

as quartzite. This piece was recovered from San Nicolas Island by A. W. Barnard in 1880, and is catalogued as T-12179 in the American Museum of Natural History.

The second specimen (Pl. 1f) has a total length of 19 cm. (AMNH T-12176). The smooth wooden handle is lenticular in cross-section, and like the one just described, has been excavated for insertion of the blade which is made of chalcedony. The blade is held in place with asphaltum mastic. It was collected from San Nicolas Island in 1883 by Cyrus Barnard.

The third knife (Pl. 1g) has a length of 22.5 cm. The blade (identified doubtfully as of dark gray, laminated basanite) is set with asphaltum into an excavated hole in the end of the handle. It was (AMNH T-12171) collected in 1883 by Cyrus Barnard from San Nicolas Island.

It is unfortunate that no further details of the finding of these specimens have been recorded. The native population of San Nicolas Island, consisting of seventeen or eighteen survivors, was forcibly removed in 1836. One woman was left alone on the island for eighteen years. One account of her solitary life on the island refers to a "good-sized cave in which she took up her abode," and it may be that this cave provided the protective conditions for the pieces collected by Barnard in the 'eighties and described here. Indeed, the wood-handled flint knives and the ladle may have been made and used by the old woman of San Nicolas Island for all we know.

78. SOME PREHISTORIC BULLROARERS FROM CALIFORNIA CAVES

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ABSTRACT

Archaeological specimens of bullroarers from two cave localities in Southern California are described. This is supplemented by comments on the function and wide ethnographic distribution of bullroarers in California.

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In the course of some years of intermittent reading of the extensive literature on California Indians, I have jotted down notes on the occurrence of various customs, beliefs, and artifacts. Such notes often prove

useful reference files in connection with a special problem, but some aggregates of data seem to elude any useful application. One of these accumulations of facts pertains to the distribution and use of the bullroarer, a narrow, flat, wooden stave with a hole in one end through which a string is attached, and when swung through the air gives off a whirring, fluttering, humming noise.

An occasion to present the facts concerning ethnographic Californian bullroarers has now presented itself in connection with the recognition of some archaeological wooden specimens from Santa Barbara and Los Angeles County caves as prehistoric examples of this type of object. As will be seen, the distributional data on occurrence and use of this implement are sufficiently full that it is possible to suggest the function these ancient bullroarers served.

The prehistoric California specimens number seven. Four are from a cave dug by Stephen Bowers in 1884 (Bowers, 1885). The cave has been recently relocated by R. Van Valkenburgh (1952). Bowers' collection is now in the Peabody Museum, Harvard University,¹ which institution through its director, J. O. Brew, kindly made available the photograph shown here in Plate 1. The bullroarer in Plate 1a (Mus. No. 39260) is 30 cm. long; that in Plate 1b is 30.5 cm. long; that in Plate 1c is 24.1 cm. long and 5 cm. wide at the midpoint; that in Plate 1d is 34.5 cm. long. One specimen (Pl. 1c) still has attached the cord which is of undetermined material worked into a three-strand braid.

The small dry cave yielded, in addition to the bullroarers, a number of baskets, feather headdresses, hafted stone discs (illustrated in Henshaw, 1887), and miscellaneous shell, wood, and bone items.

The remaining three prehistoric wooden bullroarers are now in the Santa Barbara Museum of Natural History. Their provenience is listed as from a cave in the Hurricane Deck region of Santa Barbara County. They are shown in Figure 3. The specimen illustrated in Figure 3b is 42 cm. long, 6.5 cm. wide at the center, 5 cm. wide at the end with the hole, and 4.7 cm. wide at the non-holed end. The fragmentary specimen shown in Figure 3c is now 14 cm. long and 4.5 cm. wide at the end with the hole. That shown in Figure 3d is 34.6 cm. long and 4.7 cm. wide at the end with the hole. In all three specimens the hole diameter is .5 cm. Only one of the three specimens (Fig. 3d) bears the edge-notching which occurs in all four of the Los Angeles County cave specimens.

