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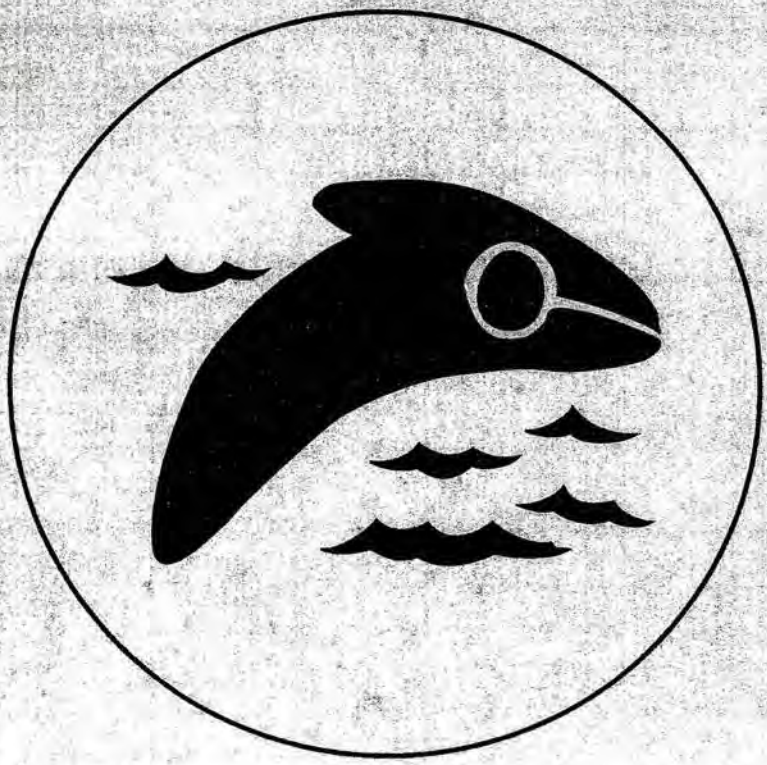

# *The Context of the Cemetery at Fort Ross: Multiple Lines of Evidence, Multiple Research Questions*

Lynne Goldstein and Robert A. Brinkmann

## Abstract

Fort Ross cemetery is a Russian American burial site in Sonoma County, California, generally dating 1812-1841. The cemetery reflects a population of Russians, Alaska natives, "Creoles," and possibly California natives. Fort Ross was a colony of the Russian American Company, primarily representing Russia's interests in the north Pacific fur trade, but also created to become an agricultural colony. When we first proposed cemetery excavation, we designed research questions based on colonialism, spatial analysis, and interactions between multi-ethnic groups. In framing our research, we realized that the much larger context of Fort Ross needed to be addressed in order to properly understand and describe the cemetery. The people who colonized Ross were coming to an unknown place and were creating what is commonly known as a cosmopolitan frontier settlement. They were not settling this landscape for their families and the long term. In this context, the relationship between people and their broad environment is key. Especially crucial is their understanding of a region's hazardousness, which we consider the critical variable—in particular, their *perception* of the hazards that awaited them. This paper outlines some of what we have discovered, in particular, how the cemetery at Colony Ross reflected these perceptions and the realities of life.

## Background

Fort Ross, in Sonoma County, California (Fig. 1), was a colony of the Russian American Company, a mercantile monopoly that represented Russia's interests in the north Pacific fur trade (Gibson 1976). The colony existed in northern California from 1812 to 1841, primarily to take advantage of the fur trade, but also to become an agricultural enterprise that would provide goods to Russia and to the other Russian colonies in Alaska. The Russian American Company officials who conceived of the idea of Fort Ross also thought that the colony might serve as a base for accumulating foodstuffs received via trade with the Spanish. The Ross colony was composed of Russians, Aleuts, so-called Creoles (the result of those born of Russian men and Alaska native or other native women), and California natives. The colony was ultimately not a success as an agricultural enterprise, in part because of the setting, and in part because the people who were initially sent to Ross were artisans and sea mammal hunters, not people who were expert farmers (Gibson 1976). By 1836, the Company sent a trained agronomist to improve the agriculture of the Colony, but it was never a thriving agricultural enterprise.

A variety of scholars have written about the colony at Ross from a number of different perspectives (e.g., Black 2004; Farris 1989; Farris 1997; Lightfoot 2003; Martinez 1998). Most recently,


*Fig. 1. Location of Fort Ross in California.*

Lightfoot and his colleagues have examined Colony Ross from the standpoint of the different ethnic groups living there, demonstrating that their worldviews and structuring principles were indeed reproduced in daily practices at the site at different scales, while at the same time certain cultural transformations took place as people adapted to this new pluralistic setting (Lightfoot, Martinez, and Schiff 1998).

One aspect of the site of Fort Ross that had never been studied was the cemetery. Indeed, although the approximate location of the cemetery was known, the areal extent and number of individuals buried in the cemetery remained unknown.[1] There also was some debate as to whether or not the cemetery included California natives. To address these and other questions, we undertook the excavation of the cemetery, with the express permission and support of the Russian Orthodox Church, the Kodiak Area Native Association, the Kashaya Pomo, the Bodega Miwok, and the California Native American Heritage Commission. Most importantly, we wanted to understand how the people at Fort Ross understood that place and how that understanding might be reflected in the structure and use of the cemetery.

## An Overview of Natural and Cultural Hazards

In understanding any place, one must appreciate the interrelationship between humans and their overall environment. In large regions, such as North America, this is a complex task; however, in isolated settings such as Fort Ross, the relationships can be defined and understood in cultural terms. We argue that the human-environment interaction at Ross may be best understood in terms of the hazardousness of the place: "A natural hazard of any sort is a function both of the physical event itself and of the state of human society, including specifically the adjustments adopted to cope with the hazard and the state of preparedness" (Hewitt and Burton 1971:5).

We are *not* arguing that the northern California coastline was the most hazardous place on the planet or the Pacific coast in the 19th century, nor are we even suggesting that the Russians or Alaska natives were particularly terrified to settle the Ross Colony. What we are trying to outline here is a context for understanding the vulnerability of these people within the framework of hazards at this locality. While every location has its unique set of hazards, the particular circumstances at Fort Ross at that time make it especially interesting for this sort of analysis. More people may have died elsewhere, but that does not diminish the challenges of this location.

Hazards can be classified into natural and cultural. These may be further subdivided into hazards of

the earth, air, fire, water, and biological/human.[2] There are a wide variety of different hazards that can occur on the planet. Many of the hazards are site-specific; for example, volcanoes affect a relatively circumscribed area. Other hazards may be more regional in extent. Table 1 illustrates how the individual and specific kinds of hazards may be applied to Colony Ross.

The term "hazard" is used to describe the potential for any hazard to occur. This is in contrast to the idea of "disaster," which can be seen as a hazard that has occurred (Hyndman and Hyndman 2006:1-10). It is through the frequency and magnitude of disasters that one begins to appreciate how hazardous a place is. Disasters may take many different forms. Traditionally, disasters are defined or understood by life lost or property lost. This may be appropriate for the modern situation, where recordkeeping is essential for effective disaster responses. However, when applied historically, such categorizations minimize the real and ongoing response to perceived and real threats. Responses to such threats can have major community impact, and this is why we choose to focus on "hazards."

