ARCHAEOLOGY OF THE DAM-KEEPER'S HOUSE

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by
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Chapter 6: Domino

Figure 36. Domino recovered from Level 5 of the dam-keeper house trash pit. Photo courtesy of Heritage Services, Stanford University.
**Introduction**

If the working class lives of men like Duerst and Batchelder were prone to be lost to time, the interactions of the family within the home were even more ephemeral. The dam-keepers themselves left some record of their passage through life in the form of documentation related to their jobs, but the details of home life were largely unremarked upon in most permanent records. Through an imaginative window opened by a small number of artifacts in the families’ trash pit, however, we can begin to recapture the families’ leisure hours. These artifacts—found in Levels 5, 6, and 7, corresponding to the Batchelder family occupation—are hand-crafted from wood and bone, light and smooth in the hand, and part of a matching set: a set of dominoes.

In this chapter, I examine the way in which the domino, even as it helps us to imagine the family’s leisure hours, also maintains an essential interpretive ambiguity for archaeological and historical interpretation and imagination. My analysis begins with a close look at the physical artifacts themselves, and a factual presentation of what we know about games of dominoes in late nineteenth-century America. I then examine two very different moral lights in which dominoes were viewed and pursued: as a wholesome, even boring family activity fit for women and children on the one hand, and on the other, as a game with a potentially dark underbelly associated with gambling—in the Bay Area, dominoes had a particularly close association with Chinese immigrants and thus with anti-Chinese sentiment. Indeed, as I will show, more benign Gilded Age conceptualizations of domino games made dominoes a particularly promising game to
co-opt for gambling in situations where games with stronger immoral associations, such as cards and dice, were suspect. Dominoes, in short, could provide a less suspect cover for morally questionable leisure activities.

Several modern scholars have observed that, surprisingly, no authoritative, academic history or other study of dominoes has been published (Thiele 2003; Botermans 2008, 69–70; Bell 2012, 162). This lacuna makes the domino an interesting case study in the ambiguity of an archaeological object. Such ambiguity, as I acknowledge in other chapters (especially those on dolls and harmonicas), is a central problem in the archaeological recovery of lost lives of working-class families like the Duersts and Batchelders, who rarely left a historical record of their daily experiences. In this chapter I approach the lacunae by using sources that speak to domino play, the context of gambling, and the relationships between gambling, class, and especially race in the Gilded Age Bay Area. In so doing, I show how we can open up multiple avenues of interpretation through which to imagine and re-evoke one of the most ephemeral and lost elements of the dam-keeper families’ lives: the leisure hours, away from the responsibilities and recorded operations of the dam-keepers’ employer.

**Dominoes: The Physical Artifacts and Domino Games**

In total, three domino pieces were recovered from the trash pit (see Figure 37). The backs of the Batchelders’ dominoes were made of ebony, while the faces were made of bone, with shallow depressions drilled into the face for each of the spots, and a line incised across the center to demarcate the two halves. The wood and bone components of
each domino piece were held together by a small brass peg through its center. The brass pegs are now green due to oxidation, which has left a small region of green stain around them, as well. Each domino is roughly 3.8 centimeters by 1.9 centimeters by 0.85 centimeters thick (one-and-a-half by three-quarters by one-third inches), and each weighs five grams. The surface of each is generally smooth to the touch, but with the pits and pores typical of bone.

We have no known surviving record of how either family spent their leisure hours, including the Batchelders' purchase or use of the dominoes. However, we can turn to contemporary Bay Area advertisements to gain an approximate knowledge of the cost of such a set and the types of domino sets that were available, and we can look to contemporary primary sources to learn about basic game play.

Dominoes made from bone were common at this time, and their quality was highly variable (Hyatt 1869; Routledge 1871, 204–5; Bell 2012, 162). The chips and grime visible on the recovered Batchelder dominoes speak to a combination of the stress of deposition in the trash pit as well as their prior use over time. All bone dominoes—like the bones from which they were made—were prone to chipping, cracking, and staining (Hyatt 1869; Routledge 1871, 204–5). Any of these blemishes could be enough to distinguish the back of one domino from the rest, giving an advantage to anyone familiar with the set; a dark wooden backing attached to each tile (as the Batchelder dominoes had) served to mitigate this danger (Routledge 1871, 205).
The three surviving dominoes suggest that quality mattered to the Batchelders: the pieces are relatively smooth, with only traces of pitting or porosity found on the natural surface of a bone. Domino sets similar to the Batchelders’ bone dominoes were generally advertised for less than two dollars (Sacramento Union 1906a; Sacramento Union 1906b). Edgar Batchelder’s monthly wage was 75 dollars, so the purchase of a set of dominoes was well within the family’s means (Spring Valley Water Company (San Francisco, Calif.) 1906). The Woodside Store records reflected no purchases of dominoes by any patron, so the family obtained their set elsewhere (Tripp 1907).

Dominoes were available at stores throughout the Bay Area (San Francisco Call 1908e). A single store might carry domino sets at very different price points; one Sacramento proprietor, for example, advertised “imported bone dominoes… just a little better than the usual kind” for between one and two dollars, while the store’s low quality (i.e., high porosity and pitting) bone domino sets were available for as little as a nickel (Sacramento Union 1906b). The wide variety of price points for domino sets meant that, generally speaking, dominoes were an obtainable purchase for working-class families in the Gilded Age Bay Area. As I will discuss later in more detail, archaeological digs at contemporary working-class home sites in San Francisco also recovered discarded dominoes (Gibson 2009a).
Domino Economics: Production and Consumption

The physical constitution of the three Batchelder dominoes reflects a history of production whose outlines illuminate not only the nature of the artifacts themselves, but also information about the consumption habits of the family that acquired them. The three recovered dominoes bore none of the hallmarks of standardization: the edges of the bone were irregular rather than perfectly straight, and the lengths and widths varied slightly.
among them, as did the position of the spots relative to one another and to the domino face. All of these features indicate that the dominoes were hand-made. We have no surviving record of who made the family’s dominoes, but we do know that hand-made dominoes in this period were both imported and produced in the United States. It is possible they belonged to an older, pre-1870 set of dominoes, perhaps owned by Edgar or Emeline in their youth. A method of die-stamping dominoes from blocks of wood was developed in the 1870s, and such sets were less expensive than hand-made bone dominoes like those belonging to the Batchelders (Hyatt 1869). In contrast to the Batchelder dominoes, the dominoes manufactured by this method were of uniform size and shape, with the depressed spots neatly and regularly arranged within the halves (Hyatt 1869). The uniform and automated manufacture of dominoes out of celluloid (a predecessor to modern plastics), meanwhile, was developed in the mid-1880s (Pruyn and Hyatt 1884). Thus, the fact that the Batchelder dominoes were hand-made means that they either represent an older, pre-standardization acquisition, or a later, but more expensive one.

Sets of dominoes were (and are to this day) referred to by the identity of the highest-value domino (Botermans 2008, 72). A set of “double-nine” dominoes, for instance, contained a total of 55 tiles, from the lowest-value dominoes, whose face bore no spots (the so-called “double-blank”), through intermediate dominoes bearing every possible combination of domino spots between one and nine, and finally, to the “double-nine” piece, which bore nine spots on each end.7
The most common type of domino set, however, was what was known as a “double-six” set, on which the maximum number of spots on each side was six, and the total
number of tiles was 28. The size of the spots on the face of the Batchelder dominoes suggests that no more than six spots would have fit on a side (see Figure 37), indicating that their dominoes were of the common "double-six" type (Montgomery Ward and Company 1895, 121; Foster 1897, 559).

Flexible Game-Play

For a working class family like the Batchelders, dominoes had the added benefit of providing a basis for playing multiple games with the same objects. A popular book of nineteenth-century games, *The American Hoyle* (1894), offered rules for seven different domino games involving two, three, or four players (Dick 1894, 442–53). The Batchelder family may have played block or draw games or all-fives, which were the most popular games with dominoes (Foster 1897, 560). In block or draw games, players started with a set number of dominoes (the exact number varied by game). Players took turns placing dominoes on a table or other smooth surface, their goal being to match one end of the domino being played to the end of a domino already played; the winner was the last player able to play a domino (Dick 1894, 442–43; Foster 1897, 561–62). In games of domino all-fives, game play proceeded in the same fashion, except that players scored points if the number of spots on available sites to play were a multiple of five (Dick 1894, 446–47; Foster 1897, 563–64).

Domino sets had another benefit: they were immensely portable. Most cases were wood, had a plush lining, were small and easy to carry, and contained built-in slates for keeping score (*Los Angeles Herald* 1890; Craig 1874; Pfeiffer and Hahn 1899). Although
we do not know which kind of case held the Batchelders’ bone dominoes, their small and stackable nature made them immensely portable, and the Batchelder family as a whole, including possibly the children, could have easily transported them along on visits to neighbors.

* * *

The Duersts and Batchelders lived in a period in which the role of leisure in American life expanded tremendously, driven particularly by a middle class with increasing disposable incomes and time away from work responsibilities (Shrock 2004, 116–17, 238). Baseball and boxing expanded from popular athletic activities to professional sports (Shrock 2004, 139–42; Davies 2016, 53–73). The dam-keeper families probably played parlor games (like cards and jigsaw puzzles), which soared in popularity during this period (Shrock 2004, 121–24; Pratt 2009, 339; Barnhill 2009, 752). Board games of the period promoted and reinforced political and economic ideals and moral values (Shrock 2004, 122). “The Game of Electors,” for example, taught players about the Electoral College, while the “Soldier Boy” game (“especially captivating for boys”) portrayed “the stirring story of the battlefield” as players tried to ascend to the rank of commander-in-chief (Montgomery Ward and Company 1895, 235). A game called “Across the Continent” sent players on an imagined railroad journey across a game board depicting the United States; the Limited Mail and Express Game, meanwhile, put players in the role of the railroad titan, with trains “carry[ing] cotton from the South, tobacco from Virginia, corn from Iowa, live-stock from Texas, etc., as well as mail from all parts of the country”
(Montgomery Ward and Company 1895, 235). For the dam-keeper families and their contemporaries, game play, although associated with laid-back leisure hours, was nonetheless deeply embedded in contemporary social mores, and especially moral codes and cultural aspirations.

**The Moral Promise of Dominoes: Sociability and Education**

Dominoes were sold, bought, and used within this socially and morally charged cultural context. We have no known surviving record of either dam-keeper families’ leisure activities, nor the specific complex of cultural and moral values that structured that time and their understanding of how to spend it well, including in domino games. As I observe, the essential ambiguity of the domino as an artifact opens a multiplicity of possible interpretations. I will first examine the way in which dominoes were interpreted by nineteenth-century contemporaries as a benign pastime, then turn to the possibility of their moral peril, by examining dominoes’ associations with gambling, class, and especially race.

Articles in contemporary magazines and newspapers tended to presume that most readers were both familiar with rules for domino games and had ready access to a set of dominoes (Radcliffe 1914, 28). Edgar and Emeline Batchelder were themselves very likely to have been familiar and practiced at games of dominoes since their childhoods in the 1870s. Dominoes were not exclusive to any age, socioeconomic status, or gender; they were also inexpensive and common, with rules to the most popular games widely known (*Ladies' Home Journal and Practical Housekeeper* 1889; Shrock 2004, 123).
Their leisure-time use was thus multifarious: a set of dominoes did not map to a single game or activity, in the same way that, say, a chess set might. Rather, the dominoes suggested a range of possibilities, open to varied numbers of players, at various levels of skill, and in flexible physical contexts within the home (Botermans 2008, 70–71).

The widespread popularity of dominoes and their simple nature (lending themselves to games based on shapes and numbers) left many with the sense, in Mark Twain’s words, that dominoes was “about as mild and sinless a game as any in the world, perhaps, excepting always the ineffably insipid diversion they call croquet” (Twain 1869, 645; see also Cremer 1876, 169; Berkeley [pseud.] 1890; San Francisco Call 1892g). Dominoes’ morally beneficial connotations included their educational potential: they were often used to teach children about numbers and arithmetic, a natural consequence of domino play from which the Batchelder children would have benefited, as well (Singleton 1883, 28–30; Bradley 1886; Geeting and Bass 1899, 44:622–25; C. Hall 1904). No known record exists of the Batchelder children’s school enrollment while at Searsville. The Searsville schoolhouse was sold, dismantled, and relocated in 1894, years before the Batchelders arrived (Regnery 1991, 117). Thus, they may have studied at home, or attended a slightly more distant schoolhouse in Woodside. In any case, however, the dominoes could potentially have served as a family teaching tool, introducing the children to basic numeracy. The dominoes could even serve as simple block objects with which to keep the youngest Batchelder children occupied with stacking and moving them around (Valentine 1877, 99). Further, the appeal of games of dominoes across distinctions of age
and gender made them an activity through which older generations could make meaningful connections with the younger; the Batchelder family may have played dominoes together, young and old together around the table (Routledge 1871, 201).

**Moral Peril: Gambling**

Dominoes’ generally benign reputation, however, provided perfect cover for more illicit activities. The popular *Routledge’s Every Boy’s Annual* (1871) observed that dominoes has the advantage of being a legitimate game... It is allowed to be played in places of public entertainment where cards are prohibited. It is associated with chess, draughts, and backgammon in the cabins of coasting steamers. It is smilingly approved of by good men as being a harmless amusement. (Routledge 1871, 201)

Precisely because dominoes passed as a benign, “legitimate” pastime in genteel contexts, it could be adapted to play gambling games with far less risk of exposure. *Cassell’s Book of Sports and Pastimes* (1882) reprimanded this sort of behavior, and observed the potential for children to fall into domino gambling’s dangerous arms:

> Gambling with dominoes is an utterly bad practice, which every parent will stringently put down, and which no manly boy will indulge in; as gambling with cards has brought all card games more or less into disrepute in many families, it is to be hoped that any gambling with dominoes, and consequent discrediting of these innocent toys, will be firmly discountenanced. (*Cassell’s Book of Sports and Pastimes* 1882, 392)

Dominoes could even be used as a stand-in for games that normally used other types of playing objects. Poker, for example, was a popular gambling game that was usually played with cards. It could also, however, be played with dominoes in place of cards (Dick 1894, 450–51). Rules for domino poker simply referred the reader to the rules for
the card game of straight poker, noting only a few peculiarities regarding which dominoes to use and the rankings of the possible hands (Dick 1894, 450–51). Straight poker, whether with cards or with dominoes, entailed betting (Dick 1894, 184). Domino poker used double-six dominoes, the type of dominoes owned by the Batchelder family, but also the most common type of domino set more generally (Bell 2012, 162). Although *The American Hoyle* (1894) included instructions for domino versions of several card games (euchre, rounce, loo, and poker) the contemporary *Foster’s Encyclopedia of Games* (1897) declined to do so on the grounds that the games were “little used, and hardly worth a description in a work of this kind”—perhaps in no small part due to the moral peril of domino poker and other gambling games (Dick 1894, 447–50; Foster 1897, 564).

No dice or playing-card-related paraphernalia were found at the Searsville dam-keeper house site, nor do we have any historical record indicating whether or not anyone in the Batchelder and Duerst families gambled. While the report for the Cypress Dig in Oakland did not mention whether or not the archaeologists found evidence of gaming or gambling at Gilded Age Oakland homes, the report for the West Approach Project in San Francisco—which included excavations of working-class home sites of the same time period—did record game- and gambling-related artifacts. In total, the West Approach Project recovered 23 game pieces associated with 11 working-class and 5 middle-to-upper-class San Francisco households. Among these items were ten bone artifacts—four chess pieces, two cribbage pegs, a die, a checker piece, and two other unidentified game
pieces. There were also ten ivory artifacts—two dice and eight dominoes (Gibson 2009a, 319). The eight dominoes were associated with five home sites—three well-off households and two working-class households (Gibson 2009a, 319).

In the public discourse curated by California newspapers and periodicals during the Duerst and Batchelder’s time at Searsville, domino games were almost never associated with gambling in the context of white Californians. Engagement showers, gaming clubs, church fairs, and other events associated with white sociability presented games of dominoes as a wholesome activity (San Francisco Call 1892g; Los Angeles Herald 1902b; Los Angeles Herald 1905b; Los Angeles Herald 1905d; Sacramento Union 1906c; Los Angeles Herald 1907c; San Francisco Call 1908e). A game of dominoes, for example, accompanied “dainty refreshments at... small tables” at the engagement party of one Miss Lillian Montague and Harry L. Osborne (Los Angeles Herald 1907c). Local stores advertised dominoes as good Christmas presents (San Francisco Call 1903g; San Francisco Call 1908e). A local ladies’ aid society included domino games in the church fair they organized to raise money to pay off the mortgage on the parsonage (Sacramento Union 1906c). When a wealthy benefactor established an activity center for boys in San Francisco in the 1890s, he stocked a reading room with 600 books and a game room with chess, checkers, and dominoes (San Francisco Call 1892g). “[The boys] are the men of to-morrow,” the donor told the San Francisco Call, “and I believe that they should be provided with healthful reading and innocent pastimes” (San Francisco Call 1892g). The respectable treatment of dominoes in print should not be taken as conclusive evidence
that white Californians were not gambling with them, but rather that the public narrative surrounding dominoes in the context of white California was a positive one.

