

Pyramid Lake Northern Paiute Fishing: The Ethnographic Record

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THE importance of fishing to the ethnographic subsistence regimes of lake- and river-based Northern Paiute groups has been suggested by several writers but not fully documented. For example, in the context of the Culture Element Distribution surveys, Stewart (1941:370-371) affirms that fish were taken by most groups using specialized gear such as nets, baskets, weirs, platforms, harpoons, and gorge and composite hooks. Curtis (1926:71) notes the use of dip nets, gill nets, bident spears, gorges, and weirs. And Wheat (1967) describes in detail the manufacture and use of the single-barbed harpoon. However, only Speth (1969) has attempted to place Northern Paiute fishing in its broader social and technological contexts, and her paper is concerned exclusively with fishing at Walker River and Walker Lake. The material that follows supplements and expands on these various discussions, adding ethnographic and technological detail on the fishing complex of the Pyramid Lake Paiute, or *kuyúidî-kadî* (eaters of cui-ui, or *Chasmistes cujus*). The principal source for the information is the unpublished field notes of the late Willard Z. Park, who gathered data on Pyramid Lake, Walker River, and Carson Lake fishing in the

1930's as part of his general ethnographic investigations of the Nevada Northern Paiute. Park also made material culture collections that included fishing gear for the Peabody Museum of Archaeology and Ethnology and for the American Museum of Natural History. These objects, as well as others from collections made in 1875 by Stephen Powers and in 1916 by Samuel Barrett, were recently studied and photographed as part of a project to make Park's data more readily available.¹ Taken together, these materials significantly expand our knowledge of Northern Paiute fishing techniques, and by implication, suggest that fishing and other lacustrine, riverine, and marsh-oriented subsistence pursuits were vitally important in the economic systems of several Northern Paiute groups. Technologically, a complex not wholly different from that described by Kroeber and Barrett (1960) for most of northwestern and northcentral California seems to have existed at Great Basin lakes and in their associated river systems.

FISHES OF PYRAMID LAKE

Fishes endemic to the Pyramid Lake and lower Truckee River portions of the Lahontan system in protohistoric times were: (1) the Lahontan cutthroat trout (*Salmo clarkii henshawii*); (2) the Tahoe sucker (*Catostomus*

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tahoensis); (3) the Cui-ui (*Chasmistes cujus*); (4) the Lahontan tui chub (*Gila bicolor*); (5) the Lahontan redbreast (*Richardsonius egregius*); and (6) the Lahontan speckled dace (*Rhinichthys osculus robustus*). Of these, the most important and sizeable food fishes were the cutthroat trout, the cui-ui and the Tahoe sucker.² These were the principal focus of subsistence activities especially during their annual spawning runs up the Truckee River. All species were also caught in the lake at other times.

Cutthroat trout ascended the river in two major runs, one beginning in late November or early December and lasting through March, and the second starting in April and lasting through May. The first, a run of older, mature individuals, was correlated with the winter rise in the river due to increased winter precipitation. These were *tomó agái* 'winter trout.' The second run was of younger, smaller individuals, and was related to the rise caused by spring runoff. These were *tamá agái* 'spring trout.' Spring runoff also triggered runs of Tahoe suckers (*aʷáago*) and cui-ui (*kuyúii*). The cui-ui run was relatively brief, beginning in mid to late April and ending by early June. The redbreasts (*hiupakʷi*) and speckled dace (*sigúpakʷi*) were also in the river in the spring to spawn. They were also attracted by the eggs of *aʷáago*, one of their principal foods during the season. Being shy by nature, redbreasts apparently moved in schools principally at night. The tui chub (*tuipakʷi*) was mainly a late spring and early summer lakeshore spawner. During the summer, tui chub congregated in extensive schools *ca.* 6 m. off shore (Snyder 1917).

Given the seasonal span of the fish runs and the abundance of fish in the river and lake, fishing was potentially a year-round activity for the *kuyúidíkadí*. Also, given the timing of runs, the differing conditions of the river and lake and the habits of the fish, specific techniques and items of gear were

devised to obtain the catch. Basically, techniques differed according to whether river or lake fishing was the focus and whether the river was running high and muddy, or low and clear.

