past two decades and that material culture holds clues to behaviors. The use of artifacts ranging from smoking paraphernalia to household ceramics in the analysis of class has been an important tool for archaeologists in the interpretation of discourse between classes, in relation to hegemonic groups, and in response to structural inequalities, and has facilitated the examination of groups in context at many scales (Beaudry, Cook, and Mrozowski 1991). This issue will be taken up further in chapter 2. That class is an appropriate area of study in archaeology is tempered by the concept that archaeology has always served middle-class interests (McGuire and Walker 1999, 159).

Landscape as Unit of Analysis

The nested scales of analysis in this study include macroscale regional context, a medium scale defined by the milling operation and immediate environment, down to the scale of household. Milling in the Santa Cruz area or anywhere within California for that matter, was not an isolated phenomenon, but rather existed within a tangled web of commercial and social networks. Unlike the individual miner who might have worked for himself—until the arrival of large conglomerate company mines squeezed out the independent miner—timber extraction and lumber were profitable only on a large scale. The individual timberman did not exist in a viable commercial sense.

As with all extractive industries, value was drawn from the commodification of the natural world for commercial profit. This ideology of productive valuation has been termed "resource capitalism," where the product of capitalist investment is a natural rather than manufactured commodity (R. Walker 2001). Resource capitalist enterprises are, therefore, by definition, extractive. California on the whole, according to Richard Walker, could be called "a case study in resource-led development" (R. Walker 2001, 167). Capitalization of operations allowed the owners of companies to industrialize and extract resources at an ascending scale. California's economic development and prosperity was driven by waves of resource exploitation, from gold, silver, and petroleum to wheat, citrus, and timber (R. Walker 2001, 168). The value of timber and lumber grew continuously from 1880 through 1940, peaking in 1914, then dropping sharply by 1922 (the period in which Loma Prieta Mill finally closed), despite the fact that lumber was in high demand during the years of World War I.

Using Manufacturing Census records, Walker (R. Walker 2001, 177) calculated that, in value-added analysis, lumber was the number one industry in California in 1869 and remained in the top three until the 1920s. Here "value-added" means that the timber industry created employment

opportunities and facilitated subsidiary industries, including producing a demand for machinery and equipment. Certainly, the lumber business, with its need for product transportation and its intersections with shipping, generated value at several scales and produced a unique industrial landscape even as it transformed the natural landscape. Walker points out that resource-industries consume other resources and stimulate ancillary extractive industries. As an example, he examined how mining "devoured whole forests" in the process of building mining infrastructure (R. Walker 2001, 186).[2] The same might be said for lime kilns, brick manufacturers, railroads, and shipyards, each of them consuming forest products.

Extractive industries at industrial scale are driven in the modern world by capitalism and are capitalist enterprises. This nexus of moneyed interests, government subsidy, and entrepreneurial spirit is captured by Walker's (2001) astute analysis of California's agro-industrialization at four scales: processing, equipment supply, secondary product demand, and technical innovation. However, while Walker demonstrated the manner in which capitalism underwrote the new industrial landscapes, he touches only briefly on how these economic relationships fostered the socially driven distinctions rooted in immigration or how capitalist ventures derived value from the divisions created by driving wedges into the laboring class. Nevertheless, Walker's analysis gives us a solid footing for framing the study of labor in timber.

As emphasized by McGuire and Paynter (1991, 94), industrialization has always created novel landscapes that frequently reveal power differentiation. Prosperity in California took the path of resource industrialization as a symbiotic relationship developed between industry and extraction (R. Walker 2001). Railroad lines also used vast amounts of lumber for ties. According to contemporary analysis, lumber—sawn, split, and hewn—was produced by 328 sawmills, of which 205 were steam driven, clearing 260 million board feet annually through the 1860s (Hittell 1879, 190). Out of this total, the Santa Cruz region accounted for 14 million board feet, a number that increased steadily after 1880. In terms of innovation, invention of the donkey engine would eventually lead to efficiencies in timber hauling, yet had to await improvements in steel cables, without which a donkey engine is ineffective. One innovation for one industry stimulated innovation from another.

Landscapes, particularly those brought about by agro-industrialism, such as plantations, mining, or timbering, wherein both land and human relations come to be configured in support of production, leave significant traces on the natural environment, but also in the human terrain. Landscapes are shaped physically in the open environment and are experienced both physically and psychologically (Hardesty 1985; Hood 1996; Yate 1989). When people interact in time and space with their environment's

cultural habitus, it gives meaning to these landscapes (Butzer and Butzer 2000; Hood 1996; Rubertone 1989; Zedeño 2000; Zedeño and Bower 2009). Landscapes are "active and space in context is an artifact," according to Rubertone (1989, 50). These processes can be accessed and methodologically interpreted through procedures grounded in a landscape approach, incorporating praxis from ecology, geography, anthropology, and social history (Adams 1990; Aston and Rowely 1974; Brandon and Davidson 2005; Butzer and Butzer 2000; Crumley and Marquardt 1990; Dubrow 2000; Hood 1996; Kealhoffer 1999; Mugerauer 1995; Pauls 2006; Shackel 2009; Voss 2006; Winthrop 2001; Zedeño 2000). The various scholars just cited have developed viable frameworks for examining the relationships between workers and their environment, and for understanding environment in social terms. In other words, it is possible to frame environment as a construct of human values and cultural expressions. The landscape that results from timber cutting is an example.

So critical has it become for archaeologists to understand the nexus of industry, labor, and landscape that the Society for Historical Archaeology devoted an entire issue of their journal to this topic, with investigations from around the globe (Cassell and Stachiw 2005). Landscape, industry, and labor are carefully defined in historical context by Cassell and Stachiw in their introduction to the edition (Cassell and Stachiw 2005, 1). Expanding on the meaning of landscape, Cassell and Stachiw, and indeed all of the contributing authors, make the case that landscape as artifact is a conceptual framework, and breathe new life into the framework through structurally diverse landscape studies. Landscapes "begin and end as the result of human social activity . . . [and encompass] consciously or unconsciously placed things and altered environments and arranged spaces" (Cassell and Stachiw 2005, 1). In essence, landscapes are the product of human agency and can be deconstructed archaeologically to reveal embedded meaning. The Society for Historical Archaeology followed up with an edition of the journal in 2016 devoted to American landscapes, wherein Paul White examined the ethnic and racial stereotyping of labor in mining camps (White 2016, 158). White's findings mirror the divisions of labor prevailing elsewhere in extractive industries, an issue he explored in greater depth in his book *The Archaeology of American Mining*. Mining in the 1880s, he states, was "an international enterprise," first because "the majority of the workforce was foreign born, but also because it pushed beyond the natural edges of the continent" (White 2017, 25). The same can be said of the lumber camps on the West Coast.