This was a privilege of whiteness. In stark contrast, Chinese immigrants who played dominoes were presented in an almost universally negative light (Chen 2002, 58–59, 81). During the Duerst and Batchelder families’ time at Searsville, Bay Area newspapers—and especially the two main San Francisco newspapers, the *Daily Alta California* and the *San Francisco Call*—brimmed with stories of Chinese dissolution with dominoes (*Daily Alta California* 1885b; *Daily Alta California* 1885a; *Daily Alta California* 1888a; *Daily Alta California* 1888b; *Daily Alta California* 1888c; *Daily Alta California* 1889a; *Daily Alta California* 1889b; *Daily Alta California* 1889c; *Daily Alta California* 1889d; *Daily Alta California* 1890; *San Francisco Call* 1892c; *San Francisco Call* 1892e; *San Francisco Call* 1893b; *San Francisco Call* 1893c; *San Francisco Call* 1894d; *Sausalito News* 1901; *San Francisco Call* 1903c).

The papers reveled in salacious details of the Chinese gamblers’ bad behavior: two Chinese cooks had kicked, scratched, and bit each other severely over a game of dominoes until both “looked as if they had been run through a threshing machine” (*Sausalito News* 1901); in another instance, a “loud report of a pistol, followed by a shriek of mortal agony” brought the police to the scene of a domino-game-turned-murder in Chinatown (*Daily Alta California* 1885a); in another, a loss at dominoes led one Chinese man to attack two others with an axe, inflicting 60 hatchet wounds between them (*Daily Alta California* 1885b). Accounts of Chinese domino gambling emphasized racist
stereotypes of Chinese immigrants as dishonest, shifty, violent, and dissolute. “Cunning Chinese Spies” read a *Daily Alta California* article headline reporting on Chinese domino gamblers’ efforts to evade police crack-downs (*Daily Alta California* 1889b). Each time the San Francisco Police Department tried to limit Chinese gambling, the paper reported, the Chinese had devised a way around it. Initially they did so by changing the games they played, from fan tan to poker to dominoes, the newspaper wrote (*Daily Alta California* 1889b). Then, forbidden to bar a building’s doors in the face of a police raid, the gamblers, “like the industrious spider,” deployed an army of lookouts to alert the gamblers at the mere hint of police activity (*Daily Alta California* 1889b). Whether or not the Duersts and Batchelders read any one of these newspapers in particular (we have no known record of their reading habits), this was the immediate context in which they lived. The Searsville area itself was home to Chinese laborers, who in addition to constructing the dam itself also worked at some local farms and ranches (*Daily Alta California* 1887; *Sacramento Daily Record-Union* 1887; *Santa Rosa Daily Democrat* 1890; Regnery 1991, 40).
The domino sets acquired by white American families like the Batchelders were physically distinct from Chinese domino sets. Although some of the same materials were
used to create both types—bone, wood, or a combination of the two—makers of Chinese dominoes also used bamboo (Culin 1895, 510-11). Additionally, Chinese dominoes tended to be longer and narrower, with red spots in addition to either black or white (see Figure 39) (Culin 1895, 510-11). By and large, contemporary reports in the San Francisco papers did not tend to explain the games Chinese domino players pursued for stakes, only that police officers caught Chinese domino gamblers playing in the customary way, with the Chinese dealer or host took a portion of the accumulated wagers (*Daily Alta California* 1888b).

The pronounced physical differences between traditional American dominoes and Chinese dominoes may or may not have created a mental sense of difference and distance between the two in the minds of white Bay Area residents like the Batchelders—this would be an interesting subject for further, more in-depth research. To a certain extent, such a mental distance is suggested by contemporary articles on domino play by white residents versus Chinese residents: out of more than 800 relevant contemporary California newspaper articles referencing dominoes, for example, nearly every mention of dominoes in the context of Chinese players was associated with gambling and moral condemnation (see, for example, *Daily Alta California* 1885b; *Daily Alta California* 1885a; *Daily Alta California* 1888a; *Daily Alta California* 1888b; *Daily Alta California* 1888c; *Daily Alta California* 1889a; *Daily Alta California* 1889b; *Daily Alta California* 1889c; *Daily Alta California* 1889d; *Daily Alta California* 1890; *San Francisco Call* 1892c; *San Francisco Call* 1892e; *San Francisco Call* 1893b; *San Francisco Call* 1893c;
San Francisco Call 1894d; Sausalito News 1901; San Francisco Call 1903c). Articles that mentioned the roots of Chinese domino games in China itself were an exception to the rule (San Francisco Call 1896b; San Francisco Call 1909a). By contrast, as I have previously shown, nearly every mention of white players treated dominoes in a neutral or positive light (San Francisco Call 1892g; Los Angeles Herald 1902b; Los Angeles Herald 1905b; Los Angeles Herald 1905d; Sacramento Union 1906c; Los Angeles Herald 1907c; San Francisco Call 1908e). The only exception to the latter pattern was condemnation of white transients who played dominoes in Chinatown, such as the “nine white vagrants” who were arrested for gambling in Chinatown in 1889 (Daily Alta California 1889d). The “worthless young fellows” were well-known for playing “poker and dominoes with the coolies”—there was “not a living creature lower,” the Daily Alta California lamented, than a white Chinatown vagrant (Daily Alta California 1889d).

In sum, the association between Chinese immigrants, dominoes, and gambling was extremely strong. It was fueled by virulently racist anti-Chinese sentiment in the Bay Area, which was also manifested in exclusionary immigration policies, discriminatory ordinances, overt bigotry, and violence (see Lee 2004; Soennichsen 2011). The Chinese more generally were associated with what white contemporaries viewed as a web of interconnected moral ills, particularly gambling, drugs (mainly opium), and prostitution (Graves 1895, 83; Chen 2002, 59; Lee 2004, 76–78, 93–96). As noted in Chapter 5, some San Francisco residents blamed Chinese residents for the bubonic plague outbreak in 1900 (Echenberg 2007, 214–17).
Local newspapers reporting the arrest and prosecution of Chinese domino players often did not even bother to explicitly note that the dominoes had been used for gambling—the assumption was that if a Chinese person was caught playing dominoes, gambling was afoot (San Francisco Call 1890c; see also Daily Alta California 1889c; Daily Alta California 1890). In 1909, a clever defense attorney used the undeniable contrast in the way in which domino games among the Chinese versus the white populations were interpreted to get his client, Ah Sam (owner of the Nom Bock Hong Club on Waverly Place), and over 120 of the Club’s patrons who had been caught up in the same sweep all found not guilty of gambling. “The only evidence offered [of gambling] was that dominoes were seen on a table, but nothing to show that the Chinese were gambling with the dominoes,” the San Francisco Call reported (San Francisco Call 1909b). To counter the assumption that this was evidence enough for wrongdoing, the defense caused a “commotion” by serving a subpoena to scores of white members of posh men’s and women’s social clubs throughout the city, giving notice that they would need to testify as to whether the simple presence of domino game play at their own establishments indicated the presence of gambling (San Francisco Call 1909b). High society was in an uproar. No one wanted to appear in court, and none ended up being required to do so. The judge dismissed the case (San Francisco Call 1909b).

**Conclusion: Imagining the Batchelder Family’s Leisure Hours**

From a single ambiguous artifact type—the Batchelder family’s dominoes—multiple paths of archaeological interpretation open. On the one hand, domino sets were presented
in Gilded Age books and newspapers as benign, ubiquitous, and educational. On the other hand, contemporary commentators observed that dominoes’ generally anodyne reputation meant that they were a particularly attractive vehicle for covert gambling, and in Gilded Age California domino gambling was particularly associated with a resented racial other: Chinese immigrants.

The analysis I have undertaken in this section allows us to imagine—in a manner guided by known archaeological and historical fact—the Batchelder family’s use of their dominoes, one aspect of their experience of private leisure hours until now entirely lost to time. The artifacts’ inherent ambiguity creates two particularly salient interpretations of the dominoes’ presence in the trash pit, with many other shades of interpretation possible. If the dominoes were viewed by the Batchelders as a benign family game, the family may have laid them out on a table in their kitchen or sitting room, or on a table at a neighbor’s home while on a social call. They would have turned the dominoes face down on the table, so that only the black backs of all 28 pieces were visible. They would have shuffled the dominoes, mixing them around thoroughly but gently, so that the dominoes would not catch on an uneven spot and disrupt the shuffle. Then they would have distributed the dominoes according to the rules of the game they were playing. The Batchelders’ dominoes were shorter and narrower (by perhaps a quarter) than many modern, mass-produced plastic dominoes; they also weighed less. Nonetheless, we can imagine the clacking sound of their dominoes being shuffled on the table—it is a sound familiar to domino players today. We can imagine the laughter and conversation that flowed around
the Batchelders’ game play—discussion of their lives, and the small occurrences of the
day—as well as the presence of children, perhaps participating in games with the grown
ups, and perhaps enjoying their own domino games and imaginative play, as well.

If, by contrast, the Batchelder dominoes’ primary application was in gambling, the
dominoes may have been objects hidden from, rather than shared with, family and
community. Nineteenth-century gamblers tended to be men, but women indulged as well,
so it is possible that either or both Edgar and Emeline Batchelder could have gambled
with the dominoes (Fabian 2013, 93–95). Perhaps, as several contemporary gaming
manuals noted, they took advantage of dominoes’ relatively benign reputation as cover
for domino games of chance. Perhaps Edgar met with other local men to gamble with
dominoes in someone’s barn, or in favorite socializing spots in the countryside
surrounding Searsville. Domino play in this case would have taken on an air of secrecy,
with perhaps furtive moments in which the game’s stakes were stashed away at the
approach of a wife or other non-gambler. Or perhaps Emeline carried a case of the
dominoes over on social calls to her female neighbors, an opportunity for leisure,
sociability, and a little monetary gain. Yet another possibility is that both Emeline and
Edgar enjoyed playing domino games of chance together with like-minded neighbors.

All of this supposes that gambling was a covert enterprise. Certainly the larger cultural
climate, in the Bay Area and nationally, cast gambling in a negative light (Calhoun 2007,
341, 360). As I have shown, the association between domino gambling and anti-Chinese
sentiment in the Bay Area was particularly virulent. The mere mention of dominoes in
the context of San Francisco’s Chinatown presupposed gambling, and domino gambling among Chinese residents was associated in the minds of white Bay Area residents with a complex of harsh racial stereotypes, including shiftiness, disease, violence, and general moral dissolution. Thus, the idea of gambling with dominoes may have been particularly fraught. But gambling more generally was a hobbyhorse for middle- and upper-class reformers precisely because the working classes liked to indulge (Gorn 1995, 9–10; Fabian 2013, 38–42). So if a Batchelder—or Batchelders—did gamble, in their local, working-class context this may not have been a covert activity at all. Like other working-class contemporaries, they may have gambled for low stakes, or for stand-in stakes, like almonds or beans (Routledge 1871, 544).

It is even possible that the dominoes were not used for games at all during the Batchelder family’s residence at Searsville: they may belonged to a set whose pieces had long since been lost, and the remainder turned over to the children as playthings, or kept in a memory box as a token of times past. Whatever the case, the pattern of wear on the dominoes, although partly attributable to deposition, nonetheless shows features—particularly smoothly-worn edges—across all three dominoes that suggest they were, at one time or another, well-used.

Without further evidence, we can never know for certain whether the Batchelders or the Duersts gambled, or did so with dominoes. The interpretations I have explored above are of course not exhaustive. Many other shades of meaning and interpretation are—and almost certainly were—possible. The family’s use of the dominoes, like everything in
their lives, was conditioned by a complex set of social and cultural circumstances, which were particularly structured by race, class, and gender. The histories of individual artifacts are far more particular and detailed than an archaeologist or historian can almost ever attain. This is part of their innate ambiguity.

Finally, the dominoes raise three broader points about leisure and recreation for the dam-keeper families. The first of these is the simple but important fact that the Batchelders had leisure time in which to play and socialize. The industrialization and urbanization that characterized the Gilded Age brought a degree of disposable income and leisure time to increasing numbers of Americans, including working-class families like the Batchelders and Duersts (Shrock 2004, 116–17, 238). Second, spurred by growing numbers of consumers with leisure time and money to spend, entertainment opportunities increased. Dominoes were one of a wide range of leisure possibilities—including sports, board games, variety shows, and music-making (see Chapter 8)—that were available to working-class families like the Duersts and Batchelders at the turn of the twentieth century (Shrock 2004, 121–24, 139–42). Finally, the dominoes suggest one possible activity pursued during the dam-keeper families’ social visits.

The nature of leisure time—naturally separate from, and in contrast to, the records and log books of the dam-keepers’ work responsibilities—means that we are left with no historical record of how the families spent their leisure time. Yet, as I have shown, the dominoes as an artifact help us to address this lacuna, opening, as a consequence of their ambiguity, a broad space in which the archaeological imagination, guided by the artifacts
themselves, can expand. From the dominoes worn smooth from handling, from their imagined sound and movement on a playing surface in the past, and from the larger cultural context in which they were interpreted and used, possible narratives of their day-to-day lives re-emerge: from flexible and open family domino play, to covert meetings for gambling with the dominoes out of sight, and shades of meaning in between.
Figure 40. Pieces of a Bähr and Pröschild ceramic doll recovered from levels of the dam-keeper house site trash pit corresponding to the Duerst family occupation. Photo courtesy of Heritage Services, Stanford University.
Figure 41. An example of a Bähr and Pröschild doll, made from the same model mold ("275 DEP") (Menzel 2011) and with the same painted eyebrow and eyelash color as the broken doll’s head recovered from levels of the dam-keeper house trash pit associated with the Duerst family occupation.
A doll, an object so seemingly familiar, is made unfamiliar in the context of the lives of the dam-keepers' young girls: Hannah Duerst, Elsie Duerst, and Lucy Batchelder. Scenes of domesticity, so strongly associated with doll play today, were almost certainly ideals that the girls' parents encouraged in their doll play—yet some of the lessons associated with doll culture of the period are quite foreign to us today, including ritualistic play of doll illness and death, often encouraged and facilitated by turn-of-the-century parents who provided their children with everything from doll mourning clothing to doll coffins. Dolls were also objects of subversive potential that ran counter to the moral and social ideals that parents hoped to inculcate: as I will show, girls could use them to enact scenes of subversion and even violence. The very presence of the doll parts in the trash pit suggests the potentially transgressive and/or highly physical elements of the lives of children and their dolls on the bluff above Searsville Lake.

Why consider a child's doll an important artifact? In an archaeology of lost lives, perhaps no lives are so rarely acknowledged as those of children. Of the nine people who lived in the dam-keeper's house between 1892 and 1906, five were children. Yet the first impulse when considering the site is to conceive of it in terms of adult categories and activities: the house belonged to a corporation led by adult men, it was lent to the adult male employee and head of household for the duration of his tenure in the position, and the structure of day-to-day life was significantly determined by the adult members of the household. This analytical bias has long been embedded in the development of archaeology and anthropology. Though many late nineteenth- and early twentieth-century
ethnographies included observations relevant to children, such information almost always fell under adult-focused categories of analysis, such as social customs and organization, or descriptions of the human life cycle (Baxter 2005, 4). Apart from Dudley Kidd—whose aim in studying native South African children was to support his theory of racial degeneration (Kidd 1906, viii–ix)—Margaret Mead (1931) was one of the earliest anthropologists to consider childhood analytically important, and to conduct her own ethnographic observations of historical-era childhood as a category in and of itself. Up through the early 1990s, children were often portrayed as passive or nearly-passive objects of parental action and decision-making in studies of adult strategies for child-rearing (Borgerhoff-Mulder and Milton 1985; Lancaster, Lancaster, and Ortner 1983) and ethnographic accounts of the same (Dorsey 1895; French-Sheldon 1892; Gilmore 1929; Miller 1928; Spencer 1899; Stevenson 1887)—or as a variable in studies of social demographics (Laughlin 1968).

Archaeologists have also categorized children as disruptive forces that distorted or randomized site formation, and were themselves “unknowable” (Hammond and Hammond 1981; Baxter 2005, 9). This perspective, of course, placed children in an outsider category, separate from knowable and normal processes of living and deposition. Only in the 1990s and early 2000s have some archaeologists come to question the secondary status of children as the subjects of archaeological analysis in historic and pre-historic sites (Moore and Scott 1997; Derevenski 2000; Kamp 2002; Baxter 2005). Beyond their mere presence in the population, or even their effects on the archaeological
record, children can offer a window into the socialization of a younger generation by the older generation (Baxter 2005, 10). We can begin to recover the experiences of this important majority of residents—of children—by inferring, based on facts, about their experience of the physical environment and the world they created with their toys. The fragmented doll remains found in the dam-keeper house trash pit offer a tangible material connection to the silent majority of the home's smallest human residents.

