nobody in this neighborhood. I would then make a full report of their proceeding and behavior, and send it to you, every two or three months.

Your presence had a very good and wholesome effect. They have seen, now, that they can be removed,--before, they would not believe it.

I remain, with the highest esteem & respect,

Your most obdt. svt.

J. A. Sutter

P.S. Oregon wheat will not answer. I sowed some, last year, like a good many farmers, but it have proved to be a failure.

86. DATA PERTAINING TO VARIOUS INDIAN CEREMONIAL HOUSES IN NORTHERN CALIFORNIA

C. Hart Merriam

ABSTRACT

Structural and other information referring to four historic ceremonial houses representing Miwok, Nisenan, and Pit River Achomawi are taken from the field notes of C. Hart Merriam. The value of these brief descriptions lies in the precise construction details which are so deficient in the California ethnographic literature. The Pit River example is unique in providing data on the number of workers involved and the time required to build the structure.

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1. Mewuk Hang-e and Dances

The old ceremonial house, now fallen in, was explained to me by the old chief, 'Eph.' The roundhouse is called Hang-e and in old times was an earthen house. The doorway should face north and the drum end south (Fig. 6a). The following terms were given by Eph for parts of the Hang-e and for the people connected with the dances.

O-lit'-tah, the doorway
O-let'-tum, the doorway end of the house
Et-chut, the opposite or drum end
Wuk'-ke, the fireplace
Too'-mah, the drum, a plank 7 by 2 feet
O'-lah, a 4 foot deep hole under the drum plank
Moo-le'-pĕh, the singer who stands in front of the drum plank
Too-mup'-pĕh, the "drummer" or man who beats time with his feet on the drum plank in keeping time with the singer
Sŭ-pop-pe, the leader of the dance

The dancers, Kol-tă-på, are men and women, and there may be a dozen or more of them. They are painted and wear beads and shells. Feathers are worn in their hair and on their cheeks. In most dances each person, male and female, wears in his back hair and projecting outward, four feathers, two on each side. These two on each side are fastened to a slender stick which is stuck into the back hair.

The leader of the dance is elaborately clad in a feather dress or suit, comprised of a headdress and skirt. He is also elaborately painted on his chest, back, arms, and legs in black, white, and red. His headdress is mainly of red caloptes tail feathers. Chief Eph is the singer and keeper of the dance songs. He makes and owns the feather suit and keeps it in a bag hung up high in a pine tree near camp.

There are a number of dances:

Te-là'-le kol-là'-ah, the Acorn Dance
Ko'-nok-ko kol-là'-ah, the War Dance
Mel'ng-ah-u kol-là'-ah, the Yellow Jacket Dance
Kam-min-ne kol-là'-ah, the Singing Dance
O-lah'-ko ko-là'-ah, the North People's Dance
Soo-lek'-ko ko-là'-ah, the Devil's Dance

2. The Me-wuk Ceremonial House at Oo-poo'-san-ne (Buena Vista, Amador County, California)

On one of the large promontories jutting out into the valley, at the base of Buena Vista Butte, is an ancient Me-wuk Indian settlement, or at least all that remains of a once large and prosperous village. There are now only two houses and an old earth-covered ceremonial house like the one I described at Cortena Creek, but smaller and lower. This one has only one

entrance, and it faces east and is very low. The ground inside is excavated 2 or 3 feet below the general level, as usual. The ground plan is oval and the roof of earth-covered branches is supported by strong posts and connecting timbers. The top of each post is deeply and squarely notched to receive the connecting roof timbers.

At the west end is a long box, sunk flush with the ground and placed transversely to the axis of the building. Its top is a single thick board. The old man told me that this is a drum on which some person beats with the feet during the ceremonies. He says a hollow log is better, and they used to have one in the old ceremonial house which stood farther out on the promontory and which was much larger, as shown by the excavation which still remains. (Fig. 6c.)

At the extreme (northern) end of the promontory is this large, shallow depression now, and for many years, used as a burial place by these Indians. It was once a huge ceremonial house, but that was long ago. It was used for all ceremonial purposes my informant said. Not only the mourning ceremony (the 'big cry' as it is locally known among the whites) but also feasts and dances took place here. During dances the dancers assembled at the far end near the drum and started out from and returned to this place.

