Tahoe National Forest

Cultural Resources Overview

Part II: Ethnography

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the Nishinam name every camp, spring, flat, prominent hill, river, etc., but they seldom use the name of a camp or village, as others do, to denote the inhabitants of it. (Powers 1976b:314).

Distant villages were referenced by the four cardinal points.

The ending "kau wi" was used by the Indians about Nevada City to indicate "land or country of.....".

KO MO WIN KAU WI -- The country of the South of Nevada City
TAI IM KAU WI------ " " " West " " "
TO SIM IN KAU WI -- " " " North " " "
NO TO WIN KAU WI -- " " " East " " "
(Littlejohn 1928b:80)

The principal Maidu/Nisenan ethnographers list settlements along the Yuba, Bear, and American Rivers. Site specific information is found in Littlejohn (1928) and Riddell (1972) for the Hill Nisenan. Littlejohn provided the most relevant information, citing specific occupation areas within the Tahoe National Forest. Riddell's information applies to the Auburn area.

From the information elicited from consultants in the Auburn-Colfax-Nevada City areas, Littlejohn (1928a:41-79) listed 50 settlements and 20 place names. Settlements ranged from small camps to large villages that were considered areas of influence, or tribelet centers.

Some of the Nevada City settlements listed in the Grass Valley-Nevada City area include: Tetema, a sizeable village in Nevada City, Waukaudok, another large village several miles west of Nevada City, and Sipony, located a few miles east of Grass Valley. (Littlejohn 1928a:56).

South and east of Waukaudok was Ustema, the central village site of the Nevada City tribelet (Kroeber 1925:394, Plate 37). Ustema was located in Nevada City near Cement Hill Road. According to a consultant of Gardner (1978:308), Ustema consisted of three villages. Prior to the influx of goldseekers in the 1850's, the Indians lived near the Nevada City courthouse and were then pushed out to the Cement Hill area. Belle Douglas elaborated further on the Nisenan living in Nevada City:

A century ago, Nevada City, unnamed and unknown, was the peaceful home of various tribes of the Red Race; fourteen camps existing within a radius of two miles. Two of the larger settlements housed about 1700 Indians who were believed by some....to be a branch of the Midos (sic) tribe....later when a white settlement was established, the nearest of these were proud to style themselves the Oustomahs; the Indian word for the "town" adopting this title by right of their close proximity to the present city of Nevada (Belle Douglas 1960).

Other large villages listed by Littlejohn (1928a:56-57) include: Papuk on Banner Hill; Yulichar near Newtown; and settlements in Penn Valley, Pleasant Valley, Cool, Todd Valley, Spring Garden, Clipper Gap, Weimar, and Applegate.
among others. Some temporary sites were located at Oregon House, Kentucky Ranch, Dobbins, Indian Ranch, Frenchtown, Brownsville, and Sucker Flat.

Three permanent settlements listed by Littlejohn fall within the Tahoe National Forest lands. One is known as Naknak and is located along Willow Creek north of Camptonville (Littlejohn 1928b:77); this site is located on private property. Big Oak Flat (Kokonimpakan) and Little Oak Flat in the American River region supported winter habitation.

All of the ethnographically known Nisenan campsites are either outside of the Tahoe boundaries or are on private land. Since the majority of the Tahoe Forest lies above 3,000' elevation, it is not surprising that few permanent village sites have been identified by cultural resource inventories.

The above listing of sites was drawn almost exclusively from Littlejohn. Other villages are known by name, but lack specific locational data. Littlejohn comments that "The list is incomplete and in some instances inexact." (1928b:60)

Subsistence Cycle

The Nisenan subsistence strategy was based on the seasonal availability of resources. Hunting, fishing, and gathering were year-round activities, receiving a special emphasis during the summer and fall months. When the snow began to thaw, the Hill Nisenan broke up into familial groups and left their permanent villages in the lower elevations to establish campsites in the mountains. "Transhumance" is the term used to define this seasonal migration. Communal efforts were expended for food gathering and distribution; personal property and food rights were also observed.

Much activity and social behavior such as status sharing, trading, ceremonies, and disagreements were important adjuncts to the gathering and distribution of food (Wilson and Towne 1978:389).

Medicinal plants and other materials needed by the Nisenan for their mode of existence have been included under the rubric of subsistence.

Resource Procurement

The gathering of plant foods was done year-round, but certain species became available upon seasonal ripening. Some resources were predictable and some found in concentrated areas, while others could be diffused throughout Nisenan country and could be variable (Matson 1972:40).

In their report on the Auburn-area Nisenan, Erskian and Ritter (1972:29) state that the maximum number of plant communities occur at the 1,000-3,000 foot level, with a maximization of flora at 2,000-3,000 feet elevation. They also point out that the variability found in local life zones is relative to diverse topography. This in turn creates a great variety of niches which produce highly diverse plant communities (Erskian and Ritter 1972:29). What this suggests is that seasonality and availability of plants in a varied environment such as found in the foothills were factors contributing to a more mobile than sedentary lifestyle.

A wide range of faun al resources is found in the foothill region, including insects, waterfowl, fish, and large vertebrates. Migratory deer were hunted and followed up into the higher elevations to summer grazing grounds, or down in the valley during the wintering months.

Duncan (1963:15-16) stated that a maximum population dispersal was reached during the summer months when some groups followed spring up into the mountains.

Movement almost invariably followed the course of the larger streams. This, in the foothills and the mountains especially, meant a general
easterly-westerly direction, for the deep, rugged canyons of the large rivers and their branches made travel between north and south too difficult to be undertaken frequently or by large groups (Littlejohn 1928a:8).