**The Dam-keeper Children**

Born around the time her parents arrived at the Searsville dam-keeper’s home in 1892, Hannah Duerst was the first child to live on the bluff. Her earliest memories would have been colored by the sights and smells of life above the reservoir: most immediately, her mother and father, the home’s simple white walls and mullion windows, the heavy iron stove in the kitchen. Stepping outside to play, or to join her father for a trip on the wagon, she might have remembered the imposing oak in the front yard, the white picket fence, the lake and dam beyond. There would have been the smells of the home—particularly her mother’s cooking—and of the outdoors: the pungent aroma that hung over the lake and the smell of livestock (equine and bovine) from the barn next door. At 2 years of age, Hannah was joined by a new baby sister, Elsie Duerst (born 1894). The little girls moved out of the home in 1897, at ages 5 and 3, respectively, after the tragic death of their father—an experience for which, as we shall see, aspects of their play may have helped to prepare them (*San Francisco Call* 1897a; United States Federal Census 1910).
Hannah and Elsie Duerst's successors at the house were 3-year-old Albert and 2-year-old Edgar Horabin Batchelder (born 1894 and 1895, respectively). The two brothers were joined shortly after their arrival at Searsville by a new baby sister, Lucy (born 1897). Six years later, in 1903, the children’s mother, Emeline, died from complications of giving birth to her fourth child, who also died (United States Federal Census 1900; McReynolds and Trindle 2000, 5). In the only known photograph of the children during their time at Searsville, taken in the early 1900s, the three stand side-by-side, in order of height (see Figure 22). The two boys wear overalls over long-sleeved collared shirts, and Lucy wears a dress with long sleeves. The bright sun that lights the picture drives all three children to turn their heads slightly away from the camera.

**Doll Fragments**

One reason that archaeology has tended to favor adults is that artifacts specific to children are not as numerous (Baxter 2005, 7–8). This pattern is reflected in the house trash pit: of 7,838 artifacts recovered from the pit, 26 were exclusive to children, of which 25 were fragments of doll heads and arms. The remaining child-related artifact was a child-sized rolling pin. This is less than one-half of one percent of the total artifact base associated with the pit.

Pieces of ceramic dolls were found throughout the trash pit—from Level 5 (corresponding to the Batchelder occupation) down to Level 13 (corresponding to the Duerst occupation)—for a total of 26 fragments. At least four separate dolls were represented in the fragments, which I will refer to as Dolls 1, 2, 3, and 4. Fragments of
the heads of two distinct dolls (Doll 1 and Doll 2) were reconstructed as much as possible; a left forearm of unglazed ceramic is also attributed to Doll 2, based on its similar material composition and depositional context in Level 7. Also recovered were one head socket that did not fit either head (Doll 3) and a piece of an arm with a glossy white glaze, which did not correspond to the other unglazed pieces (Doll 4). No body pieces or recognizable remains of soft doll body parts, such as a torso or clothing, were found.

Figure 42. Pieces of a Bähr and Pröschild ceramic doll recovered from levels of the dam-keeper house site trash pit corresponding to the Duerst family occupation. Photo courtesy of Heritage Services, Stanford University.
**Doll 1: Duersts**

The head of Doll 1—partially reconstructed from 13 ceramic pieces recovered from the lower levels of the trash pit (Levels 8, 9, 10, and 13) associated with the Duerst family—was painted to resemble a northern European skin tone (see Figure 40 and Figure 42). The lips were painted a rosy color, while the eyelashes and eyebrows were painted brown. The mouth is slightly open, revealing the rounded upper teeth. The right ear was pierced for an earring; the left ear was not recovered. The top of the head would once have been covered by a wig, but no traces of a wig were encountered in the trash pit.

On the rear of the head is a stamped maker’s mark: “275 DEP.” The mark identifies not only the manufacturer—the German firm of Bähr and Pröschild—but also a very specific timeframe for its production. The number 275 identifies the mold used to produce the head. Bähr and Pröschild began stamping doll heads with the mold number starting in 1871, the year that the company was founded in the town of Ohrdruf, in the German region of Thuringia. The “DEP” stamp was added in 1888, and the initials “B&P” in 1895 (Krombholz 2002, 83; Herlocher 2006, 223). The doll head, therefore, was produced some time between 1888 and 1895. It is possible that Frieda Schenk (later Frieda Duerst) brought the Bähr and Pröschild doll with her when she immigrated to the United States from Switzerland in 1889 at age 18; she would have had to have purchased it at some point during the year prior (United States Federal Census 1910). It is also possible that the Duersts bought the doll in California, after the birth of one or both of their daughters. No known record of the purchase of Doll 1 survives.
The “275” mold mark identified a head made of bisque (unglazed, tinted ceramic), mounted on a kid body (that is, made of leather) (Bahr and Proschild Dolls 1871-1919 German n.d.). The complete doll itself would have measured 30.5 centimeters (12 inches) in height, with a head roughly 6.5 centimeters tall, 5 centimeters wide, and 5 centimeters deep (Menzel 2016). No remnant of a torso or clothing was recovered. In the soil conditions at the dig site, most cloth-based artifacts would have decomposed long ago. Nonetheless, the lack of any remnant of the rest of this particular doll's body (such as the longer-lasting leather of which the torso was constructed or matching ceramic legs or arms) suggests, as I will later discuss, that the body of the doll might have been reused with a different head (Bahr and Proschild Dolls 1871-1919 German n.d.). An image of an original, intact doll from the same period, constructed by the same doll maker from the same head mold, and featuring evidence of the same hair color is provided as a point of comparison (see Figure 41).
Dolls 2-4: Batchelders

The other doll head, of which five pieces were recovered from Level 5 and one from Level 6 of the trash pit, is quite different from, and much less distinctive than Doll 1. Traces of eyeliner over the left eye and parts of both eyebrows, all in a faded brown,
suggest that the face may have been painted. The mouth was closed, and the ears were not pierced. There is no maker’s mark to identify the manufacturer or the date of manufacture; there are also no known records of its purchase. Although Doll 2, like Doll 1, may have been purchased especially for one of the Batchelder children, it is also possible that the doll originally belonged to Emeline Batchelder (born in 1871), who may have kept it as a memento of her childhood.

A white ceramic arm recovered from Level 7 of the trash pit was consistent with the head of Doll 2 in material and size; accordingly, the two were determined by the archaeological team to be part of the same individual doll. The dimensions of Doll 2 are small in comparison to those of Doll 1. Doll 2 is barely four centimeters tall and almost four centimeters wide and deep. Similarly, the left arm of Doll 2 measured four centimeters long, roughly two-thirds the length of the arm of a doll equivalent to Doll 1 (Menzel 2016). Based on the similarity in proportions, the complete Doll 2 would have been approximately 20 centimeters (8 inches) tall.

The archaeological team recovered pieces from two other identifiable distinct dolls. Two shards of ceramic doll recovered from trash pit Level 7 fit together to form part of a socket joint for attaching a doll head to a body. The size of the joint is inconsistent with the neck joints on either Doll 1 or Doll 2. There are no diagnostic marks to aid in identifying the socket’s origin. A second distinct three-centimeter-long fragment of a doll’s arm was recovered from Level 5 of the trash pit. The ceramic is glazed a glossy white, distinguishing it from Dolls 1, 2, and 3. The arm was broken at the shoulder and
the wrist. No other pieces of this doll were found, and no identifying marks are present on
the fragment. A further three fragments of ceramic dolls were recovered from Level 7 of
the trash pit; none have identifying marks or characteristics to either match or distinguish
them from the individuals already identified.

Table 9. Pieces of dolls recovered from the dam-keeper house trash pit (data from L.
Jones et al. in progress).

<table>
<thead>
<tr>
<th>Doll</th>
<th>Location</th>
<th># of Pieces</th>
<th>Body Parts Represented</th>
<th>Diagnostic Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>U8 L8,9,10,13</td>
<td>13</td>
<td>head</td>
<td>“275 DEP”</td>
</tr>
<tr>
<td>2</td>
<td>U8 L5,6,7</td>
<td>7</td>
<td>head, arm</td>
<td>none</td>
</tr>
<tr>
<td>3</td>
<td>U8 L7</td>
<td>2</td>
<td>head-shoulder socket joint</td>
<td>none</td>
</tr>
<tr>
<td>4</td>
<td>U8 L5</td>
<td>1</td>
<td>arm</td>
<td>none</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>U8 L7</td>
<td>3</td>
<td>possible neck, indeterminate</td>
<td>none</td>
</tr>
</tbody>
</table>

Cost and Economics

The prices for dolls varied by material around the turn of the twentieth century. Paper
dolls—cardboard cutouts with lithographed or printed images—cost as little as 5 to 25
cents (Montgomery Ward and Company 1895, 234). Dolls with bisque heads, wigs, teeth,
and kid bodies could cost almost $2.50 (Montgomery Ward and Company 1895, 233).
Versions sold with clothing—dresses of cotton, muslin, or cashmere, and bonnets of
silk—cost up to $3.50 (roughly five percent of the dam-keeper’s monthly salary)
(Montgomery Ward and Company 1895, 233; Spring Valley Water Company (San
Francisco, Calif.) 1906, 28).
Although dolls could be purchased ready-to-play, many were purchased by part, and finished by female members of the family, adding a layer of personalization and meaning rarely embodied by dolls today (Montgomery Ward and Company 1895, 234). Ceramic doll heads with painted hair cost up to 35 cents, while bisque heads with wigs cost between 50 cents and $1.25 (Montgomery Ward and Company 1895, 234). Ceramic doll heads were often quite fragile, such that sellers marketed “unbreakable metal heads” as a superior cranial alternative (Formanek-Brunell 1993, 35, 45). The fact that we recovered pieces of doll heads and a single arm but no traces of the bodies probably indicates that the families purchased or made replacement parts, instead of throwing away the dolls in their entirety. Such an attitude would have fit well with their working-class household type—they did not possess an overabundance of items, but some small number of their possessions were of high quality (Gutman 2004, 201; Cross 2009, 70).

Cloth doll bodies sold separately cost between 15 and 40 cents, while kid leather doll bodies cost between 50 cents and $2.00 (Montgomery Ward and Company 1895, 234; Sears, Roebuck and Company 1912, 501). Listings in these mail-order catalogs rarely provided the origin of the doll-related merchandise for sale. Although Sears, Roebuck and Company identified their “very finest... kid doll” as made by "the best doll maker in Germany," the name of the manufacturer was not provided (1912, 500). Prices for these dolls from ranged from less than $2.00 to nearly $5.00 (Sears, Roebuck and Company 1912, 500). Other accessories were available, from doll-sized grandfather clocks, to beds and rocking chairs, to stoves and tableware, wash boards and wash tubs, and more
(Montgomery Ward and Company 1895, 229, 232). Many such items were priced at around 25 cents (Montgomery Ward and Company 1895, 229, 232). No doll furniture or doll accessories were recovered from the trash pit.

Multiple Bay Area newspaper accounts of the time claimed that America had no domestic doll industry to speak of, while entire German villages were devoted to nothing but mass-production of the ceramic toys (San Francisco Call 1891 e; Sacramento Daily Record-Union 1896 b; San Francisco Call 1900 c). In fact, numerous dolls were produced in America. Thomas Edison (1847-1931) developed dolls that “talked” by means of a phonograph, and the Goodyear Rubber Company (founded in 1898) manufactured doll heads out of rubber (Formanek-Brunell 1993, 45). The Goodyear rubber heads (or, in Edison’s case, ceramic heads imported from Germany) were often attached to sturdy American-made doll bodies constructed of wood, steel, pewter, or hard rubber (Formanek-Brunell 1993, 45). Meanwhile, Martha Chase (1851-1925), a New England social reformer, designed and produced dolls to be soft rather than stiff (in mobility) or brittle, lightweight (and thus easier for children to carry and use), safe, and durable (Formanek-Brunell 1993, 68–71). In sum, the period did see the production of American-made dolls, although never at the same scale, nor arguably of the same quality as the German-made ceramic doll industry. The Duerst's doll head was German-made, and though we cannot know for certain (due to the lack of a maker's mark), the Batchelder's doll head may have been as well.
Domesticity ... and anti-Domesticity

The dolls belonging to the Duerst and Batchelder children were not toys isolated from either their physical environment or their cultural context. In the post-Civil War decades into which the dam-keeper children were born, what one historian calls a “conspicuous doll culture” emerged in books and magazines for children (Forman-Brunell 2011, 231). Shelves in children’s nurseries stored not only dolls but also books about, for, and even supposedly by dolls, such as The Doll’s Own Book and “Dolly’s Experience, Told by Herself” (Forman-Brunell 2011, 231). Dolls were the most popular means of play for female children in the 1890s, with more than one in three girls taking part (Sutton-Smith and Rosenberg 1961, 39). Both the Duerst and Batchelder children were participants in this larger culture of doll play.

From the perspective of Gilded Age parents, dolls and doll culture provided a way for girls to practice feminine ideals—one Sacramento newspaper of the time referred to dolls as toys “which make women of our girls”—although as I will discuss shortly, girls sometimes had very different ideas (Sacramento Daily Record-Union 1896b; see also Forman-Brunell 2011). Among the most important feminine ideals were motherhood and domesticity of the home. Girls “fed” their dolls (sometimes using real food, sometimes pretending), sang to them, nurtured them through imaginary illnesses, changed their clothes, and tucked them into bed at night (Formanek-Brunell 1993, 28–30; Three Little Minnows and Other Stories 1901, 11–18). This was not a new cultural development; dolls had been associated closely with feminine virtue and guileless childhood innocence.
for generations previous. During the Civil War the Confederacy stuffed dolls with morphine and quinine and used young Confederate girls to smuggle the drugs and other contraband across enemy lines. The runaway success of this project depended entirely on the power of the social and cultural meaning of dolls as embodiments of young female innocence and virtue (Bernstein 2011, 19).

Dolls also provided an impetus toward learning practical domestic skills like sewing: girls often learned their first stitches while making clothing and linens for their dolls under their mother's guidance (Ralston 1910, 3, 11; Forman-Brunell 2011, 224). It is highly likely that Hannah and Elsie Duerst learned sewing from their mother: as teenagers, they helped to support the household through seamstress work, as recorded in the 1910 census (United States Federal Census 1910).

Dolls could also embody social and economic aspirations. The Gilded Age saw the development of "lady dolls"—dolls with adult faces and body proportions, which the dam-keepers' dolls were not—marketed particularly to newly affluent families (Cross 2009, 68). Such dolls often featured several sets of clothes for different occasions, as well as calling cards to announce the doll's arrival, in mimicry of custom (Formanek-Brunell 1993, 20). The doll tea party also arose from the Gilded Age, as these same families of aspirational affluence sought to instill proper behavior and etiquette in their young daughters (Cross 2009, 68). Although the Duerst and Batchelder dolls were not lady dolls, they nonetheless probably used them to play-act social situations associated with
both childhood and adulthood, including both formal and informal social visits, lunches, teas, and other life events.

**Death Comes to Dolly**

As familiar as many of the elements of late-nineteenth-century doll play may seem to us today, particularly the emphasis on nurturing that is such a common feature in the marketing of dolls in the twenty-first century, it would be a mistake to circumscribe doll play within a comfortable and familiar-feeling framework of nurturing warmth or superficial fun. In Gilded Age America, death was a popular preoccupation in doll literature and doll play (Schlereth 1992, 290–93). Historians of childhood in the Gilded Age connect the popularity of doll illnesses, deaths, and funerals to the late-nineteenth-century fascination with, and romanticization of death, grief, burial practices, and heaven (Schlereth 1992, 290–93; Formanek-Brunell 1993, 20–21). While parents today might be appalled and worried to find a young girl enacting the slow, painful death and funerary rites of her doll, late nineteenth-century parents’ sensibilities were different. Fathers of the time sometimes constructed doll-sized coffins for their daughters’ dolls, while mothers purchased or made doll mourning or burial clothes (Formanek-Brunell 1993, 22).

It would also be too simplistic to assume that the intents of adults who fashioned doll narratives, doll’s bodies, and doll accessories were simply accepted, play-acted, and eventually embodied by the girls who played with them. Lucy Batchelder and the Duerst girls may indeed have play-acted routines of domesticity with their dolls, such as cooking
or sewing. But they may also have used them to play act stories that challenged those roles: a story in which the girl-as-doll challenged authority, showed up an elder sibling, had a prohibited adventure, took on a male persona, talked back to an adult, or pursued interests and activities outside the realm of typically feminine childhood pursuits (Forman-Brunell and Paris 2011, 223). Some girls used tea trays as sleds on which they sent their dolls careening dangerously down staircases, for instance, or flouted patriarchal warnings against sinful behavior by sewing doll-clothes on Sundays (Formanek-Brunell 1993, 32–33).