Different societies and socioeconomic systems may result in different landscapes, yet capitalism has its own criteria for development. This concept as distilled by Lefebvre (1979, 1993) through an analysis of space in the modern capitalist social order, established a framework for interpre-

tation of archaeological landscapes, suggesting that "even though the use of space has limits imposed by the environment, every mode of production in history has produced a particular kind of space," and that space is both social and a means of production mediated through a network of exchanges and division of labor (Lefebvre 1979, 286). According to Crumley and Marquardt (1990, 79), who sought to understand how landscapes impact social behaviors, "Cognitive and historical features must be added to familiar environmental analysis if we are to successfully model the dynamics of culture/social change." An important aspect of this dynamic regarding the connection between landscape and society was articulated by Hood (1996, 130) stating, "The physical landscape was very much a part of people's understanding of economy, legal rights, and acceptable social order." The idea that landscapes reinforce social ordering is not new, but its application to understanding how it may also be used to maintain ethnic and racial hierarchies has only recently been investigated (Jones 1997; Silliman 2006). These conceptualizations of landscape, space, and labor within the framework of capitalism have been vigorously embraced by several historical archaeologists in pursuit of nuanced understanding of its expression in frontier or industrial contexts. For example, Dixon's (2005, 2006) interpretation of ethnic boundaries and African American enterprise in boomtown saloons, Ross's (2013, 2017) investigations of Chinese workers in the canneries, or Mrozowski's analysis of class in urban America, to name only a few who have integrated capitalism within realms of class and ethnic diversity. It remains to synthesize the findings of such insightful studies by investigating these same components in the working environment of lumbering where class, immigration, and capitalism intersect.

Two important works concerning class, capitalism, landscape, and ethnicity in archaeology, were published in close order: Stephen Mrozowski's cogent *The Archaeology of Class in Urban America* (2006), and Charles Orser's deeply engaging and troubling *The Archaeology of Race and Racialization in Historic America* (2007), which explored how these concepts are woven together. In the analysis of class and racial discourse—always an arena of research in historical archaeology—these two works represented high watermarks in the field in their time and each has influenced the analytical approach of the study presented in this book. The year 2006 was a banner year for publications questioning the critical concepts of identity, ethnicity, race, and labor (see also Hall and Silliman 2006). Charles Orser (1996b) had earlier examined the conceptualization of landscape in a particularly applicable way for the interests of this study, while Mrozowski's (2006) situating space configuration, class, and capitalism (capturing the essence of Lefebvre 1993) suggested both organizing principles and a lens for analysis. These diverse studies of landscape, labor, and class derive

their strength from theoretical constructs of landscape archaeology that combine examinations of labor in a Marxian sense with material culture analysis. These studies provide a firm foundation for investigating labor landscapes in lumber camps and the nexus of capitalist development in associated industries.

Timber camps are neither urban nor characteristically a rural zone, but instead are situated in a frontier zone. Orser suggests that the concept of landscape "invariably includes a concept of *boundary* because landscapes must end somewhere in space" (1996b, 139; italics added). However, landscapes include sociohistorical structures as people coexisting in the physical landscape interact. Indeed, the timbering landscape does have a boundary, but it is not impermeable to social and cultural influences. There are in fact several scales of boundary evident; the first of these boundaries is between cut and uncut forest, the edge of the forest where farms or towns are established, and the liminal zone between the lumber camps and the residential zones beyond. The workers are therefore constantly negotiating and manipulating these boundaries—extending some of them by their labors and decreasing others by clearing. The introduction of rail lines alters the accessibility and facilitates crossing boundaries physically, which then increases the crossing of socially erected boundaries as well. Social boundaries also existed between skilled and unskilled labor since these categories also were frequently nuanced by immigrant status in the mill camps.

The natural environment, modified as an outcome of production or to suit the requirements of specialized production such as the extraction and transport of commodity, will result in de facto industrial landscapes. But landscapes modified from natural environments do not order themselves—they are generated by people vis-à-vis cultural and economic traditions (Meniketti 2015). Modern (present and visible) landscapes are not accidental, and even if inadvertently ordered, are not random phenomena. They result from planning, purposeful design, competing interests, and attitudes toward development, as well as the outcome of unintended consequences or neglect, forming a series of nested relationships that connect ideologies with contemporary values. For instance, the construction of a crib dam to create a millpond had direct impact on the health of the creek and the fish populations it supported and the decline in fish resources for downriver communities (Walcott 1909, 36). Decisions made in historical context lead to the landscapes that emerge and could have been different if particular decisions or structuring attitudes had been different. These separate elements are networked within a system designed to maximize labor, production, profit, and management of both product and labor. Hardesty postulated that late-nineteenth-century "Victorian cultural traditions were carried into industrial environments" (Hardesty 1980, 75; Hardesty 1985, 221). Hardesty's view was that a suite of discernable attitudes and

behaviors influenced by those attitudes constituted a Victorian template, definable and measurable. That modified landscapes serve many purposes has been demonstrated by Leone (1984, 1985, 1999) and Leone and Potter (1988) in the context of capitalism. The relevant interpretation from these careful studies is that, beyond a "reflection of culture or a functional arrangement of artifacts . . . landscape itself plays an important role in constituting human society" (Hood 1996, 125).

From this framework, landscape analysis is essentially a study of the relationships that intersect and transform landscapes and by extension, transform boundaries. From this perspective, landscape combines quantitative data derived from spatial analysis, archaeology, and environmental studies with qualitative data drawn from ethnohistorical sources, semiotics, and historical documentation. To this already complex mix we must add the mosaic of diverse origins and cultural freight of the laborers who toiled in the industrial landscape. The presence of a particular group may have lasting impact, such as Japanese horticulturists in California agriculture (Dubrow 2000).

Arguing that landscape writ large is a potent metaphor, Hood (1996, 122) described this phenomenon with a litany of human categories for landscape that have strong psychological pull, writing, "Landscapes are categorized into culturally relevant entities, even if these are the 'unexplored' or 'virgin land.'" Such categorizations can have tangible consequences for how that space is used or understood, which in turn affects the behavior of those perceiving the landscape in a particular way. These cognitive constructs influence interactions with nature, hence Hardesty's Victorian pattern model. For instance, the term "virgin land," while equating nature with the feminine and industry with masculinity, suggests simultaneously an exploitive and dominant mentality over nature: themes that can be found routinely in literature of the day. The language used by timbermen, such as "attacking the virgin forest," betrays also an unmistakable taming of gendered wildness (see Knott 2011, 80). Those familiar with the discourse on gender and landscape will recognize the cultural semantics, however; to paraphrase Van Wormer (2003, 199), landscapes cannot be examined outside the context in which they are created. The women-as-nature concept has been explored by scholars and has been shown to have deep roots in Western philosophy (Ortner 1972, 12). Late-Victorian values were applied to natural landscapes as they were to people, and when wedded to capitalism were used to justify conquest in all its manifestations. The built environment, suggests Deborah Rotman, "is used not only to codify cultural values, but also to reproduce gendered social organization" (Rotman 2003, 15).

