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Author(s): Thomas Buckley

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menstruation and the power of Yurok women: methods in cultural reconstruction

THOMAS BUCKLEY—University of Massachusetts, Boston

In 1976, Lowell Bean and Thomas Blackburn encouraged the ongoing renewal of anthropological interest in native California through publication of a collection of relatively recent theoretical essays. In their introduction to the volume, the editors stress the possibilities inherent in the truly vast accumulation of data on aboriginal Californian peoples to be found in the descriptive ethnographies of earlier investigators and, especially, in the "undigested" original fieldnotes of these ethnographers. Bean and Blackburn (1976:5-10) emphasize the necessity for approaching such materials from new theoretical perspectives so as to realize their potentials. Several recent papers on Californian cultures stress such possibilities as well, suggesting that the real value in exploring these cultures lies in opportunities for developing hypotheses of significance to general theory regarding hunter-gatherers far beyond the confines of native California. Data on the area are increasingly recognized as being uniquely fruitful in just this regard (e.g., Gould 1975; Blackburn 1976).

That significant new work on native California continues to appear belies the Kroeberian notion that the ethnographic records of California's aboriginal peoples have been, as far as possible, completed and, moreover, that they have been exhausted analytically. Clearly, more skeptical scholars have been mistaken in the conservatism of their questioning "whether late-coming ethnologists, working with . . . apparently imperfect old data and such new data as can be elicited from younger informants . . . can actually develop a viable new analytic system . . . at this late date" (Elsasser 1976:96). Specifically, I question the dim view taken in some quarters of the value of contemporary Indian consultants' testimony regarding their traditional cultures. Surviving Californian cultures have proven unexpectedly resilient. It is, indeed, as Bean and Blackburn (1976:8-9) point out, the possibility of doing sound new fieldwork in native California that in part accounts for the extreme usefulness today of older, unpublished field materials.

Consideration of Yurok Indian women's attitudes towards menstruation and of the ritual observances surrounding it enhance our understanding of the position of women in Yurok society and of the aboriginal role of menstruation in the temporal structuring of village life. This paper exemplifies a methodology for investigating this and other topics incompletely reported in received ethnographies of now much-changed cultures. The specific ethnographic case to which this methodology is applied, viewed in light of current biological research, generates general hypotheses for testing in viable hunter-gatherer societies. [gender, menstruation, methodology, time, Yurok Indians]

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Following these anthropologists, I suggest that contemporary research in and analyses of Californian cultures may best be undertaken in a threefold manner. New fieldwork among knowledgeable consultants should be seen in relationship to earlier accounts, especially those available in various archives. Each sheds light on the other. Contemporary testimony often reveals important data that were neglected in published work, while these earlier data often provide unplumbed information highly useful in interpreting the nature of both cultural change and persistence in a given surviving culture. A theoretical component is needed, however, to take full advantage of the existence of these two strata of field materials, and this third component must overcome the limitations in vision implicit in prior neglect of significant portions of the earlier data. Particularly in the Californian case, such limitations seem to indicate a certain blindness to broadly suggestive, complex orders of systematic organization, variation, and interrelationship in native cultures, and it is with these that I am most concerned here.

moontime

The Yurok Indians today live largely within or near their aboriginal homelands in coastal and riverine northwestern California, close by the Klamath River and the present California-Oregon border. Their culture, while greatly changed since the time of first massive contact with European-Americans during the gold rush, retains a certain, albeit transformed, uniqueness.

One evening in 1978 I went with an Indian friend to his house to eat. He would be doing the cooking, he explained on the way, because his Yurok wife was "on her moontime" (in her menstrual period)¹ and they were keeping the old ways as best they could. This meant that his wife went into seclusion for ten days during and after her flow, cooking and eating her own food by herself.

According to traditional "Indian law" (rules for conduct), a menstruating woman is highly polluting and will contaminate the family house and food supply if she comes into contact with either. Thus, in the old days, a special shelter for menstrual seclusion was built near the main house, and special food for a family's menstruating women was separately collected, stored, and prepared for consumption in this shelter. In my friend's modern house, a back room had been set aside for his wife's monthly use. Separate food storage, as well as cooking and eating utensils, was furnished in the kitchen.

I hadn't expected to find the old, seemingly anachronistic menstrual practices being approximated in this environment. Aside from the exclusion of women from ceremonial activities during their menses, and the fact that some men refrain from deer hunting while their wives and daughters are menstruating, I had not found adherence to the old menstrual rules to be widespread among contemporary Yurok—certainly not to the extent that they were being followed in this house. Even here, however, these rules were not kept to the letter. My friend's wife appeared when we arrived and joined the conversation, explaining to me that she often got restless in her back room and so wandered around the house talking with her husband when he was home, although they neither ate nor slept together during her "moontime." She then went on to talk about what she was doing and why and how she felt about it.