1. The Bowers collection is mentioned in Annual Report of the Peabody Museum, Vol. 3, 1889.

The Bullroarer Among Recent California Tribes

Among recent California Indian tribes the bullroarer is widely known. It is reported present in the ethnographic literature for all groups except the Modoc, Shasta, Karok, Yurok, Wiyot, Yana, Patwin, Wappo, Esselen, Kamia, and Halchidhoma. Figure 3a shows the groups for which its occurrence is attested.

Its function and context of use is variable. Thus the following groups are reported to use the bullroarer as a toy: Tolowa, Coast Yuki, Costanoan, Salinan, Chumash, Serrano, Gabrielino, Desert Diegueño, Chemehuevi, Mohave, Tübatulabal, Panamint Shoshone, Owens Valley Paiute (= Eastern Mono), Yokuts, Southern Sierra Miwok, Northern Maidu, Wintu, Atsugewi, and Paviotso. As a toy, usually used by boys, its use was profane.

The following groups used the bullroarer for weather control: Coast Yuki (sounded to call a thunderstorm), Chemehuevi (bullroarer made of mountain sheephorn for rainmaking and bringing cold weather), Monache, Yokuts (to produce a storm), Wintu, Achomawi, Sinkyone, Kato (to bring a storm and/or wind), and Paviotso (to raise a wind).

In a ritual or religious connection, the following beliefs are reported for the bullroarer: Kato (voice of ghosts in boy's initiation), Yuki (voice of thunder god in boy's initiation rite), Pomo (voice of dead in boy's initiation rites and voice of thunder in secret society rites), Coast Miwok (voice of "spirits" in boy's initiation), Luiseño and Diegueño (bullroarer sounded to convoke a religious assembly and to signal the termination of a ceremony; also to warn uninitiated that a ceremony is in process and as a warning to women to stay away while the men are taking toloache, Datura), Cupeño, Serrano, Cahuilla (to assemble people for a ritual).

The bullroarer as connected with health is noted as follows: Panamint Shoshone and Atsugewi (to produce sickness), Yokuts (produce health or to cause sickness; applied to body of sick person to extract "poison").

It will thus be seen that there are a few regions where a particular function is shared by a series of tribes and where the conclusion may be drawn that the bullroarer has been used over a sufficient span of time for a specific attribute to have become diffused among several contiguous tribal entities. Use as a toy is more widely reported than any other function and the distribution is not weighted in any area. Perhaps this use is the oldest one, and other functions are derivative or secondary developments. Weather control is rare and the distribution is sporadic as though weather shamans, who are reported widely in California, had applied the bullroarer independently

to this function. The area north of San Francisco Bay (among the Pomo, Yuki, Coast Miwok and Kato), where a ritual use is reported, is a clear case of association with the old Ghost Ceremony which is believed to underlie the later Kuksu Cult development. On the southwestern California coast (Luiseño, Diegueño, Cahuilla, Serrano and Cupeño) a similar localized association with the Toloache Cult is clear.

Our archaeological examples from Bowers Cave lie in what is recent Alliklik territory, and we do not have any reliable body of ethnographic record for this group. The fact that they were buried in the cave in association with what is clearly a batch of ritual items suggests strongly that these examples anciently figured in a religious context. That this context may have been the Toloache Cult seems probable, though of course unproven. The notched edge of the specimens just mentioned is barely present in one of the three pieces from the Hurricane Deck region--this feature is not reported in any ethnographic specimens (cf. Kroeber, 1925, Pl. 44) but is attested elsewhere by Spier (1928:290-91) for the Arapaho and Havasupai. Since the Chumash (in whose traditional territory the Hurricane Deck country lies) are known to have practiced the ritual taking of the narcotic coloahe (Datura or jimson weed), these examples may be a part of some ceremonial paraphernalia which had been secreted in a cave. While the decultured survivors of the Chumash are reported only to have known the bullroarer as a toy, the early disappearance of the native religion through efforts of the mission priests may have led to the abandonment of this contrivance in ritual and permitted its use to persist as a toy.

That the bullroarer is an ancient possession of man is shown by the recovery of at least one specimen of Mousterian age (Armstrong, 1936) and its wide distribution among primitive peoples (cf. Loeb, 1929:282-85). The extensive distribution of this instrument in California, as well as its several functions, also indicates it is an old element in California Indian culture. The happy circumstance of the preservation of a few prehistoric examples, however, does not give us any hint of how ancient the bullroarer may be in California.

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