*Table 1. Potential natural and cultural hazards in the Fort Ross area.*

| Source | Natural Hazards | Cultural Hazards |
|---|---|---|
| Earth | Landslides<br>Earthquakes<br>Erosion | Land travel accidents |
| Air | Storms | Accidents |
| Fire | Forest or grass fires | Forest or grass fires<br>Building fires |
| Water | Flooding<br>Tsunamis<br>Waves<br>Drought<br>Coastline structure | Water contamination<br>Maritime accidents |
| Biological/ Human | Sharks<br>Poisonous plants<br>Dangerous land animals | Microbes<br>Disease<br>Isolation<br>Construction failures<br>Civil strife/violence<br>Famine<br>Faulty decisions |

Critical to an understanding of the notion of hazard is the concept of risk. Many people are familiar with the idea of environmental risk from the Federal Emergency Management Agency's (FEMA) floodplain mapping program. As a response to rising costs of flood damage, FEMA instituted a program of mapping potential flooding in the United States. Maps showing flooding frequency were created and used for floodplain management. Zoning rules were instituted based upon these maps. Insurance companies also responded to the floodplain mapping by modifying rates based upon the risk of living in particular areas. Calculations of risk are based upon the records of historical disasters. It is through such calculations that hurricane-strike probability maps, earthquake probability maps, and volcano eruption maps may be drawn. These approaches use and analyze only one kind of risk, based upon probabilities that may be calculated within the terms of recorded human experience; they ignore *perceived* risks. Tobin and Montz (1997:292) define perceived risk as: "the range of social, psychological, physical, technological, and cultural factors involved and the interactions among them." It is our opinion that, historically, on a day-to-day basis, *perceived risks are far more likely to drive human behavior than any calculated probabilities.*

Let's examine the idea of perceived risk more carefully. In some situations, where exposure to risk is not completely voluntary, such as at Fort Ross, the perception of risk may be enhanced. The fear of an unknown landscape in a harsh environment is accentuated. There is also a general lack of control over the natural and cultural hazards that may exist in an area. The lack of knowledge of

of the cycles of nature in an unfamiliar landscape increases the perceived risk. In the set confines of Fort Ross, there was constant exposure to risk. For most people, it was impossible to relocate or easily change one's mind, and all lived under some threat of disaster.

While risk assessment may be accomplished using historical data on disasters, it is much more difficult to assess risk from cultural factors. Cultural hazards occur unpredictably, and at irregular intervals. Further, perceived risk from cultural hazards may have no basis in reality. For example, a colony may fear invasion from another culture when in fact those people have no intention of bothering the new settlers. Cultural hazards are often imposed upon the landscape, even though the landscape may influence the hazard event. A war is not necessarily dependent upon where it occurs, but environment may decisively influence the outcome of events in the war.

Also important to the understanding of hazards is cultural vulnerability. Different people react differently to stresses associated with risk. After Hurricane Katrina in 2005, the poor of New Orleans were shown to be particularly vulnerable, compared to their wealthier counterparts, who were able to flee or otherwise mitigate the effect of the disaster. However, it is important to note that income alone does not define vulnerability. Factors, such as age, gender, cultural isolation, language, health, social capital, and others are also critical variables.

## Natural and Cultural Hazards at Fort Ross

Planning for risk is especially difficult in areas affected by multiple hazards. One major type of hazard can elicit a reasonable plan of action, but when multiple sources of hazard are present, it is virtually impossible to plan for all combinations of occurrences. The problem is exacerbated in an isolated community with limited and restricted resources. Colony Ross represents such a setting. Instead of just applying the list of individual hazards in Table 1, we have combined these into sets of hazards for a total of six hazard *groupings* that were especially prominent at the Ross community: 1) ground instability, which is a combination of several earth hazards; 2) soil sustainability, which focuses on several water and biological/human hazards; 3) ocean hazards, which include water hazards as well as biological/human hazards; 4) isolation, which is a biological/human hazard based on the natural setting; 5) unreasonable expectations, which primarily include cultural hazards based on human decisions, and 6) disease, which is a biological/human hazard that was particularly problematic due to geographic isolation and close living situations—these people were more susceptible to epidemic diseases.

***Ground instability.*** There are two expressions of ground instability in the Colony Ross area: 1) the San Andreas Fault, and 2) mass wasting features. The San Andreas Fault extends for a few hundred miles along the California coastline. North of San Francisco, at Bodega Bay, it traces a path beneath the Pacific Ocean and reemerges a few miles south of the Ross settlement. The fault zone expresses itself through linearity of the landscape, captured streams, and sag ponds. The California Division of Mines and Geology suggests that there were a number of major earthquakes (greater than 7.0 on the Richter scale), as well as moderate shocks in the 19th century in the greater San Francisco Bay region, which includes Fort Ross (Huffman and Armstrong 1980:9). Certainly the settlers at Ross would have been aware of the seismic risk in the region.

In 1906, the San Andreas Fault experienced a rupture of over 190 miles from San Benito County to Humboldt County (Huffman and Armstrong

1980). The Pacific Plate moved 15 feet north, relative to the North American Plate, although the vertical displacement was only two feet. The magnitude of this earthquake is believed to be 8.25 on the Richter scale. In Sonoma County, much of Santa Rosa was destroyed. The landscape changes were not limited to fault movement. A series of landslides were triggered throughout the region, causing considerable damage.

In a report by Lawson and others, Fort Ross is specifically discussed in relation to mass wasting. They observe: "Landslides, in rocky as well as in loose material, have occurred in a great number of places, though none were at all extensive." (Lawson et al. 1908:181)

They go on to note (Lawson et al. 1908:190-191):

> From Fort Ross the line of the earthquake fissure was followed south to the point where it passes into the sea. From this point, we followed the beach for 8 miles. Several slides were seen about three miles south of the fort. One of these was of great size, being between 300 and 400 feet in height. These are evidently old slides, and the amount of material brought down by the recent earthquake, though large, is insignificant compared with the size of the scar.

While we are most familiar with the San Andreas Fault influencing landslide frequency in coastal California, extreme rainfall events can also trigger landslides. Unusually high rainfall is often associated with the phenomenon known as El Niño (Changnon 1999). It has been documented that the El Niño phenomenon is a semi-regular cyclic event caused by variations in Pacific Ocean currents; it is not a recent phenomenon, but has been occurring for millennia. This cyclic event would certainly have overlapped with the Russian occupation at Ross. In the most recent El Niño period, landslides were so common in the Fort Ross area that portions of Highway 1 were closed due to landslides for extended periods of time, making access difficult at best (E. Breck Parkman, 2005, personal communication).

The area in which the Russians built their fort is one of the few level landscapes that would not have been severely affected by mass wasting. However, it would be difficult to develop agricultural fields or surrounding settlements on the adjacent unstable landscapes. In fact, the extreme slopes in the region hindered expansion into the surrounding area.