Because of the abundance of food sources in the hills, permanent villages were not totally vacated in the warming months. Some groups made a descent to the lower elevations, while other excursions took place in the higher hinterlands, with still others remaining in the base village. According to Duncan (1963:1) the Auburn people did not migrate during the summer months. Lizzie Enos, one of the last survivors of the Clipper Gap hill group, stated that a regular round included fishing and procurement of salt from the lower valley (Wilson 1972:33).

Once a group left the permanent village, temporary campsites were established. The spring-summer camps in the mountains were used mainly as base camps for hunting, although procurement and processing of other foodstuffs sometimes took place (Duncan 1963:15-16, Wilson 1972:33). Powers made observations on the daily trek of a camping party.

When about to go on a journey the squaws pack in their deep, conical baskets a quantity of acorn mush... which is food in as condensed a form as they could make it without scientific appliances. They generally start from camp late in the morning, an hour or two by sun... and rest once or twice during the forenoon, always near a spring. Taking out some of this panada they dilute it with large additions of water, making a good, thick, rich porridge, which they drink from small baskets. In this manner a squaw will carry enough to last two persons nearly or quite a fortnight... (they) march until night-fall or long after (Powers 1976:322).

Spring (Yomeni)

In early spring, greens, corms, roots, and fungi were gathered. This was also a time when the salmon made their first run. The hunting of small game, birds, and other waterfowl added to the food economy.

Greens included miner's lettuce, clover, rock lettuce, and "sour grass" weed. The foliage of the California poppy was gathered prior to the bloom, leached and cooked (Duncan 1963:13, Beals 1933:351, Powers 1976c:425). Clover was especially relished. It was eaten raw upon discovery, and also processed and dried for future use.

When the group was out in the spring, they would get down on their knees and eat the clover in the fields, and it was considered a treat. When Mrs. Enos was a little girl, the men of her group gathered clover in the fields near the Bear River, cutting it with the same wooden cutting knives used for grass. After the clover was cut, it was collected into piles, and the cooking ovens prepared. A pit was dug and a large fire was built... A layer of rocks was put on this fire, and the clover, well wetted, was placed on these hot stones, then covered with more hot rocks and left to cook all afternoon. When clover had dried and cooled, it was eaten or
stored. It could be stored for long periods of time and became part of the winter supply. It was often pounded into meal and cooked into mush (Wilson 1972:32).

Adding to the list of greens and bulbs were several species of Brodiaeae and wild varieties of sweet potato, garlic, and onion (Theodoratus 1978:374, Powers 1976c:426, Littlejohn 1928a:30). These were uprooted with a digging stick and were eaten raw, steamed, baked or dried and then pounded in mortars and pressed into cakes for winter storage (Wilson and Towne 1978:389).

There is an umbelliferous plant, the root of which the Indians esteem very highly for food; more highly than any other, it being their nearest equivalent to potatoes. I know not if it is the true camas; I think it is at least a species of it...In Penn Valley, Nevada County, they gather large quantities of it (Powers 1976c:426).

When Duncan (1963) collected his ethnobotanical information, his consultants provided this data on "digging":

The women dug out untold quantities of Brodiaeae and other bulbs with the digging stick ("siwim"). This task required some considerable skill: I spent over an hour collecting a mere handful of these bulbs, with the aid of a pick and shovel. In most of the foothill areas, they grow in rocky ground and are not easily unearthed, some bulbs being embedded a foot deep in the rocks and soil (Duncan 1963:13).

For those tribelets who were fortunate enough to have salt sources, a special procurement process was necessary.

Salt grass was collected by gathering the grass in the early morning when wet, and when dried out all the vegetal part was slowly burned away leaving the mineral salt (Hudson 1900:223).

In addition to this grass plant, salt springs were also tapped as a resource.

Salt was obtained by boiling the water and reducing it in a stone mortar. The salt was not pure, the sodium having a mixture of calcium, giving it a peculiar pugency (Hudson:ibid).

Mushrooms and fungi were dried and used later for flavoring soup (Beals 1933:351). Duncan's informants state that mushrooms were skewered onto bushes or twigs to dry.

The camps were formerly surrounded by bushes heavily weighted down with drying fungi. After they were dry, the mushrooms were stored in outdoor granaries or indoors in porous work baskets (Duncan 1963:21).

The Nisenan were acquainted with at least 15 varieties of mushrooms/fungi which they gathered in both the spring and fall months (Duncan 1963:22-23).
In the earliest spring or during a scarcity of food, the inner barks of pine trees were eaten. Accounts of this exist for the Nisenan (Powers 1976c:422) and the Northeastern Maidu (Dixon 1905:183).

Favored fish foods of the Nisenan were salmon and lamprey eel (Beals 1933:347) and from the higher elevations, suckers, whitefish, and trout (Wilson and Towne 1978:390, Kroeber 1925:409).

Steelhead and salmon formerly migrated up all the small streams around Auburn and Colfax. The Sacramento River was called "Hoyo-sayo," which means Fish River, and in the old days the men traveled to the Sacramento River near Vernon for salmon (consultant of Wilson 1972:35).


Salmon nets were used extensively, and sometimes two or three villages joined in the fishing effort, setting up nets around small pools or under waterfalls for the catch (Beals 1933:347).

Gill nets with floats were also used. With fish jaws used as bait, a spring pole attached to the bottom of the net would be released upon a nibble, and the catch would be drawn in. Another type of net, the dip net, was used on quiet waters and lakes.

A popular method of catching fish was to stupify the fish by adding turkey mullein or soaproot to the water. Reacting to the tainted waters, the fish would surface and float belly up for an easy hand catch (Beals 1933:347, Wilson and Towne 1978:389, Gardner 1976:24, Powers 1976c:423, Wilson 1922:34-35).

