II

Indigenous Groups of Baja California and the Environment

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Traditional Management and Contemporary Perspectives[1]

> This I can assure you, the ancient ones never damaged a tree, no, never; they loved them as something very sacred. They would tell us not to go breaking the branches of the pines, not to play there, nor to climb up on any small tree, they said that they were almost just like humans; "They are watching us, they are taking care of us, they give us our food. Don't go around damaging them, don't be shouting, none of that," they would say, "take special care of them," for this reason we know very well that we must take care of these trees. Also the medicinal herbs, those they especially charged us to care for, we shouldn't just go out and cut for no reason, go out and cut them and throw them away to dry up, no. They told us many things, that we should even care for the rocks, just imagine! The rocks, the sand, the springs, the water flowing, all these things they said we must respect (Teodora Cuero, in Wilken 1997).

The words of Teodora Cuero, traditional authority of the Kumiai Indian community of La Huerta, reveal a practical sense of the interrelationships between humans and the environment. Like other members of Baja California's indigenous communities, Cuero has inherited a unique legacy of traditional knowledge about the management of natural resources developed over thousands of years of habitation on the Baja California peninsula. Much of this knowledge has been lost due to the forced acculturation and extinction of most of the native groups of the peninsula. But, a growing focus on the immense and complex body of knowledge that still exists among a few elders of the surviving communities promises to provide new insights into traditional forms of environmental management, as well as to guide current approaches to resource use.

Fortunately, many aspects of traditional indigenous knowledge about natural resources still exist among the surviving groups of the northern peninsula. This profound understanding of the natural world, developed through thousands of years of dynamic interaction with the environment, is perhaps one of the most important cultural resources of the indigenous communities—one that deserves much greater study while it is still possible. Given the growing recognition of the absolute necessity of sustainable resource use, it would be wise to pay attention to those who have already managed the natural resources of the region for thousands of years.

Gatherers-Hunters-Fishers of the Peninsula

> They say that back in the early times there was plenty of manzanita, barrel cactus, chia, pamita seeds, pine nuts, acorns, sweet acorns; all these things produced a lot and that's what people would gather to have food all year long. Certain times they would go down to the coast, to Eréndira, to the coast of Ensenada, and further on, wherever they could go along the shore to gather mussels and abalones, which they would also pack up to carry later for food. They would go down there in winter because it wasn't so cold and once the winter was over, in springtime they would come up this way (La Huerta) since they knew that there would be greens and all kinds of things to eat.

> From here they would head up to the mountains during the hot time of year to pick pine nuts, acorns, pamita seed, chia, and all those things. Once the pine nuts ran out, they would come back here and then back they go to the coast (Cuero, in Wilken 1997).

During the vast majority of the history of human habitation of the peninsula, native people exploited a variety of ecosystems in the course of yearly cycles of movement through specific territories. The pattern for the Kumiai ancestors of Cuero may have been typical for most indigenous groups of the peninsula: Gathering different plant foods represented the most important subsistence activities, while fishing, gathering shellfish, and hunting small and occasionally large game supplemented seasonally available plant foods. These gatherers-hunters-fishers were organized in small, highly mobile extended family bands that traveled in seasonal cycles over specific territory shared with other bands of the same clan, or *shimul*, as they were called in the peninsular Yuman territory (Laylander 1991).

While their exact route would vary from year to year depending on environmental factors—many plant resources are alternate-season bearing and wet or dry years may affect certain resources—the repeated use of specific areas over generations would logically lead to the selection of resource procurement strategies that either allowed those resources to survive or enhanced their populations. Paipai elder Benito Peralta and Kumiai elder Cuero echo the sentiments of many elders of Alta California when they say that in the old days, there were more wild foods (Wilken 1997), possibly a result of the decrease or abandonment of traditional gathering activities.

According to Gregorio Montes, whose mother, grandmother, and aunts are basketmakers in the San José de la Zorra Kumiai community, the harvesting of materials for the elaboration of baskets actually stimulates greater production of the resource:

> The most important of the hand crafted products that we make are the juncus and willow baskets. The juncus material is found in areas where there is water, where the earth is moist, from these places the plant is extracted when the moon is full to give it greater strength and flexibility when it is worked; this benefits the plant because it

> reproduces more. The willow also gets cut and often one thinks that it has been destroyed, but that is not the case because it actually helps it, it is pruned and it develops more within a certain time (Montes, in Wilken 1997).