***Soil sustainability***. Soils form as a reaction of the surface of the earth with the environment. They are expressed as horizons or layers that vary widely in content and thickness from place to place. Some local ecologies have produced rich, thick soil horizons, which are suited for large-scale agricultural production. Yet, across the planet, these productive soils are not common, and humans have adapted techniques to deal with infertile or stressed soils conditions. At Ross, however, the landscape was unfamiliar, and agricultural techniques practiced in Eurasia or Alaska would not translate well to this coastal area. Further, the people who came here initially were not well versed in agricultural techniques, so they did not know how to adapt to deal with the soil conditions.

The native people of the region (in particular, the Kashaya Pomo) tend not to live along the coast, using the coast primarily for resource procurement. Instead, they made their settlements well inland, away from the wind, fog, and inhospitable soils (cf. Lightfoot, Wake, and Schiff 1991). The selection of this particular location for settlement by Russians was only partially a wise choice. Certainly they were wise in selecting the area for the present, although temporary, sea mammal resources; for

the location's apparent protection; for its cove; for its flat ground; and for its distance from Spanish settlements. However, the site is a poor one for agricultural use.

The soils at Fort Ross are very prone to erosion because they occur on steep slopes. Most of the areas covered by these types of soils are used as rangelands today. The overall nutrient content of the soil is relatively low. One of the purposes of Colony Ross was to produce agricultural products for export. The settlement largely failed in this goal because the agricultural choices made were not sustainable and the people who initially came to Colony Ross were not experts in agriculture.

***Ocean hazards.*** Any country that sets out to participate in widespread intercontinental trade must be aware of the imminent and serious hazards posed by the ocean. Sailors had to know that they may or may not return from any given trip. Beyond this obvious kind of ocean hazard, however, the settlement at Colony Ross faced several other hazards related to the ocean. These include: shark attacks, tsunamis, sleeper waves, and problems resulting from the structure of the coastline and its relationship to the ocean.

Attacks by great white sharks are common along several coastlines of the world, including the northern California coastline. Humans are not usual sources of food for these animals—seals are a preferred choice. However, when humans use kayaks or surfboards, they look like seals from the shark's point of view. In recent years, there have been numerous shark attacks on surfers or sea kayakers in the vicinity of Fort Ross. Most of these attacks do not end with the loss of life. The Russians, during their occupation, hunted sea mammals using baidarkas (Gibson 1976), and certainly would have seen sharks as a potential danger.

Of greater concern, however, was the loss of life from drowning, which was an altogether common occurrence at Ross. Except for a few circumstances, we do not know the context in which the person drowned—only that the person died from drowning (Osborn 1997). Most drownings probably occurred as a result of accidents at sea or during boating or swimming close to the Fort. One coastal phenomenon in the area that has taken the lives of swimmers recently is that of "sleeper" waves. They are a threat to unsuspecting beachgoers because they are abnormally high waves that can wash a person out to sea. Offshore, strong currents make it difficult to swim back to land. The ocean depth plunges to over 40 feet just offshore from Fort Ross, and to thousands of feet within 20 miles.

Another problem in the area is the threat of tsunamis, which are caused by distant earthquakes or offshore submarine landslides. Difficult to predict, they are not discernible offshore because their wavelength may be over a mile from crest to crest, and their amplitude is typically less than one foot. It is only upon reaching shallow water that the wavelength shortens and the amplitude increases. The wave height can reach tens of feet and inundate inland areas. The California Division of Mines and Geology (Huffman and Armstrong 1980) considers the Sonoma County coastline susceptible to tsunami hazards.

***Isolation.*** By definition, a frontier colony is isolated, but with ties to the mother country. The further the distance between home and the settlement, the more isolated the settlement. Colony Ross was particularly isolated (see Fig. 2). This means that the colony cannot depend on the home settlement for immediate assistance in any emergency, whether it be natural or cultural, creating a perceived, and often real, risk. Planning is critical in determining supplies and resources, and errors in judgment can prove fatal. Any hazard mitigation would be

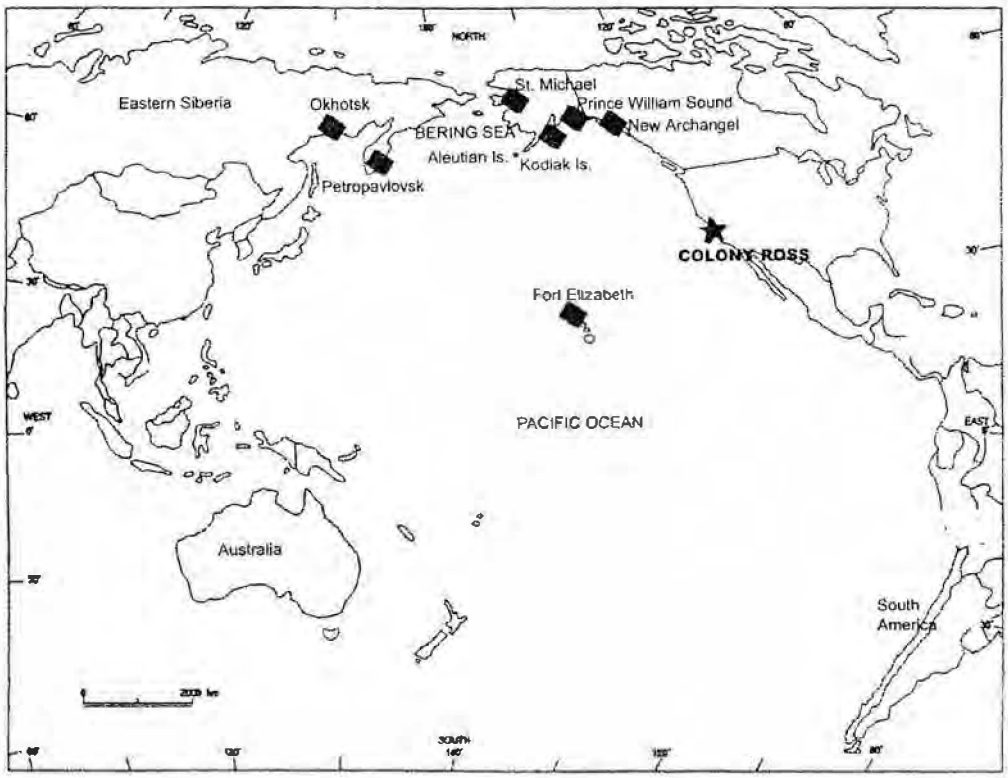


*Fig. 2. Map showing the isolated location of Fort Ross vis-à-vis Alaska, Siberia, and some of the other Russian American Company settlements.*

home-grown, and would stress the economic and time resources of an already fragile enterprise. At Colony Ross, the nearest Russian settlement was 1100 miles away in Sitka, Alaska, and even priests came to the colony only once or twice in its 29-year history. Supply boats were not common, and information from Russia was rare.