Most fishing efforts were done communally, but individual pursuits were also known, especially around eel sources.

Fishing in streams was open to everyone. Certain fishing holes were owned, especially where eels were plentiful, by single individuals, however, who were usually the old men of the families. They would camp by such an eel hole and catch eels all summer and dry them for trading or for winter use. If others wanted to fish there, they had to pay a part of their catch. Eels were divided among the members of related families (Littlejohn 1925b:84, Nevada City consultant).

After the catch, the fish were cooked and immediately eaten or dried for future consumption.

Trout and small fish were eaten as they were caught or dried on rocks or strung from sticks. Small fish might also be steamed with plant leaves and grasses in the steam oven. Most commonly, the women waited until the fish were dried and then pounded up and made into soup or cakes for old and very young people. At the fishing site, small fish were thrown directly on the coals and eaten when cooked (Wilson 1972:35, Clipper Gap consultant).
It should be noted that fishing was a year-round endeavor, but was specially singled out in the spring during the salmon run. This event was recognized through the ritual of the first salmon ceremonies.

Most birds were taken year round with the exception of seasonal waterfowl. Quail, grouse, pigeon, and mourning doves were taken by snares, nooses, and nets (Wilson and Towne 1978:390).

Quail were caught near springs and small creeks. Snares or loops made of long human hair were fastened to two sticks driven tight into the ground. They remained open by being kept wet. All other ways to the water were barricaded with logs and brush. The hair of certain women was considered to be lucky, and these women were given the quails' top-knots, out of which they made earrings. Mountain quail were caught in "very long" fences about two feet high. . . . Nooses made of women's hair were set about two feet apart in the fence, which was made out of brush and twigs. . . . The people who caught the quail divided them up with the other members of their villages. . . . Grouse and wild doves were (also) caught in nooses set near springs. Wild pigeons were caught in large nets which were stretched across the saddle between two hills (Littlejohn 1928a:28).

Excellent illustrations and detailed descriptions of bird snares, nooses, and nets can be found in Barrett and Gifford (1933:183-187) on the neighboring Miwok.

Most birds taken, other than the aforementioned ground nesters, were not important as food items, but rather valued for skins and plumage used in ornamentation. Magpie, flicker, and woodpeckers fall into this category (Wilson 1972:36).

Owls, vultures, and condors were not killed (Wilson and Towne 1978:183-187), and coyotes, buzzards, eagles, and northern pileated woodpeckers were avoided because they were considered culturally taboo (Beals 1933:346, Kroeber 1925:409, Littlejohn 1928a:27).

Rabbits and squirrels were the most important small game. Wood rats, field mice, and skunk were also taken (Littlejohn 1928a:26).

Rabbit hunting could be done by an individual to supply his own needs, but more commonly, it was a communal effort. Rabbits were killed in the mountains with sticks and blunted arrows (Littlejohn 1928a:26).

Devices such as traps, snares, fire, and nets were also used to take rabbits (Wilson and Towne 1978:389). Nets were, by far, the most effective for catching rabbits in a communal effort. Members from several village groups would join together in the lower foothills or in the valley.

A net, "pu," "about half a mile long" made of greasewood ("panaka"), wild hemp, or milkweed was set up in a locality where rabbits were known to be plentiful. Women and boys drove the animals into the net and the men clubbed them to death. . . . The results of the catch were divided up among
the families taking part in the drive. Every bit of the rabbit was used in some way. Part was consumed on the spot and part, particularly the ears, was dried to be stored for winter use (Littlejohn 1928a:26).

Other similar accounts of rabbit hunting and drives can be found in Beals (1933:348), Kroeber (1925:410), Wilson (1972:35), Hudson (1900:223), Gardner (1976:24), and Littlejohn (1928b:94).

Not only did the Nisenan rely on rabbit as an important food source, but rabbit skins, used as a covering, provided protection from the cold.

Grey squirrels and ground squirrels were taken by smothering, were shot, or were run down and then killed by striking the animal against a tree or rock (Beals 1933:348, Littlejohn 1928b:85). Squirrels, rabbit, and other small game were hunted, preferably by several men rather than individually (Beals 1933:348).

Deer were the most prized of the faunal resources and were available year round. Because of the Nisenan's intimate familiarity with their migration pattern, deer were easily taken by communal efforts, although they were sometimes hunted by small groups or even singly (Gardner 1976:24, Littlejohn 1928a:25). When only four or five men were involved with the hunt, disguises were donned.

The hunters wore the antlers and hide of a slain deer in order to decoy the animals within range of the bow and arrow. Fleet hunters sometimes killed deer by running them down. In the Sacramento Valley and the lower foothills, this method was employed in the early spring when the ground was soft so that the animals became mired in the mud (Littlejohn 1928a:25).

Deer were run down in relays or could be driven towards hunters on ridges near known runways (Beals 1933:347).

From the region of Nevada City to the northern boundary of the Nisenan territory, ropes or nets made of twisted milkweed fiber were used in hunting deer. These were said to be "over a hundred feet long," and were stretched along the runways near which the hunters were concealed (Littlejohn 1928a:25).

Fire was also used as a way to drive deer. Brush was burned toward the center of a large circle. As the animals were driven in, they were shot by hunters stationed in nearby clearings (Beals 1933:347).

At the kill site, the deer were butchered and quartered (Beals 1933:348).