Dolls could also reinforce and re-enact violent and racist historical narratives. Caucasian dolls displayed racial ideals of whiteness, while dolls associated with servitude or slavery—such as “mammy” dolls, black-face Raggedy Ann dolls, “Topsy” dolls, and “Dinah” dolls—were connected in doll literature with stereotypes, including the romanticization of plantation life and the idealization of the relationship between enslaver and enslaved (Bernstein 2011, 155–57). The white creators of such dolls sometimes even encouraged children to act out particular racial relationships in their treatment of such dolls: some explicitly directed girls to throw, beat, or otherwise enact violence on them (Bernstein 2011, 21).

Doll stories could also encode racist views of other minorities. The San Francisco Call—a newspaper known for articles that revealed social truths in sharp or witty ways—ran just such a story in the March 12, 1910, edition of the Junior Call section, the section of the Saturday paper written especially for younger readers. In the fictional account, a
pair of girls, disappointed that rainy weather had cancelled their ride in their aunt and uncle’s new automobile, had resigned themselves to the task of fashioning new winter clothes for their dolls. To break the monotony, one of the girls suggested that they hold a doll “scalping party.” Contemporary adult readers would have recognized the truth in humor of this scenario: what little girls actually did with their dolls often departed significantly from nurturing ideals. The antagonist of the doll drama was to be a doll depicting a young Native American man (called “Brave of the Wabash” or “the Young Brave”—the only doll without a given name). Although he had shared a doll house with a doll depicting a young Chinese man (named Li Hung Chang), for the purposes of the day’s activities, he set aside this apparent progress toward civilization—as one of the girls in the narrative put it, “he perfectly hate[d] civilization, and he [thought] a great deal of going on the warpath” (San Francisco Call 1910c). He targeted the three female inhabitants of a nearby doll mansion—Mrs. Magruder, Bijou, and Gretchen. When they left to go to church, he struck, abducting one of them and fleeing with her on horseback. Another male character by the name of Prince Ormond appeared at an appropriately dramatic moment and pursued on foot. Although Mrs. Magruder survived the ordeal, the Young Brave did scalp her, leaving “a large hole in the back of her head”—a hole that was, of course, part of the doll’s design (San Francisco Call 1910c).

In the end, the white female dolls recognized the silver lining to the violent encounter: freed from her thinning and shabby-looking head of hair, Mrs. Magruder would be able to get lush new locks. Even the perpetrator of the offense “felt awfully ashamed of himself,
when his savage feelings had died down,” and called at the mansion to ascertain her condition (San Francisco Call 1910c). The girl to whom most of the dolls belonged had been worried about the scalping party from the beginning—it had not been the first time that her friend’s suggestion had put her dolls in jeopardy. Although the details of prior adventures were not included, the theme of violence inflicted upon one’s dolls by other children was not uncommon. In another such tale, Mildred Alice, student at the St. Ursula’s School for Girls, dreamed up various violent ends for her classmates’ dolls: after burning the rubber doll James R at the stake, she planned to behead the French doll, Princess Lambelle, and scalp the Brave of the Wabash (San Francisco Call 1904a). Mildred Alice, the story went, had grown up with several brothers, who had subjected her own dolls to numerous (violent) adventures.

Both the scalping party and the stake-burning stories feature acts of violence initiated by one girl against dolls belonging to an acquaintance. Both times, the violence left little or no damage to the doll-victim (the smell of burning rubber filled the room, but the injuries to James R were not detailed; meanwhile, Mrs. Magruder’s post-scalping state was actually an improvement, as she received a new wig) (San Francisco Call 1904a; San Francisco Call 1910c). And both cases blurred the lines between a story of girls playing and one of girls narrating the action of their sentient dolls, whose subversive potential lay just behind their cherub faces.
Conclusion

In conclusion, the innocuous bodies and heads of dolls represented multifarious possibilities for young girls like Hannah Duerst. In the rooms of the home, in the garden, and even perhaps beyond—by the lake and in the hills surrounding—their dolls likely attended them on a wide variety of adventures. Dolls provided an opportunity for the adult Duersts and Batchelders to socialize their children. Whether the lesson centered on sewing clothing, hosting a tea party, or perpetuating other social ideals, like proper mourning behavior, dolls were aides in shaping the actions and character of children. Yet dolls also allowed the girls who played with them to act out their own scenarios. Some of these probably included the domestic scenes of nurturing that adults of the period encouraged and idealized: the proper handling and care of a baby, for example, or respectful behavior toward superiors.

At the same time, however, the very presence of the broken doll heads and arm(s) in the pit suggests the transgressive elements of their play. Given the manifold nature of doll play we can speculate about the circumstances that surrounded the dolls’ arrival at their final resting place in the trash pit. The shattering of the dolls was, first of all, almost certainly a very sad and even traumatic occasion for the little girls. Children of the period tended to have far fewer toys than children today, so a doll would have been a prized possession (Cross 2009, 70). The loss of the Bähr and Pröschild doll head would have been deeply felt by Hannah and Elsie Duerst—the cost of replacement parts for such a high-quality doll was significant—and the demise of the head of the second (unidentified)
doll belonging to Lucy Batchelder likely caused similar distress. At the same time, the fact that other doll parts were not found in the trash pit suggests that the remaining bodies of the dolls were saved, and the broken parts replaced—a common practice to which stores and mail order catalogues like Sears and Montgomery Ward specifically catered.

The dolls' *coups de grâce* may have been the result of rough or transgressive play by the girls themselves, fraternal tormenting of the dolls by brothers Edgar H. or Albert Batchelder, or a wide variety of possible misadventures. (The dolls may even have been damaged when the Duerst’s stove exploded or when the 1906 earthquake struck during the Batchelder family’s residence.) The broken shards also remind us of the physical aspect of the girls' play: the dolls were moved and manipulated through their environment. They might have sat at the kitchen table or been tucked in at night. They probably ranged with the girls through the garden, or swished through the air on their lap as they swung on the wood and rope swing that hung from the great oak tree in the garden. The tan dirt of the hills surrounding probably tinged the doll's clothing, as the dolls joined them for play in the fields or trees, or on visits to neighbor friends.

They may have imagined escapades like those depicted in the *San Francisco Call*: an encounter with Native Americans, perhaps, or scenes of high drama or even violence. Such play may have reinforced or challenged contemporary stereotypes about other residents of the Bay Area, like the Chinese or local Native American groups, or they may have imagined faraway lands and peoples. The Duerst and Batchelder dolls were probably used by the girls—and perhaps also their brothers—to enact scenes of
domesticity but also scenes of domestic revolt, acting in ways contrary to the parents' wishes, such as making fun of friends or family, or enacting fantasies of revenge on a tormenter. Hannah and Elsie may have found solace in their dolls at the death of their father, and Lucy at the death of her mother, not only as well-loved companions, but also insofar as their doll play may have prepared them to understand the concepts of illness, injury, and death, the treatment of the deceased parent's body, the practices of burial, and the proper actions of mourners, made familiar to them through the lives of the dolls ultimately buried in the ground with other remnants of the family’s daily lives.
Chapter 8: Harmonica

Figure 44. Reed plates of a harmonica recovered from levels corresponding to the Duerst family occupation. Photo courtesy of Heritage Services, Stanford University.

In the course of daily life at the dam-keeper's home, few aspects of experience were so ephemeral—and so difficult to access as an archaeologist—as sound. Standing outside the house on the bluff above Searsville Lake and Dam, a visitor would have heard a mix of natural and man-made sounds. In the distance, the sound of water rushing over the top of the dam and cascading down its terraced block face to the pool below provided a pleasant auditory counterpoint to the feeling of the hot sun. There was the sound of native
birds in the oaks, as blue jays foraged, and the scurrying and chattering of squirrels. This bucolic aural idyll, however, was at times interrupted by the sharp report of a gunshot, as the dam-keepers or other water company workers shot at the birds and rodents that they considered a nuisance (Bee 1923c). From the barn area came the whinnying and lowing sounds of the family's livestock, which as I have previously shown included at least a horse (for both the Duersts and the Batchelders) and a cow (the Duersts). Insects and flies buzzed and droned, some of them intent on a meal from the animals or exposed human necks and arms. From inside the house came the sounds of the dam-keepers’ wives—Frieda Duerst, followed by Emeline Batchelder—as they went about household tasks.

During the Duerst family's time at Searsville, our imagined visitor might have heard something more: the reedy sound of Melchior Duerst playing a harmonica, its tune cheerful or melancholy, familiar or improvisational. Duerst had purchased the harmonica at the Woodside Store for 25 cents in 1894 (Tripp 1907). Its notes may have drifted up from the dam and the path down to the lake, or perhaps from the barn or the porch or interior of the home itself. Those ceased around the time of his death in 1897, as his harmonica was tossed into the family trash pit. Its reed plates and a small attached piece of its wooden comb were gently coaxed from the earth of the pit by an archaeologist over a century later.

In this chapter, I analyze the production and possible meanings of sounds from the dam-keeper's harmonica in their larger aural context, using the conceptual framework developed in the newly emerging and exciting field of the archaeology of sound, also
known as “sound studies” (Sterne 2012, 2; see also Mills 2016). Over the past 15 years or so, archaeologists have revealed the power of archaeology to speak to this modality of human experience hitherto largely ignored in the field. Adding a dimension of sound has proven productive particularly in prehistoric archaeology (Zubrow and Blake 2006), in the archaeology of buildings and other man-made structures (Azevedo, Markham, and Wall 2013; Suárez, Alonso, and Sendra 2015), and at the intersection of both the prehistoric era and man-made structures (P. R. Cook et al. 2010; Weismantel 2013). In nineteenth- and early twentieth-century archaeology, Jeffrey Benjamin has argued powerfully for the value of studying industrial sound (Benjamin 2014).

I take three core theoretical observations from the field of sound studies and apply them to the dam-keeper’s harmonica and the aural context of the house and dam site, an area of archaeological study (nineteenth-century rural American archaeology) in which no known work has been developed in the archaeology of sound. We tend to invest sound with an objective essence, capable of being accurately described as a thing-in-itself—without considering that people hearing sounds, now and in the past, have and had “ways of hearing or not-hearing” (Ihde 2007, 49–55; Sterne 2012, 1). I argue, in turn, that Duerst’s harmonica and the sounds created with it were embedded in a complex matrix of meaning that influenced both sound as it was played and as it was heard and understood: namely, the cultural intersection of his immigrant identity as Swiss and American, his social relationships (and their absence, in the human need for solitude and private sound),
and the ways in which the sounds he produced were mediated by social status, gender, and race.

Second, I argue that the sound of the dam-keeper’s harmonica must be interpreted vis-à-vis the forms and transformations of the physical space in which it existed and was used (Royce 2004, 142). Its sound, and the meaning of that sound, changed in relation to space and spatial arrangements, including but not limited to buildings, outdoor space defined and interrupted by topography, trees, plants, and living creatures, objects man-made (such as the dam itself), the sounds these all produce, and the way in which they modulate other sounds. Further, the act of hearing such sounds depended on the hearer’s own physical context and relation to the creator of sound (Cage 1961, 39–40).

Broader cultural meaning and physical context, however, do not yet quite capture a satisfying account of the production and interpretation of sound at the dam-keeper’s home. Sound- and music-making were intensely personal activities, particular to their creator and listeners. The family’s cultural past and social relationships would have strongly modulated the meaning of sound. Considering those personal histories and meanings in the context of the physical space and cultural meanings associated with race, class, gender, and national identity all together re-animates from the lost past what the musician, composer, and sound studies pioneer R. Murray Schafer has called the “soundscape,” defined as “a total appreciation of the sonic environment.” This environment integrates awareness of the emotional, physical, and culture space in which such lost sounds were produced (Schafer 1993).
Archaeological and Historical Data and Analysis

The harmonica recovered from the trash pit consists of two brass reed plates. Each reed plate had space for ten brass reeds; between the two plates, 13 reeds survived intact, six were damaged, and one was missing entirely. A small piece of burned wood was attached to one of the reed plates, but it disintegrated during the process of excavation and curation. The thin plates measured ten centimeters in length and two-and-a-half centimeters in width (see Figure 44). No other musical instruments or instrument pieces were recovered from the trash pit or any other unit at the site, nor do we have any surviving historical record of the families' musical activities.

The reed plates were excavated together from Level 8 of the trash pit, a level associated with the end of the Duerst occupation (1897). The fact that the small amount of surviving wood attached to the plates is burned is consistent with the fire in the trash pit at the change in occupation. The reed plates have rectangular slots. Each slot has a reed of corresponding length, and together these produce characteristic frequencies. Reed plates were attached to opposite sides of a “comb,” a piece of wood with air channels corresponding to each of the reeds. As the musician inhaled air through a particular channel, the air would vibrate one reed. As the musician exhaled air, the air activated the reed. The harmonica could be played on both inhale (“draw”) and exhale (“blow”) without pause (Field 2000, 14). This reed plate-comb-reed plate sandwich, in turn, was itself encased in the outer “cover plates,” which held the entire instrument together and...
displayed the name of the manufacturer, and which the musician held in his (or her) hands (Hohner 1893).

Figure 45. Disassembled harmonica, showing blow reed plate attached to comb, with top cover plate askew. Creative Commons License [CC0: public domain via https://pixabay.com/en/harmonica-music-inner-workings-352734/], accessed October 23, 2016.

Different notes were played by blowing or drawing air across reeds of different lengths, which would accordingly vibrate at different frequencies and produce sounds at distinct pitches. The player would use lips and tongue to block particular holes in the comb, preventing air from vibrating the adjacent reeds. Musical chords could be played by blowing or drawing air across multiple reeds at the same time. The Duerst player or players could modulate the tonal quality of sound from the harmonica by varying the
volume of air or by moving the hands, which could, for example, create a different resonance space or produce a vibrato-like quality by flapping the hand or hands quickly (Field 2000, 21).

The thin cover plates—which almost certainly rusted away in the trash pit and thus were not recovered—would have borne the name of the manufacturer. Although we do not have this name, it is possible to glean information from the surviving reed plates. The number of reeds per plate (corresponding to ten holes in the mouthpiece and ten chambers in the comb), indicate that the Duerst harmonica was a typical diatonic harmonica ("diatonic" refers to the fact that each chamber in the comb could produce two notes—one blow and one draw) (Field 2000, 24). Although some novelty versions were available—with two rows of channels, for instance, one above the other, or with extra channels for more notes to play—most harmonicas available at the time were the ten-hole, twenty-reed variety that the Duersts possessed (Field 2000, 28; Montgomery Ward and Company 1895, 241). Local stores advertised harmonicas year-round, but with particular energy during the Christmas season. One San Francisco store's holiday advertisement touted "genuine German, excellent" harmonicas, "sold at 15¢ and 25¢ elsewhere" for the low price of five cents (San Francisco Call 1897e). Another advertisement declared that "A Good Harmonica... Makes the Best Christmas for Your Boy" (Los Angeles Herald 1903). Harmonica prices ranged from ten cents for a basic model up to three dollars for a premium instrument (Los Angeles Herald 1903; San Francisco Call 1904b).
The harmonica is an artifact with strong historical and cultural associations in contemporary American society. Many of the most powerful contemporary visions of the harmonica identify the instrument with idealized concepts of late nineteenth- and early twentieth-century America: of hobos on trains, cowboys around a fire, or African American musicians in smoky clubs (see Field 2000, especially 37-38, 100, 311; Titon 2002; Richter 2008; Kalinak 2012, 5). Although in some ways quite different (as in the dramatic contrast between the experiences of white and black Americans), these are nonetheless stereotypes with certain shared structural and emotional valences. Harmonicas in these modern tropes are played by masculine characters caught up in adventures, journeys, or other hard-won efforts to make a living for themselves in harsh but romanticized rural or marginalized landscapes (Agnew 2014, 207; Asquith 2014, 1). This is a type repeatedly evoked in films that feature harmonica music over the past half century, from spaghetti westerns like “Once Upon a Time in the West” (1968)—featuring a hyper-masculine stranger known only as the man with the harmonica—to the severe and rugged “Brokeback Mountain” (2005) (Fawell 2005; Proulx 2005; Tsika 2007).

A notable element of harmonica stereotypes is the rural landscape and soundscape in which contemporary cultural depictions typically imagine them being played (Titon 2002). Modern authors of westerns like Annie Proulx, author of the original short story *Brokeback Mountain* (1997), use the harmonica and its music in combination with classic western landscapes like Monument Valley to help establish the identity of archetypal,
masculine cowboy characters (Asquith 2014, 29, 97; Proulx 2007, 261; Proulx 2016, 300). The harmonica is also used in westerns as backdrop to quintessential western visuals: a string of snow-capped mountains framing the progress or arrival of settlers’ wagons, for example (Bandy and Stoehr 2012, 33). The sound of the harmonica becomes auditory shorthand for the authenticity of the landscape and narrative (Kalinak 2012, 5, 32).