RIVER FISHING

For exploiting high-water fish runs, principally of winter and spring trout, suckers, and cui-ui, platforms with or without weirs were used in conjunction with lifting nets. Platforms (*passóni*) were constructed by driving two heavy willow or cottonwood poles into the river bottom near the bank. Another pole was lashed across these and others placed at right angles to the last to form the base of the platform and connect it to the bank (Fig. 1). Platforms were the property of the builders who held exclusive rights to their use. Winter trout platforms might be built and shared by four or five men who took turns fishing. Spring and summer platforms were usually smaller and less substantial. They might be the property of a single individual. There were also rights claimed to spots along the river for platforms and weirs. These were apparently inherited bilaterally. A man might also invite a friend to fish from his platform. Difficulties arose should a person fish from a platform



Fig. 1. Abandoned fishing platform. S. A. Barrett photo, 1916. Milwaukee Public Museum.

uninvited. Fights also broke out if individuals fished near established weirs uninvited.

Either one or two men fished from a platform at any one time. The number depended on the size of the platform and the activity of the fish. The fisherman either stood or squatted on the platform, depending on its relationship to the water level (*ca.* 18 inches above the water). During high water, when the river was muddy and the fish could not be seen, large lifting nets (*yamí*) were used (Fig. 2). These were roughly 3 m. square and were gathered slightly at the end nearest the fisherman to form a cup *ca.* 1 m. deep. The net was tied to two poles roughly 4 m. long. Ten to 15 fine strings were tied across the mouth of the net. These were drawn together in the center at the end toward the fisherman. According to individuals interviewed by Park, the poles supporting the net were crossed near the apex and the cross was held together by the fisherman with his left hand and balanced on his left thigh. The ends of the fine strings tied across the mouth of the net were gathered in a loop and the loop placed under his left thumb. Near the top of the strings a small tule and feather float might be attached. When fish swam into the net, they passed the strings and signaled the fisherman, who then raised the right pole and, using his right thigh as a fulcrum, reached across and raised the left pole with his free right hand. He then brought the poles together closing the mouth of the net. The butt ends of the poles were then balanced on the platform and the entire net was lifted out of the water. The fish were removed and dispatched by striking them on the head with a stick. They were then placed in a special basket that was suspended from the platform (Fig. 3). Later, they were transported to shore for earth-oven cooking or taken home for cooking or drying.

Platforms for lifting nets were ordinarily placed over large still ponds or eddies at high water. However, they might also be used in

conjunction with fish weirs (*wamá*) in shallower water areas or at times of reduced stream flow. If stream flows were heavy, weirs were made by driving pairs of poles into the river bottom and placing mats of widely spaced, twined willows between them. They were put in at an angle to the opposite bank so that the fish swimming upstream would be directed to the platform. The weirs did not totally span the river. They stopped 2 to 4 m. short of the platform. This feature, as well as the loose construction was particularly important in the spring when the river was filled with debris that could damage the weir. For winter and summer fishing at times of shallower water, a tightly woven weir was constructed, and again anchored between pairs of poles placed at an angle to the bank (Fig. 4). Some fish were allowed to pass the weir and platform(s) in both cases.

For shallow-water fishing, a triangular dip net was often used in conjunction with a weir. It was a smaller version of the lifting net, but with a more bag-like shape—"just like a butterfly net." The poles for this net were meant to rest on the stream bottom and the net to flare behind. It was ordinarily placed in the bank-side opening of the weir. The poles were crossed as with the lifting net, and there was a single or double signal string attached to the mouth of the net. A man standing on a platform or on the river bank raised the net at the presence of fish.

According to some accounts received by Park, dip nets and lifting nets were made with a carved wooden shuttle and gauge (Fig. 5). Dip nets were apparently started at the bottom and built up spirally, while lifting nets were worked in horizontal rows. Since nets might be used for catching various sizes of fish, mesh sizes varied. An alternative method to using the shuttle and gauge was to roll the net string into a ball and then loop and tie the string over 2, 3, or 4 fingers to set the mesh size. The sheet bend, or basic netting knot, is