Hunters preferred to bring an undrawn deer into camp, if possible, since it was easier to butcher in the evening when the flies and yellow-jackets were gone. Children would have to keep the flies and other pests away from the meat. . . . Deer meat was stripped to the carcass and dried on willow stick racks. Stripping was performed by one of two alternate methods: either long thin strips about one-half inch in diameter and several inches long
were cut and hung over the rack, or thin, flat pieces were cut from the meat. Often the meat was hung from the lower limbs of trees, but if the yellow-jackets were too numerous, a structure of limbs and brush was built over the meat to keep them away. In hot weather, it took about 24 hours for the meat to dry and harden (Wilson 1972:34).

What meat was not consumed on site was dried for later use. Almost the entire animal was used in some way. Bones were cooked for their tasty and nutritious marrow; cracked bones were crushed, pulverized in a mortar, and later eaten as meal; and, lastly, tools were made ranging from skinners and scrapers to awls used in basket making.

Sinew was the preferred material for bow strings and was used in webbing on snowshoes (Wilson and Towne 1978:391-392). Deerskin was used for clothing, bow cases, quivers, and bags. It was also used for blankets, rugs, and roof and door coverings (Wilson 1972:34).

Since hunting involved the supernatural, a shaman or doctor usually accompanied the hunting party and dispensed medicine for good luck (Beals 1933:348).

The rewards of a deer kill were shared communally. The first person who reached the deer had the first choice of meat, and the rest was divided up among all the people (Littlejohn 1928a:84).

**Summer (Kaukati)**

The Downieville people tell me that no Indians ever inhabited the region I traversed today (between Sierra City and Downieville), but that in the early days parties of Indians from the Lower Yuba region (Midoo) used to come up every summer and visit the Sardine Lakes and other lakes in the mountains hereabouts and catch and dry fish, which they took back with them (Merriam 1967:307).

In most cases, the Hill Nisenan spent their summer in small campsites in the higher elevations. The women and children stayed near this base camp procuring and processing most of the plant foods, while the males departed to hunt animals. Wilson (1972:33, 40) states that the mountains were used in the summer by any group that was in the area and that the principal activity carried out there was hunting. Littlejohn's consultants described the specific locations and migrations for certain tribelets.

Around Downieville, Forest, and Bloomfield, where the elevation is around 3,000 feet, there were no permanent camps; only temporary summer camps used as bases for hunting, fishing, and gathering.

The Indians living around Nevada City went up into the mountains around Bloomfield and Washington for a week or two to hunt deer, bear, grouse, etc.
The Indians living around Colfax hunted, fished, and gathered around Dutch Flat, Blue Canyon, Emigrant Gap, Foresthill, Michigan Bluff. . . . (Littlejohn 1928b:81-82).

Both flowering plant seeds and grass seeds were collected in their immature and mature stages. Lizzie Enos described the process for unripened grass seeds.

Men would cut the grass with wooden knives. . . . The grass contained seeds: the stalks were dipped in water, then put into a cleared area to dry overnight.

The next day they were shaken into a big basket, and the seeds collected. The seeds were pounded just like acorns and then cooked in the same manner with hot stones in baskets. The resulting mush tasted like peanut butter and was considered a great treat (Wilson 1972:37).

Mature grass seeds were processed in the same manner except for the initial drying phase. Some seeds required leaching to remove acrid tastes, and some required hulling and winnowing.

Seeds from flowering plants include: tarweed, buttercup, redmaids, Clarkia, and cheeseweed. This last plant was relished by the Grass Valley Indians (Duncan 1963:63). Of the grass seeds, rye, goosefoot, and wild oats were collected (Powers 1976c:425, Duncan 1963:13-63).

Besides their food value, grasses were desirable for the raw material they provided. In the category of grass/sedge/rush, the following illustrates some manufactured articles from these plants. Indian sandpaper, which is a scouring rush, was used to smooth digging sticks, arrows, and other wooden artifacts; tules were split and woven into mats, or shredded for lining in granaries. Diapers, dolls, and clothing were made from wire grass, and bear grass was used as a basketry material (Duncan 1963:45-63).

Milkweed was a most desirable fiber plant. In the mountains, a grass which informants called "milkweed" was used almost entirely in the manufacture of nets, strings, netted caps, mats, rabbit skin blankets, and ropes used to catch deer (Littlejohn 1928a:30).

Upon ripening, berries and fruits were collected during the summer and early fall months. The list is lengthy but includes gooseberry, Sierra plum, elderberry, Western chokecherry, thimbleberry, blackberry, wild grape, and manzanita (Littlejohn 1928a:31, Duncan 1963:41-78, Powers 1976c:423). The most important berry crop was manzanita. Either in a ripe or half-ripe state, the berries were picked, mashed, and formed into cakes or added to acorn meal. Manzanita cider was a most desirable drink (Beals 1933:351-352, Duncan 1963:48, Dixon 1906:189). Considerable quantities of manzanita berries were collected for later use.

The berries were pounded up and sifted with a basket lined with shredded tule or wiregrass fibers. In the old days the powder was used extensively
as a sweetener for sour wild grapes and berries of all kinds. The powder was stored in a special granary (sukun) (Duncan 1963:48).

Earthworms, grubs, yellowjacket larvae, and grasshoppers were greatly relished (Matson 1972:40, Kroeber 1925:409).

The following anecdotal miner’s account on the cultural food preference of the Indians might well be the same if witnessed today:

I was one day sauntering along through the village, when I discovered a new dish, which appeared to be some kind of nut, nicely browned. I took one in my fingers, and was about conveying it to my mouth, when I recognized it was the chrysalis of a caterpillar. I dropped it with some signs of disgust, when an Indian exclaimed, "To-pe, to-pe;" and to convince me that it was good, he ate a handful before my face. I replied that it might be good for an Indian, but it was not for an "Americano" (Delano 1854:305).

Invertebrates were eaten freely, not only because they were tasty but also because, instinctively, the native might have been cognizant of their high nutritional value.