The Russians did not come to Ross alone. They brought Alaska Natives with them to assist in the fur harvest. The Russians had much experience working with these people in Alaska, and had already intermarried and organized work groups with them. Although they did not consider the Alaska Natives equals, they were an important part of the Russian American enterprise (cf. Black 2004). Upon arrival at the Ross location, the Russians encountered the native population of Kashaya Pomo, who were living in the vicinity and were familiar with the risks associated with the natural hazards. The Kashaya knew, for example, that it was a bad idea to live in an exposed environment on the coast. They also were familiar with plant and animal resources. In this context, it is clear that the Kashaya Pomo may have been vulnerable to the cultural hazards associated with the Russian arrival, but the Russians may have been even more vulnerable to the natural hazards of the setting.

Finally, although it is difficult to measure or assess, there are psychological factors of isolation. The people at Ross were far from home or anything they knew, they often were without their families, and they lived in a harsh environment, interacting with different and unfamiliar cultures. There seems little question that at least some of the inhabitants would be psychologically affected by this setting, although the consequences of this isolation are unclear. Because Colony Ross was what is termed

a "cosmopolitan" frontier settlement, it is not the traditional North American pioneer or frontier community (Lewis 1984). There was no system of forts or missions linking Ross with other nearby settlements, and it kept its closest ties with its homeland and Russian settlements in Alaska.

*Unreasonable expectations*. In the early nineteenth century, it was clear that the Russian settlements in Alaska were unable to sustain themselves. Also, sea mammals were rapidly diminishing. The combination of these two factors moved the Russians to seek a new settlement further south, along the northern—and relatively unoccupied—California coast. The northern California coast was selected because the Russians thought the northern coast was a place where agriculture could be developed, sea otter stock was plentiful, and it was defensible from sea and land. Indeed, Black (2004) shows that the process was far more complicated, political, and convoluted than can be outlined here, but the important point for this discussion is that the people who later settled at Ross had not been there before. Given that the people making the decisions were not experienced farmers or specialized fur hunters, it was unreasonable to expect that their evaluations of the northern coast would be completely accurate. Nevertheless, Ivan Kuskov settled the Fort Ross area in 1812 with 26 Russians and 102 "Aleuts" (Black 2004:181).

In hindsight, it is easy to criticize the decisions and lack of adequate planning made by the Russians. However, they were operating on incomplete information, working far from home, and working in a terrain that was completely unfamiliar. If they were guilty of anything, it was of having unreasonable expectations based on limited information. They did not plan for hazards. Indeed, when one examines leadership during disasters, one begins to understand the importance of planning and expertise. The recent events associated with Hurricane Katrina highlighted flaws associated with poor leadership and planning. In the case of Colony Ross, it was a different issue—they did not know what to expect and thus were severely challenged in realizing their plans.

*Disease*. One biological/human hazard that must have been on the mind of many living at the Ross Colony was disease. Waves of epidemics were not uncommon features of life in the early nineteenth century anywhere in the world. International travel, while relatively rare, was becoming increasingly common. Travelers served as vectors of diseases from far-flung areas. No places were more at risk than those sites that brought people together from many different places. For example, there were epidemics in many major global cities, such as cholera in Calcutta and London and periodic smallpox epidemics in various places, all at the same time that the Ross Colony was in existence.

Places like Ross were particularly vulnerable to disease. Individuals from many parts of Russia came together and were in contact with Native Californians and Native Alaskans within a relatively confined locality. They were far from supplies and sometimes the latest information on disease management, but their location and purpose put them into close contact with others. While these visits must have caused some cultural stresses, the threat of disease would have likely been on the minds of many settlers. Indeed, whether in contact with voyagers from far away locations or with Russian, Alaskan, or Californian traders, there was always the possibility for disease transmission.

The settlers at Ross were not an especially healthy group from the start. Because of their social status and their long time at sea, the Russians and European traders and sailors often had tuberculosis, gonorrhea or syphilis, alcoholism, typhus, pulmonary disorders, and assorted nutritional

diseases (Fortuine 1990:124). Similarly, Fortuine (1987:39) has found that Native Alaskans also suffered from a variety of environmental traumas, diseases, infections, and conditions such as arthritis. Once the Alaska natives began living close to Russians and Europeans, smallpox, tuberculosis, and other diseases were introduced, and alcoholism entered the picture. Although there is some discussion of smallpox in the Ross area in 1835, they did receive vaccine and apparently escaped the worst of the 1838 smallpox epidemic (Pierce 1990:62).

Even if smallpox was not present at Ross, there is evidence of epidemic diseases impacting the Ross Colony. For our purposes, perhaps the most important period was an epidemic in 1828. It is reported that at least 29 people died at the Ross Colony during a three-week period (Osborn 1997:237). The cause of this epidemic is believed to have been dysentery (although some scholars translate the Russian word for the disease as measles). Records state that the deaths include one Creole male, three Creole females, 17 Aleut males, and eight Aleut females. No Russians were affected. Unfortunately, we have no names, and do not know whether all the individuals were adults, or whether any children were included. The Ross settlement never had an especially large population, so any concentrated period of illness and death would have caused particular social and economic stress. We have no information about burial of this group.

## Cemetery Excavations

We posed several questions as excavation began at the Fort Ross cemetery. What happens to prescribed customs of funeral behavior when certain members of a society are removed from the familiar surroundings of family, friends, and church, and relocated to a frontier outpost such as the Russian colony at Ross? An extensive review of church records and Russian-American Company records might locate the names, ages, sex, causes of death, and other information for the individuals who are interred at the cemetery. Sannie Osborn focused her PhD dissertation on the cemetery at Fort Ross, and specifically on the archival materials and their relationship to the excavated cemetery (Osborn 1997). We refer to some of her research in the discussion here.

How did the natural and cultural hazards faced by the inhabitants of the Ross colony affect the cemetery? Remembering that this is an isolated location with a multi-ethnic population and a cosmopolitan frontier setting, how strictly would Russian Orthodox canon and rules be followed? When we began this project, no one was certain of the precise cemetery location, the number of graves, or the extent of the site. The main cemetery itself was located across from the fort, in view of the chapel, as directed by Russian Orthodox canon (Fig. 3). This did not necessarily account for all burials, however, since we know that at least one burial was recovered further north, but that appeared to be an isolated individual male, perhaps interred early in the life of the colony (Schulz 1972).

Initially, Fort Ross scholars suggested we would find in the neighborhood of 50–75 graves in the cemetery. Our excavations, however, yielded a total of 131 graves with evidence of burials, and an additional four "empty" graves. The empty graves may have been those in which preservation was exceptionally poor, or it is possible that these features represent graves from which individuals were later moved to other locations. The estimate of 50–75 was based primarily on descriptions of the cemetery made by Ernest Rufus, who leased Ross with a partner in 1845 (Haase 1952:25). His description indicates that there were never more than 50 graves. The disconnect between the number

*Fig. 3. View from cemetery to the chapel and Fort.*

expected and the number recovered may simply be an issue of preservation; the wooden markers were not stable and they did disintegrate. In addition, Rufus and other early visitors may not have considered the possibility of a marker being gone, or of a grave not having a marker, or of one marker indicating more than one grave.