One management strategy for the harvesting of medicinal herbs is explained by Cuero:

> We want the medicinal plants, the trees and all these things to continue, so, for example, when you pick a plant, you only pick this side, the north side. Not over here or over there, only the northern side. Also if it is the root of the plant you want to cut, you also just take the northern side (Cuero, in Wilken 1997).

It may be hard for many non-natives to understand what it means to live in a place where one's ancestors have lived for thousands of years. For many indigenous people, it is hard to understand why government policies prohibit them from using resources like pine nuts, which have been successfully managed by their people for thousands of years. Native peoples' relationships with the land and its resources have little in common with Western concepts that treat land and its resources as a commodity from which the greatest possible immediate profit should be extracted. The cultural legacy passed on from the ancestors and the expectation that one's offspring will continue to live on the same land create a unique perspective among indigenous groups. Agustin Dominguez, cultural authority of the Kumiai community of San Antonio Necua, expresses this philosophy through the metaphor of gathering honey:

> The mestizo (someone of non-Indian or mixed heritage) comes and since he's not from here he says, "I'll take everything and leave them with nothing." But one who lives here says, "I'll take a little bit and come back another day, next time I'll take a little more." But not the mestizo, he comes and doesn't care since he's not from there, he says, "I'm going to take it, I won't be coming back so I'll take it all." That's the way it is (Dominguez, in Wilken 1997).

Bernabé Meza, commissioner of San Antonio Necua, emphasizes the responsibility to protect the land and its resources for future generations:

> We like for there to be plenty of trees, since they attract the rain, the water, and so on. We only cut what we need for ourselves. For example, if we need one hundred posts, we cut one hundred posts and no more, we don't knock them down just to knock them down, no. That's why we're always taking care of them, we don't allow people from outside to come and cut down all our trees. If we don't take care of them, who will? (Meza, in Wilken 1997).

Native communities often face special difficulties, primarily economic, in obtaining the permits necessary to make legal use of their natural resources, or they lack information and capital for the resources' most advantageous and appropriate use. While many new forms of exploitation of resources may have negative impacts on the environment, traditional forms of harvesting may mitigate that impact, as in the case of juniper post harvesting as explained by Eufemio Sandoval:

> About forty years ago we started to harvest juniper posts, however the government has recently prohibited the exploitation of these resources, arguing that because this is an endemic species protected by law, the Indians must no longer cut posts even if we starve to death. In other words, the reality is that they take away a source of income and give us nothing as an alternative. Let me say that I agree that we must protect nature, but it should be truly protected. If we Indians have exploited juniper posts, we can say that when we began to exploit it we had ten thousand hectares of juniper, and we still have that same amount since we have never cut the plant to the root, but rather it has been a form of pruning that we carry out. We just take what is useful as a post and leave the rest to keep growing and developing. Not so in our neighboring ejido (communal land grant towns) communities; with the pretext that the plants took up space in

> the areas where they wanted to plant crops, they destroyed huge tracts of juniper (Sandoval, in Wilken 1997).

Unfortunately, the urgent necessity for communities to survive in a modern market economy creates new economic pressures that may be directly related to the degradation of the environment. For example, the lack of capital needed to process natural resources and market them as value-added products means most communities end up selling their products as raw materials for low prices. One of the cheapest forms of using available resources is through free-range raising of livestock; however, when not carefully managed, the land used for this purpose has been overburdened and that has resulted in accelerated erosion and other forms of environmental degradation.

There is clearly a need for funding through government agencies, foundations, or U.S. indigenous communities for community-based projects designed to promote value-added forms of sustainable resource use. Baseline studies carried out in conjunction with the communities themselves would help identify the most appropriate and promising activities and would establish important links with universities, governmental agencies, non-governmental organizations, other indigenous communities, and other potential partners. Training and empowerment of indigenous community members in the carrying out of sustainable development projects and the development of the necessary infrastructure for strengthening the role of regional indigenous organizations are critical to the long-term success of this process.

For the anthropology of Baja California, there is a clear need to re-evaluate historical concepts of indigenous populations and cultures of the peninsula through an interdisciplinary approach combining archaeology, ethnography, physical anthropology, linguistics, history, environmental studies, and biology, among other areas. There are also urgent needs to find funding for interdisciplinary projects bringing together indigenous elders with ethnologists, biologists, and linguists to rescue invaluable traditional knowledge about natural resource management while it is still possible, and to apply this information for the benefit of the indigenous communities.

> Let's hope that somehow those who hear these words will pay special attention to our native communities, and look for a way that we can use our natural resources to create sources of employment, so that in this way we Indians can live peacefully (Sandoval, in Wilken 1997).