Fire was a medium used in gathering and roasting grasshoppers.

Grasshoppers were gathered in meadows in the summer. They were chased into conical pits by drivers beating the grass. A smoking grass bundle was thrown into the pits for killing. They were soaked in water and baked in an earth oven. A light crushing with a handstone on a basketry tray broke off the wings and legs, which were winnowed away. They were eaten whole, crushed into a meal, cooked like a mush, or stored. A ring of fire was also built to creep through the underbrush, roasting the grasshoppers and other insects (Wilson and Towne 1978:390).

Other accounts on grasshoppers can be found in Wilson (1972:32), Hudson (1900:229), Beals (1933:347), Faye (1933:39), and Littlejohn (1928a:28).

Hornets and yellowjackets, both in larval and adult stages, were eaten and relished. Pine needles, tied together in a bunch and lighted, were pushed into yellowjackets' holes in order to smother the insects which might be in them. Bunches of pine needles fastened to the end of long sticks were used to burn out hornet's nests. Dried or roasted grasshoppers, yellowjackets, and hornets were stored for winter use (Littlejohn 1928a:28).

Beals (1933:347) cites an unsuccessful attempt by a Foresthill man to burn out a hornets nest; had he burned at night rather than the day, he might not have died from stings.

The hunting of deer and small game and fishing continued throughout the summer months.
Fall (Semeni)

It was during the fall months when gathering activities were most accelerated. All the aforementioned hunting, fishing, and gathering resources continued, with perhaps a lessening of procurement of greens. Autumn was the time when the most important staple crop, the acorn, was mature and ready for harvest.

Berries specifically gathered in the autumn include madrone, Western chokecherry, and toyon (Duncan 1963:70).

No doubt manzanita berries were collected as long as they were available. Merriam (1967:308) states that during years of acorn crop failure, large quantities of manzanita berries were collected and used as the alternate staple crop. Since the berries figured in trade with the Valley people, manzanita took on importance as a commodity. Its wood was also valued for the manufacture of tools (Wilson 1972:38).

The principal staple food of the Nisenan and most Native California groups was the acorn. Harvesting took place in September-October. Soup, mush, and unleavened bread were made with the acorn meal. The preferred variety was the black oak, but tanbark, blue oak, and interior live oak acorns were also procured. Beals (1933:351) states six to seven varieties were recognized.

As these acorns (black oak) were found most abundantly in the higher altitudes, they were gathered chiefly in the early fall, when the Indians were living in their temporary summer camps in the mountains... In former times, as a general rule, the Nisenan did not have to go very far from the sites of their permanent villages to gather acorns. Before the coming of the white man, oak trees were far more plentiful in their territory than they are now (Littlejohn 1928a:29).

Because of the excellent, detailed information Wilson (1972:36) obtained from Lizzie Enos, a lengthy quote on acorn gathering and processing follows:

Mrs. Enos, at the time of interview, used about three 50-pound sacks of acorns over the winter, and reported that a family would normally gather about 10 to 20 sacks to see them through the same period. As many acorns as possible would be gathered when the season was good, and surpluses were used in trading, shared with old people, and consumed at big times...

Traditionally, families would usually go to special places to get acorns, and they may have owned certain trees. Some trees were better than others for acorns, and a woman was proud if she procured good acorns... The people of Todd's Valley and Foresthill were reputed to always have good acorns, and the soup they made at big times was a favorite. The best acorn trees were higher up in the mountains and on the shady side of canyons.

Everyone would help in the gathering of acorns, but the men were usually hunting at this time, and only the old men would be around. A woman could gather a big burden basket of acorns in a day if she were lucky or had children to help. Other vegetable foods were gathered at the same time if
found in quantity and might be given preference over acorns, which would be left for later. . . . No food was carried along on one-day trips; eating was done upon return to camp or along the route. Sometimes, if the acorn harvest was good, large piles of acorns were gathered under the trees to be picked up later. Occasionally other groups would be seen on these trips, but little communication took place.

. . . In the granaries, the new acorns were put on the top and the old acorns were taken from the bottom. A family might have as many as three granaries, but this depended on the size of the family and the quantity of acorns on hand. . . .

Acorns were shelled only when needed and then only enough for a few days. Usually they were ground the same day. Bedrock mortars were preferred to grind the acorn meats, but in the winter a portable mortar was handy to keep in the house. Not everyone had these, and they were frequently loaned. After being ground, the meal was stored in a basket. The cooking was done the same day, if possible, and enough soup might be poured hot into the basket of cold water thus making a thicker, harder form of mush. The mush was broken off in pieces and eaten or placed by the fire and dried. It then tasted like bread. Also a thick mush which was molded into loaves and cooked on rocks beside the fire was made, and this could be used later or carried on trips.

Women did not cook acorns every day, but only when necessary. Acorn shells were burned and made a very good bed of coals. . . . When stirring the soup in the basket while cooking with a hot stone, the cook constantly watched the color of the steam. If it turned brown, the basket was burning and the soup had to be stirred harder. Children liked to eat the hard crusts of acorn meal that baked on the cooking stones and flaked off dry when the stones cooled. The same stone was not used twice in the cooking process, and plenty of stones were at hand. Soap stone was considered the best cooking rock. . . .

Acorns were not taken along on hunting or fishing trips away from the village. Instead, children and women gathered acorns from the ground or found them in the leaf mold if it were not the acorn season. Old acorns were often eaten without cooking since they were already leached by the rain. . . (Wilson 1972:36-37).

Powers' (1976b:322) observations contradict Lizzie Enos' statement that acorns were not taken along on journeys.