It might be tempting, therefore, to simply populate Melchior Duerst’s inner and outer life vis-à-vis his music-making with familiar tropes: Duerst as a rugged, rural westerner, retiring under a tree’s canopy from the harsh glare of the noon-day sun with the harmonica, playing old-time folk songs from a different, slower era (Titon 2002; Richter 2008). Parts of this picture may very well have been true, but there are also important ways in which we must question and explore this stereotype, and in so doing, move closer to a useful and evocative analysis of sound on the Searsville bluff, and even of the lives of Melchior, Frieda, and their daughters. The stereotypes outlined above are notably masculine, whereas, as I will later discuss, Frieda Duerst may have played the harmonica, too.

The Soundscape in which the Harmonica was Played

We can begin to complicate the stereotype of the rural harmonicist in general, and the Duersts as harmonicists more particularly, by more closely examining the landscape of sound in which their harmonica was played. Although to modern ears and imaginations, the sounds of the harmonica, of rushing water, of stirring trees, and of birds evokes the
rural idyll, on closer examination the dam-keepers’ home and the surrounding property were a space in which sounds were mediated and structured by the intercession of an industrial structure in the otherwise rural landscape: the massive, 60-foot-tall, 300-foot-wide Searsville Dam, which was built in service of commercial growth and enterprise. As with other contemporary industrial and commercial facilities built (or decaying) amidst fields, trees, and streams, the two sets of sounds were intertwined (Schafer 1993; Orange 2014, 197). The sound of the water—a central concept of “the natural”—was man-made: prior to the dam, relatively quiet brooks gradually descended in elevation through the Searsville Valley without the kinds of drop-offs or water pressure that typically produce the sound of energetically rushing water. Cascading water at Searsville was a manifestation of the mass production and control of water for human use, fueling the growth of industry and city-building in one of the fastest-growing regions in nineteenth-century California. The particular quality of the sounds of trees and grasses, meanwhile, were heavily mediated by the environmental impact of development on the site over previous decades, transforming it from the sounds of a redwood forest to those of a scrub oak chaparral (see Chapter 1). Even the pattern and quality of birdsong was a product of human intercession. The species present were selected for through the man-made transformation of habitat, and through hunting and culling by local residents and the water company (Bee 1923c). What may have seemed at first glance timeless and natural in the aural scene that opened this chapter was in fact a product of human intervention.
and industrial action. The soundscape mirrored environmental and cultural change wrought in part by the dam-keepers, their families, and the water company.

The way in which the harmonica itself could be played was structured by this aural environment, and by the transitions of that environment on timescales long and short. Some locations would have been better for music-making than others, for example. In the area immediately around the face of the dam, the sound of the rushing water during the rainy season was either too loud to play music, or it strongly mediated the sound and experience of music played. A player would have risked losing the harmonica to the water. At the same time, this may be an insufficiently rich understanding of the possibilities of music-making: sounds at the dam may have provided a potential acoustic accompanist, with the harmonica-player adapting and improvising in concert with the tonal qualities of rushing water, as well as the possibility of rhythmic movements of natural or man-made objects in the water on the rising and falling of waves. The intensity and fullness of these sounds probably varied over long, seasonal and trans-year timescales. But we should also imagine the way in which this aural landscape transformed ever-so-slightly in the moment, from breath to breath, at the pace of living (Bailey and Simpkin 2015). Physical space is “in constant formation, dissolution and reformation,” and this was particularly true of the lake, the water cascading over the dam, and the stream below (Sterne 2012, 91). Small differentials in the amount of water reaching the lake from nearby streams, as well as the ever-shifting and interfering wave patterns on the surface of the lake itself, the movements of animals on and through the
water, and the dynamic forces of weather—of wind and rain especially—would have modulated the particular qualities and volume of the water sounds around the dam. In small ways, moment to moment, irregular and loud sounds could impress on the listener a sense of chaos and change, with the return of rhythmic sounds representing a return to order (Bijsterveld 2012, 153). The player’s aural experience would have incorporated both the act of music-making, and the act of listening to both the music and to the absence of music. This conversation between the transformations of music and soundscape would have structured the player’s breathing, and his or her thoughts, as well.

The production and interpretation of sound would have varied as the harmonicist moved, too. The harmonica could be played while walking, though not easily while working—with the exception of a small number of side show talents, most people required two hands to play it. Melchior and/or Frieda Duerst may have played on the way to or from the dam, the water spring, the store, or other day-to-day activities. Here the moment-to-moment would have asserted itself in the sound of the harmonica, with the force of their breath modulated and structured by the exertion and rhythm of each individual step: of small incongruities in the ground (perhaps a slight unexpected depression causing their breath to exhale with more force, the harmonica’s note commensurately a loud staccato), or of large ones, like a hill, leading to a decrease in volume, greater pauses between notes, or perhaps caesuras in sound. The sound, in turn, would have moderated their walking: perhaps the player paused halfway up the hill from the dam to the bluff, in order to finish a musical thought. They probably played the
harmonica inside or near the house, both as an isolated activity and as a performative one for family and perhaps also neighbors and friends.

The slightly longer temporal rhythms of daily work and responsibility, the schedules of the dam-keeper and his wife demanded that certain times be dedicated to labor-intensive work that precluded use of the hands to hold the harmonica to mouth. In contrast to the dam-keeper’s pipe, then, the harmonica was for moments of rest or transitional movement that did not otherwise require handiwork—but in those times, it could be played freely, for it was not an interruption to any others in the workplace. In these ways the sounds of the dam-keepers’ lives reflected the in-between status of the site: a place rural, yet modulated by a large-scale industrial construction—the dam—on a site of both work and leisure (Benjamin 2014). This is not to say, however, that the presence of other people did not also modulate the type and quality of sound produced with the harmonica, nor the decision to silence it. As I will discuss later in this chapter, social context was an essential framework in which sound was or was not produced. Social meaning could determine social sound, and it was part of the context in which sound was heard or not heard and interpreted.

Finally, the juxtaposition of the rural site and the industrial dam (where I use the word industrial to refer to the fact that the dam was both a result of industry, and a man-made mechanism for the production of a commercial water source (Industrial 2015)), illustrates an essential transformation on a more traditional level of analysis in archaeology, the era or age, which is relevant to our consideration of the soundscape. Rapid removal of native
redwood forests in the 1850s, 60s, and 70s changed the physical environment around the dam was marked by the dramatically. This, and the accompanying cultural shifts, transformed the soundscape. Yet even here we can recognize the incremental nature of a transformation whose stark contrasts are only apparent when one compares two moments in time separated by a substantial distance. The redwoods came down one at a time, accompanied by the advancing and retreating sounds of wagons, horses, lumbermen, saws, and treefalls. The dam went up at the pace of human ability, the rate at which concrete was mixed, poured, and cured, and the speed with which water filled the valley behind the dam. The same aural continuity connects me as an archaeologist at the Searsville dam-keeper site to the families as they walked through the grasses, among the oaks, and by the waters of the lake that remain there to this day. These areas of continuity represent opportunities for aural imagination and empathy; as we dug slowly down into the layers of their lives, our trowels cutting and sounding in the earth, the kinds of fine-grained sounds that populated their experience of the moment-to-moment also populated our own.

**Harmonica Music Around Searsville**

Harmonicas were featured in numerous Bay Area events during the dam-keepers’ era, including a concert at the African Methodist Episcopal Church in Sacramento, a lodge meeting of the Independent Order of Foresters at Sacramento, and a benefit concert for a San Francisco kindergarten (Sacramento Daily Record-Union 1893a; Sacramento Daily Record-Union 1896a; San Francisco Call 1897d). In most of these cases, the harmonica
was played as part of a variety show; such shows followed a familiar format, and included recitations, piano and vocal solos and duets, and choruses (Coronado Mercury 1887; Los Angeles Herald 1888; Marin Journal 1890; San Francisco Call 1892h; Sacramento Daily Record-Union 1893a; Sacramento Daily Record-Union 1893b; Sacramento Daily Record-Union 1894b; Sacramento Daily Record-Union 1895; Sacramento Daily Record-Union 1896a; San Francisco Call 1896d; San Francisco Call 1897d). The formulaic reviews almost inevitably declared the evening “pleasant” or “a general good time,” and the harmonica was framed as a form of wholesome community entertainment (Sacramento Daily Record-Union 1896a; Sacramento Daily Record-Union 1896c). Nonetheless, as I will show, the harmonica’s cultural meaning was far more complex and layered with racial, gendered, and socio-economic shades of interpretation.

The harmonica reflected Duerst family’s working-class status, and in this specific respect Melchior and Frieda Duerst’s own likely use of the harmonica was true to one aspect of our modern stereotype: it is not the Gilded Age robber baron who appears in films, stories, and other vignettes with harmonica in hand, but instead the working-class everyman (Berghoff 2001, 323, 330; Agnew 2014, 207). Other local archaeological data support the conclusion that the harmonica was largely a working-class instrument in the late-nineteenth-century Bay Area. The harmonica was the most popular musical activity at working-class home sites studied by the South of Market Project in San Francisco. The project found pieces of harmonicas in six separate house trash deposits, five of which were working-class; the harmonica was probably present in other homes, as well (Gibson
2009b, 297). One of these working-class San Francisco household deposits also produced artifacts from another musical instrument in the form of a hammer and a wire-tightener for a piano. A seventh, more affluent household deposit produced no harmonica pieces, but did yield evidence of woodwind (piccolo or flute), brass (trombone or trumpet), and string (guitar) instruments. The Cypress Project in Oakland did not analyze musical instruments. There is, in sum, a limited amount of archaeological evidence with regard to working-class musical practices in late nineteenth-century Bay Area dig sites. The data we do have from San Francisco, however, reveals a variety of musical instruments with harmonicas predominating at working-class home sites.

The harmonica’s small size and affordable price made it accessible, but its very accessibility contributed to its snubbing by the musical elite and its identification as an instrument of the lower classes (Field 2000, 26–27, 95–96; Gross 2014). Harmonica manufacturers pushed back against this class association by framing the harmonica as a truly universal purchase in its advertisements (Berghoff 2001, 323–30). In contrast to the stereotype of the harmonica as an instrument of rural simplicity, many of the advertisements that Melchior and Frieda Duerst would have seen portrayed the harmonica as an instrument that connected the player to a cosmopolitan, even global community of music-makers of a variety of means (Berghoff 2001, 322–23). Thus, as either Duerst sat playing the harmonica, his or her mind’s eye may have imagined foreign lands, exotic locales, or other lifestyles.
This early twentieth-century advertisement for Hohner harmonicas is an example of the company’s efforts to frame the harmonica as an instrument of universal appeal, even as this characterization failed to reflect the realities of the marketplace (see Figure 46). The visual language of this particular advertisement suggests that the harmonica is not a working-class instrument, but rather a popular, appealing item bought by men who represented some of the most successful elements of their societies: an upper-class man with a black top hat and shiny monocle approaches from the center of the crowd, a white everyman reaches across the table to take a red harmonica from Mr. Hohner himself, and
a Chinese man in formal dress awaits his turn. Behind him a Spaniard in a red jacket presses in, followed by a Native American in feather headdress, a frontiersman, an Arab, a Turk, and others. A young boy in a sailor’s uniform, meanwhile, celebrates to the side, harmonica in hand—harmonicas, the ad makes clear, are for all ages, too. Yet the image has a circus-like quality, with the bright colors, sense of motion, and pageant of different peoples striking a visual note more akin to popular entertainment than to a serious representation of the harmonica as a universal instrument. Reinforcing this impression is the central figure, a performer in blackface, dressed in white gloves, a light-colored suit, and a satin-ribboned top hat. He is already in the act of playing music—a type of music that his racial signifiers would have immediately evoked in the minds of most of the advertisements’ viewers. This was a reference to popular minstrel shows, which I will return to in my later analysis of the types of music that Melchior and/or Frieda Duerst may have played. Whether or not the Duersts personally saw this particular advertisement, the association between the harmonica and the minstrel show was a broader cultural association of which they would have been aware (Berghoff 2001, 323). In the end, the circus-like atmosphere of the advertisement was probably meant to appeal to a working-class audience and their sense of fun and entertainment rather than an upper-class demographic, which tended to pursue music as a more serious, culturally improving enterprise (Berghoff 2001, 323–24).

At the same time, this image provides a point of entry through which we can consider how the Duersts viewed their harmonica vis-à-vis not only class, but also race. Hohner
wanted the world to think of the harmonica as an instrument with a bit of an edge, and
here the visual language of racial stereotypes framed the harmonica as a particular type of
instrument (Berghoff 2001, 332–33). In the distance (implying that these are not the
harmonica’s most important customers) a group of African natives wearing nothing but
loincloths and perhaps carrying spears sprint toward the harmonica table. This
iconography was probably intended to insert shades of racial humor into the entreaty. So
universal is the harmonica’s appeal, the Hohner Company seemed to say, that even the
kinds of people that the reader considers the least culturally aware or advanced want in
on the trend. Black African tribesmen, typified by the Hottentot, had been appropriated
for domestic discourse as a standard representation of extreme otherness in the West
since the sixteenth century, and became a particularly potent racial type in the context of
nineteenth-century colonialism (Merians 2001). The image of the natives running with
such alacrity would have had particular racial subtexts: the character of such tribesmen
was incessantly described as fundamentally idle, so their enthusiastic sprint toward the
harmonica stand would be interpreted as a humorous joke by way of emphasizing that
truly everybody (even the laziest) could not wait to get their hands on a Hohner
harmonica (Coetzee 2014). This fascinating example of racial, socio-economic, and
gendered advertising for harmonicas raises questions regarding the social context, both
immediate and extended, in which Melchior and/or Frieda Duerst played their harmonica.
Social Control and Social Subversion: Gender, Race, and Class

As the Duerst family played and listened to the harmonica, it was an experience embedded in a very complex web of socio-economic, ethnic, racial, and gendered ideas. I will explore these by examining the harmonica’s use at public Bay Area gatherings, its association with vaudeville shows, its historical connection to German migrants, and popular manuals for “correct” harmonica playing.

The harmonica was first of all a gendered instrument. Bay Area newspaper accounts of harmonica performances from the 1890s indicate that men comprised the vast majority of players, at least in public contexts (Coronado Mercury 1887; Los Angeles Herald 1888; Marin Journal 1890; San Francisco Call 1892b; Sacramento Daily Record-Union 1893a; Sacramento Daily Record-Union 1893b; Sacramento Daily Record-Union 1894b; Sacramento Daily Record-Union 1895; Sacramento Daily Record-Union 1896a; Sacramento Daily Record-Union 1896c; San Francisco Call 1896d; San Francisco Call 1897d). (Nonetheless, I will shortly discuss why we might question this division in the private sphere.) The bias toward men in the public sphere was so pronounced that all-female musical groups in need of harmonica music would bring in a man to do the job. On the Peninsula during the Duerst family’s time, for example, an all-female group called the King’s Daughters—twenty young women who performed charity work—featured a male harmonica and piano player in their otherwise all-female lineup (Sacramento Daily Record-Union 1891). Similarly, the Hohner advertisement analyzed above (see Figure 46), which went to such great and humorous lengths to emphasize the harmonica’s
universality, featured individuals of every age and race, but only one gender. Hohner’s advertisement implicitly declared that the harmonica was a universally masculine instrument. Other advertisements of the period emphasized that harmonicas made excellent Christmas presents for boys (but not girls) (*Los Angeles Herald* 1903). In the very uncommon case that the harmonicist was a woman, she was almost always referred to as a “Miss” and not a “Mrs.” (e.g. *Sacramento Daily Record-Union* 1896c), implying in the absence of married women that the harmonica was not an appropriate musical pursuit for the grown lady. But why not? I have found no primary or secondary source that sheds light directly on this question, but I believe part of the answer lies in the close association of the harmonica with racial and ethnic stereotypes, which contemporaries may have found particularly threatening to ideals of white female beauty, virtue, and purity.

One of the most popular public contexts in which the harmonica was played in nineteenth-century America was the vaudeville show. Vaudeville was variety entertainment for the masses: the word “variety” referred to the mixture of soliloquies, lectures, impersonations, artistic acts, and concert music performed in vaudeville shows in the mid-1800s. Over the following decades, vaudeville venues multiplied, and managers packed their programs with light comedy, melodramas, and music (Cullen 2004, xiv–xv). At vaudeville’s peak in the 1910s, roughly 2,000 theaters nationwide were uniquely devoted to vaudeville. Such “big-time” venues would customarily feature eight or nine acts (and upwards of a dozen performers) per show or “bill,” with two shows
taking place per day (Cullen 2004, xxxiii). The harmonica, as musical instrument of and for the masses, was right at home in the saloons and theaters of vaudeville, whose performers and audiences were largely working-class (Field 2000, 43; Cullen 2004, xxxiv). Although primarily associated with theaters and saloons, the essential format of vaudeville’s variety show structure was a standard form for other public gatherings in the late nineteenth-century Bay Area, as well, from school programs to community socials (Sacramento Daily Record-Union 1893a; Sacramento Daily Record-Union 1896c; Sacramento Daily Record-Union 1896a; San Francisco Call 1897d). Here, too, the harmonica made a frequent appearance, normally played by a man, and often book-ended by dramatic vignettes, piano performances, recitations, and other talents. We have no surviving record of whether either dam-keeper family attended such performances, but they were common sources of entertainment for people who lived in the area.