Landscapes have been viewed by social scientists and archaeologists alike as more than altered natural places, but as embodying the total-

ity of human modifications to create purposeful spaces (Lewis 1993). Landscapes become cultural as a result of the modifications and behaviors enacted within the manipulated environments. Mines, quarries, dams, wharves, farms, lawns, parks, houses, barns, sacred circles, and cemeteries all constitute cultural landscapes, and obviously this list is by no means exhaustive. Whether humans work, play, or engage in spiritual fulfillment within the natural world they impose a cultural imprint and "these landscapes become in effect a kind of document" (Lewis 1993, 116). This concept of artifact is not without problems, however, and its extension into the physical realm cannot be validated without documentary sources to provide clues to contemporary meanings (Andrén1998, 148). In conceiving of landscapes as a document, Pierce Lewis did not mean to imply that the creators of the landscapes were conscious of doing so—although they might have, as Leone has suggested—or that they expected archaeologists to one day read their activities—only that their activities leave traces. And the document is incomplete, written over and erased by new activities, new groups, and new purposes (Dixon 2005; Hardesty 1985, 1988; Meniketti 2015; White 2017). Specific landscapes, where the creators had clear intentions to signal order or to symbolize power relations include, but are not limited to, parks with monuments, cemeteries and religious spaces, ostentatious private gardens, or classical facades (Leone and Potter 1988).

Industrial landscapes, defined here as natural environments transformed for industrial purposes, were created for profitable production or extraction of resources, which to some degree dictates what structure was imposed, but the conceptualization of that structure is itself a product of the time and ideologies of a culture at a given time (Hughes 1989). For instance, the ways in which labor is integrated into the patterns of production will follow social norms, concepts of efficiency such as the length of a workday, and the struggle of workers to change it, or what cost-value is assigned to specific skills—indeed, how labor itself is conceived—are all culturally derived. Industrial landscapes are labor landscapes; as long as laborers are human, until robots with sophisticated AI take over—likely the twenty-first-century capitalists' dream—they will leave their human traces for archaeologists to sift through. The concept of efficiency, for example, may have variable meanings depending on historical context and its relationship with concepts of productive output. Lumbermen were in the working class and ranked near the bottom of the working-class spectrum. Yet they could expect housing and meals, both of which configured the mill landscape, and which distinguished them from other worker occupations. Disputes with management over food frequently outweighed disputes over wages (Conlin 1979).

A strong link exists between the ideological underpinnings of capitalism and the physical world expressed in settlement patterning, hence the

utility of archaeology. It is also a possibility that exploitation of one resource may prove detrimental to another. As a result, a built landscape or modified environment can have economic, cultural, and social repercussions, which may resonate for generations. Interactions with a given environment do not take place in a closed system, external forces can penetrate that may give impetus to change in the physical landscape. However, the external forces are ultimately of cultural and social origin and not as completely external as the term may imply (Ortner 1990, 77). For example, market demands for more product or management decisions concerning who to hire may concretely influence the social as well as forest landscape. At times land use decisions have unintended consequences with lasting effects on environments or industry long after implementation. By their nature, extractive industries have limited longevity. Mines play out, forests are clear-cut, fisheries collapse, oil wells run dry, and with the demise of each there are repercussions for labor, for nearby communities, and for local or regional economies.

The timber mills were components of a larger landscape that included both natural and constructed elements: multiple watersheds, ecozones, natural habitats, transportation systems, and growing communities. Factors within each of the elements impacting industry could be dynamic or static, but each played a role in the productive trajectory of the mills. In some cases, the only reason for a town's existence was the proximity of the mills and the tangential businesses and income it generated. This might amount to general merchandise stores offering clothes, smoking pipes, and basic amenities, as well as taverns that sought to siphon off the hard-earned paycheck of the lumbermen, and churches that served the lumbermen and their families' spiritual needs.

Neighboring towns were connected by roads and rail lines, economic rivalries, and exchange of laborers on a seasonal basis, and these towns were connected to growing cities. The sawyer who cut lumber at Loma Prieta into boards that went into the support beams of homes in Santa Cruz or San Francisco was linked through his labor to this larger sphere of interaction whether aware of it or not. Ethnographic sources suggest they were well aware. The act of purchasing a new hat or obtaining over-the-counter patent medicines for chronic pain from the store in town inserted timber laborers into the consumer landscape (Calciano 1964a). In 1964 Elizabeth Calciano conducted interviews with two former employees of the Loma Prieta Company for a history project of Santa Cruz. The recollections of these two men are an important data set and will be referred to throughout this study. Remembrances of workers, leisure time, and interactions at the mill brought to light the many ways laborers in the camps were connected to and invested in the extractive industry of timbering.

Landscape analysis and its relationship with capitalism has been a mainstay of analysis in historical archaeology for several decades (Lewis 1993). The pioneering work of Leone at Annapolis served to inspire a generation of researchers seeking to expand the relevance of the field connecting hidden ideologies and landscape configurations. Situating class and industry in this relational network has provided new frameworks for understanding the multivalent discourse that ensues at conscious and unconscious levels (Delle 1999; Epperson 2000; Leone and Potter 1988; Meniketti 2016 [2019]; Mrozowski 2000, 2006; Orser 1996b, 2007).

Industrial archaeology over the past decades, with a few exceptions, has explicitly focused on industrial machinery or edifices with limited or token recognition of the people who inhabited the work spaces or made the machinery operate. This problem was critically articulated by Paul Shackel (2004) stating that while industrial archaeologists have a long tradition of documenting the engineering feats of the industrial age they have tended to avoid humanistic issues. Industry has been glorified and celebrated (see, e.g., Thomas Hughes's *American Genesis*) but rarely examined through the eyes of laborers.

Understanding what is "studied, remembered, and interpreted at these industrial sites can show us who we are as a community and a nation" (Shackel 2004, 44). While there are exceptions in the literature, as a whole the critique remains valid. Shackel framed the issue in terms of labor heritage by pointing out, "In a time when American and international corporations continue to undermine the American workforce by weakening unions and extending the average workweek, if we as a society are to remember the long arduous struggle of workers . . . understanding labor as a component of Industrial archaeology provides us the tool necessary to revisit history of industrial sites and gives us a mechanism to think about labor in the past, present, and future" (Shackel 2004, 44). Such an operational framework for the study of past enterprises and the landscapes that manifested through industrial intersections with society gives an immediacy and relevance to the landscapes in our present.