Environmental Concerns of the Indigenous Communities of Baja California

Juntas de Nejí (and Peña Blanca)

The Kumiai community of Juntas de Nejí is the northernmost of the indigenous communities of Baja California. Located within the municipality of Tecate, Nejí is divided geographically into two separate polygons, both of which lie relatively close to the international border and within the Tijuana River Watershed; they have a combined total of 11,590 hectares. The clans of Nejí have historically shared close familial and linguistic ties with the Kumeyaay (or Tipai) groups of southern San Diego County, such as Campo and Jamul. Bordering on the western polygon of Nejí is the traditional Kumiai settlement of Peña Blanca, an unofficial neighboring settlement to Nejí that is not recognized by the Mexican government. Nejí's mountainous terrain includes wide areas of high chaparral, oak woodlands, granitic outcroppings, and in some areas pines, Tecate cypress, and other flora indicative of the transition to the higher altitudes of the adjacent sierra. Water sources are scarce, usually consisting of small springs or shallow wells; these are used for both drinking water and limited gravity-fed irrigation.

Most of the inhabitants of Nejí have moved to Tecate, Valle de las Palmas, El Testerazo, El Hongo, or the larger urban areas to seek employment. Although, many of them maintain contact with their community and express interest in returning to live if work were available. The few remaining inhabitants make a modest living through subsistence agriculture, cattle ranching, and other seasonal labor in neighboring *mestizo* (non-Indian or mixed heritage) communities.

Erosion is perhaps the most severe environmental problem for Nejí, especially in the eastern polygon where large-scale grazing by animals from neighboring ranches has caused serious soil and foliage depletion within the watershed. Water quality and quantity also represent serious challenges, since none of the existing settlements has any kind of water system more sophisticated than hand-dug water collection basins. A few of these have cemented retaining walls but none have effective lids, seals, or other protection. Residents have been advised to boil or otherwise treat their water, but they usually drink the water untreated because, they claim, they are used to it.

All of the settlements in the community are located far from the highway and are accessible only by dirt roads in poor condition. Acorns are one of the most important natural resources used in the area of Nejí. Residents also depend on other wild foods and medicinal plants in addition to occasional hunting as part of a diversified survival strategy. Although a tradition of juncus and willow basketry production once existed in the area, there are currently only a few women occasionally producing baskets.

Land tenancy is a serious issue for Nejí because of its limited population base, and even more so for Peña Blanca because of the lack of land tenancy documents. Both communities are undergoing invasion by squatters and encroachment by neighboring *ejidos*. One informant of Peña Blanca commented that members of a neighboring *ejido* interested in claiming the land for their own use have tried to destroy archaeological sites and any other cultural resources that might strengthen the Kumiai families' rights to the land. One of the most valuable resources for Nejí is the natural beauty of the landscape and its sense of remoteness, even though it is actually the closest community to the metropolitan areas of Tijuana and San Diego.

San José de la Zorra

This community of 14,440 hectares in the municipality of Playas de Rosarito is centered in San José, a small, remote valley located about halfway between the former mission site of San Miguel on the Pacific Coast and the Valley of Guadalupe, also a former mission site but today Mexico's most important wine-producing region. La Zorra, another traditional settlement now occupied by neighboring

ranchers, is another small valley a few miles northwest of San José. As in most communities, residents' ranches are often spread out over a wide area, wherever permanent water sources exist. The lower altitude and relative proximity to the coast combine to create a mild climate where oak woodlands, chaparral, and grasslands come together. A limited amount of agriculture—for the most part dry farming along with some irrigated crops—has been carried out since the early part of the century. However, livestock grazing has also driven the local economy, as evidenced by visible erosion of the main arroyo. Large areas of topsoil adjacent to the arroyo were washed away during the storms of the early 1980s, along with an earthen dam that had been built there. Very few seedling willows, sycamores, or oaks can be observed, probably because of hungry cattle. Those trees that still stand are almost all older. Erosion has also been increased by the clearing of native shrub cover from large tracts of land for planting.

Wetlands plants such as willow, salt willow, and juncus are particularly important in this community, since they are the raw materials from which artisans produce a variety of forms of elegant basketry. The increasing demand for Kumiai basketry has become a major force in the local economy, where a large percentage of the local residents now depend to some degree on the income generated by this traditional activity. Unfortunately, the changes in the main arroyo have affected this emerging cottage industry. Artisan Gloria Castañeda noted that the materials necessary for making baskets are becoming increasingly difficult to acquire. "We have to go further and further away to find our materials," she said. Fortunately, through a collaboration with the Kumeyaay community of Campo, Calif., and the Instituto de Culturas Nativas de Baja California (CUNA), a wetlands restoration project in the main arroyo is currently underway, one goal of which is to reestablish basketry plants.