The racist precursor to vaudeville was the minstrel show, which featured the harmonica as a black instrument (Cullen 2004, 769–70; Strausbaugh 2007, 127). Given the line of continuity from minstrel shows to vaudeville, it is not surprising that songs from the repertoires of popular minstrel shows—including “It’s Nice to be a Father,” “Little Brown Jug,” and “Comin’ Thro’ the Rye”—ended up being taught to working-class aspirants in a self-teaching music book titled Ryan’s True Harmonica Instructor (Ryan 1886; Garvie 1912). Minstrel performances had reached their height in the 1830s and 40s, but did not begin a serious decline until after the American Civil War and the abolition of slavery. Like vaudeville, minstrel shows featured a variety of acts, dramatic
impersonations and scenes, and musical numbers (Strausbaugh 2007, 104). Their central conceit, however, was the appropriation and exploitation of the African American body and the stereotypes associated with it. Minstrel performers were most often white men who painted their faces black. As stock characters they embodied exaggerated, allegedly “black” behaviors, portraying black people as pathologically lazy, happy with the status quo, too stupid survive on their own, and musically talented (Toll 1974, 71).

The harmonica featured prominently in stereotypes of black masculinity, both inside and outside the minstrel show. In 1897 the Sacramento Daily Union published a short vignette intended to humorously highlight the supposed contrast between black musical talent on the one hand, and lack of moral virtue on the other. In the story, titled “The Artistic Temperament,” a white man came upon a black man playing the harmonica while reclined against a fence in a brick yard on a fine day. “You’re a pretty good player on that instrument,” the white man remarked to the player. In fact, he continued, the black man’s talent was a form of natural genius. Perhaps the harmonica virtuoso would be interested in being paid to play for the man’s extended family? The player refused. “Why not?” persisted his interlocutor. “Case dis here’s de way I loafs,” came the reply. “I likes ter play dis music. It’s how I takes mer res’. An’ ef I goes takin’ money foh it, den I’ll be wuckin’ jes’ de same as evuh, an’ de fus’ ting I knows I’ll hafter be took ter de hospital foh ovuh-exertion” (Sacramento Daily Record-Union 1897a).

With cruel racist overtones like these, it is not hard to see how a harmonica in the hands of a white woman might carry threatening associations. Black men were perceived
as a uniquely potent sexual threat to white womanhood (Freedman 2013). Other targets of scorn, fear, and slander in minstrel shows included suffragists, who were mercilessly lampooned by members of faux-black troupes (Dicker/sun 2008, 21–25).

As the historian Barbara Cutter observes, Americans’ belief in “redemptive womanhood” meant that female depravity posed “a grave threat to the republic” and was “a powerful symbol of decay” (Cutter 2003, 45). Contemporary descriptions in Bay Area newspapers of married female harmonica players almost inevitably framed them as either depraved minds or exotic others. The San Francisco Call jovially reported a man’s reputed search for his unhinged wife, whom he had traced from San Diego to New Jersey. She had gone through 17 aliases, “was addicted to the morphine habit,” and had tried to commit suicide too many times to count. In case anyone might stumble across the mentally deranged woman, her defining feature was the fact that she kept “either a harmonica or cud of gum in her mouth all the time, unless asleep” (San Francisco Call 1897c). Readers of the Coronado Mercury, meanwhile, were treated to a reprint of a column from the St. James Gazette that framed harmonica-playing as one of the ways in which the exotic Persian wife endeavors to “entertain her husband,” alongside reciting stories in the style of Arabian Nights and conceding to a polygamous marriage—whatever it took to make their husband happy (Coronado Mercury 1888). Underneath the fascination of the exotic lay moral peril; in the western United States in the latter half of the nineteenth century, polygamy was associated with Mormonism and a threat to both white womanhood and the sanctity of marriage (Madsen 2004; Handley 2002, 106).
The harmonica also appeared in angry local newspaper accounts of social undesirables, which it is possible that the Duersts or Batchelders came across. A belligerent journalist’s list of the beggars that he found most odious on the streets of San Francisco in 1895 included “the drunken blind Indian ‘Andrew,’ with the sickening red eyeballs, who plays a harmonica and runs wild through the streets” (San Francisco Call 1895a). Nearly a year later, the same newspaper noted in passing the arrest for vagrancy and drunkenness of a “blind Indian” beggar named Tony Felton, who also played the harmonica (San Francisco Call 1896a). The economic status of the Native American harmonica players is an example of the more general cultural feature of the harmonica as a lower-class instrument.

Racial and economic stereotypes were inextricably intertwined in grotesque local depictions of African American harmonica players in minstrel shows, newspapers, and other media, as well as the angry and surreal descriptions of the frightening sight of Native American beggars, or of the apparent absurdity of a Chinese harmonica player following closely on the heals of a native, both playing classic American tunes (San Francisco Call 1891d). The theme of wildness and mental derangement or differentness connected these narratives to gendered depictions of female harmonica players as exotic other or as domestically recognizable but insane and/or immoral.

Despite—or perhaps because of—the harmonica’s associations with the working class and racial others, it was advertised in a socially aspirational manner, its status as an instrument deliberately framed within a larger, socially acceptable musical tradition.
Hohner's universal advertisement (see Figure 46) depicted men (and a boy) who looked clean, well-nourished, and successful, with new, well-made clothing. This was not the hobo harmonicist of our modern Romantic stereotype. *Ryan's True Harmonica Instructor*, meanwhile, played to people's desire for social attainment. The wealthy, like the white character in the *Sacramento Union*’s story of the black man who would not play the harmonica for money, might have dabbled in the harmonica as children—but not as adults. “I used to try to play the harmonica when I was a boy,” he said, “but I didn’t make any progress. It’s one of those accomplishments that comes natural to some people, while others might practice a lifetime without learning” (*Sacramento Daily Record-Union* 1897a). Of course, the reader already knows that the type of person to whom harmonica playing “comes natural” is the black man. So the real narrative here is that it was an instrument of interest to the wealthy, high-status white man only as a boy, when not yet fully mature. Childhood was precisely the status assigned to black people in contemporary narratives of race; an allegedly child-like level of intellectual development was used to justify the paternalistic oversight of white slave owners in the Antebellum period and share-cropping overseers during Reconstruction (Tracy 2009, 141).

**Social Subversion**

The examples I have considered above hint at the harmonica’s subversive potential. Vaudeville shows and their harmonica music often reinforced racial and gender stereotypes; yet harmonica music could also be employed to subvert them. African American blues players layered protest and self-assertion into their music, often played
for all-black audiences in spaces that were culturally safe (Field 2000). In the Antebellum era, slaves had incorporated satire of their enslavers into their music and dance, and free blacks in the northern United States developed their own cultural identities in association with newly-arrived West African imports and the white majority (Dicker/sun 2008, 21; Lott 1993, 40). In subverting racial, political, and other social norms, harmonicas also subverted musical norms. A contemporary performance by the Georgia Minstrels (a minstrel group whose performers were, unusually, black) at the Clunie Opera House in Sacramento received rave reviews, especially because “it [had] been generally accepted that colored men cannot give as good a minstrel performance as whites” (Sacramento Daily Record-Union 1889). The racial overtones of the statement serve to divert attention from both levels of imbedded irony: first that black performers were at a natural disadvantage (minstrel shows were, after all, an appropriation and exploitation of black culture), and second that contemporary audiences differentiated between black-actors-in-blackface and white-actors-in-blackface (some contemporary audiences could not distinguish between the two, see Lott 1993, 20). Of the 16 performers, particular praise was reserved for the (implicitly) male harmonica player, who “astonished all, and revealed possibilities for that simple instrument not credited to it” (Sacramento Daily Record-Union 1889).

Gender roles in nineteenth-century California, and indeed the American West more generally, were sometimes remarkably subversive and fluid (Boag 2011). Indeed, the history of the Searsville area itself during and immediately prior to the Duerst family’s
time at the dam reflected this fluidity. One part-time Searsville resident was the stagecoach driver Charley Parkhurst (c.1815-1879), also called “One-Eyed Charley” and “Cockeyed Charley” as a horse’s kick had scarred and blinded the left side of his face. After 15 years of driving stagecoaches to and from Oakland, Stockton, San Jose, and Santa Cruz, Parkhurst turned in the 1870s to operating a saloon, farming, and lumberjacking. It was upon post-mortem examination that a coroner discovered that Parkhurst’s body was that of a woman (see Boag 2011). One newspaper noted that there was nothing “intrinsically incredible” to the tale—in fact it was “commoner to find women capable of personating men than men capable of personating women” (Sacramento Daily Record-Union 1880a). Female cross-dressers flourished as performers in San Francisco; though true to the association between masculine behaviors and female mental illness examined above, their performances often incorporated the premise that their brains had been befuddled or otherwise agitated (Sueyoshi 2005). Nonetheless, their popularity demonstrated a level of toleration and even titillation for female boundary-crossing during the Duerst’s time at Searsville. It is not hard to imagine that this tolerance extended into the family sphere, where traditionally masculine behaviors like harmonica-playing may have been seen as relatively unexceptional, especially when kept within the sphere of domesticity rather than public performance. It is perfectly possible that Frieda Duerst played the family’s harmonica.

Frieda and Melchior Duerst’s Swiss origins also complicate our understanding of the cultural lens through which they played and interpreted music and sound. To the best of
my knowledge, there is no academic publication examining the Swiss harmonica-playing tradition in particular, nor the way in which immigrants like the Duersts integrated or chose cultural musical norms when they had experience in more than one tradition. We do know that the modern mouth harmonica (also called a mouth organ, pocket piano, or mouth harmonica, hereafter as harmonica) was developed in Germany in the early 1800s, possibly a descendent of similar instruments developed earlier in Asia (Chelminski 1995; Randel 1999, 437; Field 2000, 22–27). Thus, although we think of the harmonica as an “old-time” instrument, its contemporary form was not even a century old as Melchior or Frieda Duerst picked it up to play. Furthermore, the Duersts embodied the fact that harmonica music was often accompanied not by a cowboy twang but by the German language or German-accented-English.

If Frieda and/or Melchior Duerst did not learn to play the harmonica until they came to America, they may have taught themselves through an inexpensive harmonica lesson book. Mail-order catalogs also offered self-teaching manuals, such as Ryan's True Harmonica Instructor, for around 25 cents (Montgomery Ward and Company 1895, 252; Sears, Roebuck and Company 1897, 523). Although we do not know whether the Duersts owned a Ryan’s True Harmonica Instructor, the written materials provide insight into American cultural perceptions of the harmonica. The Instructor, the most popular and prolific of these musical how-to manuals, advertised the harmonica's great, growing, and well-deserved popularity, but was equally quick to note that such popularity was not to be interpreted as evidence that the harmonica was not a serious instrument. In fact, Ryan's
argued, according to several authorities, the harmonica was “not a mere toy for the little folks, but a musical instrument capable of most charming effects and great possibilities” (Ryan 1886, 18). The Instructor claimed to teach the “true” method of playing, which entailed mastery of (written) musical elements, as well as the technique of the instrument itself. “Correct” technique entailed proper body posture, as well as the correct way to hold the instrument and to produce sounds. Ryan’s insistence on “correctness” was a way to justify the value of the book. But the harmonica was also being presented to working-class players as an instrument not simply of self-expression, but of social correctness and conformity, of posture, technique, and musical choice. It was a path to social conformity and achievement (Siisiäinen 2012). The idea of the harmonica as a path to correct sociability in the context of musical culture complicates any assessment of the kind of music that likely emanated from the Duerst instrument, and the meaning that such music carried for Frieda and Melchior Duerst, and for their children.

Books like Ryan's True Harmonica Instructor thus need to be treated with caution, as such series were produced for a wide variety of instruments, each of which contained largely the same musical selection with only a few variations. The first third of the book was often consumed with a standard explanation of musical notation and terminology, the second section covered the particular instrument at hand, and the third and final section presented a large selection of again standard music (Ryan 1872; Ryan 1874; Ryan 1886). The musical pieces reproduced across instrumental instruction books included “It’s Nice to be a Father,” “We Won’t Go Home Till Morning,” and “Yankee Doodle” (the only
notable exception to the standardization was the Ryan's instructor for violin, which contained numerous reels that were not included in the music for other instruments) (Ryan 1872; Ryan 1874; Ryan 1886). Interestingly, the harmonica Instructor offered a few pieces of classical music (in common with its other instrumental titles), such as an air by Mozart (1756-1791), a passage from Gaetano Donizetti's (1797-1848) Lucia di Lammermoor, and Johann Strauss II's (1825-1899) "On the Beautiful Blue Danube." These arrangements were devoid of sharps and flats that the harmonica of the time could not produce; they were thus only an approximation of the originals (Ryan 1886). All the same, the regular appearance of classical works in harmonica music and in descriptions of contemporary performances demonstrates the oversimplicity of associating the harmonica exclusively with an American folk tradition. Further, the generic quality of self-teaching books suggests that many nineteenth-century self-taught beginners entered a shared musical landscape in which the boundaries between classical, folk, and other types of music were blurred, and perhaps even subsumed by larger cultural designations of what constituted popular and appropriate music. Many of the pieces featured in Ryan's clustered around essential moral themes, including patriotism, family, and love.

Despite the apparent instructional control exerted by playing manuals, the harmonica was well suited to subversion and improvisation. The instrument could produce an astonishingly wide variety of sounds. Harmonica musicians manipulated their breathing, the way in which their mouths moved against and across the harmonica's surface, and the way in which they cupped it in their hands to produce a wide range of sounds, from
percussive effects to slurred notes. Players imitated the sounds around them to remarkable effect, from a fox hunt, to the human voice, to the sounds of a steam-powered railroad locomotive (Field 2000, 34–35). Could the Duerst harmonica have possibly reproduced the sounds of the dam, of wagons, birdsong, dogs, barnyard residents, or of the speech of friends and loved ones? The Duersts could have used the harmonica not only to perform music as we generally think of a musical piece today, but also as part of a broader process of story-telling, discussion, and music- and sound-making by the family. Of such activities by the Duersts (or their successors, the Batchelders), we sadly have no surviving record, so our speculations must remain simply probable.

**Harmonicas for Children**

Thus far I have considered the harmonica as a remnant of Melchior and Frieda Duerst’s musical life, but it could have been the case that they were not the only players. It is analytically valuable to consider the harmonica in the context of the Duerst children, as well, as active and important members of the household and as participants in the process of sound- and music-making and listening, both active and passive. The presence of children offers an imaginative window into the habits of familial interaction, as well as the socialization of the younger generation (Baxter 2005, 10).

Although very young at the time of Melchior Duerst’s death, his little girls (Hannah, then age 5, and Elsie, then age 3) may have played simple tunes on the harmonica—or they may have transgressively used it to make a variety of wild and unpredictable sounds. It is worthwhile to consider the possibility that the harmonica was shared with the
children, or perhaps even belonged to them. A harmonica, for example, was offered by the *San Francisco Call* as a prize for local children who entered its search-and-color game in May of 1903 (*San Francisco Call* 1903b). Harmonicas were humorously recommended to satisfy the “childish longing for sound” (*San Francisco Call* 1895b), and as I have shown, the instrument could also be associated with ostensible mental immaturity or insufficiency in children and racial others. The harmonica may therefore have found its way into little hands at the dam-keeper house, whether in group social settings, or in moments of childhood noisemaking.

**The Harmonica Falls Silent**

As with all of the artifacts considered in this thesis, the actual act of deposition provides unique information and raises interesting questions. Why was this object thrown away? Why in this condition, and why at this particular moment in time? The nature of the deposition, in turn, offers us potential answers. The harmonica, as we have seen, was recovered without its cover plates, which likely rusted away in the ground. The presence of wood on one of the harmonica reed screws, however, suggests that the harmonica had a wooden comb, and that the harmonica was deposited intact, the wood having since decayed in earth. The harmonica is particularly interesting in this regard, because of its apparently usable, good condition at the point at which it was thrown away; the signs of corrosion and burning evidenced on the reed-plates are consistent with other artifacts from the trash pit, suggesting that the damage occurred after the harmonica was discarded. The surviving reeds show no cracks or deformations to affect note accuracy or
tonal quality. Would Melchior Duerst have thrown his harmonica away in the trash? Even though he spent only a quarter to purchase it, its small size makes it seem unlikely to have been thrown away so long as it remained playable (Tripp 1907). Although we cannot know for certain that the harmonica’s wooden comb and (very likely) metal cover plates were in as good as the surviving metal reed plates, the condition of the harmonica’s remaining parts, in concert with its depositional situation suggest that the instrument was not thrown away because it was no longer musically useful.

