THE INEVITABLE QUESTION IS COMING. I (K.L.) am standing in front of the California Indian Gallery in the Phoebe A. Hearst Museum of Anthropology on the Berkeley campus of the University of California. A group of undergraduate students from a section of the Introduction to Archaeology course is touring the exhibit. An earnest, but somewhat skeptical looking student, lags behind the others; all signs indicate she is about to launch the relevancy question. “I love all this great old stuff,” she gestures animatedly at the brightly colored baskets, soap root brushes, and strings of shell beads collected by ethnographers in the early twentieth century, “but what can you really learn by studying them?” She stops for a moment, adjusting the earpiece and volume of her razor-thin iPod, before continuing. “And what relevancy does studying Indians have for our lives in California today? I mean, this stuff is really ancient history.” Before I can find my voice to defend my lifetime efforts of studying this “old stuff,” she has turned her attention to her cell phone, on which she is retrieving a slew of text messages. It is going to be another long day on the Berkeley campus.

Ah yes, the relevancy question. This is not an isolated incident. Anyone who works with California Indian materials in classrooms or in public education programs has heard various permutations of this question many times before. Our experience suggests that California Indians are commonly perceived by the denizens of the Golden State to be historical anachronisms that have little relevancy in our fast-paced contemporary world. Museum specimens are all fine and good, but they refer to chapters in the state’s history that have little bearing on us today. This common perception is fueled by the widespread untruth that most, if not all, of the “real” Indians suffered extinction in the late eighteenth and nineteenth centuries, following their entanglements with Franciscan missionaries, Russian fur traders, Mexican ranchers, and Anglo-American settlers. Although disease, violence, and homelessness caused massive hardship for all
Indians throughout the state, especially during the dark decades of the 1850s through the 1870s, thousands of Indians did survive. After falling to a nadir of an estimated 16,000 to 17,000 in number in 1900, the population has rebounded to about 150,000 people who recognize their Native Californian roots. Furthermore, California boasts the largest number of federally recognized Indian entities for any state in the nation, a total of 108 at last count. In addition, a number of other tribal groups are recognized by state and local agencies but are not yet officially recognized by the federal government. But beyond an occasional visit to an Indian casino, most Californians have limited contact with contemporary Native people and remain largely ignorant of life within Indian communities across the state.

Another factor that has fueled this question of relevancy is an outdated perspective that many of us retain about traditional Indian cultures. Those of us who attended fourth grade in California schools probably built a sugar cube model of one of the 21 Franciscan missions and learned something about the interactions between the padres and Indians. But beyond that, our understanding of past and present Indian people may be pretty sketchy. Moreover, because most Native groups in what is now California traditionally practiced a lifestyle based on the exploitation of wild plants and animals for food, medicine, and raw materials, the general public has a tendency to view Native Californians as historical characters in a play that permanently closed more than a century ago. Portrayed as simplistic hunter-gatherers who foraged for what they needed in the bountiful environment of California, this view has perpetuated a negative stereotype of California Indians as rather primitive, dirty, un-inventive, and lazy people (see Rawls 1984). As pointed out throughout this book, nothing could be farther from the truth. But the stereotype lives on.

The truth is, the people of California have always been a little bit different—moving to the beat of a different drum. California Indians, in particular, have always been the exception to the rule. These Pacific Coast people do not fit any of the classic anthropological models devised to explain the evolutionary progression from simple, mobile hunter-gatherers to larger, sedentary, and more complex agrarian societies. In ethnographic summaries of historic hunter-gatherer peoples, they are either ignored or described as being anomalous compared to the more typical small
nomadic bands of foragers found in other nontemperate regions of the world (e.g., Lee and Devore 1968). Although technically they are hunter-gatherers, many Native California communities exhibited traits more typically associated with well-developed agrarian societies. That is, they enjoyed sizeable population densities, had relatively sedentary villages, amassed significant quantities of stored food and goods, and maintained complex political and religious organizations (fig. 1). We now refer to these kinds of groups as “complex hunter-gatherers” to distinguish them in the anthropological literature from the better known mobile foragers or “generalized hunter-gatherers.”