The existing water infrastructure in the community is the result of different projects carried out over the years, many of which were never completely finished. Water quality testing carried out in five indigenous communities in 1996 found the water in San José's school yard well to be the most highly contaminated of all samples taken. This may be indicative of nearby septic fields or cattle dung residue leaching into the water table, as well as the lack of a well-

sealed cover. The San José Valley appears to have great agricultural potential, but groundwater levels and quantities have not been reported.

San Antonio Necua/Cañón de los Encinos

Nestled into a northeastern nook of the Guadalupe Valley, this community of 6,262 hectares lies on the outskirts of Mexico's prime wine-producing region and at the base of a series of mountain ranges, including the prominent Sierra Blanca, which provides an important source of water for the community. The original settlement of San Antonio Necua at the base of the mountain and other traditional settlements, such as Jamatay, were slowly abandoned as residents moved down to the Cañón de los Encinos (Oak Canyon), on the edge of the wide Guadalupe Valley, to be closer to employment opportunities. Necua is the only indigenous community of Baja California to enjoy the benefits of water systems, electricity, and other services. Although its dirt roads are sometimes impassable during the rainy season, Necua is the most accessible of all the communities most of the year.

Necua's main water infrastructure consists of several kilometers of low-quality pipe leading from springs to two water storage tanks just above the community. From these, water is provided by gravity to residents. Many complained of water shortages during dryer times of the year. Because the community's drinking water system and irrigation system currently depend on the same source, the large amounts required for raising alfalfa tend to overtax the system. The community's location near a major watercourse, the Guadalupe River, has little benefit for the community itself because the city of Ensenada maintains a series of wells in the vicinity that displace large amounts of water for municipal use. Local wineries also use large quantities of water for irrigation, resulting in the creek now being dry for most of the year (there have been no studies to measure the combined effects of this large-scale pumping).

Grazing of livestock plays an important economic role in the community, where animals are maintained both in confined areas and on an open range. The impact of this grazing is unknown; however, as in most communities, the evidence of accelerated erosion in areas of intense grazing can be easily observed.

One resident expressed concern about reduced numbers of deer, citing illegal poaching as a cause for concern. As in other communities, local residents wished to be able to monitor their own faunal resources, protecting them from poachers, keeping track of the animals' numbers and movements, issuing any permits, and serving as guides if any hunting should be carried out.

La Huerta

The southernmost of the Kumiai communities, located on the eastern edge of the great Ojos Negros Valley and at the base of the Sierra Juárez, this community's 6,268 hectares include fertile soil and plentiful springs, giving it the rich agricultural potential its name, La Huerta, or the orchard, suggests. In the past, when indigenous groups were more mobile, the site of La Huerta represented an important encampment in the yearly migration from the coast up to the mountains. Many Huerteños also remember the tradition of cultural and economic exchanges with the Cucapá, who came up from the Colorado River Delta region every summer and created a link with other groups of the Colorado River region and beyond.

Several small family orchards currently exist, but most residents' subsistence strategies revolve around livestock ranching or otherwise working as day laborers on neighboring ranches or in the agricultural fields of the Ojos Negros Valley. Some residents also gather local natural resources such as herbs, jojoba, and wildflower seeds for sale to Mexican or U.S. intermediaries. As in other indigenous communities, many traditional foods, such as pine nuts and acorns, have, for the most part, become inaccessible to Huerteños, because the traditional gathering areas have become the property of neighboring *ejidos*. Even when they grant permission to collect, government regulations make it practically impossible for rural Indians to acquire the expensive permits necessary to gather legally.

Although the community has several springs and a major water source—El Barbon River—water distribution systems for both domestic use and irrigation are inadequate and poor water quality is a persistent problem. Existing water infrastructure, including pipes and collection wells, is badly in need of repair and expansion to meet the needs of the growing community. Residents report a worsening situation, with water visibly full of dirt. This same water is currently used for both drinking and irrigation. An unfinished Rotary Club fish pond project has also affected the water situation and the general viability of the project remains to be proved.

Erosion has affected many parts of the community, possibly due to extensive grazing both within the community and further upstream in the same watershed. Logging and other activities upstream in the watershed may also be factors. Parts of La Huerta's land base, and particularly a sacred site including hot springs, are threatened by encroachment from neighboring *ejidos*.