She had been instructed in the menstrual laws by her maternal aunts and grandmother, who were, in their times, well-known, conservative Yurok ladies. Her understanding of menstruation came largely from these sources. She began her account of this understanding by telling me that as a foster child in non-Indian homes she had been taught that menstruation is "bad and shameful" and that through it "women are being punished." On her return to Yurok society, however, "my aunts and my grandmother taught me different."

The difference was that these women stressed the positive aspects of menstruation and of Yurok menstrual rules. Briefly, here is what the young woman said.

A menstruating woman should isolate herself because this is the time when she is at the height of her powers. Thus, the time should not be wasted in mundane tasks and social distractions, nor should one's concentration be broken by concerns with the opposite sex. Rather, all of one's energies should be applied in concentrated meditation on the nature of one's life, "to find out the purpose of your life," and toward the "accumulation" of spiritual energy. The menstrual shelter, or room, is "like the men's sweathouse," a place where you "go into yourself and make yourself stronger." As in traditional male sweathouse practice, or "training" (*hohkep-*), there are physical as well as mental aspects of "accumulation." The blood that flows serves to "purify" the woman, preparing her for spiritual accomplishment. Again, a woman must use a scratching implement, instead of scratching absentmindedly with her fingers, as an aid in focusing her full attention on her body by making even the most natural and spontaneous of actions fully conscious and intentional: "You should feel all of your body exactly as it is, and pay attention."

The young woman continued: There is, in the mountains above the old Yurok village of Meri-p, a "sacred moontime pond" where in the old days menstruating women went to bathe and to perform rituals that brought spiritual benefits. Practitioners brought special firewood back from this place for use in the menstrual shelter. While many girls performed these rites only at the time of their first menstruation, aristocratic women went to the pond every month until menopause. Through such practice women came to "see that the earth has her own moontime," a recognition that made one both "stronger" and "proud" of one's menstrual cycle.

Finally, the young woman said that in old-time village life all of a household's fertile women who were not pregnant menstruated at the same time, a time dictated by the moon; that these women practiced the bathing rituals together at this time; and that men associated with the household used this time to "train hard" in the household's sweathouse. If a woman got out of synchronization with the moon and with the other women of the household, she could "get back in by sitting in the moonlight and talking to the moon, asking it to balance [her]."

the classic approach

My immediate reaction to all of this was somewhat as follows. The woman and her husband, who were both deeply involved in the contemporary renascence of Indian culture and identity and were committed to living in an "Indian way," as they understood it, had revived aspects of traditional menstrual practice as a means of expressing their commitment to "Indianness." Because the old Yurok menstrual rules had reflected the male-dominant gender asymmetry that ordered the underlying symbolic code—an asymmetry specifically challenged by modern notions of women's rights—these old rules had been rationalized and reinterpreted. Through this process they had come to be newly understood from a perspective that allowed resolution of conflicting desires for both a strong link to the Indian past and for political modernity.

I reacted this way because, having studied the received ethnographies of traditional Yurok and neighboring cultures carefully, I found the young woman's testimony incredible. According to a composite picture drawn from published data bearing on the topic of menstruation in Yurok, Karok, Hupa, and Tolowa ethnographies, menstruation and everything associated with it was simply negative—in Yurok, *kimoleni* (dirty, polluting). Menstrual blood itself was thought by Yurok to be a dire poison, and menstruating women were believed to contaminate whatever they came into contact with—houses, food, hunt-

ing gear, weapons, canoes, water, trails, and, above all, the men's wealth objects central to these acquisitive societies and emblematic of spiritual ascendancy (Bushnell and Bushnell 1977). Menstruating women, beyond contaminating concrete objects, were perhaps most dangerous through their negative effect on men's psychic or spiritual life. These women spoiled men's "luck" (*heyomoks*)—their ability to exercise power in, among other things, the accumulation of wealth. A menstruating woman who seduced an unwary man was therefore *cisăh* ([worse than] a dog), the lowest form of mammalian life.