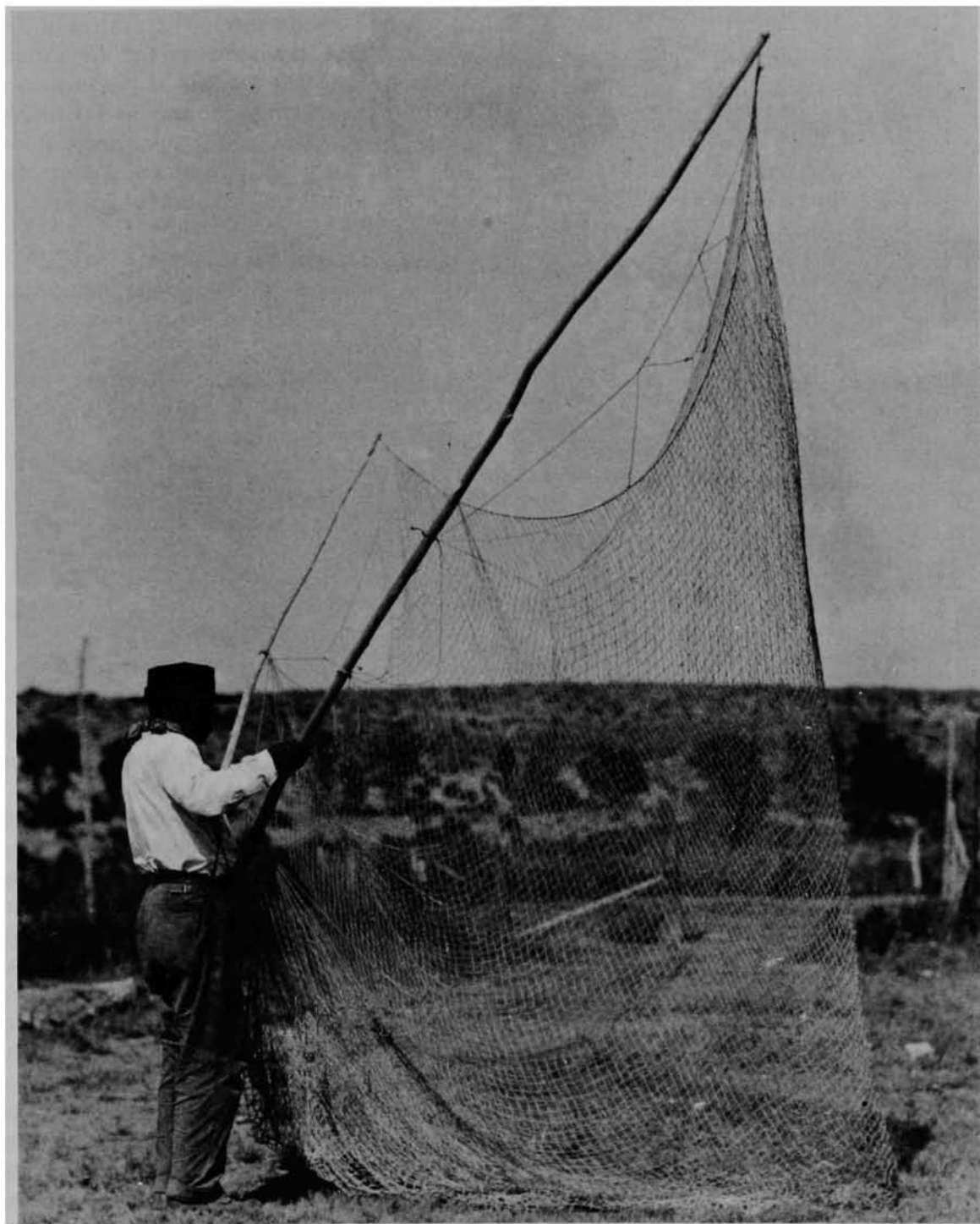


Fig. 2. Man with large lifting net. S. A. Barrett photo, 1916. Milwaukee Public Museum.