Nearly a decade after Shackel's critique a similar lament of industrial archaeology of ignoring labor, particularly was argued by Gudsby and Chidester (2011) as a preface to their examination of working-class lives in Hampden. Again, this complaint was voiced by Rob Young (2014, 60) for industrial archaeology in the United Kingdom, suggesting that the technocentric perspective so common in industrial archaeology served to gloss over active agents. Young's analysis of labor songs in English coal mines offered a window into working conditions underground that are missing in most contemporary studies of mining. Silliman (2006, 148) echoed Shackel with a more optimistic tone in an overview of labor and identity studies, with a call for broadening the

scope and contexts of historical scholarship that is focused on industry and labor relations.

It may seem as if industrial archaeology has been fearful of addressing the component of labor that made industry possible, or fearful of examining the tensions created by race relations, ethnic divisions, or gender distinctions within industry. By examining machines, industrial processes, and innovative engineers, the field could insulate itself from the complex, often messy, and frightfully disturbing elements of labor relations, politics, racial and ethnic discord, and gender discrimination fostered and exploited by industry—not only during the Gilded Age, but also in our own time. The practice was for social issues to be subsumed in labor studies. Yet there is a place for particularistic studies that highlight technological processes. Industrial archaeologists have increasingly addressed social issues through examinations of company towns, mining districts, and the deplorable health outcomes experienced by neighboring communities and company towns from industrial waste or contaminated water. Company towns of various types developed as a strategy for attracting and maintaining labor yet came to serve ulterior purposes. Some company towns were ruled like fiefdoms while others were allowed to stagnate or grow on their own. Focusing on the company town built by the Calumet mine in Michigan, Paul White makes the cogent point that, while signs of status between classes of workers were part of the American landscape, company towns "made the connections stark" and accustomed the "often foreign-born workforce to American values" to equate hard work with social attainment (White 2017, 76).

The study of the timber industry would be exasperatingly boring if we clung solely to descriptions of donkey engines and applications of steam for powering saws—interesting as those topics might be—rather than including the human story. The study of the timber industry is a study of labor and, owing to its unique space and impact on the environment, inescapably also a study of landscape (Lewis 1993). Industrial practices and production consume landscape and reshape or modify environments. People live, work, and occasionally die in these landscapes. Considering the married workers' housing we see they also fall in love in those landscapes. This rather unscientific assessment simply underscores the reality that industrial landscapes are unavoidably and by definition cultural landscapes. Historical archaeologists have been reading landscapes for some time now, interpreting changes in communities over time or to understand settlement patterns. Mining, lumbering, railroading, manufacturing, and agro-industry all reshape vast swaths of natural environment and are transformed by people to serve specific needs. In doing so, people interact directly with nature and invariably with one another, although not always with positive or visible outcomes.

Timbering and Development

Considering the number of publications describing the timber industry, it might be imagined little more could be added, yet several topics have not been explored, including the synergistic relationships among industries, the character of the labor force, and the way in which the industrial practices influenced regional development. These processes are viewed here from an ecological perspective, wherein the intersection of industry with the natural world and environmental feedback create dynamic relationships having measurable impact. For instance, clear-cutting increases erosion and likelihood of flooding, and removal of climax forest species opens the terrain to a succession of plant species that alter local ecologies with recognizable changes to habitat. The milling operations created colossal environmental damage. Sawdust was dumped directly into streams, damaging once-productive fisheries, and erosion of dirt and rock from the skidding of timber left deep gashes in the hillsides. It is noteworthy that Loma Prieta Mill was built in California grizzly bear territory, and encounters between bears and fellers in the early years were not uncommon. The California grizzly is now extinct.

Loma Prieta Mill was one of several competing companies extracting timber for the growing communities of the greater San Francisco Bay Area and was among the most productive in terms of board feet cut and processed and among the most profitable until 1900. Eventual competition with lumbering elsewhere in the state and depletion of the local resource brought about decline in profitability by 1890 and, after extending deeper in the forest, again in 1920. The environment surrounding the San Francisco Bay, with low hills and valleys, was well suited for farming and orchard development, but lacked substantial stands of timber adequate for construction purposes, although some islands in the bay were heavily wooded. Loma Prieta Mill also held significant meaning in the local context of Santa Cruz County since its operations were the core reason that some communities nearby came into existence and prospered.

Mills south of San Francisco are overshadowed in the literature of California milling by the rich histories of operations in Mendocino and Humboldt Counties to the north. More than eight hundred logging operations were in business in these two regions around 1900. Wages for lumbermen were generally average for working-class laborers in the 1880s and 1890s, after which they fell to among the lowest. Although far fewer exist today, mechanized logging companies in California, Oregon, and Washington continue to employ a few thousand workers and sustain numerous communities because demand for lumber remains strong, especially redwood, although wages remain comparatively low (Bureau of Labor Statistics 2018). In 2018 in California three hundred fallers were employed, earn-

ing an average $56,000 annually, with over 1,200 heavy-equipment operators earning somewhat more.

Before competition with rail service and eventual completion of major roadways and advent of trucking, nearly a hundred schooner companies operated out of forty-eight lumber ports in Northern California alone (McNairn and MacMullen 1973 [1945]). More than three hundred schooners and barkentines carried lumber from the mills north and south of San Francisco (Hitchman 1990, 23). Virtually all lumber was transported by ship until 1900. Where these schooners came in for lumber spawned small maritime communities associated with the mills. Places like Mendocino, Albion, or Bodega north of San Francisco and Aptos or Soquel south of the city owe much of their existence to these endeavors complementary to timber extraction (Kortum and Olmstead 1971). Generally, two masted and recognized by a fore-and-aft rigging, with shallow draft, these were the workhorses of the trade. Most were California built (Sullenberger 1980, 51).

Timber cutting is far too often presented in popular literature and local histories from a romantic, perhaps even nostalgic perspective, stemming from and perpetuating a man-taming-nature ideology as an inevitable outcome of progress (see, e.g., Williams 1976). Nearly every source consulted for this study dating from 1900 to 1970 adheres to this trope. Another prevalent motif found in these histories is one of the rugged individual—a theme that is itself central to the American myth (Purser and Warner 2017; Rose 2013; see also Knott 2011). The nostalgic and flowery recollections of Michigan lumberjacks by a former timberman, captured by John Knott in his account of timber industry narratives, conjures up images of idyllic labor in the classical Greek mode: "They were strong and wild in both body and spirit with the careless masculine beauty of men who live free lives in the open air" (John Emmet Nelligan 1929, from Knott 2011). Historical photographs and archaeology suggest a different narrative. The lives of timbermen with respect to one another, in the context of nearby towns and in relation to the ethnic divisions fostered within the industry, have received little attention with few exceptions (see Franzen 1992).