One of the more surprising findings of our work at Fort Ross, both in terms of Osborn's (1997) archival research and our cemetery excavations, are the number of children recovered. As Osborn (1997:214) notes, children at Ross have been omitted from most of the literature. In 1820, there were 75 children and 61 in 1821. By 1836, there were 110 children, and by 1838 there were 124. In 1838, children represented 47% of the population, with 60% of these children being male (Osborn 1997:214). If we use grave size to try and roughly identify children, then there are likely a large number of children represented in the cemetery (Fig. 4).

The Kashaya indicate that several Russian children had wandered away from the Fort and had drowned, and the Kashaya had found them (Otis Parrish 1990, personal communication), and it is not unreasonable to suppose that children had died in other similar circumstances. What is surprising is the way in which children have been overlooked in many discussions and analyses of Fort Ross, and the disturbing absence of female children. As Osborn notes (1997:218), female infanticide had been practiced in Alaska, but would not be condoned by the Company or Orthodox religion. There is oral history that suggests that when a

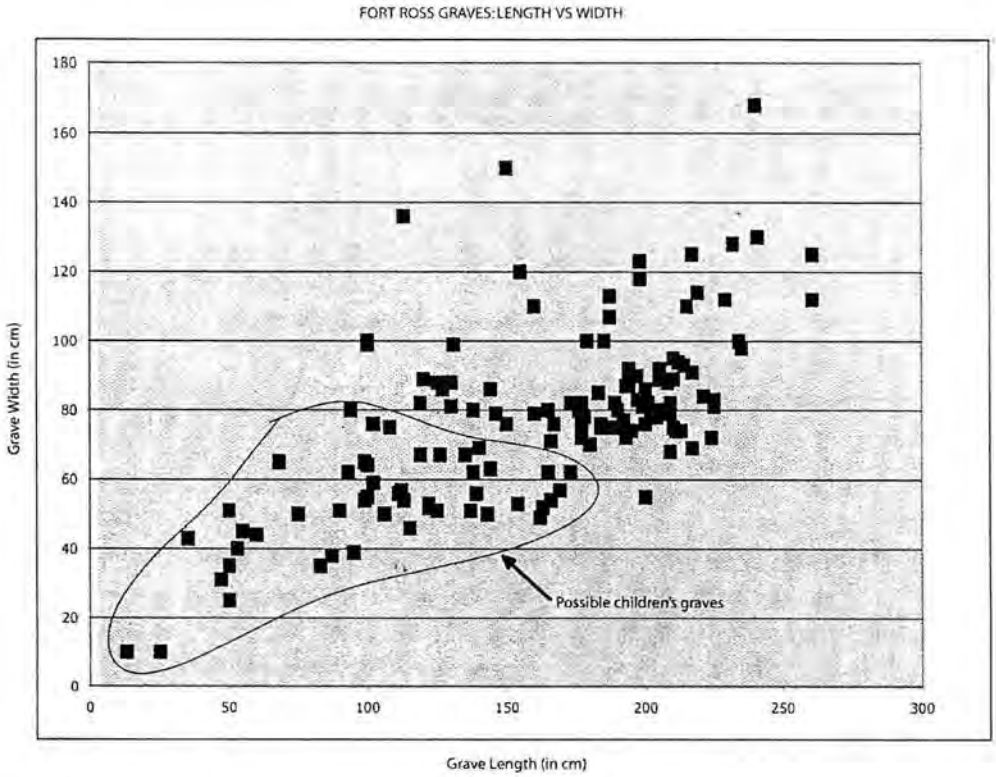


*Fig. 4. Distribution of grave width by grave length (measurements in centimeters).*

relationship between an Alaska man and a Native California woman dissolved, the man took the male children and the California Indian woman took the female children and returned to her village. This pattern would account for at least some of the missing female children. Following this line of thought, since female children were not as highly valued in the Colony, mothers may have routinely sent them back to their villages to live, without much objection from their Alaskan or Russian mates. In this way, the California natives would have created a system to avoid some of the hazards of the Ross situation.

The spatial pattern of the cemetery was generally in rows, as one would expect in a Russian cemetery, with people apparently interred in order of death; that is, the structure of the site is not by status or rank or even by family, but rather more strongly organized by date of death. We expected that we might see some differentiation by rank, particularly given the social structure of Russian vs. Creole vs. Alaska native, and so on, yet such a pattern did not emerge. What appear to be the initial burials were tightly aligned, with the rows following the slope of the land (Fig. 5). This does not mean that status differences were absent, however. As Osborn (1997:139-140) notes, the earliest description of the cemetery is by Spanish priest Father Mariano Payeras who visited Fort Ross in the fall of 1822. He notes several distinctions among the graves. First, there was a memorial for the Three Saints of the Russian Orthodox Church (Basil, Gregory, and John). This memorial had three rectangular levels ordered from large to small, and on these a pyramid of two varas (approx. 5.5 feet). A sphere was on

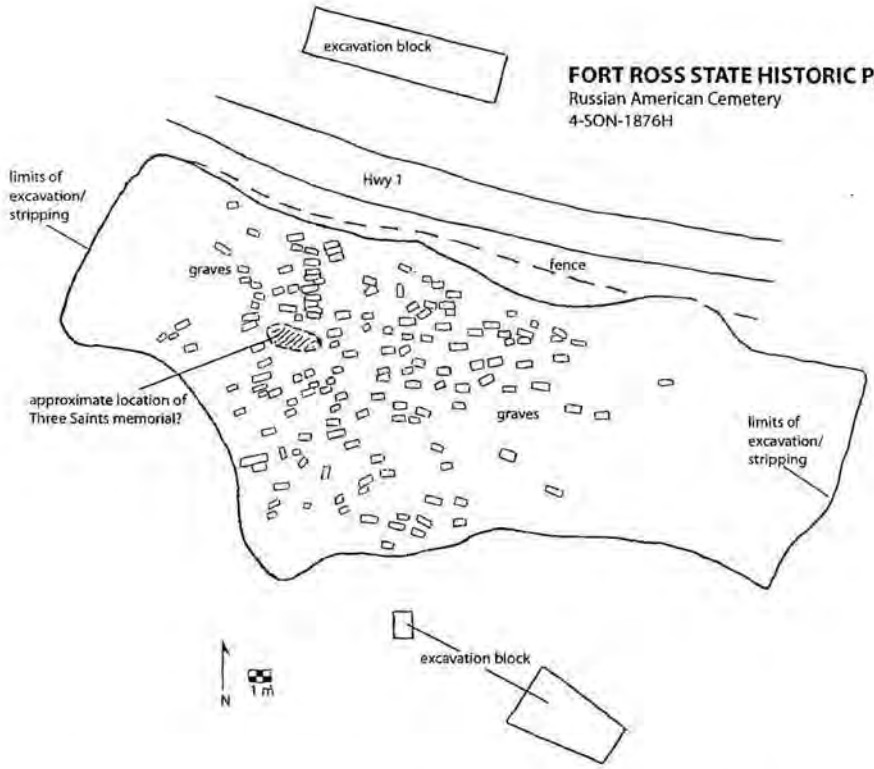


*Fig. 5. Map of cemetery excavations with grave outlines indicated and possible area of Three Saints' memorial.*

this pyramid, and finally a cross, painted in black and white. We assume that there were likely no burials associated with this memorial. Payeras also says that Europeans had a large box placed over their graves, while Alaska natives had a Russian Orthodox cross placed on their graves.