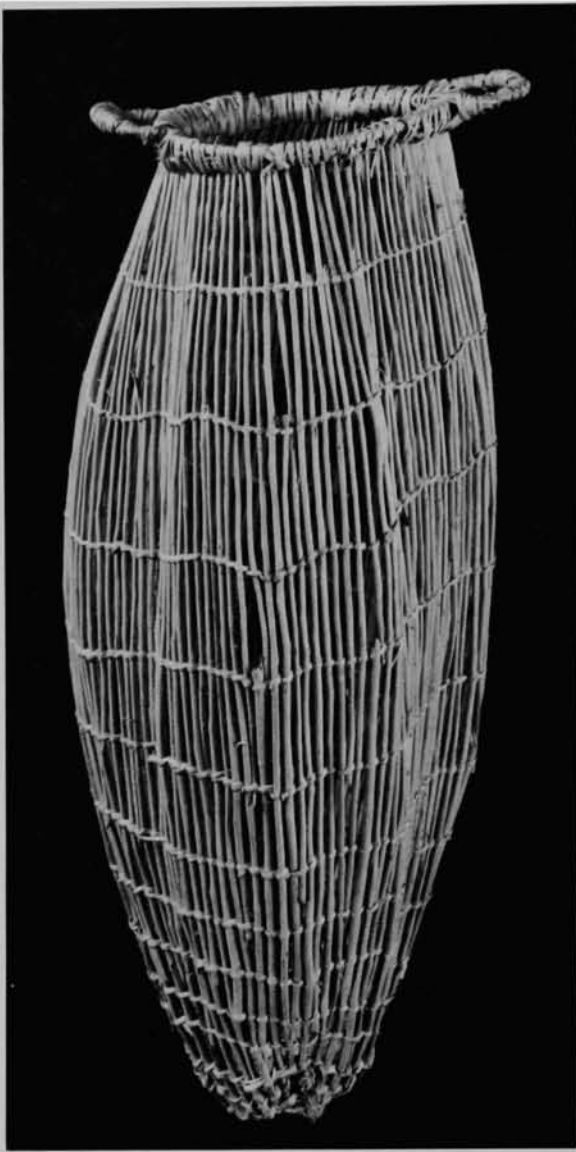


Fig. 3. Pyramid Lake fish basket. W. Z. Park, collector, 1935. Peabody Museum, Harvard University. Approx. 65 cm.

typical of all Northern Paiute nets seen thus far in museum collections. Nets were made of 2-ply dogbane (*Apocynum cannabinum*) cordage. Shuttles and gauges collected by Barrett (1910) among the Klamath are similar to those collected by Park at Pyramid Lake.

An additional method for exploiting trout runs at times of decreased stream flow was to

use basket traps (*ayák^{wi}*) in conjunction with weirs. In this case, the weir was tightly woven to obstruct the passage of fish upstream. Near the center of the weir, on the downstream side, a trough-shaped willow trap was securely lashed. Park describes the trap as 1.5 to 2 m. long, 2/3 m. wide, and 2/5 m. deep. It was closed at both ends. Trout coming up river tried to jump the weir and fell back into the basket.

A second type of basket trap, basically an open-twined cone with a smaller, open-ended cone placed inside, was also used in conjunction with fish weirs. It was used principally for catching trout, cui-ui, and suckers in the spring and fall when the water was lower. The trap was placed in an opening of the weir, facing downstream, and was fastened to the bottom of the river with stakes. The fish swam into the basket as they followed the current. Baskets were often placed in pairs—on top of each other or side-by-side—either at night or when the men were tired of waiting for the fish. They were emptied of their contents later. Bipointed, twined traps with a side entrance (Fig. 6) were also staked in the shallows to take reddsides and speckled dace. The overall size of the trap and its opening determined the catch.

An additional weir-and-basket-trap style was also associated with low-water fishing. For this, two converging woven fence wings were built extending somewhat downstream and spanning the river to within 1-2 m. of its center. Then from each wing, a 1-1.5-m. wall of stones extended straight down river. At the end of these walls a tubular willow basket trap with squared ends and a center opening was placed. Principally the trap attracted smaller fish—trout, reddsides, and speckled dace—at times other than during fish runs (mainly summer and early fall). The trap was placed in the river in the evening and emptied each morning. It took fish as they moved downstream. An alternative technique for



Fig. 4. Pieces of a twined fish weir. S. A. Barrett photo, 1916. Milwaukee Public Museum.

taking the minnows was for women to catch them in open-twined parching trays as they cascaded over a closely woven willow weir.