Santa Catarina

The nucleus of this community is centered around the former Dominican mission site of Santa Catarina, with outlying ranches concentrated in the western section of the 67,828 hectares of high plain, mountain, and desert terrain that belong to the Paipai[2]. The community was first formed as a permanent settlement in 1797 when the Dominican order established a mission on a small knoll overlooking a wide valley near a permanent stream. The Dominicans attempted to place members of the southern Kumiai and Paipai groups into a permanent settlement based on an economy of agriculture and livestock. Although the mission system failed and the Santa Catarina mission itself was destroyed in 1840 by an alliance of Indian groups, agriculture and livestock have remained an important part of the Paipai subsistence strategy, as have wage labor and use of natural resources.

Following the destruction of the mission, the community moved several kilometers downstream to San Miguel, where a broad, fertile plain provided excellent farmland until the 1950s. At that time,

"floods washed away the topsoil, the plain filled up with sand, and the water went underground," according to Paipai tribal member Benito Peralta.

The community moved back up to the area around the former mission site, where it has remained. A limited number of crops are still planted in the San Miguel area. Many permanent or seasonal ranches are also found around other permanent streams or springs throughout Paipai territory.

Raising livestock has long been an important economic activity for the Paipai, especially since the large amount of territory and its division into higher and lower altitudes conveniently allows for winter and summer grazing. Agriculture has, for the most part, been carried out at individual family ranches or parcels, as well as in sporadic attempts at larger-scale projects at San Miguel and on the wide plain adjacent to the mission site. The clearing of natural vegetation at this latter site has been blamed by residents for the accelerated erosion of the community's main stream, where much vegetation and topsoil has been lost, the stream bed has deepened, and sand has filled the wash.

Other examples of soil erosion were also mentioned by residents. "Nowadays, when it rains hard, it opens up great big cracks in the ground. That didn't used to happen," Peralta said (Wilken 1997). The impact of grazing needs to be carefully studied, since much of the erosion in the community follows the typical pattern of environmental degradation caused by overgrazing.

Elders also commented on long-term climate change. "Winter rains used to come in October, now they might not come until December. The summer heat seems to burn more, we have seen plants like manzanita dried out by the heat. Many of the wild fruits no longer produce like they used to," Peralta said (Wilken 1997).

A growing number of artisans in the community generate a significant amount of income by making traditional paddle and anvil coil pottery. They gather clay from specific deposits, usually locations associated with specific families. Currently, clay is gathered in relatively small quantities by hand.

Natural resource management is a critical issue for the Paipai. Access to resources such as *palmilla (Yucca schidigera)*, juniper, and pine nuts depends on the ability of the Paipai to pay for expensive

permits—and the environmental impact study required to obtain the permit alone costs between $10,000 and $20,000. Traditional management techniques often mitigate the impact on resources, but as use shifts from personal consumption to commercialization, studies are needed to determine the expanded impact of larger-scale production.

San Isidoro

The smaller of the two Paipai communities in terms of both population and land base, San Isidoro's 25,718 hectares extend from the western edge of Trinidad Valley down the Río San Antonio watershed toward the coastal lowlands. Most members of the San Isidoro community live outside their boundaries in the area of Los Pocitos (natural hot springs) or in Trinidad Valley, since there is no work within the community. Some Paipai have sold their land rights to non-Indians, resulting in changing demographics and an uncertain future.

Water testing has not been carried out in this community, so water quality and quantity issues cannot be determined. Because the community has had few residents and only minimal agricultural and livestock projects, the environmental impact has also been minimal. There are several areas with wide plains and sufficient water for agricultural development, but major projects have not been carried out for lack of capital and technical assistance.

San Isidoro has a variety of ecozones within its territory and, consequently, a diversity of natural resources. Currently, members of the community are seeking permits to use *palmilla (Yucca schidigera)*.

Ejido Tribu Kiliwas

The southernmost of the surviving indigenous communities of the peninsula, the Kiliwa community is located at the base of the Sierra San Pedro Martyr and east of Trinidad Valley. The 26,910 hectares of Kiliwa territory extend into a low desert region, crossing Mexico Highway 3. Most Kiliwa today live around Arroyo León or in outly-

ing ranches, although some also live in nearby Trinidad Valley, where there are more job opportunities in addition to water, electricity, and other services.