The architecture of sawmills also remains a neglected area of research, in particular how these work spaces shaped the lives of workers. Interior views of mills captured in historical photos are a rarity, although floor plans exist and can be ferreted out of archives when fortune smiles. The harvest of natural resources was not limited to the local region around Aptos but was part of a wider statewide exploitation that connected far-flung enterprises and seemingly unrelated systems of shipping, railroading, mining, lime kilns, and home building and heating. Each of these related industries was worked by immigrant labor and each contributed

to the mosaic of cultures in the greater San Francisco Bay Area. Redwood was harvested for foundation timbers, door and window frames, moldings, sidings, shingles, and even for staved pipes, water mains, and sewers (Wendling 1915, 108). Resistant to rot, the redwood pipes were long lasting and to this day there remain redwood sewer lines beneath the streets of San Francisco. Firewood was also a mainstay of lumbering. Contemporary newspapers described the oak firewood from Aptos to be the finest quality and that considerable "timber went into the hearths of San Franciscans" (Amended General Plan 2005, 35, citing *Santa Cruz Weekly Sentinel* 1866).

Evidence of the damming of Aptos Creek to create a half-mile-long millpond, and the road cuts, rail beds, and the deep scours in the hillsides where logs were dragged down to the pond remain visible on the postindustrial landscape. The scars on the natural environment are an observable legacy of the shortsighted approach to extraction of natural resources. Shortsighted may be the wrong interpretation since the resource was historically deemed inexhaustible and the concept of sustainability was foreign to the capitalist-driven frenzy to maximize profits. Still, the practice of resource extraction to depletion, whether in the mines or other industry and followed by abandonment, led to of what Purser and Warner describe as the pattern in the West of "instant boomtowns and enduring toxic legacy of extractive industries" (Purser and Warner 2017, xiv). The damage from timbering has one distinct difference, however, from the tailings of mines or the waste from stamp mills: timber has potential to regenerate. But the renewed forest is ecologically different. The landscape today, although seemingly lush with new growth, is an impoverished ecological zone with established nonnative plant communities (Amended General Plan 2005, 40). Studies by the state, however, indicate a steady improvement in plant species diversity despite the destructive habits of invasive wild pigs. The eradication of nonnative species and preservation of natural biocorridors has been a priority of California State Parks.

During the early years of the industry lumbermen were well paid and well fed, according to Andrews (1958). Gradually, however, pay fell well below the average for laborers. The work was hard and often dangerous. Keeping the workers well fed was strategic because it reduced labor disputes and complaints. While most of the logging companies were not operating in the paternalistic manner that was developing as a common feature of industry at the end of the nineteenth century, owners did try to control labor where it could. Food was one form of compensation used to attract workers, and it could be used by management as a form of control. This topic will be addressed further in chapter 4, but it is worth noting the parallels between cooked meals for laborers and provision grounds for enslaved plantation workers; intended by management as an induce-

ment, it transformed into an entitlement, locking the timber company into an arrangement that served as a flashpoint for disputes (Conlin 1979; Franzen 1992).

In 1963 Albretto Stoodley, ninety years old, and Michael Bergazzi, eighty, were interviewed for Santa Cruz history project. Both men had worked for Loma Prieta Mill Company in its final decade—Bergazzi as a sawyer and Stoodley as clerk and eventually secretary. Stoodley was born in the Catskills of New York in 1873 and came to work at Loma Prieta in the same year as Bergazzi. Their recollections and contrasting experiences have provided texture to the interpretation of work at the mill. According to Stoodley, pay was rather low and highly dependent on skill level (Calciano 1964b). Crews were paid in gold and silver, with most workers refusing to accept paper money. The company occasionally received paper money in payment for product and tried to "get rid of it whenever they could" (Calciano 1964b, 80).

At Loma Prieta Mill, alcohol was not permitted. However, lumbermen need only stroll up to the town or travel a bit farther down creek to Aptos to find spirits. The company "had rather wished" that Aptos was dry but lacked the political clout to effect such a policy in town. The company was "never sure they would have a crew on Monday" (Calciano 1964b, 44).

Michael Bergazzi was born in 1887 and started work at Loma Prieta Mill at age fifteen. He recalls the ease with which workers could obtain wine from a local German wine maker for 25 cents a gallon (Calciano 1964a). Bergazzi also recalls that at the end of the day men would head directly to the cookhouse without stopping to wash up. They would eat then perhaps clean off. Men would then gather in small groups in front of their bunkhouses and chat or play games until dark. These leisure times served for more than a respite from work. Beaudry et al. (1991, 154) point out that, while the importance of work plays a major role in self-definition, "there is support for the contention that it is through leisure or non-work activities that the greater part of self-definition and self-expression takes place."

The loggers were immigrants to California from various locations representing myriad nationalities and ethnic groups (Barbour et al. 2001). The post–Civil War years in particular saw an increase in immigrant populations. Some arriving in California were recent immigrants, while others with roots in the East Coast were second- and third-generation Americans relocating to California in search of their share in rumored prosperity. Interestingly, captains of many of the schooners that hauled the cut lumber from the Aptos Wharf to markets in San Francisco prior to the use of railroads were largely of Scandinavian origin. So many northern Europeans worked these vessels that they were collectively referred to as the Scandinavian navy (McNairn and MacMullen 1973 [1945]). These lumber

schooners varied in size and capacity, many overloading their decks to the point of risking capsizing on the haul to market. Prior to the gold rush, coastwise shipping was practically nonexistent. As fortune seekers began arriving in San Francisco, a great number of ships went in to service as a vital form of transport for every manner of merchandise ranging from farm produce to oysters, and from lumber to mining equipment, as well as passengers (Bean 1968). Ships anchoring in San Francisco often became derelict as their crews abandoned the vessels for the gold fields (Delgado 2009, 2017). There was money to be made, nevertheless, by skippering a vessel and charging high rates for freight, including lumber. Barks, brigs, and schooners worked the coast well into the late 1800s and into the period of steam-powered ships. Clipper ships of various types were important carriers of trade and people to California, some of which came to grief along the central coast (Hylkema 2018, 12). The ships serving the coastal communities north of San Francisco have received detailed scholarship from maritime historians (McNairn and MacMullen 1973 [1945]; Sullenberger 1980). The vessels and crews working the timber trade south of the bay, on the other hand, have been largely passed over by historians. Semones (2007) offers an exception, and while mainly focused on shipwrecks, her brief accounts of steamships serving dogholes, such as at Pigeon Point, south of our study area, highlighted the transport of cut lumber, tanbark, leather goods, and other merchandise. The Beadle Steamship Company in a single year carried more than five thousand tons of tanbark alone that was shipped from Pigeon Point to the tanneries in San Francisco (Semones 2007, 59). Tanbark oak was used to tan leather, including saddles, belts, and accessories. In Aptos this was an occupation mainly filled by Italian immigrants. In the 1930s and 1940s, Italian tanners contracted with the Loma Prieta Company for access to trees in the Hinkley basin and on ridges held by the company. The Loma Prieta Company was no longer milling, and finding ways to maintain a revenue stream were motivation enough to permit the activity (Amended General Plan 2005).