For low-water fishing during the summer and early fall and in the winter when the river was clear, harpoons and spears were used. These implements were used in conjunction with platforms and/or weirs. Weirs constructed at angles to the river bank directed fish over an area 1-2 meters square purposefully paved with white rocks. This pavement particularly facilitated night fishing, making the fish easier to see. A shade (*pahába*), "like a small house," might also be built on the platform to cut the glare of the rocks during the daytime. During trout runs, fishermen attempted to

harpoon only the "redder" male fish, allowing the "grayer" females to pass on up stream. They suggested that the females acted as decoys to the males and if allowed to pass would certainly bring males. Determining the

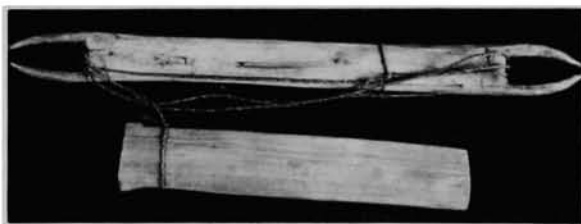


Fig. 5. Shuttle and gauge, Pyramid Lake. W. Z. Park, collector, 1935. American Museum of Natural History. Photo by authors. Shuttle is approximately 30 cm. long.

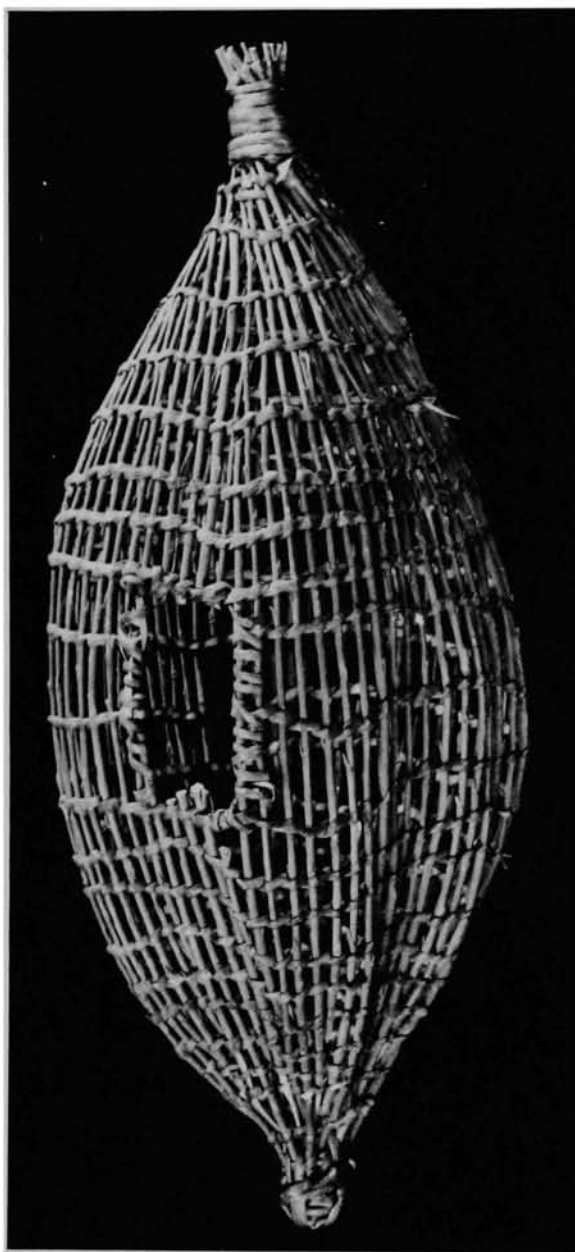


Fig. 6. Model of a bipointed basket fish trap. W. Z. Park, collector, 1935. Peabody Museum, Harvard University. Approx. 40 cm.

sex of the fish was much more difficult at night, however, and both sexes were often taken.

Both single- and double-pointed harpoons (*k^watínnu*) were made and used by the

Pyramid Lake Paiute. Single-pointed harpoons consisted of a socketed bone head fitted to a sharpened greasewood foreshaft that in turn was lashed to a 2-3-m. willow pole with dogbane cordage. The barb was of hard bone (deer, coyote) and slightly crescent shaped. A conical sheath of pelican quill was placed over the barb just short of the forward end. It was flared to fit over the greasewood foreshaft (Fig. 7). The bone barb was drilled and a 40-60-cm. length of two-ply dogbane cordage was added as a toggle. The fit of head to shaft was snug. Upon impact, the head became detached and turned crosswise in or below the fish securing it by the line to the pole. The double-pointed harpoon was constructed using the same principle, but with two foreshafts. These were then lashed to opposite sides of the pole (Fig. 8). Specimens collected by Park in the 1930's are identical in manufacture to the one described by Wheat (1967).