Leaching was a step in the acorn processing that was not elaborated on by Mrs. Enos. This procedure was necessary to rid the acorn of its natural bitterness, and was done after the acorn had been pounded in the mortars. Duncan provided a brief description of this leaching process.

In order to be edible, the bitter acorns must first be pounded into a fine meal or flour. This then must be sifted to obtain a uniform texture. The flour was put into shallow sand basins lined with pine needles, and water
was repeatedly poured through it until the bitterness had departed. The meal was then brought to a boil in a basket with hot rocks (Duncan 1963:51).

All the principal Maidu ethnographers provide a description on procurement and processing of the acorn, but perhaps the best explications can be found in Simpson (1977), Grinnell (1958), Beals (1933:351), and Barret and Gifford (1933:143-146). Gifford's article on balanophagy discusses this phenomenon throughout California (Gifford 1971:301-305).

Storage for the acorns was either in the aforementioned granary or in long cedar-bark tubes (Beals 1933:352), and the management of the acorn and other important food sources was always accompanied by ritual or special recognition (Powers 1976a:285-287, 324-325; Beals 1933:354; Voegelin 1942:57).

Buckeye, pine nuts, hazelnuts, and other edible nutmeats supplemented or otherwise substituted the basic acorn staple.

Nuts of the digger pine were found in abundance in the vicinity of the permanent settlement, for these trees grew largely on the dry slopes of the foothills. On their summer hunting and gathering expeditions to the mountains, the Nisenan acquired the nuts of the sugar pine, which were greatly relished for their sweet taste. Hazelnuts, gathered in the mountains in the fall, were also very much sought after. Yellow pine nuts were not eaten (Littlejohn 1928a:30).

Ranked from the most prized to the least prized of the pine nuts were digger pine and then the sugar pine. Beals (1933:351) placed the yellow pine at the lowest rung; this contrasts with Littlejohn's above statement.

All varieties of pine nuts were processed in similar manner (Beals 1933:351).

At this camp were a lot of sugar pine cones (for which they had gone farther up the mountains), still partly green but full grown and nearly ripe. These they roast just a little in the fire and then split open length wise with a strong large knife, exposing a row of the large nut-seeds on each side of the long axis (Merriam 1967:306, Nisenan of American River region). The California nutmeg was roasted in hot ashes. It was used by the Foresthill Maidu (Duncan 1963:32).

A consultant of Theodoratus (1978:376) stated that buckeye or wild chestnuts were procured "this side of Downieville." The buckeye required a leaching process and was prepared in the same manner as acorns (Curtis 1924:107).

Salmon were caught in the fall by the same techniques as specified for the spring runs. This fish resource was not, however, always available in autumn.

While salmon runs provided a large portion of the caloric intake, the Hill Nisenan did not have a really efficient way of exploiting the runs nor of storing the salmon when caught. Salmon runs also were subject to periodic
fluctuations which seem to be cyclic and lasted over a number of years (Matson 1972:42).

Lizzie Enos stated that she didn't remember salmon fishing in the American and Bear Rivers. The muddied waters caused by historic hydraulic mining all but eliminated the fish population (Wilson 1972:35).

Ducks and geese were netted, or shot with bows and arrows. Beals (1933:349) states that ducks were caught at resting places by nets set on 10 to 20 foot poles. Another method of catching ducks was to bait shallow water stands with acorns. When the ducks congregated to get the bait, a semicircular net was released, trapping the fowl.

Littlejohn's Colfax consultant (1928a:65) said that wild geese were shot "one right after another with the bow and arrow."

Ground nesters such as quail, grouse, pigeons, and mourning doves continued to be hunted during the fall months using nooses, snares, and other nets and trapping devices.

Deer, the basic meat staple, and other small game continued to be hunted in the autumn. The communal technique most frequently used in the autumn was the fire drive (Beals 1933:348).

Knowledge pertaining to the availability of plant foods, deer and waterfowl migration patterns, and animal habitat and behavior, was just a part of the Nisenan's perspicacity of the environment. They knew that subsistence resources were enhanced when the environment was manipulated by fire. The annual fall burning by the Hill Nisenan was a practice shared with most California Indians who inhabited timbered tracts. Burning accounts by the Nisenan can be found in Faye (1923:40), Duncan (1963:9), Kroeber (1925:396), and Beals (1933:363).

... the Indian was not attempting to protect the stand of large timber; he merely preferred an open country. ... Travel was better, view farther, ambushes more difficult, certain kinds of hunting more remunerative, and a crop of grasses and herbs was of more food value than most brush (Kroeber 1925:396).

The ecological implications of annual burning were studied by Matson (1972). He concluded that annual burning of the Sierra Foothills over the past 120 years has resulted in vegetation changes and different deer migration routes.

... there are indications that the aboriginal fire regime resulted in an environment that differs significantly from that of today in the foothills (Matson 1972:25).
Watson makes this statement based on recent studies of fossil pollen and consultants' information to Beals (1933:363).

The Indians insist that before the practice of burning was stopped by the whites, it was often a mile or more between trees on the ridges, although the canyons and damp spots held thickets of timber.

The major portion of the ridge on which Wokodot is situated (north of Nevada City) was an open grain field about 40 years ago. Today it is largely covered by timber fifty or sixty feet high. There is also a thick underbrush, largely of ceonothus and manzanita, that is said to have all grown in the last ten years (Beals 1933:363).

Since deer was the Nisenan's key faunal resource, vegetation changes triggered by a conflagration would have had an effect on habitation, migration, and the hunting of these animals.

Mature coniferous forests... do not offer good conditions for the fauna exploited by the Nisenan. Non-climax stands of mixed timber, brush and grass, however, do offer good conditions for such fauna as deer and rabbit. It was this type of sub-climax vegetation which was produced by annual burning.

