH	DEPTH	ORIENTATION	BURNING	ARTICULATION	MNI	INCLUSIONS	DISTURBANCE
1	I	1	0.58	2.73	1.42	170	A	A	3		animal?
2	I	1	0.73	0.81	2.30	145	A	A	1		animal?
3	I	1	0.69	0.40	1.50	212	A	A	2		
4	I	1	0.47	2.72	1.88	225	P	A	2		rockfall?
5	I	1	0.55	0.74	2.21	162	P	A	1		
6	I	1	0.18	0.55	1.10	280	A	A	1		
7	III	1	1.14	5.40	2.14	210	P	A	3	projectile point	animal
8	I	2	0.14	0.84	1.53	223	A	A	2		
9	I	1	0.20	1.03	1.32	198	A	A	1		
10	I	1	0.08	0.40	1.04	165	A	P	1		rockfall
11	I	1	0.83	0.48	1.60	203	A	P	3		
12	I	2	0.20	1.14	1.80	146	A	A	2		rockfall
13	I	2	0.15	0.27	0.11	227	P	A	1		animal, rockfall
14	I	2	0.25	1.67	1.40	236	P	A	1		
15	I	2	0.40	2.10	0.84	212	A	P	2		
16	I	1	0.16	0.54	0.89	176	A	A	1		
17	I	1	0.53	0.97	1.43	222	A	P	1		
18	II	1	0.09	1.24	0.89	210	A	?	1		

Table 4.4 DgRw 213 burial feature summary.

FEATURE #	TYPE	CHAMBERS	HEIGHT	WIDTH	DEPTH	ORIENTATION	BURNING	ARTICULATION	MNI	INCLUSIONS	DISTURBANCE
1	II	1	0.17	1.24	0.95	226	A	A	2		
2	I	1	0.20	0.29	1.40	235	A	A	1		

Discussion

As a result of the 1989 site reconnaissance, the inventory for the study area now stands at four sites containing a total of 49 burial features: DgRw 199 (23 features), DgRw 204 (6 features); DgRw 210 (18 features); and DgRw 213 (2 features). This represents an ten-fold increase in the number of known burial features in the area. In addition, what was originally thought to be two distinct burial sites (DgRw 199 and DgRw 210) approximately 850 m apart, is now revealed to be a nearly-continuous kilometre-long distribution of burial features. Based solely on surface skeletal elements these sites are estimated to contain the remains of at least 84 individuals; given the problems of visibility resulting from ceiling exfoliation and accumulated debris, this is almost certainly a gross underestimate of the true size of the burial population.

The goal of the site reconnaissance was to locate all of the burial features along the False Narrows bluffs, but this proved to be unrealistic. The entrances to some features are so well concealed, either by being deliberately walled-off, or through the accumulation of organic debris, that they are unlikely to be discovered except by accident. Others may be overlooked because sedimentation or rock falls have completely covered the contents of the feature. In such cases, identification of the burial feature will only be made if further disturbance re-exposes the bones. Although the survey resulted in a significant increase in the number of known burial features, it is probable that others, perhaps as many as 10-25% of the original total, remain undetected.

Re-examination of the burial features first recorded by Wilson in 1987 produced interesting results. All visible surface remains had previously been collected from four features: DgRw 204-F1 (Wilson 1987); DgRw 210-F1 (Skinner and Waddell 1990a); and DgRw 199-F1 and F9 (Skinner 1991). Yet during our survey in 1989, skeletal remains were again visible, in some cases abundantly so, in all four features, suggesting that some form of disturbance, whether frost heave, animal activity, or human vandalism, is churning up the feature sediments, bringing buried remains to the surface. Evidence of vandalism was clear in both F1 and F9 from DgRw 199, but the nature of the disturbance at the other two locations is uncertain.

A variety of burial practices are present at these four sites. Many burials appear to have received secondary or compound treatment; that is, the bodies had been reduced to disarticulated skeletal elements or bone fragments before being placed in the rock crevices. In some cases, this assumption was based on the discovery of skeletal remains in rock niches or crevices too small to have accommodated an intact corpse. In other cases, this determination was based on evidence of cremation. Burnt, fragmented bones were observed in 20% (10/49) of the recorded burial features. Not all of the burials are secondary interments; in five features the visible skeletal elements were still articulated and in correct anatomical order, indicating deposition of an intact body.

The results of the survey indicate that burial among the fallen boulders of the False Narrows bluffs was a relatively common occurrence over a period of at least 1,000 years, during the Locarno and Marpole phases of prehistory. Why were the rock features selected as a burial place? As was discussed in Chapter 2, shell midden interment was a much more common means of disposal of the dead throughout the Gulf of Georgia region in the prehistoric period, and is known from other sites in traditional Nanaimo territory, including at least two sites on Gabriola Island. Why was the usual practice of midden interment not followed for those interred on the bluffs? To address this question it was necessary to acquire a sample of skeletal remains from the False Narrows bluffs for analysis and comparison with midden interments from the area. The following five chapters describe in detail the excavation of selected burial features from two of the burial sites, DgRw 199 and DgRw 204.