The fish spear, or leister (*tonókusa*), with two points of greasewood 15-20 cm. long, was also described to Park by *kuyúidíkadi* men. The two points were lashed to opposite sides

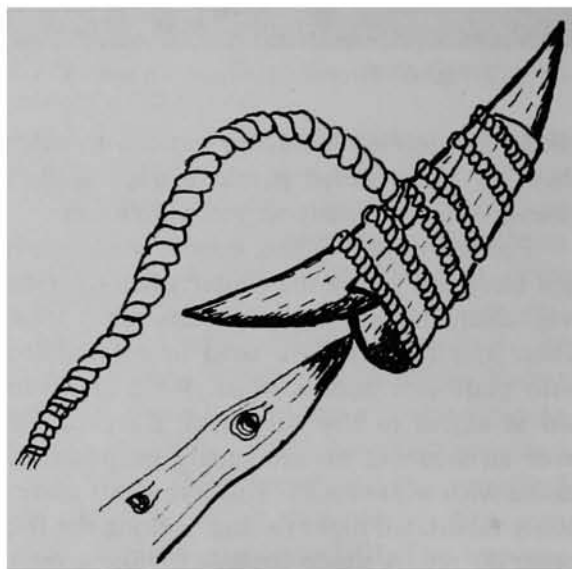


Fig. 7. Construction of harpoon head. Based on specimen collected by W. Z. Park, 1935. American Museum of Natural History. Approx. 4 cm.

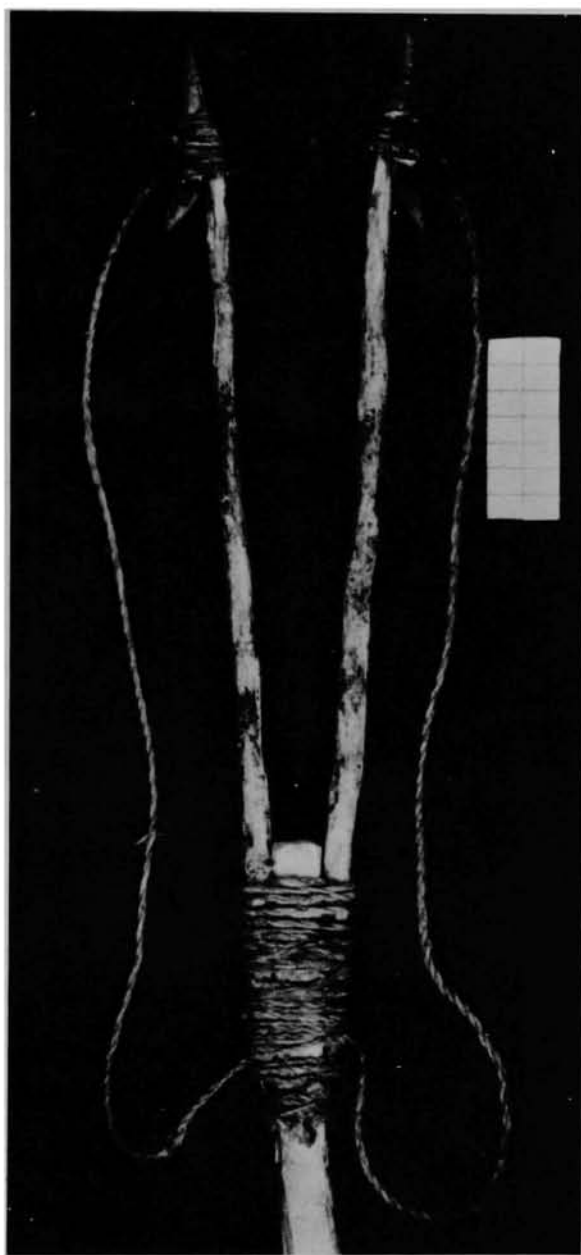


Fig. 8. Double fishing harpoon. W. Z. Park, collector. American Museum of Natural History. Note: harpoon heads have been reversed. Scale 4.5 cm.

of a willow pole approximately 2-3 m. long. The spear was used in both river and lake fishing to pin the fish to the bottom.