Today, the vast majority of deer migrate to higher elevations in the summer, but winter in the foothills (Longhurst et al. 1952; Leopold et al. 1951). Study of historical sources and deer habitat relationships has convinced wildlife biologists that this migration pattern was not the prevalent one in precontact times: "Conversely, there were relatively few deer in the timbered mountains, presumably because there were not enough crown fires to create openings in the heavy timber" (Longhurst et al. 1952:105). "It was only after the heavy timber was broken up that deer attained high density in the California mountains" (Longhurst et al. 1952:12).

Thus, it appears that in the past the majority of the deer followed a different migratory cycle than today, living instead year-round in the foothills (Matson 1972:43).

Tobacco Cultivation

Tobacco (pan) was the only known plant that was cultivated by the Nisenan; this plant was of a wild variety. If any preparation was done prior to planting, the existing ground cover was burned over; and if any care was shown to the sprouting plants, it would have been the thinning and removing of weeds (Beals 1933:356). Generally though, the greatest expenditure of energy was the actual sowing of the seeds.

It was planted in the brush to a diameter of about 50 feet. The seeds were disseminated by snapping moistened fingers outwards. After the seeds had been "planted," no more care was taken of the tobacco. At harvest time the
planter would pinch off the leaves, which were dried out for smoking in stone pipes. The seed stalk would be left to mature, and the seeds from it were replanted the next year. If seeds got too old, they were available for trade in Nevada City. The trade went both ways; if Nevada City had no crop, they got their seeds from Auburn (Duncan 1963:75).

The dried tobacco leaves were kept in a squirrel skin pouch for future consumption (Hudson 1900:216).

Powers (1976c:426) observed tobacco stands around camps and corrals; Littlejohn's Nevada City consultant said that tobacco was not planted near the camps, but in "secret" places some distance from camp (Littlejohn 1928b:85).

In addition to local consumption, tobacco was an important trade commodity to the Nisenan. In exchange with the valley peoples, the Hill Nisenan received "strings of beads or disc money which was made by the tribes near the sea coast" (Littlejohn 1928b:85). This last quote is suggestive of the extensive trade patterns that must have existed in Native California.

The smoking of tobacco was a distinctive element in the group's social makeup. Only males participated in the "passing of the pipe." Duncan (1963:75) states that only shamans, chiefs, and important visitors smoked; Beals (1933:356) is less specific and states men 30-40 years and older smoked.

From his description, it appears that Powers (1976c:426) experienced a smoke of this wild tobacco.

It is smoked alone or mixed with dried manzanita leaves, and has a pungent, peppery taste in the pipe which is not disagreeable.

Harvesting and drying of the leaves took place in the fall and sometimes in the summer months (Merriam 1967:319).

Every principal ethnographer makes a reference to tobacco cultivation in Nisenan-Maidu territory.

Winter (Komeni)

The onset of winter weather and decreasing amounts of available food sources consolidated the familial groups once again back into the permanent villages. As previously mentioned, the maximum number of utilized plants cluster in the 2,000-3,000 foot level, where many of the known Hill Nisenan villages are located. Small and large game hunting continued, but as with the floral resources, it was a matter of availability and propinquity. Supplementing these readily accessible local resources were the stored and dried products collected during the months spent away from home.

In the coldest months, the botanical food base might diminish to a point where only mushrooms, a few berries, and greens were available (Erskian and Ritter 1972:31).
Bear hunts were communal and occurred only during the winter months. Ceremony surrounded the pursuit; Beals (1933:348), Dixon (1905:194), Littlejohn (1928b:53,62), and Wilson and Towne (1978:389) mention a ceremony was conducted, but the specifics are not given, with the exception of the following from an Indian resident of Foresthill:

Frank told a story of his shooting a bear over near Big Oak Flat. He said that he was trembling with fright, but he talked to the bear and finally killed her and the cub, too. One must never boast of what one would do to a bear, because that bear will hear what you say and will kill you (Littlejohn 1928b:62, Colfax consultant).

Bears were provoked out of hibernation and driven out of their lairs for the kill.

Bears were hunted during the winter because their hides were in better condition at that season than at any other time. Heavy oak poles, well seasoned, were lighted at one end and driven into the bear's den by the most fearless of the hunters. When the bear came out of his lair and tried to escape, he was shot by archers stationed in trees or behind rocks. At other times, flaming torches or poisoned spears were rammed down the bear's throat. . . .Black bear and cinnamon bears were the species most frequently hunted. On a hunt the Indians wore only rabbit skin blankets and snow shoes made of hazel wood or of the vines of wild grapes wrapped around with deer sinew. Fire was carried with them in the form of live coals of oak wood (Littlejohn 1928a:26).

To the Nisenan, the bear possessed a supernatural aura. As mentioned in the shaman discussion, the only special doctor of the Hill Nisenan was the bear doctor (Beals 1933:392, Littlejohn 1928b:10). Old Indians were believed to turn into bears. . . .She (Lizzie Enos) believed that there were formerly bear doctors who killed people, but that they abandoned the activity because white men killed them, thinking they were bears (Wilson 1972:34).

Pharmacopoeia

Utilization of plant and animal resources was exceedingly varied, not only for food but for other applications. The available data on Hill Nisenan suggests that the pharmacopoeia was quite large. A number of common plants were used to treat uncomplicated illnesses. The more elaborate concoctions were used by herbal specialists in treating stubborn cases.