The harmonica’s location in Level 8, meanwhile, allow us to speculate as to the reason for its disposal. Its position at the interface between the two occupations indicates that it was one of the very last objects deposited during the Duerst family’s time at the house, around the time of Melchior Duerst’s death. It might have been deposited by one of Melchior Duerst’s surviving family members (perhaps to rid herself of an item with painful sentimental attachments, or to finally discard the object of a non-musician’s oblivious folly). It is also possible that it was simply discarded because it no longer worked well; or it might have been left behind, only to be discarded as the new occupants, the Batchelders, moved in and cleaned house (Buchli and Lucas 2001).

Conclusion

The rich, complicated cultural meanings associated with the harmonica demonstrate that it cannot be simply interpreted as an inert object with a certain specific capacity for sound determined by its physical structure. Its many cultural meanings, including racial, socio-economic, and gendered registers, created dense layers of emotive expression and
interpretation. Although we can never know for certain what the physical harmonica and its sounds meant to the Duersts, our close examination of the geographic and cultural context in which they were immersed highlights likely possibilities, revealing both the attractions of the harmonica—its universality, its everyman quality, its affordability and portability—as well as its lurking dangers, including racial threat, female immorality or insanity, and associations with both the childlike and the poor. But the personal meaning of musical production and interpretation was also a deeply individual process, evoking the memories and emotions of the creator and hearer. Music might have been created by the Duerst family for a wide variety of reasons: to make the workday pass more quickly, for self-entertainment, to conjure feelings, to tell a story, to accompany a dance, to imitate a bird, to accompany and interact with the local soundscape, to evoke a distant homeland, or to amuse a young child.

Considering sound in the archaeological context helps us to recover a richer understanding of lost lives that goes beyond a dry description of the harmonica as a physical object. The archaeology of sound also leads us to fruitfully interrogate the assumption that any given sound is an objective entity that listeners heard and interpreted in the same manner, and to question narratives about the harmonica’s use that are subtly rooted in modern stereotypes. I have examined the way in which the experience and sound of the Duerst family’s harmonica was situated within a wider soundscape. I have explored the way in which the Duerst family harmonica player or players may have used the instrument in their physical context, and considered how we can use the concept of
the transformations of sound in tandem with physical landscape to consider the granularity of their lives: from the small, almost imperceptible changes of moment-to-moment life in their breathing, their steps, and their perception of subtle natural rhythms and changes in water, wind, and other natural entities—to the daily rhythms and structures moderating the production of sound and silence—and finally to the broad transitions of the soundscape over more traditional archaeological timescales. I reveal the way in which the soundscape reflects the site's complex status as a rural location nonetheless mediated by an industrial production—the dam—and show how the most natural sounds (a particular mix of birdsong, for example, or the sound of scrub oak and chaparral) can also be, in a sense, man-made (in this case, by the clearing of the redwoods, the construction of the dam, and the altering of local wildlife populations).

We have no known surviving record of the way in which the Duersts thought about the harmonica, or indeed music and sound more generally. Nonetheless, I argue that as Melchior or Frieda Duerst (or perhaps even the eldest child, Hannah) played the harmonica, the way in which they played, heard their own playing, and listened to the music of others would have been mediated by a complex web of cultural factors whose threads included race, gender, socio-economic status, and ethnic identity. As European immigrants, both parents may have associated harmonica music with the lives they left behind, and perhaps with poignant memories of separation from family and childhood friends. The family’s ownership and use of the harmonica, meanwhile, may have been influenced by contemporary attitudes toward female harmonicists as exotic or crazy,
which I argue may have been connected to a lurking racial threat—for the harmonica was also strongly associated with black masculinity and racial otherness. These associations, however, were clearly not enough to dissuade the Duersts from purchasing the harmonica, nor from keeping it up until the time of Melchior Duerst’s death in 1897. Nor indeed did such associations prevent the harmonica from being a widely popular instrument for entertainment at local variety shows, all invariably reviewed in blandly upbeat terms in the local papers.

The larger cultural context, including the fact that most variety show harmonicists were male, suggests that the harmonica was somewhat more likely to have been primarily Melchior’s instrument, yet I have also explored the ways in which nineteenth-century women in the Bay Area subverted cultural expectations, often in far more subversive ways. There is, in short, no reason that Frieda Duerst could not have played the harmonica, as well. These complex cultural factors may also have influenced the way in which Melchior and Frieda Duerst thought about the sound and music produced on the harmonica: perhaps one or both felt connected to the abstract universal community of players advocated by Hohner, or were inspired by attendance at area variety shows. Analysis of the harmonica in its broader cultural context also suggests the ways in which we might subvert cultural assumptions about the harmonica as a folk instrument representing the alleged simplicity (cultural, educational, and other) of the working class. Duerst and his family may have been familiar with, and appreciators of, classical composers like Strauss, Donizetti, and Mozart, whose works could be adapted to the
harmonica. By stepping through the door opened by a single artifact, the Duerst harmonica, we see the way in which their world of sound and music was a product not only of the harmonica’s reed plates, but of the confluence of contextual factors: the physical landscape and soundscape, the pace and responsibilities of their daily lives, their identity as immigrants, and the cultural context of the Bay Area, with its racial, gendered, and class-based beliefs and mores.
Conclusion

How does one recover the seemingly unrecoverable: the story of human lives that left virtually no historical trace upon the earth?

This is the theoretical challenge at the heart of this thesis. I take as my case study the lives of two ordinary working-class families that lived on a bluff above a reservoir on the San Francisco Peninsula in the decades around 1900. The adult male members of these households, Melchior Duerst and Edgar Batchelder, brought their families to the reservoir in their capacity as dam-keeper of the Searsville dam, whose mammoth presence was responsible for maintaining the lake below the house. Neither family left an account of their time living at Searsville. Less than ten miles away lived one of the wealthiest families in the country, and certainly the wealthiest in the state of California: Leland and Jane Stanford, founders of a new university, whose power and prominence would be recorded in tens of thousands of documents, photographs, other media, and indeed in the enduring physical presence of the university itself. The Stanfords were precisely the kind of people who inspired Mark Twain to acidly declare their era the Gilded Age.

The fundamental methodological argument that I have advanced in this thesis is that the archaeological imagination can help us to recover lost lives of common people, and to construct richer archaeological accounts than coolly factual archaeological reports and typologies. I guide and shape the archaeological imagination through close encounters with individual artifacts, through exploration of the physical environment in which they were found, and by drawing on the historical context that gave rise to their creation and
influenced their interpretation and use. Through these encounters, I de-familiarize seemingly familiar objects, and re-evoke a richer and more broadly conceived account of their lives vis-à-vis the larger world.

Close analysis of individual objects belonging to the material culture of the dam-keeper families is a useful place to begin, allowing us our first steps toward speculating, in a disciplined fashion, about the circumstances of their daily lives. When considered in its broader physical and cultural context, each object recovers a portion of their lives as they were lived in the fine-grained changes of the day-to-day, from the physical experience of smoking tobacco, to the treatment of (and attitudes toward) disease, to the speculative realm of family leisure and social interactions, to the most ephemeral elements of experience, like internal thought or sound. Other artifacts—a harmonica, faunal bones, and shards from a doll—allow me to expand this analysis into music, eating habits, children’s play, and the experience of the physical lived environment. The patterns of artifact disposal that I uncover reveal the families’ relationship to an emerging consumer culture, both in what they purchased, and in what they were willing to discard.

I look at how we might take a fresh approach to the concept of the physical dig site and its description. Traditional archaeological techniques tend to describe a dig site in clinical, geometric terms only. From this perspective we see the dig site as a static, three-dimensional space, easily disciplined by measurement (Spector 1991, 3; M. Hall and Silliman 2006). Such measurements are indeed critical to archaeological recording and description, and I do not advocate abandoning them. But I do believe that we can gain
something through an act of imagination that takes such facts and description as its foundation. I have introduced the site to the reader through the imagined perspective of Melchior Duerst in a narrative of his movements through that past space. Duerst's embodied experience shared some elements in common with the experience of the archaeology crew that worked on the site more than a century later. By juxtaposing the process of archaeological excavation with the processes that obscured the house site over the century intervening, I have highlighted the way in which the site changed, and why. These changes, wrought by a combination of natural processes and human actions, led to the apparent disappearance of the house site and erasure of any obvious evidence of the dam-keeper families' former presence. This exercise in imagining the site from the perspective of its original inhabitants, as well as the transformative processes of the century following, presents the site not as a three-dimensional geometric space snapped to a grid, but as almost an organic entity, with its own powers of agency and transformation—measurable, yes, but also fluid.

From the trash pit we discovered in that changing landscape we ultimately pulled a heavy object whose silent repose belied its explosive history: a stove door. The stove door—blown off the stove in a dramatic detonation after the firewood used to feed it was stuffed with gunpowder to punish thieves—offers entry into the center of domestic activity at the dam-keeper house. From cooking meats to baking bread, from scrubbing dishes to making coffee and tea, from heating water for washing and ironing clothes to simply keeping the house warm at night, the stove—and the labor of Frieda Duerst and
Emeline Batchelder to operate and maintain it—were crucial to the proper functioning of
the household. The way in which they understood and approached their work was
probably influenced by the contemporary “Cult of Domesticity” (or “Cult of True
Womanhood”)—which framed child-rearing and housework as a higher calling, a duty to
both God and country—as well as by reformers’ efforts to raise women’s status through
reinterpreting housework as a profession of scientific merit and capitalist efficiency. The
extent to which Frieda and Emeline internalized and acted on these concepts is unknown
(they may even have reacted against them), but my analysis provides the imagination
with a rich space of possibility.

At the same time, the stove provided heat for cooking meals and baking breads and
sweets. The limited archaeological and historical data that we have concerning the
families’ diets suggests that they were similar to the typical Gilded Age working-class
diet in both the Bay Area and nationally: namely, centered around meat, and integrating a
mixture of fresh and canned goods, including fruits, vegetables, meats, and fish. The
inland location of the dam-keeper house decreased the amount and variety of fresh fish
and shellfish available to the families, however, at least in comparison to the residents of
Gilded Age Oakland and San Francisco. Most of their seafood intake appears to have
come from canned goods.

The stove door, by its condition and deposition, serves to highlight another unfamiliar
aspect of the dam-keeper families’ everyday lives—the quotidian hazards of the kitchen,
and particularly the stove. Melchior Duerst’s attempt to send a sharp message to a local
firewood thief backfired, destroying the stove in a detonation; remarkably, this story of stove destruction is far from unique in Gilded Age California. There was also the constant danger of severe burns from the hot metal of the stove exterior, and of objects or even people catching fire from sparks or from brushing up against the stove. The dangers of the stove were accompanied by the dangers of the food prepared on and inside it. The increasingly mass-produced and mass-distributed food that the families acquired in cans, jars, and other packaging from local stores lacked any governmental oversight during the time that the Duersts and Batchelders lived at the Searsville dam-keeper house (prior to the Pure Food and Drug Act of 1906). Frieda and Emeline in particular had to be constantly alert to the possible presence of mold, rancid meat, maggots, and other adulterations.

The tobacco pipe recovered from Level 10—a Duerst possession—was but one representative of many. Shards of white clay tobacco pipes were scattered liberally throughout all layers of the trash pit. Their ubiquitous presence underscores the era’s rising consumerism, and the way in which it was manifest in the families’ habits of purchase, use, and disposal. These mass-produced, mass-marketed, mass-distributed goods were sold cheaply and were expected to break sooner rather than later. In fact, some companies tried to present their fragility as a benefit—the pipe was almost guaranteed to break before it had reached its supposed capacity for removing nicotine and other harmful compounds from the tobacco smoke. From a close examination of the pipe artifact itself, I recreate the way in which it was probably used by the dam-keepers (or
even by their wives, although smokers were usually men), and I imagine the experience and sensations of smoking. These sensations were no doubt pleasurable, but, as I show, contemporaries were also familiar with at least some of the perils of smoking, and concerns for the health of the body may have colored their experience of smoking a pipe, as well. Their experiences were also shaped by a set of views about what the pipe could allow the smoker to virtually experience. One of the most popular of these narratives—promoted by tobacco companies—was that smoking a fine tobacco could give the working-class man the experience of wealth, luxury, or even power. At the same time, the dam-keepers’ choice of clay pipes suggests that their experience of tobacco may have been, at least in some small part, an expression of politics and self-identity: clay pipes were favored by working-class men not only for their affordability and convenience, but also because they could be used as a visible expression of working-class pride and solidarity.

A relatively plain, aqua bottle re-emerged from our excavation of Level 4 (corresponding to the Batchelder occupation) to speak to one of the most personal aspects of the experience of each member of the dam-keeper families: the health of the body. Through analysis of this and other medicine bottles recovered from the trash pit, I examine the dam-keeper family members’ sense of the physical self and attitudes toward the well-being of the body. I show how the purveyors of patent medicines played on, and helped to create, the lens through which the Duersts and Batchelders probably viewed the body and the conditions that could afflict it. That lens was particularly influenced by
class and by gendered conceptions of health. The predominance of patent medicine bottles in the families’ trash pit reflected their working-class status. Wealthier middle- and upper-class families, both in the Bay Area and nationally, were more likely to obtain prescription medicine (also known as “ethical” medicine) from consultation with a doctor. Patent medicine companies, by contrast, promised working-class consumers a medicine capable of curing a wide variety of afflictions all at a very reasonable price.

Gender dramatically shaped not only contemporary understanding of disease pathology, but also the nature of the path to treatment and cure. The purview of female medicinals, I show, overlapped with the demands of personal beauty. Cultural discourse presented women as delicate and at the mercy of their female organs, which were portrayed as the source both of their inferiority to men, and of their mental and physical disorders. Men, by contrast, were considered physically more robust, and their disorders were more frequently prescribed a stout and hardy remedy, and the rush of manly activity, to properly reconstitute the body (Gosling 1987). These pervasive sets of beliefs probably influenced the way in which members of both families viewed male and female health. Nonetheless, there is no reason to believe that every aspect of cultural narrative was accepted lock, stock, and barrel. After all, the day-to-day experience of rural, working-class women like Frieda Duerst and Emeline Batchelder was filled with physical labor whose successful completion gave the lie to dramatic concepts of female physical weakness.
I speculate, based on the substantial presence of the patent medicine bottles throughout the trash pit, that members of both dam-keeper families viewed the health of the body as in a fundamental way a unified system, such that cures for an ailment in one part of physical body seemed plausibly addressed by the same medication used for other parts and complaints. This was precisely the promise of most purveyors of patent medicines. The cure-all claims of so many of these medicines make it difficult to know for sure precisely which ailments the Duersts and Batchelders suffered from, but the evidence suggests that both families experienced headaches, digestive complaints, and problems ascribed at the time to nerves (such as exhaustion). Constipation was also a shared experience, an annoyance both families sought to treat with Dr. Pitcher’s Castoria. In this they were far from alone: the high proportion of meat in the Gilded Age working-class diet, combined with the relatively light consumption of fruits and vegetables, meant that many of their neighbors and contemporaries suffered the same complaint. In sum, their experience of the body was strongly influenced by both gender and social class, and the set of circumstances, experiences, and beliefs that those categories engendered.

I have endeavored to defamiliarize the familiar by considering the ambiguity of interpretation inherent to our understanding of a seemingly simple and straightforward artifact: the domino. Dominoes were tremendously popular and widely considered wholesome and even bland entertainment. Yet this wholesome reputation could also function as a cover for illicit gambling, with the benign gaming equipment disguising the benighted game being played. Games of chance were not generally held in high regard in
the Bay Area, and this was especially true in the context of San Francisco’s Chinatown; the mere mention of dominoes in association with Chinese immigrants implied gambling. Thus, dominoes, especially in the context of the Bay Area, were a particularly complex object. The nature of leisure time—naturally separate from, and in contrast to, the records and log books of the dam-keepers’ work responsibilities—means that we are left with no historical record of how the families spent their leisure. Yet, as I have shown, the dominoes as an artifact help us to address this lacuna by opening, as a consequence of their ambiguity, a broad space in which the archaeological imagination, guided by the artifacts themselves, can expand. From the dominoes worn smooth from handling, from their imagined sound and movement on a playing surface in the past, and from the larger cultural context in which they were interpreted and used, possible narratives of their use re-emerge: from flexible and open family domino play, to covert meetings for gambling with the dominoes out of sight, to shades of meaning and possibility in between.