LAKE FISHING

Lake fishing apparently was an individual enterprise and was accomplished with set lines, gill nets, harpoons, and spears, depending on conditions and quarry. It was also principally a summer and early fall occupation, with fishermen concentrating on river fishing during the other seasons.

Set lines used for lake fishing varied from small ones for chub, reidsides, and dace, to large ones for trout. According to some of Park's accounts, there were two varieties of minnow lines. Both had a main line 3-7 m. long with hooks suspended on lines every 1/4 m. or so. One type of line had gorge hooks of sharpened rabbit bone and the other had composite hooks. Both types of hooks (*títáma*) were baited with grubs. Set lines extended into the lake from a willow stick driven into the shore. Lines ended with a suspended rock sinker. Both had tule floats attached at each end to keep the lines suspended in the water.

Stephen Powers collected a set line at Pyramid Lake in 1875. He described it as a "throwing line with sinker" (*wináinnu*). The line is 15 m. long with 75 tiny composite hooks. The rod is of cane (*Phragmites australis*) and the rock sinker at the other end is elliptical but not grooved. Line, rock, and hooks are pitch-covered, probably to protect the cordage. The hooks, roughly 1 cm. long, are made of a piece of split willow folded in half with a tiny bone pin in the bite (Fig. 9). The willow and bone are then wrapped together with cordage and the loose end is affixed to the line. Such lines were used for chub, dace, and reidsides. They were baited with small white grubs (see also Loud and Harrington [1929:41, Plate 51] for a similar design).

Several individuals also told Park of large set lines used in lake fishing for trout. These were of heavy "rope" (probably 3-ply *Apo-*

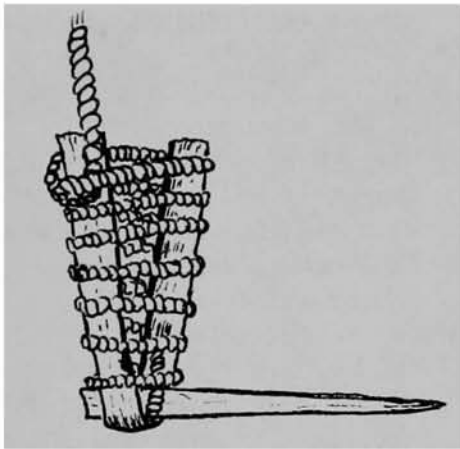


Fig. 9. Composite fish hook. Expanded to show construction detail. Based on specimen collected by S. Powers, 1875. U. S. National Museum of Natural History. Approx. 1 cm.

cynum cordage) 20-30 m. long, and with about 30 barbed bone or greasewood hooks suspended by 3/4-m. lines from the main line. Although Park did not collect an example of this line, Samuel Barrett collected hooks used with such a line in 1916. The shank of the hook in Fig. 10 has a concave socket at the side to receive the cylindrical barb. Both pieces are of greasewood and are wrapped together with cordage. The lashing string then continues to the main line. According to accounts received by Park, such large lines were attached to shore and then a swimmer took the end out into the lake to a favored spot. Here he attached a large circular tule float from which he also suspended a rock sinker. The line could be pulled in from shore, although a man might choose to inspect his catch by swimming out along the line periodically. He could then remove some fish by hand and place them in a basket for transport home. The hooks were baited with minnows and the quarry was almost exclusively trout. Apparently some fishermen preferred a large version of the gorge hook baited with sucker meat for these lines.

An additional technique for lake fishing, and one occasionally also used in the river,



Fig. 10. Composite greasewood trout hook. S. A. Barrett, collector, 1916. Milwaukee Public Museum. Photo by authors. Approx. 8.5 cm.

was gill netting. Gill nets were roughly 1 m. high and 40-80 m. long. They were made in specific mesh sizes for trout, chub, cui-ui, and suckers. These nets were strung vertically on tule or willow sticks—one every meter or so—and separated or held apart by the same at both top and bottom. At every fifth vertical stick a rock sinker was suspended. At the end farthest into the lake, a long tule float was tied. When fish were in the net, the tule bundle stood upright “just like a flag.” There was also a rock weight at each end of the net. These nets were placed in 10-20 m. of water to snare fish as they swam below the surface. Summer was the principal season of their use. They were particularly effective for chub which congregated in extensive schools *ca.* 5 m. off shore (La Rivers 1962:412).