Many vessels came to grief from overloading. Captains with surnames Halverson, Ellerson, Andersen, Johansen, Olsen, Carlson, to name only a few, hint at the ethnic/cultural character of the fleet, mainly consisting of Swedish, Norwegian, and Danish immigrants. Still others have German surnames (McNairn and MacMullen 1973 [1945]). These names were collected from shipping records posted in regional newspapers and may not represent the entire range of ethnicities involved in shipping; nonetheless, it is evident Scandinavians were abundantly represented in the trade. Understanding the manner in which these clusters of immigrants from northern European origins came to dominate this particular aspect of California's labor landscape and timber industry deserves attention be-

cause it may offer insights into the social mechanisms by which each stereotyped group came to populate the occupations with which they were associated. The same pattern was prevalent in mining where tasks were assigned according to ethnic and racial classifications. For instance, in his sweeping study of American mining landscapes Paul White found that the most recent immigrants were even more likely to rank at the bottom of the labor hierarchy with Italian, Finnish, and Mexican workers occupying the lowest positions (White 2016, 158). Mining companies were prone to hire according to labor stereotypes and perceived ethnic temperaments. This common practice tended to both reify ethnic categories while concentrating groups into labor patterns that were self-perpetuating (Glasco 1977). Living in enclaves served to intensify a sense of "otherness" (Mead 1995, 305). During the latter end of the nineteenth century and even into the early twentieth century the scientific community sustained such conceptions through "scientific" metrics that purported to distinguish ethnic and racial absolutes (Orser 2007).

Swedish and Finnish immigration to America occurred in waves stimulated by political, religious, and environmental stresses, beginning during the Swedish famine of 1868–1873. While Swedes had been in California during the gold rush (and there were very few ethnic groups that were not there) their numbers were small. Immigration peaked in the years 1870–1900, and while most settled in the upper Midwest, a sizable number made their way to the Pacific Northwest, and to Seattle, a town founded on lumbering and sea-borne trade. More than 1.3 million Swedish immigrants had arrived in the United States by the early twentieth century. And, like their counterparts from other European nations, they brought with them a wide range of skills. Many were farmers but just as many came with maritime backgrounds. Sweden has a long maritime history and many immigrants brought with them their knowledge of the mariner's art. Some found employment aboard ships in the Great Lakes operating in fishing and ore carriage. It was said that on the Great Lakes "every second sailor was Norwegian" (Tangeraas 1982, 146).

By 1900 more than ten thousand Swedes were working in lumbering trades in Washington, representing one quarter of the total. Records show that large communities were settled nearby or in Seattle, and a significant proportion of the Swedish communities were engaged in fishing and ship building. Statistics from the Fishermen's Protective Union reported that in 1908, of 6,775 members, 3,000 were Scandinavian. Swedes, Norwegian, and Finnish immigrants were bridging lumber and shipping occupations.

Extant records suggest that the majority of men working inside Loma Prieta Mill were of Italian heritage (Calciano 1964a), and that lumbermen included a mix of Irish, Mexican, French, and other nationalities (Foucrier 1997). Albretto Stoodley recalled that there were some six

thousand Italians in the greater Santa Cruz Area during his time of employment and several worked for the company. He also recalls "a couple Hebrews and a Basque" (Calciano 1964b, 73). Stoodley also mentions Mexican and what he called Spanish half breeds, meaning men of Spanish and Native American (Indian) parentage. In fact, he stated that the Spanish were not well regarded by the lumbermen and all were referred to as Indians whether they really were or not, and claimed he never met an actual Indian (Calciano 1964b, 79). The presence of French nationals is not unexpected. Large numbers of French immigrated to California beginning in the 1850s. Various organizations in France, some of them legitimate, convinced many to transplant themselves to California to help establish a French colony in the frontier (Chinard 1944). These operated as mutual shares companies with promises of profits to be distributed to workers. The association La Californienne boasted of having a gold mine in California and attracted enough *travilleurs* (workers) to fill a ship that sailed from Bordeaux in late 1849. This success inspired new associations to form. Not all emigrant companies acted in the best interests of the workers. In fact, many were encouraged by government and social reform societies to ship as many impoverished French citizens to California as possible as a solution to an unemployment problem in France and to vacate undesirables and potential revolutionaries (Chinard 1944, 9). Additional companies, Le Sacramento and La Société Immobilière de San Francisco, to cite but two, raised enough capital to send hundreds of emigrants from France. With very few exceptions, the French immigrants were men, and only a few wives traveled with their husbands. All told, however, the French population in California barely exceeded twenty-five thousand, a small number compared to German, English, or Italian. As the mines played out, many of the French immigrants gravitated toward other occupations. In San Francisco a Little France district emerged that offered new arrivals a sense of place.

According to Andrews's (1968, 55) study of lumber camps, the lumbermen were Finns, Swedes, English, Irish, and Welsh. Although Andrews's descriptions are for timber camps in Oregon, the composition of the labor force in California was similar, with the added mix of Italian, Portuguese, and Mexican nationalities. A few were German. This is at least partially corroborated by Michael Bergazzi in his personal recollections, stating that Finns, Swedes, and Irish worked at Loma Prieta and that "all these 'races' were good men" (Calciano 1964a, 148). Adding to the kaleidoscope of groups seeking prosperity in California in this small region was the Lomas Prieta German colony of 1884. Nevertheless, tensions did exist among groups that occasionally came to the surface. The *Evening Sentinel*, a Santa Cruz periodical, reported "Italians brawling with Portuguese" over destroyed cordwood (*Evening Sentinel* 1896). It is tell-

ing that newspapers regularly cited ethnicity in news stories, underscoring the racially charged character of the times. Each recounting of an accident, conflict, or dispute contained ethnic identifiers, serving more to reify stereotyped images than to add to the story.