Survival for the Kiliwa requires a diverse subsistence strategy, including such aspects as small-scale agriculture (mostly on individual ranches), raising livestock, harvesting *palmilla* and jojoba seed, collecting honey, producing handcrafts, and working as wage laborers on neighboring cattle ranches or in the fields of Trinidad Valley. As the smallest remaining indigenous group of Baja California, the survival of the Kiliwa is a serious issue for biodiversity in the region, since this population and their traditional knowledge about the uses of their abundant natural resources are the result of thousands of years of adaptation to specific local environments. The disintegration of the community resulting from the lack of economic opportunities within it make the need for sustainable economic development alternatives all the more urgent.

El Mayor Cucapá

The Cucapá originally occupied much of the lower delta of the Colorado River and surrounding desert areas. Today, the Cucapá live primarily in the settlement of El Mayor Cucapá, while their U.S. relatives, the Cocopah, live primarily in Somerton, Arizona. El Mayor is located on Mexican Highway 5 about 56 kilometers south of Mexicali. The Cucapá land base is the most extensive of all the indigenous communities of Baja California, totaling 143,000 hectares, but much of it is parched desert lacking the potential for agricultural or livestock activities. A large part of this land is the usually dry bed of the Laguna Salada, which has been greatly affected by fluctuations in the quantity and quality of water flowing in from the Colorado River. In years when sufficient water is released upstream, the lake fills and the Cucapá are able to practice traditional fishing activities. However, contaminants either from the river itself or from toxic waste dumped within the watershed have affected fish and the degree of stagnation—which is caused when fresh water no longer flows into the lake. These conditions, on occasion, have caused large numbers of fish to die.

Due to the proximity of Mexicali, illegal dumping of toxic waste has been a problem. A site where "the earth was burned and turned spongy" was described by residents as being located in a part of the watershed that feeds into the Laguna Salada. Although the site was reported to authorities, it has never been remediated. There also appears to be no plan for clean up of hazardous materials that might be spilled onto Cucapá land as a result of a highway accident.

El Mayor does have basic water and electric services, but water quantity and quality are serious concerns. Water testing is needed to assess quality issues. Currently, water is provided to homes in the community, but quantities necessary for irrigation are not available without major water infrastructure improvements such as the drilling of wells and installation of pumps and distribution systems.

Economic activities include fishing, handcraft production (primarily beadwork, bark skirts, and other traditional arts), wage labor in neighboring communities, tourist services, and use of natural resources such as sand and stone.

Working with Tribal Governments: Basic Guidelines for Access to the Native Indigenous Communities[3]

While each community may have specific guidelines for appropriate formalities for approaching them or their members, the following guidelines may be a useful orientation for organizations or individuals interested in collaborative projects or providing assistance for the communities. The first recommendation for those who are interested in working with or visiting the communities is to be very clear about intentions in seeking access to the indigenous groups, whether the objective is to collaborate in the building of houses, schools, public buildings, and other infrastructure projects; to propose economic development projects; to suggest a cultural exchange program or offer support through scholarships or language support programs; to learn about cultural traditions; to study techniques of environmental management; or to carry out some other kind of study. It should be noted that there are several organizations already working in many of these areas, some more effectively than others.

Researchers interested in working with tribal governments should begin by finding out which projects are being carried out in the specific area of interest, and learn from those who already have experience working with the communities.

Research Projects

Each discipline of the social sciences (anthropology, ethnography, sociology) or audiovisual media has its own specific methodological recommendations and ethical considerations to be followed in any research project. Any responsible researcher should be thoroughly aware of and follow them. In the case of projects with indigenous communities, specific considerations should also be pointed out. Ethical field work methodology includes having the permission of tribal cultural consultants (and when appropriate, of the community itself) before undertaking research and ensuring that all involved understand the eventual uses of the material to be gathered and/or published; giving credit to all informants and/or granting anonymity when requested; and never publishing photographs, videos, sound recordings, or other cultural resources without the permission of the subjects.

Some researchers have carried out interviews and field research for decades without any direct benefit to individuals or communities. Community members cannot know their own history and culture better through these studies if none of the information is returned to them. Researchers should always be sure to leave copies of their work with those members of the community who participated in the research, as well as with the appropriate tribal political, cultural, and educational authorities. It is also the researcher's responsibility to avoid needless repetition by reviewing the existing literature before undertaking field work. Teachers interested in taking students of any age to communities for purposes of carrying out field work are responsible for ensuring that students understand and follow principles of ethical field work.

Many people have taken photographs and videos of the communities without giving copies to them so that they might have a record of their own history. It is recommended that something be

given in exchange for research information, be it economic compensation for interviews, books or other products of research to the schools, or skills or services useful to tribal consultants.