So what makes Native Californians so unique? For one thing, agriculture never played a significant role among California Indians. This is rather exceptional for complex hunter-gatherers worldwide, the majority of whom made the transition to an agrarian base and/or a herding economy in late prehistory. Consequently, the study of complex hunter-gatherers from other temperate regions of the world (eastern North America, Europe, Near East, Southeast Asia) is primarily archaeological in nature. Some scholars, in fact, suggest that the rise of agriculture may have taken place among complex hunter-gatherers in regions of relative abundance (Price and Gebauer 1995b:7–8; Smith 1995). Initially serving as dietary supplements among a broader range of foodstuffs, it is argued that these plant and/or animal domesticates eventually formed the nucleus of intensive food production practices. Most complex hunter-gatherers worldwide either

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Figure 1. Indian village near Yuba City by unknown artist in mid-1800s.
experimented with the domestication of indigenous plants and/or they eventually adopted foreign domesticates into their mix of hunter-gatherer strategies (see Habu 2004:117–118; Price and Gebauer 1995a).

Yet with the exception of the Southern Deserts Province, agricultural economies never took hold in Native California. Unlike Indian groups in eastern North America who grew “flood-plain weeds,” such as sunflower, squash, marsh elder, and chenopod (Smith 1995), there is little evidence in California for the widespread domestication of native plants. It is significant that most of the complex hunter-gatherers in eastern North America eventually adopted varying combinations of corn, beans, and squash into their economies. Some hunter-gatherers in the adjacent Great Basin and American Southwest also incorporated these foreign crops into their menus (Keeley 1995:262–263; Wills 1995), making these foods known to people in California through trade and population movements. But with the exception of groups along the Colorado River and adjacent desert areas, Native Californians made little use of them. Consequently, the study of complex hunter-gatherers in California can be based not only on a lengthy archaeological record, but a rich corpus of ethnographic studies, Native oral traditions, and Native histories and observations spanning to the present.

Another thing that stands Native California apart is its population. Even without the infusion of agriculture, California’s hunter-gatherers boasted population densities among the highest in any American region north of Mexico at the time of initial European colonization. None of this makes sense according to theoretical models about the rise of agriculture that are predicated on either population pressure or socioeconomic competition, or that view agriculture as an outgrowth of experimentation by complex hunter-gatherers in areas of diverse and rich food supplies (Hayden 1995; Price and Gebauer 1995b:7). Little wonder that at the annual meeting of the Society for American Archaeology when you tell other academic types that you work in California, they typically give you a quick look of pity before moving rapidly away to join colleagues working in less perplexing areas.

Tremendous linguistic and cultural diversity, which defies simplistic summaries or the pigeonholing of groups into the accustomed anthropological constructs, presents another unique
Map 1. Native Californian languages.
characteristic of Native California. One of the most linguistically diverse areas of world, it is estimated that somewhere between 80 to 100 Native languages were spoken about the time of European settlement—approximately 20 percent of all the languages articulated in North America (map 1). Most of the major stocks of North American languages are represented. As a consequence, anthropologists have defined and mapped a complex smorgasbord of ethnolinguistic groupings across the state. There is no surer way to initiate a mass exodus from a college course on California Indians than to require students to memorize ethnographic maps showing the location of these many varied groups.

What complicates the geopolitical landscape of Native California even more is that most of the day-to-day interactions of California Indians took place within polities (political communities) that were small in both spatial area and population size. Thus, what emerges in the study of California Indians is a crowded landscape packed with many modest-sized, semi-autonomous polities, each of which supported its own organization of elites, retainers, religious specialists, craft experts, and commoners. None of this fits neatly into the classic anthropological concepts of bands, tribes, chiefdoms, and states that have been employed to define other Indian groups across the Americas. The difficulty of making sense of the iconoclastic California Indian societies in light of mainstream models and concepts has certainly contributed to the marginalization of their study within the broader fields of North American archaeology and anthropology.

Our purpose in writing this book is to build upon the original work of Heizer and Elssaser (1980) to present a new synthesis of California Indians. The first part addresses why the Native people of the Golden State are different and why this should matter to us today. This front-end information is crucial for understanding the second part of the book—a guide to Indian uses of natural resources in the six provinces of California (Northwest Coast, Central Coast, South Coast, Northeast, Great Central Valley and Sierra Nevada, and Southern Deserts). In taking a fresh look at California Indians, our perspective is that rather than forcing them into models and concepts developed elsewhere, we should pay special attention to those cultural practices and organizational forms that make them different from other complex hunter-gatherer groups and agrarian societies. The seemingly
unique hunter-gatherer lifeways that developed in California may have much to contribute to our world today. This rethinking is based largely on a powerful resurgence now taking place among many Native Californian groups, in combination with recent insights provided by historical ecologists, anthropologists, ethnohistorians, and archaeologists. The renewed interest in California Indian histories, cultural practices, spiritual beliefs, languages, arts and crafts, and food ways is profoundly changing our basic understanding of the historical lifeways of our state’s first people.