While men of African descent are rarely shown in lumber company photographs, they were, nevertheless, present, often in low-skilled roles, but occasionally as teamsters (Kilar 1980; Shofner 1975; Thurman 1973). Indeed, considering how much labor was provided to railroad construction by Chinese workers, there are regrettably few historical images to convey their contribution. The population of African Americans in California was actually quite small until well after the Civil War. On the other hand, black lumbermen were not uncommon in other parts of the country (Kilar 1980; Shofner 1975). Hundreds of black lumbermen were to be found in Michigan in various capacities, as teamsters, drayers, carpenters and edgers, but never as sawyers. Michigan's timber industry employed twelve thousand men and produced "green gold valued in the 1870s and 1880s at a billion dollars more than California's yellow gold" (Kilar 1980, 144). What appealed to blacks in the years after emancipation was the steady employment, even if at low wages. A few earned better wages with skilled work. However, one of the richest African Americans was William Atwood: He made his way north after escaping slavery in Alabama in 1839. After a brief attempt at gold prospecting in California, he returned to Michigan to seek his fortunes in the forests (Kilar 1980, 148). Atwood was a timber entrepreneur who became prosperous and eventually became an important figure in Republican politics. His success story is rare but underscores the presence of African Americans in lumber camps. Hundreds were employed in Florida as well. Yet in each case photographs are a rarity. Women were also not shown in company pictures, yet they too were in the camps, mostly as wives of lumbermen. Few are ever included in the lumbering narrative. This lack of recognition in the historical record fosters a false image of the past at sites of extractive industries that marginalize non-whites and women in favor of a trope that equates white men with the American West (Dixon 2002, 2005; Rose 2013; Purser and Warner 2017).

Identifying Ethnicity in Archaeology

The terms "ethnicity" or "ethnic affiliation" are, broadly speaking, vague and a poorly constructed amalgamation of concepts. No single word exists in English for defining an ethnic group according to George De Vos (1995, 18). An ethnic group is at best a "self-perceived inclusion of those who hold in common a set of traditions not shared by others with whom

they are in contact." Furthermore, some "sense of genetically inherited differences, imagined or real, is an aspect of membership for some groups and held as facts by dominant groups" who are often seeking to prevent a group from assimilation (De Vos 1995, 19). Problematically, ethnicity and nationality are often conflated just as ethnicity is frequently equated with race (Orser 2007, 40) despite very real variation within bounded spaces. It is frequently the case that a person is ascribed to an ethnic group by the dominant society even when the individual has no actual or historical ties to the label. While some of this behavior is founded in ignorance, it is just as likely to be based on genuine bigotry. On the flip side, often an external definition of ethnicity is internalized by the group being defined. To paraphrase Orser on this issue, the linkage of race and ethnicity has been an obstacle for social archaeology, and archaeologists using material culture as a guide have had difficulty making distinctions (Orser 2007, 40). To this we might add that the ways material culture is used in daily habitus may not reflect ethnicity at all, but rather class association, economic reality, conscious assimilation, or mere practicality.

In the 1964 case *Jacobellis v. Ohio*, Justice Potter Stewart famously ruled that, "I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description [hard-core pornography], and perhaps I could never succeed in intelligibly doing so. But *I know it when I see it*, and the motion picture involved in this case is not that" (378 US 187; italics added). "I know it when I see it" became the epitaph on his grave. Defining ethnicity needs greater clarity and precision and must not be simplified in a Stewartian sense if it is to have any utility at all as a construct in archaeology.

Sian Jones (1997) delivers one of the more salient perspectives on ethnicity framing the concept as often suffering from the tension of being too specific and being too general, as too specific for suitable comparisons and too generic to be of much analytical value (Jones 1997, 57). Jones further articulates the problem as it exists in anthropology, stating that "few people actually define what they mean by the terms ethnicity and ethnic group" (Jones 1997, 56). The concept as well as the term "ethnicity" is subjective and variable in both geographic and temporal terms (Orser 2007). The term also lacks plasticity to account for persons of mixed heritage. For instance, what to make of an Irish-Italian, Panamanian-Chinese, or Swiss-Libyan? These combinations mix so-called ethnic labels with national identities fused to racial designations, yet each is American born. I have purposely used as examples individuals whom I know personally with these lineages to serve a point. The ethnic label of the parents of each differs markedly. Further illustrating the insidious nature of social constructs, the Swiss-Libyan, on disclosing her heritage in a group setting, was astounded to hear one person say, "I would never have suspected—

you don't look Muslim." The conundrum should never be thought of as isolated to America. An American friend of Japanese descent, who is fluent in Japanese, was never thought of as Japanese when she worked in Japan, but only as American.

And what can one make of the label "ethnically American"? Is there such a thing? Why not? A new coworker of my wife recently inquired of her, "What are you? You look ethnic." Aside from the impropriety, this is a question I still ponder. As opposed to nonethnic? Boundaries between groups frequently have historical-national roots that become enmeshed with the idea of ethnicity partly because of perceivable patterns of behaviors associated with specific components of material culture—hence, Stanley South's German American, French American, and Spanish American patterns, wherein certain assemblages seem to be indicative of ethnicity (Garver 2015, 30). However, the way identity and ethnicity are viewed by archaeologists today has changed and recognition of the dynamic character of ethnicity has given rise to the understanding that locating ethnicity in material markers is both simplistic and futile (Orser 1996, 2007). To some degree, what archaeologists interpret as ethnic behaviors may instead reflect class behaviors, as in the case of consumer choices (Felton, Lortie, and Schulz 1984, 88; Praetzellis, Praetzellis, and Brown 1988, 195; Praetzellis 1999, 132). If Orser is correct, this study was compromised at the outset.

Jones (2001) discusses this problem as having historical roots in archaeology where material culture correlates are based on patterns of production and consumption of material culture as a means of communicating ethnic identity. Where patterns are absent in local context the recognition of ethnic groups may be obscured. "The relationship between ethnicity and material culture thus appears to be intangible and fleeting, and particularly problematic for archaeologists and has led some archaeologists to adopt an extremely skeptical stance and to suggest that ethnicity is not an appropriate or accessible phenomenon for archaeological inquiry" (Jones 2001, 124). If, as Orser suggests, seeking ethnic markers is futile, why is there a renewed interest among archaeologists pursuing this line of inquiry? I wonder within the context of my own research whether the material culture recovered can be adequately analyzed at the necessary scale to see ethnicity.

While it may to some degree be easier to materially identify archeologically groups who have been marginalized by virtue of phenotypic characteristics (e.g., Chinese or Japanese immigrants, or olive-skinned Southern Italians, or Americans of African lineage), and by historical circumstances forced into segregated communities or prevented from assimilation. How are we to archaeologically isolate those groups who were accorded greater accommodation by the dominant society? Moreover, when material culture components of the mainstream is found associated with an ethnic mi-

nority, how is it to be interpreted? As a marker of assimilation? Of access? Of ideological aspirations to attain a particular class distinction? Simple consumer choice? Or something else altogether?