First Steps: Humanitarian Aid or Visits

Researchers should first specify the targeted community. Support is generally scarce, which is why supporting only one community at a time is recommended, as this usually yields the most effective experience. Preference should be given to the communities with the most need, and within these, the families with the fewest resources, taking into special consideration the needs of both children and adults.

Next, make an introductory visit or send a letter to the elected chief of the community explaining the purpose of the project or visit, clearly including the intentions, scope, limitations, proposed dates, number of participants, and who will benefit. This information will allow the chief to offer his opinion and suggestions, and if the proposal seems feasible, it could result in an invitation to the next town meeting for an in-person direct explanation of the proposal for the assembly, where permission to proceed may be broached.

For the meeting, it is recommended that the place, date, and time be clearly specified. Information should be left in order to communicate with the chief in case of some change of scheduling or plans. Only La Huerta and Santa Catarina have rural telephones; the rest depend on the radio network (which is not always working) through the Comisión Nacional para el Desarrollo de los Pueblos Indígenas (CDI). Usually, those who have come from outside the community will be placed at the beginning of the agenda, as a courtesy, so it is important to be punctual. Written information explaining the project should be left in the community and a response should not be required immediately. Usually, community members are hesitant to comment directly in the meeting and need to talk over the proposal in private. Once the visitors have finished their presentation and left, the community will be able to continue their meeting, which may be lengthy and involve internal affairs. Once researchers' participation has finished, they should offer thanks to the community and retire from the assembly. Do not stay in the meeting unless invited to do so.

In general, meetings in the communities are held monthly or bimonthly, usually one of the last weekend days of the month. Since the meetings require the notification of members and may be affected by weather, it is a good idea to try to obtain up-to-date information upon initiating a project from the appropriate public or private agencies.

Visit/Project Begins

Between the time permission is granted and the project begins, reminders should be sent to the community detailing when the project is to be carried out. In some communities, due to internal divisions, only some of the community members may receive information about the visit, resulting in benefits to some and not others. For this reason, it is important to ensure information about the time, place, and purpose of the visit reaches the largest number of people possible.

If the donation for the community is food, it is important to have previously requested a basic census of families from the chief, and to have organized the donation in separate packages for each family. As each family receives its package, they may be asked by a tribal or school official to sign for it. While this process may sound overly complicated, it has been developed by the communities as a way of ensuring equal distribution and avoiding conflicts. It is also recommended that a list of preferred food items be obtained from the tribal authorities, and that the list be respected, rather than substituting foods of one's own preference. In the case of used clothing, it should be organized by age and gender (women's/men's/girl's/boy's); try to make sure it is practical clothing for people living in rural communities.

For student scholarships, the professor or school director of the community should be contacted so they can provide the number, names, and ages of the students and suggest who would be the most appropriate candidates or how the funds should be distributed in the case that the amount is limited. Scholarships for secondary and high school are badly needed. None of the communities has these services—students must travel to nearby towns such as Guadalupe Valley, Ojos Negros, Trinidad Valley, Tecate, or Ensenada.

Endnotes

[1] This paper was condensed from the article *Natural Resource Management among Indigenous Groups of Baja California: Traditional Practices and Contemporary Perspectives,* in Baja California Indigena Symposium VI Papers, Instituto de Culturas Nativas de Baja California (CUNA), Ensenada, Baja California, 1997.

[2] Jamau, a large part of Paipai territory to the east of the present community, has been taken over by neighboring ranches that have managed to acquire a presidential proclamation deeding them the title.

[3] This section was excerpted from Kilpatrick, Alan, Michael Wilken, Michael Connolly, Mario Alberto Magaña Mancillas, and Javier Ceseña. 1998. "Indian Groups of the California-Baja California Border Region: Environmental Issues." Southwest Center for Environmental Research and Policy project #IT97-1. http://www.scerp.org.

References

Alvarez de Williams, Anita. 1987. "Los cucapá en su medio ambiente." *Estudios Fronterizos*, Revista del Instituto de Investigaciones Sociales, Universidad Autónoma de Baja California. Year five, 5(14) Sept.–Dec. 1987.

Anderson, Kat. 1993. "Native Californians as Ancient and Contemporary Cultivators." In *Before the Wilderness: Environmental Management by Native Californians*, Thomas C. Blackburn and Kat Anderson, eds. Menlo Park, Calif.: Ballena Press.

Aschmann, Homer. 1959. *The Central Desert of Baja California, Demography and Ecology.* Berkeley and Los Angeles: University of California Press.