Thus, menstruating women were isolated in special shelters, ate carefully segregated foods, and used scratching bones, being so highly charged with negative energy that they could not touch even themselves for fear of poisoning. In Yurok society, far from being permitted to travel into the very "pure" (*m, w, jksjyj*) mountains to bathe, these women bathed daily and seemingly compulsively in the Klamath River, waters already thought to be polluted by corpses, dogs, aborted fetuses, and menstrual blood—"things" (*so k*). A menstruating woman was called *wespurawok* (bathe towards river she). Finally, regarding discrepancies between the modern Yurok woman's testimony on the positive nature of menstruation and the received ethnographies, the latter nowhere explicitly suggest that either the moon or synchrony were considerations in aboriginal menstrual practices.²

Reports of entirely negative coding of menstruation itself (as distinct from female puberty) are, of course, staples of the ethnographic accounts of a great many cultures, to the extent that they seem collectively to suggest an ethnological truism: Menstruation is, for a great many peoples, virtually the definitive form of pollution. Currently, this apparent truism is being widely used as the basis for a strong element in more general, politically motivated critiques of male-dominant gender asymmetry in certain cultures (e.g., Delaney, Lupton, and Toth 1976). However, supported by further neglected Yurok data to which I now turn, I suggest that we be circumspect in evaluating received ethnographies, realizing the double male biases that are implicit in a great many of them (i.e., in the descriptions of male anthropologists based on the testimony of primarily male consultants). Moreover, I suggest that we be open to far more complex sorts of symbolic, or conceptual, structuring than are accommodated in what may be simplistic and overly universalistic views of menstruation qua pollution. We should bear in mind the ambivalent nature of pollution itself in many cultural systems where, far from being a *simply* negative concept, pollution is understood to comprise a manifestation of a neutral (hence, potentially positive) energy (Douglas 1966; cf. Bean 1977).

Kroeber's fieldnotes

A few weeks after the conversation sketched above, I went to Berkeley, where I spent several days going through the A. L. Kroeber Papers, now in the Manuscript Division of the Bancroft Library, University of California, Berkeley (call number 71/83c). I was particularly interested in Kroeber's Yurok fieldnotes (cartons 6 and 7). I discovered, in the course of my readings, a set of notes and textual transcriptions detailing interviews with a Yurok woman at the village of Wecpus in 1902 (carton 7). Kroeber never utilized either the texts or most of the descriptions collected from this woman, identified only as "Weitchpec Susie," in his various publications (but, see Kroeber 1925:45).

These notes and transcriptions concern menstruation and childbirth and, along with some expository comments by Susie on these topics, include a long formula used by women in ritual bathing during menstruation, a myth relating the origins of both menstruation and these rituals, and various other esoterica—fragments of prayers and myths concerning various aspects of childbirth. To my surprise, these materials confirmed the traditional authenticity of the young woman's modern understanding of menstruation as a

powerful, positive phenomenon with esoteric significance. Additionally, Kroeber's notes provide a good deal of fresh insight into the structure of menstrual symbolism when viewed from a feminine perspective.

According to the myth recited in English by Susie, menstruation originated in a capricious joke, initiated by Coyote (*segep*) for no apparent reason: Coyote said, "I think be best way if woman have flowers. When she have flowers she will see blood." The hero Pulekuk^Werek aided and abetted Coyote, cutting his ankle and putting the blood on a girl's thigh. Coyote said, "You got flowers now." Girl: "No!" Coyote: "Yes, I see blood on your legs." Coyote and Pulekuk^Werek then instituted both the girls' puberty ritual and the regimen to be followed during subsequent menses. The duration of monthly continence and ritual observance (ten days), proper costume (a bark skirt, grass arm and leg bands), specially treated foods of a limited sort (acorns gathered and stored for the purpose, similarly secured dried fish, no red meats or fresh fish), isolation in a special shelter, a program of bathing and of firewood gathering, and use of the long prayer to bring wealth are all specified (notes for 8 June 1902, pp. 1-8).

After Coyote has outlined the basic menstrual procedures he falters, not knowing how to continue. A spirit-woman speaks to him from the sky:

Need not be afraid of that [menstruation]. We [spirits] are around here in sky, all we women thus, flowers, and we never afraid on it, because we have medicine for it. Now you look way over other side (upriver). Now I always wash way over there myself. . . . Now you can look, look at that lake right in the middle of the sky, you can see how many trails come on that lake. . . . Those trails are dentalia's trails some of them, some woodpecker head's, some white deerskin's, everything, that's where I always wash myself, because that money that's his water, his lake, Now you can look where I stand. You can see blood all around where I stand now, because I'm that way now, I'm flowers. I can go out on that lake, and wash, and they'll make me good luck just the same. . . . You tell that girl to do that. . . . Whenever goes to wash in water anyplace, tell her just that way. . . . Tell her I wash in sky, using that water. So he'll be good luck; if talk that way, will be just same as if wash that lake on sky (notes 8 June 1902, pp. 4-5).

The menstrual formula (see below) comprises these instructions given by the spirit woman to Coyote and Pulekuk^Werek.