3. Chief Hunchup's Roundhouse

Chief Hunchup tells me that his people, the Nis'-se-nan tribe, reached westerly only to the lower edge of the timber composed of digger pine and a blue oak forest belt. Their territory included Latrobe (Yah'-lis) and Wi-me-să-pă-kan, located a little below Latrobe. It ended along an irregular line passing southerly from Salmon Falls (Yaw'-dok) on the South Fork of the American River to Michigan Bar (Pă-lah-mool, meaning water oak) on the Cosumnes River. Below and west of the Nis'-se-nan were numerous rancherias of tribes speaking a widely divergent language, Mokozzumme. These tribes the Nis'-se-nan called Ti'-nan, meaning West People. The Ti'-nan extended from Slough House on Deer Creek (and adjacent parts of the Cosumnes River) down to the tules.

Chief Hunchup gave the following tribal and place names of the Nisenan:

To'-se-win, people in the Folsom area
Pus-soo'-ne, lived at the junction of the American and Sacramento Rivers. Their language is similar to Nis'-se-nan but is somewhat different.

Chah-pah'-mus-sy, name of the place and people at Gold Hill on the American River

Es-nah-kah'-mus-sy, name of Hunchup's place and band between the North and Middle Forks of the American River

O-no-cho'-mah-mus-sy, place and people at Mud Springs or Eldorado, west of Placerville

Hunchup's roundhouse has a diameter of about 45 feet. There is no center post. A firehole in the center of the roof measured about 4 feet square.

Four large posts separate the interior into inner and outer spaces. These posts are about 10 feet apart east to west, and 15 feet apart north to south. They support four heavy horizontal timbers on which the roof poles rest. These roof poles are forty-five in number and measure 6 inches in diameter at the butt end. Each of the forty-five roof poles is supported at the butt end by a vertical slab or post of heavy split pine driven into the ground; these form the outer wall. (Fig. 6b.)

The roof poles rest directly on the north and south horizontal cross beams because these beams are relatively short. But on the east and west sides the corresponding beams are too long to conform to the rising roof poles. Consequently the roof poles rest on a series of a dozen short blocks which are themselves supported by the horizontal beams and lean outward to meet the roof poles. The largest is, of course, in the middle of the horizontal beam. The top of the roof is of split pine shakes.

A cooking hole in the ground under a neighboring oak is 22 inches in diameter, about a foot deep, and half full of small stones, 2 to 3 inches in diameter.

Chief Hunchup died on W. C. Sheldon's ranch on the Cosumnes River near Slough House on the night of Sunday, November 3, 1907. He had no noticeable fever, and Sheldon was not able to tell what ailed him. Hunchup told Sheldon a few days before that he thought he was "gone." He was over seventy-five years old.

4. The Ceremonial House of the Pit River Achomawi

The ceremonial house (ahs-choo'-e) of the Pit River tribes, from the Modesse of Big Bend to the Ham-mah'-we of the Valley of South Fork Pit

River* inclusive, differs markedly from corresponding structures of all other California tribes known to me.

It is a low-domed, broadly oval or somewhat snowshoe-shaped structure in ground outline (Fig. 7). It narrows slightly toward the front and varies in size according to needs. The breadth is usually three-quarters of the length. The low front looks south in the Modesse house, east in the Ă-ju-mah'-we and Ham-mah'-we houses. The rear end (e-sā'-too) is higher and more broadly rounded.

The ground inside is excavated to a depth of 4 or 5 feet by the Modesse and 3 or 4 feet by the Ă-ju-mah'-we.

The centerpost, a stout tree trunk 10 or 12 feet in height, stands well toward the rear (about one-third the distance from back to front). It is a combination of post and ladder. The post itself is called tah-to-pi-o'-me (slurred, to-pi-wum-me). The attached cross bars form the ladder, lo'-pi-e.

Two cross beams (dat-doot'-si-ke) slant up from the ground to the top of the centerpost and support the rear ends of the two long rafters or stringers that extend from the low front to the cross rafters. There is between them an interspace 3 or 4 feet in width abreast of the centerpost; this space narrows anteriorly.