Baegert, Juan Jacobo. 1989. *Noticias de la Península Americana de California.* Serie Cronista 3, Gobierno del Estado de Baja California Sur, La Paz.

Bendimez Patterson, Julia. 1987. "Antecedentes históricos de los indígenas de Baja California." *Estudios Fronterizos*, Revista del Instituto de Insvestigaciones Sociales, Universidad Autónoma de Baja California. Year five, 5(14) Sept.–Dec. 1987.

Blackburn, Thomas, and Kat Anderson. 1993. "Introduction: Managing the Domesticated Environment." In *Before the Wilderness: Environmental Management by Native Californians*, Thomas C. Blackburn and Kat Anderson, eds. Menlo Park, Calif.: Ballena Press

Clavijero, Francisco Javier. 1937. *The History of [Lower] California*. Translated and edited by Sara E. Lake and A. A. Gray. Palo Alto, Calif.: Stanford University Press.

Del Barco, Miguel. 1973. *Historia Natural y Crónica de la Antigua California*. México, D.F.: Universidad Nacional Autónoma de México and Instituto de Investigaciones Históricas.

Echinique March, Felipe. 1991. "Sociedades prehistóricas o históricas en las Californias. Ensayo de un momento de su historicidad." *Estudios Fronterizos*, Revista del Instituto de Investigaciones Sociales, Universidad Autónoma de Baja California No. 24–25.

Gómez Cañedo, Lino. 1969. *De México a la Alta California, Una Gran Epopeya Misional*. Editorial Jus. México.

Kilpatrick, Alan, Michael Wilken, Michael Connolly, Mario Alberto Magaña Mancillas, and Javier Ceseña. 1998. "Indian Groups of the California-Baja California Border Region: Environmental Issues." Southwest Center for Environmental Research and Policy project #IT97-1. http://www.scerp.org.

Laylander, Don. 1991. "Organización comunitaria de los Yumanos occidentales: una revisión etnográfica y prospecto arqueológico." *Estudios Fronterizos*, Revista del Instituto de Investigaciones Sociales, Universidad Autónoma de Baja California No. 24–25

Lewis, Henry T. 1993 "Patterns of Indian Burning in California: Ecology and Ethnohistory." In *Before the Wilderness: Environmental Management by Native Californians*, Thomas C. Blackburn and Kat Anderson, eds. Menlo Park, Calif.: Ballena Press.

Michelson, Ralph. 1974. "Ethnographic Notes on Agave Fiber Cordage." *Pacific Coast Archaeological Society Quarterly* 10(1).

Michelson, Ralph, and Mary Kay Michelson. 1979. "A Piñon Harvest by Pai-pai Indians." *Pacific Coast Archaeological Society Quarterly* 15(1).

Owen, Roger. 1963. "The Use of Plants and Non-magical Techniques in Curing Illness Among the Pai-pai, Santa Catarina, Baja California, Mexico." *America Indígena* 23(4).

Roberts, Norman C. 1989. *Baja California Plant Field Guide*. La Jolla, Calif.: Natural History Publishing Company.

Sales, Luis de. 1960. *Noticias de la Provincia de las Californias 1794*. Madrid: José Porrúa.

Shipek, Florence. 1991. *Delfina Cuero*. Menlo Park, Calif.: Ballena Press.

Shipek, Florence. 1993. "Kumeyaay Plant Husbandry: Fire, Water and Erosion Control Systems." In *Before the Wilderness: Environmental Management by Native Californians*, Thomas C. Blackburn and Kat Anderson, eds. Menlo Park, Calif.: Ballena Press.

Tellez, Duarte, and Luis Manuel Guzmán Muñoz. 1995. "A Preliminary Report on the Consumption of Mollusks at a Shell Midden Site of Bajamar, Baja California." *Baja California Indigena Symposium Papers*. Ensenada: Instituto de Culturas Nativas de Baja California.

Timbruck, Jan, John R. Johnson, and David D. Earle. 1993. "Vegetation Burning by the Chumash." In *Before the Wilderness: Environmental Management by Native Californians*, Thomas C. Blackburn and Kat Anderson, eds. Menlo Park, Calif.: Ballena Press.

Wilken, Michael. 1980. Field notes. Santa Catarina, Baja California, Mexico.

Wilken, Michael. 1997. Interviews with native Baja Californians as part of study "Indian Groups of the California-Baja California Border Region: Border Environmental Issues," for the Southwest Center for Environmental Research and Policy (SCERP). Unpublished.