Pulekuk^Werek, it should be noted, was the most ascetic and spiritual of the "Beforetime People." His total abstinence from sexual intercourse suggests asexuality, rather than the pronounced maleness of the two Yurok tricksters Coyote and Wohpekumew (a trickster-hero). However, it was Pulekuk^Werek who epitomized human virtues for Yurok men, for it was he who, along with being a formidable warrior, instituted the men's sweathouse and the wealth-quest austerities to be followed by men. A comparison between his and Coyote's instructions for menstruating women and Pulekuk^Werek's for male wealth questing is illuminating.

Ten days was the standard period for men's "training" related to all important undertakings—most significantly, here, to wealth questing and to "luck" seeking in alpine lakes. During this period men secluded themselves in the sweathouse, maintained strict continence, avoided all contacts with fertile women, and ate only specially gathered, stored, and prepared foods (the same staples as utilized in menstrual provender). These men bathed twice daily. A primary feature of such sweathouse training was the gathering of firewood for use in the sweathouse. Grass anklets were worn by these men for protection against snakebite and as an esoteric aid in traveling into the mountains to gather wood and to practice various rituals. It is relevant to note that in the sweathouse-focal training of both male and female novice "doctors" (*kegey*)—held to bring wealth as well as curing powers—a skirt of shredded maple bark was worn. Finally, men in training for wealth acquisition gashed their legs with flakes of white quartz, the flowing blood being thought to carry off psychic impurity, preparing one for spiritual attainment. The common ten-day

men's training periods alternated with periods of greater relaxation and less austerity, in which the "balance" of a "complete" life was restored—the aim of well-trained Yurok men being to keep "in the middle" (*wogi*).

The recitation of formulas was a central feature of all Yurok training, and such recitations, correctly executed, were believed to bring wealth. It has long been thought that the wealth quest and hence use of such formulas were—with the exception of female *kegey*—strictly male prerogatives. However, the menstrual formula collected from Susie not only substantiates the comparisons between male and female training suggested by the Coyote myth, but calls this ethnographic assumption into question.

The formula speaks of a small lake, "up in the middle of the sky" (*wonoye?ik*), where menstruating women may see a great many *Dentalia indianorum* (dentalium shells were prized Yurok wealth objects). Women are instructed, in the formula, to dive to the lake's bottom to pick up a small stone and then to return with it to their homes. As a result of these actions (and of properly reciting the formula itself), women may expect to grow wealthy in later life, their menstrual practices attracting dentalium to their houses. Translating from the Yurok text recited for Kroeber by Susie:

You will be rich if you wash. You go in, you will be rich. Human being, money will come into your house. You go in—you'll be rich. You better go. Go up in the sky. Look! Look! Wash in the lake—just once. Sink down completely. Don't submerge yourself twice. A pile of dentalium is here (notes 8 June 1902, item 4065).

You will go in, go in the water. Only one time. You will lie with your head downstream. Take a stone. You will take it into your house so you will be rich (notes 8 June 1902, item 4066).

The middle of the sky is, in Yurok cosmography, the most pure, least polluted place in the universe, the source of the most valuable and powerful of things, including many wealth objects. It may be reached, in trance, only by those who are themselves completely pure. It seems to have been a consciously metaphorical location, for, as trained people well knew, they ascended only into the hills and mountains rising above the coastal and riverine villages.³ In the most powerful kinds of training, the terrain of the Blue Creek drainage, above Meri-p, was utilized. Such ascents were, however, closely restricted to those who, through ritual austerities, were free of polluting influence.

Men making such ascents while seeking the power of wealth acquisition visualized dentalia and the trails of slime left by them, reciting formulas to attract the shells into their later possession. Diving in alpine lakes is a recurrent motif in accounts of male esoteric practice, as is the retrieval of wealth-attracting stone talismans from various watery places.

There are, then, direct parallels in conception, ritualization, and goal orientation between male training and female menstrual practice. However, and most importantly, while Yurok men feared menstrual pollution as, above all, driving away wealth (that is, spiritual attainment), Yurok women, as evidenced by the formula, understood that it was precisely during their menses that they were most "pure" and that they could most easily attract wealth (i.e., attain spiritual ascendancy).

Finally, we find that while men considered menstruating women who seduced men to be *čišah* ([worse than] dogs), the same term was applied by women to men who forced their attentions on them during their own ten-day menstrual training periods (according to the Kroeber papers). Clearly, then, there are two gender-specific views, of which only one, that of the male, has become known through published ethnographies.