These two long stringers (lew'-woot-se) slope downward from the cross rafters to the low front opening, where they rest on a cross beam called de-lah-tet'-si. This latter beam is 3 or 4 feet in length and about 3 feet above the level of the ground. Below this is an opening for ventilation which can be closed when need be by a large basket. It is possible for a man to crawl through this hole, and it is used by the aged, infirm and children. But the usual entrance is the smokehole on top of the roof, immediately in front of the centerpost, and directly over the fireplace.

The roof consists of three layers: (1) a framework of poles or split tree trunks. Those at the rear rest on the cross rafters; those along the sides rest on the long stringers. (2) A covering of pine branches and brush. (3) A deep layer of earth.

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*For further identification of Pit River groups, see Merriam's 1926 monograph "The Classification and Distribution of the Pit River Indian Tribes of California," Smithsonian Misc. Coll. No. 2874, 78:1-52. Washington.

The entrance (ah-pit') is on the roof immediately in front of the centerpost and directly over the fireplace (taw-yeet'). It is about 3 feet in width (limited by the space between the long rafters) and 3 or 4 feet in length anteroposteriorly.

There is no drum or drum log, which is a striking difference from the usual type of California ceremonial house.

Thus far the description of the roundhouse applies to all the Pit River tribes proper, from the Modesse of Big Bend easterly to the Ham-mah'-we of South Fork Pit River. According to the Fall River Ă-ju-mah'-we and the Likely Valley Ham-mah'-we, there was no important difference in construction within this area; but the Modesse of the densely forested region of Big Bend describe several differences which seem to be of considerable importance.

The first of these is a heavy timber called "the Boy" (al-yool'-tan) which extends from the centerpost to the ground at the extreme rear of the structure. This appears to be lacking in the other tribes. (See Fig. 7.)

The second noteworthy difference is that a flat rock is placed on the roof next to the entrance hole.

The Modesse describe their house as being excavated a foot or two deeper than is usual among the other Pit River Tribes. Instead of extending to the outer edge of the structure, this excavation begins some distance inside, thus leaving a broad shelf for the on-lookers.

The Modesse structure rests on a log base, possibly two or three logs high, while the structures of the other tribes appear to rest directly on the ground.

The roof poles in the Modesse house are split. They appear to be whole in other Pit River ceremonial houses. In the Modesse Ahs-choo'-e we find that the two long stringers are not in the same plane, one being higher than the other. This was not mentioned by the Ă-ju-mah'-we and Ham-mah'-we informants.

A number of interesting details concerning the building of the Modesse roundhouse in the early days were given me by Iset Woiche, speaker of the tribe. The labor of construction began in the spring and was not completed until fall. Twenty-five men were detailed to fell the trees, which was a very tedious process as they had to be cut by means of elk horn chisels. Sixty men were engaged in the building: twenty cut and split the timbers; another twenty carried the timbers to the site; twenty dug the excavation,

carrying the earth away in baskets. Throughout the entire time of building a hundred men were occupied in hunting and fishing to secure food for the workers, and fifty women were occupied in preparing and cooking acorn mush and other foods. According to this, one hundred and eighty-five men were employed in chopping, building, and hunting, and fifty women in preparing the food.

The centerpost of the Modesse ceremonial house was a tree trunk of black oak or incense cedar, 2 feet or more in diameter and 14 or 15 feet in length. It was set 4 or 5 feet into the ground so that the exposed part stood up 10 feet from the floor of the excavation.

The small front opening was not more than 2 1/2 feet in diameter. In addition to its function as air intake or ventilator, it was used as an entrance by the old and feeble and also by the younger children, who were not strong enough to climb up to the main doorway, the smoke hole in the roof.

The two stringers in the Modesse ceremonial house were about 30 feet long. The breadth of the building was approximately 40 feet. Its posterior part was 2 or 3 feet longer than that of the Ham-mah'-we structure. This would make the total length of the Modesse structure 55 or 56 feet.

87. SIX CHERT KNIVES FROM TULARE COUNTY, CALIFORNIA

J. C. von Werlhof

ABSTRACT

Six large stone knives or scrapers, recently excavated in Tulare County and thought to be of a type unique to the area, are described, together with some speculation as to possible relationships with generally similar specimens found elsewhere.

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A recently discovered burial and occupation site, designated Tul-145 in the files of the University of California Archaeological Survey, located near the town of Three Rivers on the south bank of the Kaweah River in Tulare County yielded artifacts which appear to be representative of the