This ongoing research is providing new insights about long-term interactions between California Indians and the environment. Rather than simply exploiting the richness of California’s many habitats, it is now generally recognized that indigenous populations helped create and shape much of the ecosystem diversity by means of various kinds of cultural activities and indigenous management practices that can still be seen today. By enhancing the productivity of grasslands, scrub stands, oak woodlands, conifer forests, and montane meadows, California Indians contributed to the construction of a rich network of habitats that provided a cornucopia of foods, medicines, and raw materials for clothing, baskets, houses, dance regalia, and other cultural objects. However, many questions remain about the degree to which Native peoples constructed anthropogenetic landscapes in California’s varied topographic and geographic settings, the kinds of techniques they employed to alter the environment, and the overall impacts they had on plant and animal populations.

Most recent perspectives on Californian Indian land-management techniques tend to equate them to agrarian methods employed elsewhere in North America, using concepts such as “protoagricultural,” “quasi-agricultural,” or “semiagricultural.” For example, Kat Anderson (2005:253) has recently argued that protoagricultural management practices employed in Native California “were the same as those utilized in early agriculture to increase yields of the edible parts of domesticated plants.” The basic idea is that California Indians practiced protoagricultural economies analogous, for most intents and purposes, to those employed by Indian farmers elsewhere in the Americas. The primary difference for Native Californians was that they were tending and cultivating wild (nondomesticated) crops.

What we propose in this book is an alternative perspective for
understanding the hunter-gatherer practices of California Indians and their interactions with the environment. What if California Indians practiced a very different kind of economy, one that was organized in a fundamentally different manner than those of advanced agrarian societies? And in providing a distinct alternative, what if Native California economies offered certain advantages over agrarian systems? In contrast to many highly developed agrarian societies whose members invest considerable labor per unit of area to grow a limited number of domesticates, we argue that Native Californians employed various strategies for enhancing resource diversity over the broader landscape. In this book we depict Native Californians as fire managers (or pyrodiversity collectors, to use the formal anthropological term), which distinguishes them from other agrarian-oriented people in Native North America. Employing this economy of diversification, we argue that Native peoples enjoyed considerable flexibility in choosing suites of plants and animals for exploitation across local regions, depending upon ever-changing environmental conditions and seasonal availability. Although fire management has certain limitations (as outlined later), overall it provides a more balanced menu with less risk and labor intensification than many contemporaneous Native agrarian programs that depended primarily on corn, beans, and squash. Furthermore, this kind of diversified economy has the capability of supporting relatively dense populations, complex political organizations, craft specialization, and sophisticated ceremonial systems.

In presenting a new synthesis on California Indians, we touch upon three major themes throughout the book that make the study of the cultural practices of California Indians and their interactions with the environment relevant to just about any person living in the Golden State today, especially skeptical students touring the amazing California Indian collections in the Phoebe Hearst Museum of Anthropology.

**Theme 1: Indigenous Landscape Management**

There is no question that California Indians modified the landscape to enhance the production of plant and animal resources. With the pioneering work of Lowell Bean, Henry Lewis, Thomas Blackburn, Florence Shipek, and others in the 1970s, the idea
that California Indians have been active agents in augmenting environmental productivity and diversity has been building steam. The most recent and fully articulated rendition of indigenous land management is outlined in Anderson’s (2005) seminal book *Tending the Wild: Native American Knowledge and the Management of California’s Natural Resources*, a comprehensive discussion of various methods of cultivation employed by California Indians, including pruning and coppicing selected plants, sowing seeds, weeding, prescribed burning, removal of debris from fields and tree groves, and so forth. She argues that it was through close encounters with the environment that Indian communities helped shape the composition and structure of local ecosystems, essentially creating and maintaining some of the state’s signature plant communities such as coastal prairies, valley oak savannas, and montane meadows.

But questions are now being raised about the degree to which California Indians actually shaped the local environment. Vale (1998:231) cautions that the former myth of the pre-Columbian wilderness in North America is being replaced with a new exaggerated one: “the myth of the humanized landscape,” in which Native people thoroughly modified extensive regions through fire management, cultivation, mound construction, building settlements, harvesting resources, and other such activities. Although he does not question some level of management of the land, Vale (2002) believes that only relatively small areas were typically impacted, and that natural, nonhuman ecological processes continued to shape large components of the environment. Similar points have been made about the vegetation of the Sierra Nevada and California chaparral habitats—that the basic composition and structure of these plant communities can be explained primarily by natural fire regimes, topography, precipitation, and so forth that had little to do with cultural practices of Native Californians (Bendix 2002; Parker 2002). These critiques point out the importance of critically evaluating the nature of the indigenous land-management practices that were employed across space and through time.