In Figure 5, the hatched area highlights a portion of the cemetery that is distinctive in several important respects. First, it is the physiographically highest location in the cemetery. Second, it is a location with a number of large boulders, as well as some wooden planks lying on the surface. Third, during excavation, we found evidence of several features that likely represent a monument or memorial. One feature was an approximately 1.3 by 1.1 meter rectangle with wood pieces in a lattice pattern, as well as a post pit. The location is in the same area as the pole that stood during the 19th and early 20th century. We think that the lattice, with rocks on top of it, may have provided support for the pole.

Just east of the pole feature described above, is another feature that is likely a box or marker. It is approximately 0.7 by 0.5 meter in size, and contains both nails and wood. The nail position indicates some kind of joinery, and its small size suggests that it is a box, a marker, or even a base for a pole. We argue that these features, along with others that may have been destroyed by time, made up what would have been the memorial for the Three Saints. This spot would be the most logical location because: 1) it is the highest point in the cemetery, 2) we think that it is the oldest part of the cemetery, and 3) the hard soils in this part of the cemetery would make it is impossible to dig a grave, therefore it is a good place for a surface monument.

The orientation of the graves in the cemetery was generally east-west, with head at the west, so that at Resurrection one could sit up facing east, as dictated by Russian Orthodox canon. Interestingly, at this point on the coast, the ocean is actually to the south rather than the west, and although some early burials seem to have been placed with the assumption that the ocean was west, later burials seem to have been adjusted for the proper orientation.

Coffins were very narrow and made of redwood, and most burials seem to have had a coffin. Of 131 graves (*not* including the four that were empty), only nine burials had *no* evidence of coffins. The coffins were constructed crudely, with butt-end joints, many nails, and no decoration or lining. The construction suggests that the coffins were made on-site and expediently. Of the nine burials without coffins, only one individual had any grave goods. That person did not have any religious items, but had five metal buttons, and eleven white, glass buttons in a pattern suggesting a shirt buttoned on both sides. Some evidence of fabric was also found, and bone preservation was good. Two metal clasps that likely represented suspenders were also recovered near the shoulders. The burial was at the very southern end of the cemetery, and may have died very late in the colony's history, or may have been one of the settlers who was a European, but was not Orthodox (cf. Osborn 1997:252).

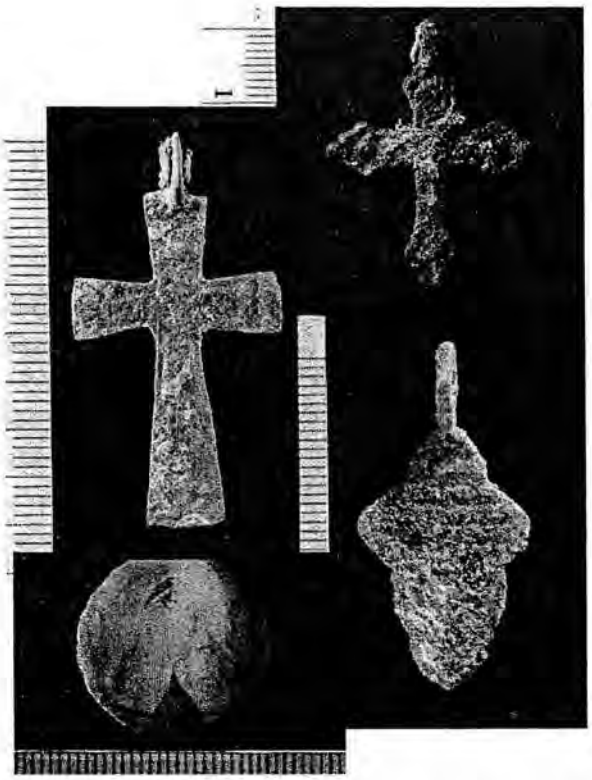

*Fig. 6. Examples of crosses and religious medallions (scale is in millimeters).*

We found a cross, or a religious medallion, in 56% of graves (Fig. 6). This percentage suggests that whether or not individuals saw themselves as Russian Orthodox, the community viewed people they placed in the cemetery in much the same way.

Other grave goods were present, but limited, and included such items as glass and metal buttons, glass beads, earrings, buckles, one saber, bottles, some dishes, cloth, and a coin (Fig. 7).

The graves at the cemetery can be divided into groups, according to what we found:

1. Empty graves, with no evidence of coffins or burials = 4
2. Graves with no evidence of coffins, but evidence of bone = 9
3. Graves with evidence of coffins but no grave goods = 35
4. Graves with religious pendants only (no other items) = 56
5. Graves with beads or bead clusters = 15 (12 of these also had religious pendants)
6. Graves with buttons/textiles = 13 (3 of which also had religious pendants)
7. Graves with additional items = 4 (these include a saber, shell, a coin, fur, pigments, beads, a spoon, and a group of other items)