The contemporary Yurok woman's notion of "accumulation" now rings true in retrospect. The primary activity of men engaged in wealth questing (that is, in a quest for spiritual advancement), while they were actually in and around the sweathouse, was "meditating" (*kocpoks, leponol owkip*)—today, "doing your thinking." This Yurok-English phrase refers to a private practice of meditation directed toward personal centering and

empowerment. It was in such meditation, according to the most knowledgeable of elderly male consultants, that one actually "made medicine" and grew "stronger," rather than in the rituals for which such "thinking" prepared one and which accompanied the meditative "accumulation" of identity, insight, and control. Wealth was believed to accrue only to those who had "done their thinking" precisely and openly (see Buckley 1979).

We find further, inferential support of the traditional nature of the young woman's positive view of the power of menstruation in "Weitchpec Susie's" 1902 accounts of child-birth. Susie's English gloss of the Yurok formula for easing labor contains the passage, "wes?onah . . . said, 'You call my name whenever hard to come baby, then you call me to help you,' he said to Indians. 'Is my ?e?gur? [medicine basket].'" Whenever you call that to open you will hear baby crying coming." Kroeber notes that "the woman's vagina is Sky's [wes?onah's] ?e?gur?" (notes for 8 June 1902, p. 16). Two pieces of information are necessary to put the childbirth formula into perspective. First, the Yurok *wes?onah* is polysemous, meaning "sky"; "that which exists" (the phenomenal world); and "cosmos," the universe as noumenon, a metaphysical first principle—today, in English, "creation" and/or "the Creator." Second, both traditional elkhorn dentalium purses and the medicine baskets (?e?gur?) used by men in the Jump Dance, which contain various power-tokens, have labialike openings.

We may interpret this material in the context of both the menstrual myth and formula and of general tendencies in Yurok world view. The medicines of *wes?onah*, from the feminine perspective, are babies, the by-products of birth, and menstrual blood—all of which are highly polluting from the masculine perspective. From a feminine point of view, however, these things are definitively pure: pure enough, that is, to be to the "cosmos" what wealth and other tokens of spiritual ascendancy are to human beings. Like wealth objects, they are themselves, from this perspective, *mwuksjy* (pure).⁴ Such multiple coding is common in Yurok philosophy, which repeatedly stresses complementary perspectives in which things held to be *kimoleni* (dirty) from one perspective are revealed to be *mwuksjy* from another (Buckley 1980).

comparative materials

We find, then, that the young, contemporary woman's account is quite reliable as an expression of a far older, traditional Yurok women's perspective. Its reliability is founded, no doubt, in her accurate memory of the instruction she received from her elderly female relatives. This being so, in the general case, we are obliged to pay close attention to her testimony regarding synchrony and lunar influence. While up to this point investigation has rested on solid data and clearly relevant comparisons, here we can only speculate, for there are few earlier ethnographic data on these topics. There are, however, recent biological research results that appear to be pertinent.

The work of Martha McClintock (1971, 1981) has established the phenomena of human intragroup menstrual synchrony and suppression. The menstrual cycles of frequently interacting women—in college dormitories, for instance—tend to become synchronized over time, the greatest increase in synchrony among individuals occurring within four months (McClintock 1971:245). Such synchronization of groups within all-female populations is related to the extent and frequency of contacts between individual women, groups of close friends comprising the most evident synchronous groups (1971:245). In more recent experiments (Quadagno, Shubeita, Deck, and Francouer 1979; Graham and McGrew 1980), McClintock's results have been replicated and extended to populations including both males and females.

The aboriginal Yurok residential group was an extremely flexible unit. An ideal type may

be suggested through the term "household." I use this term to refer to the narrowly extended unit of population defined through consanguinity, affinity, adoption, and—above all—common residence. Such a household comprised three or four generations of patrilineally related males, their wives, unmarried daughters, those married daughters with inmarrying husbands and their children, and, in many cases, adoptive kin, both male and female. This unit was centered at a named, patrilineally inherited "family house" (*?o?lef*). The family house was usually the property of the senior male but was strictly the domain of the women who lived and slept there with the children. The lives of most males after puberty were centered in the household's sweathouse (*?u?gu?c*), where the men spent much of their time, both waking and sleeping.

When a descent group outgrew its family house, a second one was built close by, sharing the name of the first, and its men used the sweathouse belonging to the owner of the original family house. There was approximately one sweathouse for every two family houses in a Yurok village. The people closely associated with these three structures, then, constituted the household. The normative village comprised approximately three such households, the members of each being at least fictively related to those of the others (hence, village exogamy was generally practiced, intravillage marriage usually being considered incestuous). By my estimate, based on 1852 census figures, each family house sheltered an average of five women and children, of whom, we may hypothesize, at least two were fertile women. Thus, a household's potentially menstruating women would have numbered four or more (see Kroeber 1925:16-17).