Gill nets for trout might be multi-purpose,

doubling as rabbit nets and/or duck nets. Lifting nets set on poles in deep water could also be used as gill nets. Gill nets were sometimes used in the river at times of low water. They were tied to sharpened sticks that could be driven into the river bottom. The net could billow with the current.

In addition to these techniques, lake fishermen also used harpoons and spears. However, according to Park's accounts, there were few places along the shores of Pyramid Lake where this type of fishing was efficient, and the lake was generally too deep.

OTHER PRACTICES CONCERNING FISH AND FISHING

Several taboos surrounded the use of fishing equipment, including platforms, nets, spears, and harpoons. For example, menstruating women could not handle nets or harpoons or approach the platforms because they would defile the equipment and make it unlucky. In addition, if a platform broke, or a fisherman fell from it into the river, the fishing spot might forever remain unlucky. Blowing on cooked fish to cool it before eating caused the catcher's equipment to be defiled. Similarly, trout could not be fed to infants or dogs because of the danger that they might vomit the material and again defile the equipment.

Once obtained, fish were dried and stored for later use. Trout, being the most perishable, were usually eaten fresh, although some quantities could be filleted and dried in the shade. Cui-ui and the Tahoe sucker, with a heavier oil content, kept the best. Cui-ui were filleted with unhafted obsidian knives designed to be held sideways between the thumb and first finger (Fig. 11). They were then dried on pole platforms. After drying they were placed in a sagebrush bark- or grass-lined pit or left on the platforms and covered with layers of leaves and branches. Chubs, reddsides, and speckled dace were



Fig. 11. Obsidian fish knife. W. Z. Park, collector, 1934. Peabody Museum, Harvard University. Approx. 12 cm.

sun-dried whole and later ground into powder for soups. Fish eggs were treated similarly. Fresh and dried fish were either roasted in hot ashes or steamed and baked in preheated grass-lined pits.

Each winter and spring dances were held at Pyramid Lake to mark the beginning of the trout and cui-ui runs. These were typically five-day celebrations, with the circle dance being featured at night and gambling games and contests of skill and endurance in the daytime. According to Park's data, some individual, but not necessarily a shaman, offered prayers specifically for a successful run of cui-ui. At the same time he prayed for a good harvest of summer vegetable foods. It is less clear whether the same type of prayers were offered for the winter trout run.

CONCLUSION

By way of conclusion, it is perhaps worth noting some of the geographical relationships of Pyramid Lake fishing implements and practices. Most are clearly shared with the Walker River Northern Paiute, and at least to some degree with the Carson Lake and Humboldt Basin groups (Speth 1969; Stewart 1941). Platforms, weirs, gill nets, dip nets, and set lines are found over much of the area, with local adaptations to fit specific hydrographic features. These same features, plus some of the same methods of weir and basket-trap construction, the use of shuttles and gauges, and large lifting nets, are also shared with some adjacent groups to the west,

including particularly the Klamath (Barrett 1910; Kroeber and Barrett 1960). These and other features, as Kroeber and Barrett (1960) pointed out some years ago, also show a continuum from the Klamath area to the Pacific Coast. The *kuyüidîkadî* and several other Northern Paiute groups can now be added to these distributions. In addition, some of these features seem to have been well established in the western Great Basin in the prehistoric past. Parallels are particularly noticeable by Lovelock times (Loud and Harrington 1929). Apart from any supposed or actual relationship between the Northern Paiute of west-central Nevada and the carriers of Lovelock lifeways (Grosscup 1963; Heizer and Napton 1970), it is clear that the whole of this region of the western Great Basin has been involved in fishing complexes of various orders and varying degrees for several millennia. The ecological and technological relationships that characterize the region through time are part of an important adaptive pattern that deserves to be further explored and more tightly defined. Park's data help with the ethnographic definition.

NOTES

1. This project was supported by National Science Foundation grant BNS77-13408. This support is gratefully acknowledged. The project involved editing 23 field notebooks from 1933-1940 as well as studying material culture collections in various U. S. museums. Stephen Powers' collection is in the U. S. National Museum. Samuel A. Barrett's collection is in the Milwaukee Public Museum.

2. Snyder (1917:42) notes that the sucker was usually rejected by Paiute fishermen as food. Park's respondents indicated that although not as favored as trout or cui-ui, it was regularly taken and eaten.

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