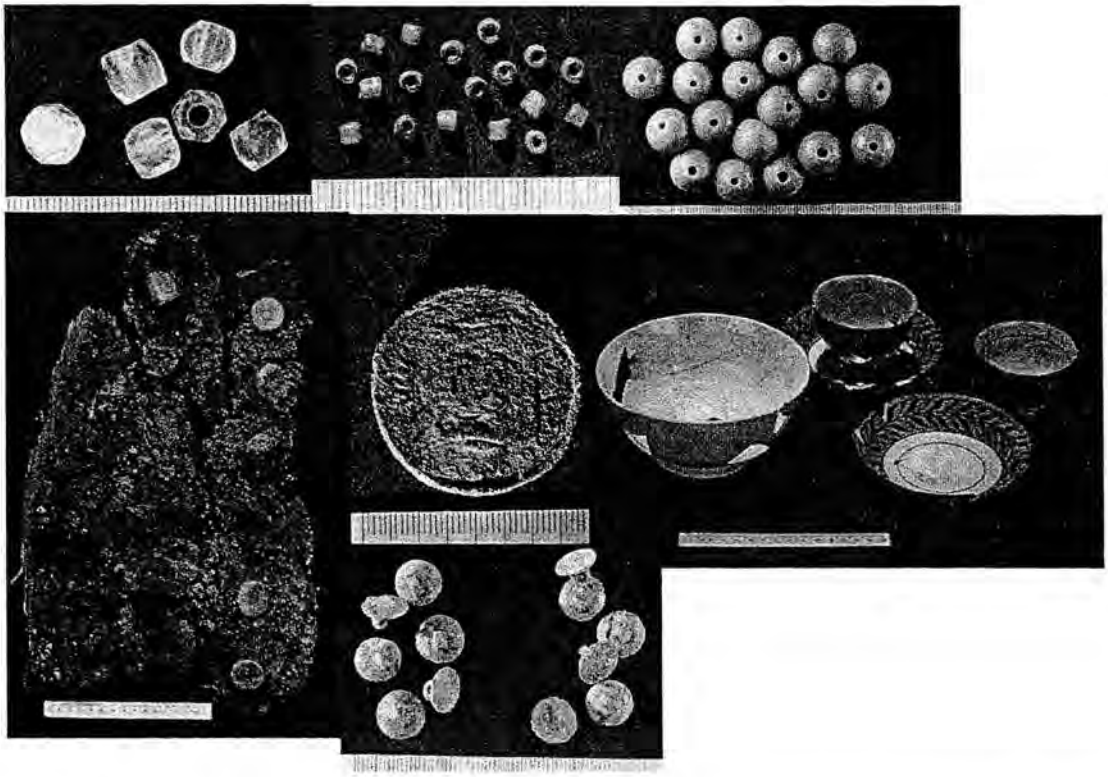

*Fig. 7. Examples of other artifacts found in graves (beads in upper row, part of a wool coat, a 5 kopek piece, dishes, metal buttons) (scale is in millimeters).*

If we assume that the empty graves are those of individuals who were later moved from the cemetery, the cemetery population consists of 131 graves and the treatment groups include six different types. This is not an unreasonable assumption since there is nothing unusual about these four graves that suggest any odd preservation situation or odd location, yet they were clearly graves.

The relatively small group of individuals buried without coffins may have been buried with shrouds only. It is also possible that their coffins were not preserved; most of these graves were in the same area of the cemetery, which had worse preservation. However, it is also the case that this portion of the cemetery is likely one of the earliest parts of the cemetery. For most purposes, groups 2 and 3 can probably be combined. This means that 44 individuals, or approximately 34% of the cemetery, were buried with no grave goods or with items that easily deteriorated (such as wooden crosses, pieces of paper, etc.).

Group 4 is the largest group in the cemetery with 56 individuals (43%). This group includes those graves that had religious pendants and no other grave goods. More individuals had religious pendants (a grand total of 56%), but they also had other items in their graves.

Group 5—those individuals with beads—is one of the most interesting groups in the cemetery because we thought it might allow us to distinguish between Alaska natives and California natives. We know that different groups favored different kinds and

colors of beads, and we hoped that these differences would potentially assist in assigning ethnicity to the graves. Instead of the limited set of patterns we anticipated, we found a large variety of colors and styles of beads. According to Lester Ross (1990 and 1992, personal communications) although a few styles of beads may have been made locally, the majority of these beads were imported from Europe and are within the range of those used by Alaskan natives. None are specifically California native in style, color choice, or pattern. The analysis of the beads is not yet complete, but some are illustrated in Figure 7. We found two pairs of earrings laid out in a pattern, as well as several other beaded garments or items in place. Twelve of the 15 burials with beads also had religious pendants, and we interpret them to be Alaska natives. Note, however, that beads alone do not define a grave as Alaska native, and it is certain that a number of other graves in the cemetery are those of Alaska natives.

Group 6 individuals had buttons, and the buttons often had textile adhering to them. Thirteen individuals fall into this category, and it is possible that some of these include the non-Russian non-Orthodox Europeans who died at Ross. In this group of 13, only three individuals also had religious pendants. The problem with this particular category is that it includes both metal and glass buttons. However, looking closely at the group, most are metal buttons; only a few have white glass buttons, and these sometimes co-occur with metal buttons. The textiles with the buttons are often wool in the case of metal buttons, and linen or muslin in the case of glass.

The final group includes those who did not fit into the other groups because the combination of what was found in their graves was unusual. Four graves fall into this category. The first is an individual who had both a religious pendant and a saber. Orthodox canon does not condone burial with weapons, so the combination of a religious pendant and a weapon is surprising. It is also the only weapon found in the cemetery. The second individual was in an extremely deep grave, and had a religious pendant, a coin, and a shell. The coin is a Siberian copper from the reign of Catherine II (1762-96) (Harris 1971). It has a distinctive design, produced at the Kolyvan mint, and is a 5 *kopek* piece. This was the only coin and the only shell recovered, and the shell was too fragmented to identify. The third individual in this category had no grave goods, but the grave included evidence of hair, plus the remains of what was probably a type of headdress, clothing or tassel decoration. A type of fur was found around the head area (next to the hair) and also at the foot. The final burial in this category was a grave that did not include evidence of a body, but included the greatest number of artifacts in the cemetery. The wood in the grave did not resemble that found in other graves. Artifacts included pink poorly made glass beads, white glass beads, a spoon, orange pigment, red pigment, a glass bottle, a mirror, clear glass, yellow glass, a thimble, a wooden needle case, a ring (with cloth), needles, and a thin metal strap. It is possible that this feature may postdate the Russian settlement and may not be a grave at all.

Even though it is possible to divide the graves into categories, the variability is surprisingly narrow. Most people were buried in the same way, with little deviation from the norm. The practices as reflected in the cemetery follow traditional Russian Orthodox canon and norms (Father Vladimir Derugin and Father Alexander Krassovsky 1990, personal communication). Even though the soils at the cemetery were extremely hard and rocky, they buried individuals very deep, generally from four to six feet below the ground surface.

The cemetery includes a number of Alaska natives, some identifiable by their beaded clothing and


*Fig. 8. Beaded bag or headdress found with child (photo on right is close-up).*

adaptation of Russian material culture (Figs. 8 and 9). They were not spatially segregated and, as noted, were treated with full Orthodox burial customs. There were also a number of Creole individuals, who were the result of pairings between Russians and Alaska natives. We are not sure how to identify Creole burials.

When we asked modern Kashaya Pomo how we might identify any Kashaya ancestors in the cemetery, they indicated that they thought there should not be any Kashaya in the cemetery—that either they had never been buried there, or that any Kashaya who had originally been buried there had later been secretly removed (Violet Parrish Chappell, Otis Parrish, Warren Parrish, personal communication, May 1990). That said, the Kashaya wanted to make sure that we did not excavate any Kashaya graves if we identified any as such. We promised that once we knew a grave was Kashaya, we would stop excavation. We kept them informed throughout the project. Indeed, no grave was specifically identified as Kashaya, although as noted above, we did find several "empty" graves. The Kashaya were especially helpful in sharing oral histories about the cemetery, and they coincidentally served as our heavy machinery operators.