We can only presume that, aboriginally, the related women of Yurok households interacted both frequently and regularly. The findings of McClintock and others are pertinent here, and a myth from the neighboring Karok encourages such comparison. The myth, relating the origins of the Pleiades, tells of several sisters who shared a house and who menstruated at the same time. The idea of household menstrual synchrony was indeed present in the area (Harrington 1931:142-145).

What of the claim that synchronously menstruating women practiced the requisite rituals together? If this was indeed the case, then why, we must ask, were small, individual menstrual shelters built? Why not communal shelters, like the men's sweathouses that the menstrual shelters seem functionally to parallel? It is possible that communal shelters were used. There is very little information on the subject in either ethnographic descriptions or in native texts, and none on the actual size of the shelters. While several early ethnographers mention menstrual "huts" in northwestern California, none of them ever actually saw one, for these shelters had fallen from use before the earliest trained observers arrived. Goddard (1903:17-18), working among the Hupa in 1900, noted that not even traces of the Hupa *minct* remained at the time of his fieldwork. The detailed Yurok village maps drawn by Waterman (1920) in the early part of this century, which show all structures and structural remains in each village, show neither these "menstrual huts" (*mekʷa?*) nor their remains. All accounts of these shelters found in ethnographic notes and publications are thus both vague and incomplete, as the minimal accounts themselves suggest.

Kroeber (1925:80), for example, tells us only that "a hut was used by Yurok women in their periodic illnesses. This was a small and rude lean-to of a few planks, near the house or against its side." Yet, in northwestern California, surely such flimsy shelter for valuable, necessary, and beloved women (Gould 1966; Spott and Kroeber 1942) would have been perceptibly maladaptive, even among the apparently male-dominant Yurok and especially so during the months between October and May when an average of 305 cm. of quite cold rain customarily falls. I suggest that the paucity of ethnographic detail regarding menstrual shelters and much else reflects an understandable and pervasive bias (note Kroeber's use of the word "illnesses") and reticence in delving into and publishing material on the entire

topic of menstruation, as further suggested by Kroeber's neglect of the Susie material.

In fact, it is quite possible that the aboriginal Yurok used large dome-shaped communal brush menstrual shelters. Brush menstrual shelters have been reported for the Hupa of 1890 (A. R. Pilling 1981:personal communication), and an 1850 sketch of the Yurok village of Čurey by J. Goldsborough Bruff shows at least one, and possibly two, dome-shaped structures in association with plank houses (Kroeber, Elsasser, and Heizer 1977:257). If the Bruff drawing does depict one or more menstrual shelters, it indeed supports the synchrony hypothesis, for the structures shown are large ones—the clearer of the two being approximately the size of the sweathouse by which it stands. Comparative material from the Northwest Coast supports the drawing as evidence.

The Yurok have long been recognized as being importantly influenced by more "climatic" Northwest Coast cultures (e.g., Drucker 1963[1955]). We may legitimately turn to the farther Northwest Coast seeking comparative suggestions. We find among the Tlingit, for example, substantial brush and plank "birth houses," used for monthly menstrual seclusion as well as for labor and childbirth. These houses were heated by fires, used for sweating, and were large enough to hold four adult women (de Laguna 1972:501–502, 519, 527).

Regarding the posited use of the moon in restoring menstrual synchrony on the occasions when it had been disrupted, we note recent biological research and findings. The timing of ovulation in certain nonhuman mammalian females and in female humans can be manipulated by exposure to light relatively stronger than that to which subjects are accustomed at a given time of day or night (Hoffman, Hester, and Towns 1965; Reinberg, Halberg, Chata, and Siffre 1966; Matsumoto, Igarashi, and Nagaoka 1968; Dewan 1967, 1969; Presser 1974). There is evidence that light of the intensity of the full moon can affect the timing of ovulation and hence of menstruation in human females (Menaker and Menaker 1959; Hauenschild 1960; Cloudsley 1961:85–93).

More recently, Dewan, Menkin, and Rock (1978) have demonstrated that the onset of menstruation itself may be directly affected by the exposure of ovulating women to light during sleep. The menstruation of ovulating women exposed to the light of a 100-watt bulb during the 14th through 16th or 17th nights of their cycles (counting the onset of menstruation as day 1) became regularized, with a significant number of the 41 experimental subjects' cycles being regularized at 29 days, the normative menstrual cycle (Dewan et al. 1978:582–583). The three to four nights of exposure was predicated on the natural duration of full moonlight during the lunar month (the mean synodic lunar month is 29.53 days). However, the researchers held it "probable" that one night's exposure would suffice to regularize the onset of menstruation (1978:582).