According to Louis (Kelley), Indians from his area (Nevada City) know more about medicine than other groups. That characteristic makes them in great demand as marriage partners. Also, in the past, before Louis was born, the Indians from his area had traded their medicine to other Indians for beads and money. Much of their medicine was not found in other parts of the country (Gardner 1968:66).
In support of the broad knowledge of Hill Nisenan herbal medicine is Gardner’s statement that "Knowledge of herbs seemed extensive among the Northern Hill Nisenan. . . . Many consultants provided data on the use of herbs as medicines, indicating broad knowledge and ability in their uses" (Gardner et al. 1978:361).

Since Theodoratus and Gardner collected their information in the recent past (1968 and 1978), some medicinal knowledge possessed by the Hill Nisenan they consulted with might reflect a recent phenomenon.

The following are some Nisenan remedies. Poison oak leaves were eaten as a preventive and cure for poison oak (Powers 1976c:422). Mistletoe tea was given to women in labor to induce a prompt delivery (Merriam 1967:309). To assuage thirst, manzanita berries were eaten and its leaves chewed to relieve gastric disorders (Gardner 1968:84, Duncan 1963:43). Under the category of "general tonics" are barberry root tea (Duncan 1963:39), yarrow leaf tea (Duncan 1963:42), and alum root tea (Duncan 1963:73). Poultices applied to sore or inflamed parts of the body include a nut paste from the silver pine (Powers 1976:421), yellow dock root (Powers 1976:423), and a shooting star plant preparation (Duncan 1963:66).

A fair amount of data has been accumulated on Maidu herbal medicine. The most comprehensive study is Duncan’s 1963 report entitled "Maidu Ethnobotany." Theodoratus (1978) presents her recently gathered field-based data in a table form (1978:378-380). Gardner (1968:65-86), Powers (1976c:421-430), Merriam (1967:309), and Faye (1923:53) all contain lists or references to medicine. It should be added that basic knowledge and use of herbs pertained to the Nisenan people as a whole, and are not limited to the shaman specialist.

In recent years, a number of charts and tables have been compiled on the Nisenan food resources. Reference should be made to Matson (1972:41), Simmons (in Jones 1982:53, 55, 57), Duncan (1963), and Theodoratus (1978:374, 392). Matson presents a more elaborate scheme than Duncan (1963:15). Duncan’s report, however, contains specific, detailed information throughout the text. Based upon information collected from consultants in the 1970’s, Theodoratus (1978) presents tables on Maidu use of plants, animals, birds, and fungi. Her data pertains specifically to the Northern Hill Nisenan located west of Nevada City, including the territory west to Marysville. All of these aforementioned charts contain a wealth of information on seasonality and use of the plant and animal resources of the Hill Nisenan.
Property Ownership

Ownership of certain kinds of property was held individually and communally. Individual ownership items were related to the procurement of subsistence resources. The males owned their hunting equipment, which consisted of nets used in rabbit drives, nets used in deer drives, quail fences, snares, and rope that was used along the runways if deer hunting pursuits (Wilson and Towne 1978:393, Littlejohn 1928a:33).

The man who made twine, nets, mats, etc., was said to own the patches of milkweed from which he obtained his material (Littlejohn 1928a:34).

Fish holes, specifically eel holes, were owned by an individual. At the discretion of the owner, fishing privileges were extended to others. Dams were also owned individually, although others joined in on the construction (Littlejohn 1928a:34).

For those individuals who participated in the construction of nets used in the game drives, property rights are unclear. Littlejohn (1928a:33) stated that
either the person who made the net exercised the privilege of ownership or the oldest man in the group which made them was the owner.

The fur of rabbits taken in a drive was thought to be owned individually. Littlejohn received conflicting information.

One informant said that the fur, together with the ears, belonged to the man who skinned the rabbits; another, that it belonged to the man who owned the net. In this case the latter had another man make the fur up into rabbitskin blankets, giving him beads, arrows, and other articles in payments (Littlejohn 1928a:33).

Families or individuals controlled certain oak trees. Some fishing spots, and "grasshopper holes belonged to individual heads of families" (Littlejohn 1928a:34).

Women owned their clothing, baskets and basketry material, mats, cooking and food-processing equipment (Wilson and Towne 1978:393).

Each village or tribelet controlled its territory and held rights over the hunting, fishing, and gathering areas (Littlejohn 1928a:34, Wilson and Towne 1978:393).

The two salt sources in the Auburn vicinity were the community property of the Auburn tribelet.

... these Indians forcibly resisted the attempts of strangers to steal the salt from these deposits (Littlejohn 1928a:34).

The headman or chief of a village or tribelet held ownership rights to the kum, or roundhouse, and selected oak trees.

Faye (1923:41) elaborated on tree ownership.

Acorn trees might be marked ... they were not to be touched by any, save the marker. What sort of mark was used, it was impossible to ascertain. It seems to have been something like a blaze.... A tree, even when marked, had to be closely watched.

As payment for, or appreciation of, his social role, the villagers provided the chief with food.

He was given his choice of the first fish, deer, or rabbits caught. After that, he divided the results of the drives among all the people, taking what was left for his own use" (Littlejohn 1928a:23).

The inherent status of the chief was manifested in a number of ways. Plural wives conferred status and were considered desirable because the chief's responsibility for entertaining guests was distributed to more than one wife (Beals 1933:359).
The dance house, or kum, was considered the headman's property even though he might not have lived there (Littlejohn 1928:22). When there was no separate dance house, the chief's house was used for assembly because it usually was the largest house in the village (Dixon 1905:223). Beals (1933:362) stated that grouse feathers were symbols of chiefly status in Nevada City, and in Auburn the symbol was a stick covered with woodpecker scalps (Beals 1933:362). Wealth items included "many bows, arrows, shells, baskets, and bear hides" (Beals 1933:360). Wilson and Towne (1978:393) mention that because of the position the chief held, he had broader social contacts with other communities than did the individual members of the village.
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