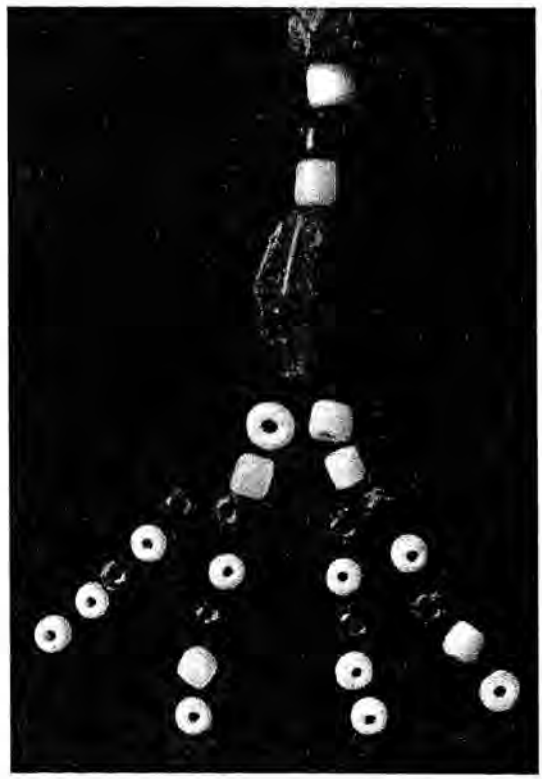

*Fig. 9. Beaded earrings found in adult grave (item was found laid out as displayed).*

## Linking the Cemetery and the Notion of Hazardousness

How does what we recovered from the cemetery reflect the ideas of hazardousness, and more importantly, how do these ideas help us interpret the cemetery? Does anything we found represent the kinds of hazards outlined above, or is it unreasonable to think that such concepts can be seen in a cemetery? We have argued that hazardousness is a key principle in understanding Colony Ross.

First, the overall structure of the cemetery is its row arrangement and the fact that every individual is in a grave, generally oriented east-west, usually with a coffin and a religious pendant. In other words, individuals were treated to Russian Orthodox funerary rites, even though there was not a priest at the Ross colony and not every individual was baptized as a Russian Orthodox. However, although there was not a resident priest, there was always a layperson designated to perform basic rites. The conservative adherence to Russian Orthodox custom can be interpreted as custom or tradition, but in such an isolated and harsh setting, it would be easy to forgo the creation of coffins, the excavation of deep graves, and the orderly organization of the site. They did not do so; instead they persevered despite considerable difficulties in digging graves in this rocky dense soil, in making coffins, in acquiring nails, and the expense of taking crosses out of circulation and placing them in the graves. Their determination suggests that these practices may have been seen as a comfort or even an insurance policy. The adherence to traditional beliefs and lifeways in a harsh and uncertain environment thus makes sense for Colony Ross inhabitants. The Russians saw the cemetery as consecrated ground, and everyone who was buried there as Russian Orthodox. As the Kashaya informed us (Otis Parrish 1990, personal communication), this attitude was uncomfortable for them, not only because it was not their traditional form of mortuary treatment, but because they did not want to be treated as Russian. Their elders told them that any Kashaya placed in the cemetery was secretly removed. Our excavations suggest that this is likely the case. We have also suggested that the Kashaya may have developed one effective way to deal with the cultural hazard of the Russians by removing children, and especially female children, whenever possible.

Although there were rarely priests at Colony Ross, this did not deter the colonists from practicing their religion or carrying out the proper form and service. As Black (2004:248) notes, this is a common situation for the Russian Orthodox Church, both historically and today: "In the absence of priests, Orthodoxy was maintained by often self-taught lay readers."

The Kashaya also told us what they had learned from their elders about several instances of drowning, when bodies were not recovered (Otis Parrish 1990, personal communication). The Kashaya had then returned with stories of what had happened to Russian adults and children who had gone where they should not have ventured. The Kashaya today wanted to know if we could find anything that would demonstrate that these stories were true. We found several graves with no evidence of bone, but where instead the individual's possessions appear to have been buried. In discussions with Russian Orthodox priests, they indicate that burying a person's possessions if the body was not recovered would be appropriate (Father Vladimir Derugin and Father Alexander Krassovsky 1990, personal communication). This type of burial may well qualify as representing an ocean hazard.

For the Alaska natives, the situation is more complicated. They had worked with the Russians for several years, and many had converted to the Russian Orthodox religion earlier. Many of those who came to Colony Ross probably saw themselves as both Russian Orthodox and Alaska native. They may be distinguished in the cemetery by their beaded attire, but they may also simply have crosses. In any case, their graves are not spatially distinct. From the perspective of their treatment in the cemetery, they experienced hazards to the same degree (or greater) as the Russians, and we know this was largely the case. The Creoles would have been treated similarly, but even more like Russians.

We want to emphasize the hazardousness of the cemetery location itself, which was almost lost because of the 1906 earthquake. The San Andreas Fault borders the cemetery. This event significantly changed the landscape of the region. During that event, there was considerable damage to buildings at Fort Ross. At that time, cemetery markers fell, and rotted in succeeding decades.

Upon excavation, it was clear that mass wasting and chemical processes operating within the soils significantly altered the graves. Soil creep was so dramatic that grave pit excavations that started in one location had to be shifted south as much as 0.5 meter by the time one had excavated to the bottom of the grave pit. Preservation was poor due to high acidity in the soils. An anthropogenic soil pan formed within some graves. The combination of physical and chemical processes makes long-term preservation of the landscape unlikely. Whatever little was left of the cemetery at the time of excavation was not going to remain for many more years to come.

Fort Ross is a dangerous but beautiful place (Fig.10). There are multiple hazards, and anyone living in coastal Sonoma County today is familiar with these hazards. We are better able today to cope with the risk because we have better information and supposedly better infrastructure. Eventually, the economic and social risk for the Russians was seen as too great, and the site was sold to Sutter in 1841. However, another explanation is that the Russians

*Fig. 10. Overview of cemetery location from ocean (looking to the east-northeast).*

were unable to overcome their vulnerability to hazards.

The cemetery remains today as an example of a place at risk. The multiple lines of evidence and the multiple research questions allowed us to address a number of issues about Fort Ross that we had not anticipated when we began our research. The cemetery represents an important place for Russian Orthodox individuals from both branches of the church, as well as a place of note for Alaska natives and California natives. Before our work, the cemetery had little visible substance; now, it is a place of honor and value.

## Acknowledgements

We gratefully acknowledge the assistance of the California Department of Parks and Recreation, and especially E. Breck Parkman, Glenn Farris, and the rangers and all of the people who work at Fort Ross State Historic Park. We also wish to thank the many field school students and volunteers who helped us excavate and analyze the Fort Ross materials. We are very grateful to the Kashaya Pomo, Kodiak Island people, and officials of the Russian Orthodox Church from Alaska and California who worked closely with us, providing advice, encouragement, information, and history.

## Endnotes

1. One burial was recovered north of the present cemetery location in 1972 during a road widening of Hwy 1. This was an isolated burial of an adult male, and his relationship to the rest of the cemetery remains unclear, but he probably dates from the earliest occupation of the settlement. His grave was in sight of the chapel. These remains were reburied in a grave in the cemetery with the rest of the Fort Ross burials during reburial ceremonies in 1992.

2. Biological/human hazards are lumped together in this geographic hazard classification system only as a way to distinguish them as being broadly more like each other and more different than the rest. As a hazard grouping, it works, even if it does not work so well in anthropological thought.

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