The dominoes also serve to highlight the fact that the Batchelders actually had leisure time in which to play and socialize in the first place, because they benefited from the disposable income and leisure time available to increasing numbers of working-class Americans like themselves. Dominos were one of a wide range of leisure possibilities—including sports, board games, variety shows, and music-making (see Chapter 8)—that were available to working-class families like the Duersts and Batchelders at the turn of the twentieth century (Shrock 2004, 121–24, 139–42).
A Bähr and Pröschild doll face and head emerged from trash pit layers associated with the Duerst family and their two little girls, Hannah (b. 1892) and Elsie (b. 1894). It was one of a set of broken faces and bodies from at least four children's dolls that were recovered from the trash pit, representing discards from both households (the Batchelders had one daughter, Lucy (b. 1897), and two sons, Albert (b.1894) and Edgar Jr. (b. 1895)). Through the doll and its companions, I examine aspects of gendered childhood experience in the dam-keeper’s home, exploring the ways in which dolls were often presented by adults alongside “doll stories” (both published and improvised) in order to re-enforce cultural norms surrounding the social role of women. But I also imagine the ways in which the dam-keeper girls—and possibly the boys, as well—may have subverted those roles in their actual doll play. I show the way in which doll play and doll stories were, like other household objects, profoundly connected to contemporary gender and racial stereotypes, as in the case of a doll narrative in which an Indian doll lapsed into savagery and staged a scalping raid on white female dolls. The dam-keeper families’ class was also reflected in the physical dolls themselves: with their porcelain heads and faces, delicately painted, the dolls represented a more expensive type of doll than those accessible to poor families. Indeed, the Bähr and Pröschild doll was a significant purchase for the Duerst family, though not out of the realm of responsible spending. As nice as this doll was, however, larger, fancier, more elaborate dolls were produced and marketed to the very wealthy. Nonetheless, the fact that the doll was thrown out, rather than repaired by Frieda Duerst, reflects the fact that the working class in this period was
increasingly a consumer class with access to mass-produced goods that were increasingly considered disposable.

In imagining the children's doll play, I again defamiliarize a type of object that seems very familiar to us. Dolls were used to role-play not only the nurturing narratives that we associate with them today—which in the Gilded Age took a form that encouraged girls to act out the ideals of the so-called "Cult of Domesticity"—but also narratives of violence, sickness, injury, and death. These were events that were far more likely to regularly touch Gilded Age American children than their counterparts today. Enacting scenes in which death came to dolly allowed children like the Duersts and Batchelders to confront the darker side of life and learn to deal with it through play. Finally, by imagining the children's activities as members of the household in this and other chapters, I place the Duerst and Batchelder children in active rather than passive roles in the archaeological site: playing with toys, successfully using (or breaking) other household objects, and completing household and outdoor tasks in partnership with their parents.

Finally, I examine the Duerst family's harmonica, using it as a point of entry into imagining not only the use and meaning of the artifact, but also the aural experience that accompanied it and its relationship to the wider soundscape of the bluff above Searsville dam (Schafer 1993). Contrary to modern stereotypes that frame the harmonica in terms of both a romanticized rural idyll and rugged American manhood, I suggest based on primary source evidence that the harmonica in the late-nineteenth-century Bay Area was associated with a much less inward-looking frame of mind, with advertisements, books,
and contemporary newspaper accounts framing it as a worldly and flexible instrument that connected the player to wider cultural currents. The harmonica’s social possibilities were contradictory: the instrument was one possible path toward “correct” sociability (as advanced in self-teaching manuals, or in blandly approving newspaper accounts of performances at church socials, school events, and community celebrations)—but it could also be a marker of gender transgression and especially racial otherness. These included local racial representations that used the harmonica as a symbolic signal for the alleged laziness of black Americans, its appearance in complaints about the Native American poor, and its association with exotic or humorously deranged women.

I explore the transformation of the Searsville soundscape in tandem with the transformation of the physical landscape. The transformation of the shady redwood forests into hot, grassy scrub oak chaparral had been attended by dramatic changes in sound, to be sure, but sound also provides a medium through which to acknowledge and explore the finer-grained transformations of the families’ daily lives; that is, to consider their lives on the “scale of lived action” (Bailey and Simpkin 2015). At this level, the artifacts direct our archaeological imaginations toward the almost imperceptible changes taking place all around the dam-keeper families: slight shifts in the weather, in the movement of the water, in the tone and quality of sounds. Here, as the harmonica’s reedy sound interacts with changes in wind and water, the dam-keepers and their families seem almost present again; we see them in our mind’s eye, listening in the moment, as sounds just made already begin to fade with the next intake of breath.
Each of the artifacts that we pulled from the ground was embedded in the social, economic, religious, racial, and other cultural mores of the late-nineteenth and early-twentieth-century American west. Three of the most significant analytical categories to emerge from my analysis are gender, race, and class, which endowed these and other artifacts from the Searsville dam-keeper site with meaning beyond their immediate purpose. Gender significantly shaped the day-to-day lives and work of the dam-keepers, their wives, and their children, but its influence also extended to the way in which each understood their own body, health, pleasure, and purpose, not to mention the physical objects around them and the way in which each individual related to, and interacted with, those objects.

Race added yet another complex layer to the meaning of objects and the way in which the dam-keeper families understood and interacted with the wider world. Chinese immigrants were ubiquitous in the Bay Area, including the Searsville area. The white population in general harbored great animus toward them, even as the region’s boom in commerce and construction relied on their presence. What feelings the Duerst and Batchelder families harbored toward the Chinese and other minorities we do not know for certain. But we do know that this powerful racial context inflected the meaning and especially the moral connotation of household artifacts, particularly the dominoes and the harmonica, both of which were associated with racial others. In the case of the dominoes, the racial other was the Chinese, among whom dominoes and gambling were viewed (by the white population) as inextricably linked. This fact contributes to the interpretive
ambiguity of the artifact. The harmonica, meanwhile, was often associated with black or Native American drifters, as well as the lower classes. The stigma attached to racial otherness in this case did not necessarily transfer—local newspapers were full of fulsome praise for white harmonica players at church socials and other events—but this case, as well as that of the domino, does suggest the degree to which the meaning of the object itself in the discourse of white California could change depending on the color of the hands that held it. By imagining their world of racial awareness, the meaning of such objects to the dam-keeper families is complicated and expands beyond a simple narrative mapping an object only to its function as a maker of sound or a piece in a game.

Social class was also a potent force in the dam-keeper families’ lives. Their years on the bluff above Searsville dam saw dramatic changes in the relationship between the working class, corporations, and resource exploitation. The very existence of the dam-keeper’s home was predicated on the enormous economic growth that powered the rapid expansion of towns and cities up and down the San Francisco Peninsula. The dam had been constructed by a corporation whose profits grew with their increasing ability to exploit water resources to meet the rocketing demands of Bay Area consumers. The history of the site itself, as I show, was a history of transformation wrought by resource exploitation. Prior to the water company, that resource had been redwoods, all but erased from the Searsville area by the time the Duersts and Batchelders arrived.

The emergence of technologies of mass production, mass marketing, and long-distance delivery over the nation’s railroad lines had numerous ramifications for the dam-keeper
families. We see this in both the types of artifacts recovered, and in the very fact that the families disposed of them in the first place. Mass production meant cheaper goods, and cheaper goods meant goods that were potentially disposable—perhaps even by design (as, for example, were the dam-keepers’ clay pipes). Dolls that might previously have been patched up by a careful mother were instead deposited in the trash pit. Salvageable and reusable pans, buttons, clasps, toys, glass bottles, and other household goods were also thrown in the pit by the Duersts and Batchelders, rather than saving and repurposing them. The families’ embrace of canned foods also reflected the larger economic movement toward mass production, the more efficient exploitation of resources and labor, and an emerging working-class consumer market. In turn, the new idols of American capitalism, including efficiency and a scientific approach to productivity, became templates for new ways of framing the work (and increasing the status) of housewives like Frieda Duerst and Emeline Batchelder.

I complicate the imaginative story I tell—informed as substantially as it is by contemporary context—by acknowledging the very real possibility that the dam-keeper family members, like other contemporaries, transgressed larger cultural boundaries, including those relating to gender, race, and/or class. The dam-keepers’ wives, for example, may have smoked or played the harmonica. The dam-keepers themselves may have enjoyed cooking, or joined their children in their games. Both the boys and the girls may have engaged in doll play. The families may have held beliefs or followed patterns of living that were in some ways characteristic of other social groups, or which rejected
popular norms. They may have viewed racial others in ways uncharacteristic of their time period. Acknowledging that their lives were probably shaped by complex reactions against prevailing cultural currents, as well as their movement within them, gives us a richer space in which to respectfully re-evoke their lost lives in the archaeological imagination.

I also complicate my story by acknowledging the ways in which individual artifacts have unique and particular histories. Most stove doors, as I have noted, do not end their lives being blown across the kitchen by gunpowder. Yet contemporary California newspaper accounts were full of stove accidents caused by their human users’ unexpected repurposing ideas: a chemical experiment with turpentine gone wrong, in one case, or an attempt to use the oven as a garbage incinerator, in another. All of the artifacts I have so closely examined may have been understood or employed in unexpected ways.

Finally, in this thesis I have considered how we might contemplate the most fleeting and difficult-to-access aspects of lost lives: the experience of the physically intangible moments of human existence in emotion and the senses. I explore the way in which we might imagine the particular sights, sounds, smells, and daily rhythms of Melchior Duerst and Edgar Batchelder’s work days, as well as those of Frieda Duerst and Emeline Batchelder in the course of the manifold duties associated with the stove, particularly cleaning and cooking. I imagine the same kind of experience of the senses in the context of smoking one of the dam-keepers’ hot clay pipes, the particular ways in which they may have understood and experienced sensations of the body associated with disease and
injury, the multiple imaginative possibilities of the domino, and the unexpected actions
and emotions associated with doll play in particular and children's day-to-day
experiences more generally. Without further evidence, the intimate particularities of their
daily lives and the histories of individual artifacts will remain obscure and speculative,
but through this thesis I have endeavored to show that we can produce a richer
archaeological account by moving beyond bare description and typologizing, to recapture
what was lost by bringing archaeological and historical analysis together to guide the
archaeological imagination toward rediscovering the stories of two ordinary, working-
class California families on a bluff above the Searsville dam—lost lives in a Gilded Age.
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Water Co. Portola Woods Subdivision; Portola Lands; Portola Reservoir 1896-1912. San Francisco Public Utility Commission Archives.


<table>
<thead>
<tr>
<th>Product</th>
<th>Height and Description</th>
<th>Location and Condition</th>
<th>Product Claimed</th>
<th>Ingredients</th>
<th>Production and Distribution</th>
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<tbody>
<tr>
<td>Dr. Pitcher's Castoria</td>
<td>15cm rectangular clear glass bottle</td>
<td>Levels 4, 6, and 10 two intact; bottle in Level 10 melted</td>
<td>Treat digestive complaints, particularly in children</td>
<td>Senna leaves, sodium bicarbonate, extract of taraxicum [sic], essence of wintergreen, and sugar (Pitcher 1868)</td>
<td>Patented 1868 Advertised in newspapers and magazines. Sold in general stores and by mail-order catalog.</td>
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<tr>
<td>Paine's Celery Compound</td>
<td>24cm rectangular amber glass bottle</td>
<td>Level 6 intact</td>
<td>Strengthen the nerves and purify the blood</td>
<td>Alcohol, celery seed, calisaya bark, sascara sagrada, senna leaves, prickly ash bark, sarsaparilla root, hops, ginger root, dandelion root, mandrake root, black haw, gentian root, chamomile flowers, black cohosh root, yellow dock root, potassium nitrate, glycerin, sugar, water (Street 1917)</td>
<td>Introduced 1882 Advertised in newspapers. Sold in drug stores and by mail-order catalog.</td>
</tr>
<tr>
<td>Product</td>
<td>Height and Description</td>
<td>Location and Condition</td>
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<tr>
<td>Hall’s Balsam for the Lungs</td>
<td>20cm rectangular aqua glass bottle</td>
<td>Level 7 intact</td>
<td>Cure respiratory complaints</td>
<td></td>
<td>Introduced 1860 Advertised in newspapers. Sold in drug stores.</td>
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<tr>
<td>Vaseline</td>
<td>7cm round clear glass ointment jar</td>
<td>Levels 8 and 10 intact</td>
<td>First aid for cuts, scrapes, burns Additional veterinary and non-medical uses</td>
<td>Petroleum jelly (Chesebrough 1872)</td>
<td>Patented 1872 Advertised in newspapers. Sold in drug stores and by mail-order catalog.</td>
</tr>
<tr>
<td>Bromo-Seltzer</td>
<td>7cm round blue glass bottle</td>
<td>Levels 6 and 10 (two in Level 10) intact</td>
<td>Treat headaches</td>
<td>Potassium bromide, sodium bicarbonate, citric acid, tartaric acid, and acetanilid (Street 1917)</td>
<td>Introduced 1891 Advertised in newspapers. Sold in drug stores and by mail-order catalog.</td>
</tr>
</tbody>
</table>
APPENDIX 2: PATENT MEDICINE ADVERTISEMENTS

Figure 47. Advertisement for Dr. Pitcher’s Castoria. From the July 27, 1906, edition of San Francisco Call. Image in public domain, accessed via California Digital Newspaper Collection, Center for Bibliographic Studies and Research, University of California, Riverside, <http://cdnc.ucr.edu>, accessed October 8, 2016.
Figure 48. Advertisement for Dr. Pitcher's Castoria. From the June 15, 1895, edition of the Marin County Tocsin newspaper (San Rafael, CA). Image in public domain, accessed via California Digital Newspaper Collection, Center for Bibliographic Studies and Research, University of California, Riverside, <http://cdnc.ucr.edu>, accessed October 22, 2016.
Figure 50. Advertisement for Paine's Celery Compound. From the October 10, 1896, edition of the *San Francisco Call* newspaper. Image in public domain, accessed via California Digital Newspaper Collection, Center for Bibliographic Studies and Research, University of California, Riverside, <http://cdnc.ucr.edu>, accessed November 1, 2015.
APPENDIX 3: NOTES

1 (Page 29) For a thorough biography of Leland Stanford, see Tutorow and Tutorow 2004.

2 (Page 30) The Sacramento mansion is now a State Historic Park; the 1906 earthquake seriously damaged the Palo Alto residence, and the subsequent fire destroyed the San Francisco mansion.

3 (Page 37) The 1897 water company report to the San Francisco Board of Supervisors listed a number of watchmen (including Duerst) and flume walkers (including Batchelder).

4 (Page 56) In fact there were now three lakes—Lower Searsville, Middle Searsville, and Upper Searsville—the latter two further upstream and much smaller than Lower Lake, which adjoined the dam.


6 (Page 152) Mark Twain famously declared that he did not smoke any cigar that cost more than five cents. More expensive cigars in Twain’s possession (costing up to $1.66 each) had been given to him. Instead of smoking them, however, he gave them to visitors (Letter to Rev. L. M. Powers, in Haverhill, Mass., November 9, 1905. Twain 1917, 784–85).
7 (Page 227) Less commonly, some sets ranged all the way up to 12 spots on each side. A set of “double-twelve” dominoes had 91 tiles (Montgomery Ward and Company 1895, 121).

8 (Page 232) Mark Twain’s 1869 book, The Innocents Abroad, satirized the ubiquity of domino-playing, with a protagonist who ended up playing more games of dominoes than actually enjoying the awe and splendor of a trip through the Mediterranean Sea:

"Friday— Morning, dominoes. Afternoon, dominoes. Evening, promenading the deck. Afterwards, charades.
"Sunday— Morning service, four bells. Evening service, eight bells. Monotony till midnight.— Whereupon, dominoes.
"Monday—Morning, dominoes. Afternoon, dominoes. Evening, promenading the decks. Afterward, charades and a lecture from Dr. C. Dominoes.
(Twain 1869, 636)

9 (Page 237) When a fire consumed a barn and winery buildings at E. F. Preston’s vineyard and ranch near Searsville, the Daily Alta California insinuated that blame might lie with “ten Chinamen” that Mr. Preston had hired to pick grapes; the Sacramento Daily Union, on the other hand, posited that the Preston’s hiring Chinese workers may have been a motivating factor for the arsonist (Daily Alta California 1887; Sacramento Daily Record-Union 1887).

10 (Page 240) China was by no means exclusively considered the historical origin of dominoes. Other contemporary accounts of the origin of dominoes variously credited their invention to the Greeks, Jews and other Middle Eastern cultures, and Italians,
particularly Benedictine monks (*Sacramento Daily Record-Union* 1896e; *San Francisco Call* 1909a; Palmer 1944).

11 (Page 266) Neither of these stories of doll violence featured a by-line, but some of the same characters appeared in a later edition of the *Junior Call*, in which the author was identified as Alice Latimer (1910).

12 (Page 298) The harmonica became a trans-Atlantic phenomena after an ambitious Black Forest businessman named Matthias Hohner began mass-marketing and mass-producing harmonicas in 1857. Over the decades following, yearly production rose to over a million harmonicas per year, a large number of which were sold in the United States (Gross 2014). Over the decades following, yearly production rose to over a million harmonicas annually per year, a large number of which were sold in the United States, and of those sold, most were Hohner harmonicas (Chelminski 1995; Field 2000, 26–27; Gross 2014).