This debate is much more than just an academic exercise. In arguing that long-term human management produced, in large part, many of California’s coveted vegetation types, Anderson and others maintain that without the infusion of Native knowledge and practices, we are at risk of losing some of our precious
landscape resources in the long term. They make a strong case for employing indigenous management techniques to maintain or restore coastal prairies, oak parklands, wetlands, and so on. These scholars raise an important point for Californians to consider today. Should we employ traditional landscape practices, such as intentional burning, to maintain many thousands of hectares of grasslands, woodlands, and forests in public lands across California? This question has significant implications for how we manage our public land reserves in California today.

Theme 2: Sustainable Economies

There is considerable debate about whether traditional Native California economies represented a sustainable program of harvesting wild crops and animal populations that involved minimal environmental degradation over the long run. This view, advocated by Anderson, Bev Ortiz, and other researchers working with contemporary Native people, stresses various conservation practices and cultural rules employed by Indian harvesters. They firmly believe that these cultural conventions, handed down over countless generations, allowed Indian people to live in harmony with the environment. But this position is challenged by some archaeologists whose studies of faunal remains from prehistoric sites indicate that, in some times and places, Native people overharvested animal populations. These scholars argue that the elimination of some of the larger species of marine mammals, terrestrial game, and fishes from local regions forced Native hunters to broaden their diet to include small game and fishes and other sources of food. The implications that overhunting had on local environments over many decades or even centuries is not clear, but it certainly challenges the idea that California Indians were in perfect harmony with the natural world.

Evaluating this complicated debate is important for Californians today. There is much interest about the creation of sustainable economies that can produce food and other resources in an environmentally friendly way. Some of this work on renewable resources is focusing on alternatives to industrial agribusiness farming by stressing smaller-scale organic farms that feature polycultural practices of growing integrated systems of overstory (agroforestry) and understory plant crops, intercropping, natural pest control systems, nontoxic fertilizers and herbicides, and
low-flow irrigation systems. But other alternatives to agriculture may also exist for creating sustainable economies, ones that may be of interest to future populations of Californians. Are there lessons to be learned from California Indian pyrodiversity practices in developing such small-scale, sustainable economies that we can incorporate into our lives today?

Theme 3: Harvesting California’s Wild Resources

For thousands of years California Indians created regional economies for harvesting food, medicine, and raw materials from local plant communities and animal populations, and for producing objects from stone and clay. In the latter half of this book, we turn to the key resources that fueled the economic engines of Indian communities across different provinces of California. It is important to stress that cultural change and innovation has been an ongoing process in the state for many centuries, and that the tools, techniques, and practices underlining these economies continue to transform over time. Furthermore, Native harvesting economies are still employed across the state, with new innovations continually being introduced to collect and process resources.

Opportunities for many contemporary Indians to harvest foods, medicines, and basketry material are, however, becoming increasingly difficult with the continuing privatization of rural property and the implementation of various harvesting regulations on state and federal lands. This is another important issue for us to think about. Should Native Californians be allowed to continue traditional harvesting practices on public lands? Could these Indian harvesters play a more important role in the education of our state’s children by providing a better understanding of the diversity and bounty of California’s natural resources? And finally, should we be thinking more seriously about using the immense quantities of diverse wild foods and raw materials produced each year across California that remain largely untouched by humans? Given the high nutritional value of much of the wild foods, they could provide an important supplement to Indian communities and to some highly motivated and energetic non-Indian students and teachers.

So what about the relevancy question? We hope in writing
this book that we all can finally move beyond the question of relevancy and begin a broader dialogue within the state on some important and timely issues that concern California Indians and landscape stewardship practices, sustainable economies, renewable food sources, and the management of public lands. We can learn much about alternative ways of both protecting and using the rich natural resources of California by working with contemporary Native communities and by learning about past Indian cultural practices and lifeways through Native oral traditions, museum collections, archaeology, ethnography, and ethnohistory. In taking this perspective, we look forward in anticipation to the next time a student asks about the relevance of studying California Indian peoples and their material culture.