Light thus affects the onset of menstruation directly and, through affecting the onset of ovulation, indirectly as well. My Yurok consultant did not specify in what phase of the moon women "talked" to it, "asking it to balance them." It is probable, however, that only the full moon provides enough photic stimulation (probably to the pineal gland) to affect either ovulation or, directly, the onset of menstruation 12 to 14 days later. Such onset is at the time of the new moon, which, according to the biological model (Cloudsley 1961: 85–93; Dewan et al. 1978:581), comprises the naturally occurring lunar phase for the onset of menstruation. Elderly Yurok men have told me that intensive male training was always undertaken "during the dark of the moon." It seems probable, then, that women indeed "talked" to the full moon and that both synchronized menstruation and male training occurred during the period bracketing the new moon. Yurok men's training for positive medicines ("luck") emphasizes light in its symbolism. Thus, the intensification of training, much of it undertaken at night, during the new moon seems inconsistent—but, indeed, it makes good sense in the full biological context of village life.

The Yurok word for "moon" is *wonesleg*, from *wonews* (above, overhead) and *leg(ay-)* (to

pass regularly). Returning to Kroeber's overlooked fieldnotes, we find strong evidence that the moon was central to aboriginal Yurok concepts of temporal structuring. The use of sweathouses in northwestern California as calendrical observatories has been briefly noted in the literature (Goldschmidt 1940). It has never been made clear just how commonly sweathouses served this function, nor by what means—celestial, solar, lunar, or other. Kroeber's unpublished 1907 notes, however, contain Yurok men's descriptions of the specific features in Yurok sweathouse construction that permitted accurate observation of yearly solar and *lunar* cycles in each village (Kroeber Papers, carton 7). These accounts indicate the central role of the moon in timekeeping among the Yurok and add support to the contemporary woman's assertion that Yurok women once utilized the moon's light in temporal regulation of biological cycles. The parallelism suggested here (between male and female uses of the moon) is, of course, consistent with the cross-gender conceptual and ritual parallelism discussed above.

If Yurok women once shared menstrual periods in synchrony and were able to control this synchrony to some degree, it would have meant that for 10 days out of every 29 all of the fertile women who were not pregnant were removed, as a group, from their households' mundane activities and plunged into collective contemplative and ritual exercises aimed at the acquisition of wealth objects and other spiritual boons. This would, logically, have been the ideal time for all of the younger men in the sweathouse to undertake their own 10-day periods of intense training, which, as did women's menstrual practices, emphasized continence and avoidance of contact with fertile members of the opposite sex.

Because they would have contaminated any food that they touched during their menses, all fertile women were removed from the subsistence quest for 10 days out of every 29 (pregnant women followed their own extended restrictions). Since the subsistence quest was dominated by women, who either provided foods themselves (e.g., acorns, shellfish) or were required actresses in male-focal subsistence activities—necessary for cleaning, butchering, and drying the fish and game that men caught—it is clear that during the ten-day menstrual period a woman's household's subsistence quest would have been somewhat hampered. This is even more clear in light of the fact that men could not hunt (or fight) while their wives were menstruating. If all of the women of a household thus menstruated in synchrony, these activities would have been very severely curtailed. If this was the case, it would be logical to think that the household's subsistence quest (and feuding) would have been brought virtually to a halt, men as well as women refraining from all but the most casual collecting of food. (Note that demand for fresh fish and game was reduced through the food avoidance rules for both menstruating women and men in training.) Such interruptions would not necessarily have been risky in northwestern California, where food supplies were abundant and dependable (cyclic occurrence of staple fish and acorns being of long duration) and where food (especially acorns and smoke-dried fish) was successfully stored in large quantities (Gould 1966, 1975).

A possibility, then, is that the monthly round transformed the Yurok household, for one-third of every month, into an esoteric training camp in which most men and women between puberty and middle age devoted themselves to their respective practices aimed at the acquisition of wealth and self-knowledge, supported by both younger and older males and females (with the exception of pregnant women and new mothers, who followed their own equally restrictive regimes for the entire gestation period and for 50 days after giving birth).

This speculation accords well with both the oft-noted spirituality and asceticism of aboriginal Yurok culture and the expression of these tendencies in Yurok social organization. Male Yurok began to undertake wealth-bringing austerities at puberty, as did the women; and like the women, they had largely ceased such activities by late middle age

when, in the native theory, they began to enjoy the fruits of their labors. There was, then, a well-defined group in every household capable of managing ongoing affairs and supporting the monthly practices of the men and women between puberty and middle age. For example, the special foods of men in training were prepared by postmenopausal women and prepubescent girls, who also attended women secluded during their menses.