As previously described, immigrants in the timber industry often found occupations in specified categories based on skills, but more often were grouped by perceived ethnic category (Glasco 1977). While an ethnic division of labor may be reflected in the documentary record the question is how it would be recognized in the archaeological deposits. The possibility that cultural markers of displaced peoples may not be present in the archaeological record materially, but might have instead manifested through language, food preparation, or nonmaterial fashion underscores how slippery the operationalization of ethnicity may be. Even if items having known cultural affiliation are found, there will still remain questions of context as Praetzellis demonstrated with his study of Old Sacramento Chinese and their appropriation of Victorian willow pattern transfer-printed ceramics for internal class distinctions (Praetzellis 1999, 132–34).

In the context of labor, Silliman (2006) has argued that local context plays a pivotal role in worker identity and how identity is expressed in the material record. Silliman's careful analysis strongly suggests that class-based identities may prevail or be subdued relative to local conditions and racial attitudes. The intersection of class and ethnicity will be considered further in subsequent chapters.

Various categories of social groupings have been investigated by historical archaeologists that intersect ethnic boundaries or encompass many groups; using such heuristic classifications as working class, labor, working poor, recent immigrant, diaspora, overseas, and so forth. However, even these seemingly narrow definitions are fraught with nuance. As Mark Walker (2008, 116) makes clear in his analysis of labor categories, the term "class" is burdened with several abstract categories and the interpretation entails various levels of abstraction. While creating subsets of populations for study, these largely economic characterizations do not offer satisfactory units for studying ethnicity. While the term "ethnic" lacks clarity, its boundaries must also remain suspect. The foundation of archaeology is material culture, but the answer to when objects reveal aspects of class and when they reveal identity—particularly ethnic identity—is not readily forthcoming. Indeed, class consciousness and ethnic identity likely had their genesis in the Americanization process (M. Walker 2008, 117). Mark Walker's insights into the processes that gave rise to ethnic categories for Irish, Italian, Greek, and so forth echoes De Vos's (1995) analysis of definitions and informs Ross's (2011, 2013) conceptualization of ethnicity as an outcome of process rather than a predetermined category.

The use of material culture to gain insights into ethnicity and identity has been an important facet of historical and industrial archaeology,

ranging from studies of mining towns (Hardesty 1988, 1998, 2002) and gold fields (Lightfoot, Martinez, and Shiff 1998), railroad construction (Polk 2015; Sunseri 2015; Voss 2015) to working-class neighborhoods (Cook 2011; Fitts 2002; Rotman 2000; Shackel and Palus 2006; and identities Linn 2010; Mills, White, and Barra 2013; Mrozowski 2006; Mullins 2008) However, historical archaeologists need to be cautious in ascribing ethnicity with material culture simplistically to avoid finding themselves complicit in essentializing groups or contributing to reifying the very stereotyping that they are attempting to dispel (Orser 2007, 7, 119). As Praetzellis (1999, 128) has argued, presence or absence of particular material culture among groups may have explanations external to ethnic identity, just as evidence of material culture associated with dominant societies are not reliable indicators of acculturation, but might instead reflect superior access, and are therefore more related to class distinctions emerging within a group. Immigrants to America have generally adopted regional material culture that enables them to blend in with the dominant society, if not to assimilate, with blending used as a strategy for negotiating their position in society at large. Fitts (2002) provided a sophisticated analysis of this behavior with Italians who used personal appearance and style to forge American facades on their path to American identity.

The issue of race writ large is entangled in the conversation of ethnicity, but largely beyond the scope of this book. Race as a biological category does not exist and yet it shapes every conversation (Orser 2007; Sauer 1992) and exists as a construct in every society and culture. Just as ethnicity may be externally defined, racialization is also historical and contextual (Orser 2007). To state that race does not exist is not to say that what people perceive of as race has no impact on behavior or human interactions (Sauer 1992), only that such concepts as race, or ethnicity, and even nationality are not absolutes. Race is often used as a component of ethnicity and frequently serves as an organizing principle in social relations. The construct of race configures class and is embedded in class negotiations. Racial categorizations, however, are not immutable (Orser 2007), just as ethnicity is a moving target, racial designations and identification can change with class. The category of class is also a slippery subject and highly complex (Mrozowski 2005, 9; Orser 2007, 44). Invariably, when archaeologists refer to class, they will also raise the specter of capitalism. A person's economic position may define their class, but their economic position may be unjustly bound to race. As first articulated by Marx, and expanded upon by various authors, capitalist ventures are exploitive of labor (R. Walker 2001). Numerous archaeologists have addressed the issue and the study of capitalism has become inseparable from the field of historical archaeology (Johnson 2017, 325; Orser 1996b, 72). The timber company owners controlled the modes of production, the tools, and

the resource. The workers brought their muscle and willingness to work. Company owners were in positions of power and continuing waves of immigrants kept labor off balance as each new group represented a new source of cheap labor. The documentary record reveals that laborers (of all nationalities) were employed in extractive industries, but were not treated equally. What was true for men was also true for women and children. Children were regularly employed by industry in the nineteenth and early twentieth centuries. Some immigrant communities perceived this as neither unusual nor unacceptable (Shackel and Palus 2006, 829).

This book presents a study of timber, industrial process, and labor, in the context of a single mill company, but it is also an inquiry of immigrants negotiating their place in the evolving American sociocultural landscape against the backdrop of capitalism. The timber industry was just one of many where immigrants found employment. I have attempted in this chapter to highlight the complexities of investigating labor through the lens of ethnicity, and problematic nature of even operationalizing a clear definition of the term in an explanatory manner. This chapter also set the stage for examining some of the historical, technological, and sociological features of the timber industry. Jones (2001) justifiably argued that few in archaeology clearly state a definition for ethnicity. I will give it a go, accepting in advance that my definition will be disputed by those who also wrestle with this issue. For this study ethnic identity is self-determined by individuals through affiliation with others having a common or shared sense of historical roots. Permeable as these boundaries may be, at the core are suites of values, behaviors, and events that distinguish communities of praxis from one another. These complexities are compounded by overlapping categories of class and status.

Chapter 1 begins with a brief history of logging in the geographic region where this study is focused with particular attention given to its early phases in California. I then turn to a synopsis of the composition of the labor force and the contribution to the industry from early immigrant communities with an emphasis on those connected to the lumber trades. I examine more closely the route to the timber industry taken by many immigrant groups in chapter 2.

Notes

1. Birth certificate provided to the author by Regina's grandchildren during a public presentation about the mill given in Aptos, 2018. Name changed for this book.
2. Statistics regarding the funeral business are hard to come by, but even the mortuary business consumed trees. The Pacific Lumber Company of Oakland advertised redwood as "everlasting . . . will not rot." The funeral industry used 21 million board feet of redwood for caskets in 1948 alone (Farmer 2013, 47).