If we are anywhere near the mark in these speculations, we realize that the menstrual power of Yurok women did not manifest itself only on a gender-specific, esoteric level of knowledge and practice—one that paralleled identical features of opposite-gender life—but that it had profound, pragmatic implications as well in dictating the temporal structuring of activities for entire households on a monthly basis.

conclusion

What I suggest is that the women of aboriginal Yurok households menstruated in synchrony, utilizing the light of the moon to regularize their menstrual cycles, and that the menstruating women of (at least aristocratic) households used their shared periods of menstrual seclusion for the practice of spiritual disciplines. Moreover, I suggest that both the subsistence quests and fighting patterns of all of the active men of these households, as well as their own programs of esoteric training, were keyed to the synchronous menstrual cycles of the household's women.

Unfortunately, it is too late to test these hypotheses, at least in the Yurok case. Yet, as I have suggested, there are certain possibilities that can and should be explored among contemporary tribal cultures in which strong menstrual restrictions and gender-specific knowledges and practices still exist. Such research can be combined with a close examination of early information concerning cultures that are, today, much changed from their aboriginal precursors. Contemporary native testimony and far earlier ethnographic materials may stand in an intricate relationship. By exploring this relationship we may, in some cases, clarify both our received understandings of the past and our (possibly mistaken) interpretations of the present. In such analyses, particularly but not exclusively in the cases of native Californian cultures, it is especially important that we attend to the often entirely neglected raw field data of earlier investigators.

Solid data collected early in the history of the anthropological disciplines may have been overlooked by the original investigators because of certain cultural presuppositions and biases rendered apparent by time. In the present case, Kroeber's indifference to the feminine perspective and to the very possibility of coexistent gender-specific perspectives in cultures apparently led him to neglect or discount native testimony of great interest and value. His neglect of Susie's mythic and formulaic contributions, like his neglect of his own data on lunar observations and his restriction of Yurok wealth questing to the male sphere, were probably results of the male biases and other limitations in vision common to his era in anthropology; ones that, as Bean and Blackburn (1976:9) point out, serve to obscure

important integrative functions, significant economic, social, or political processes, [and] evidence of unusual complexity in various spheres of social behavior that might reasonably be interpreted as indicative of surprising levels of cultural development on the part of California Indians.

notes

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¹ The English language euphemism "moontime," used by some Yurok today in reference to menstrual periods, reflects a central symbolic relationship between the moon and menses in contemporary Yurok culture. It is not clear, however, just when "moontime" came into use among English-speaking Yurok, nor is there sufficient data to establish a likely time. In 1902, one of Kroeber's consultants used the English "flowers" in reference to menstruation, and "moontime" does not appear in any of the other early published or archival material on the Yurok. We cannot, then, use the term "moontime" as evidence of a moon/menses relationship in aboriginal Yurok culture. (Both flower- and moon-related menstrual imagery are very widespread, far beyond the confines of both native California and the modern era [Delaney et al. 1976].)

The explicit Yurok verb meaning "to menstruate" is *kukcp-*, the prefix *kuk-* indicating both cyclic and erratic oscillation. This verb is not used, however, in any of the Yurok texts collected by Kroeber. The common Yurok term for a menstruating woman (*wespurawok*) is euphemistic, comprising a condensation of the phrase *wesah pur wok* (literally, bathe towards river she). Such euphemisms are commonly used in Yurok in avoidance of more explicit terms, use of which is considered to be, under many circumstances, offensive and even polluting.

² The classic ethnographic accounts in which the earliest published data on menstrual practices in northwestern California are to be found are Powers 1976 [1877]; Goddard 1903; Kroeber 1925; Harrington 1932; Drucker 1937. Information on male training for wealth acquisition among these peoples, referred to below, is found in the same sources. Additional material on Yurok training appears in Spott and Kroeber 1942; Elmendorf 1960; Kroeber 1976; Pilling 1978.

³ A Yurok woman, fully trained as a *kegey* (doctor), told Kroeber about using the angelica roots she gathered in the mountains. The full account was recorded in English in 1907 and is among the Kroeber Papers, carton 7. I include a partial version here.

I . . . always throw *woʔpeʔy* [angelica] in the fire. I talk this way:

"Now this *woʔpeʔy*, I got it *wesʔonah hwoʔnik*, right up in the middle of the sky. . . ."

It didn't come from there in fact, but one just talked that way and threw it in the fire, so that all kinds of money would just come right to this house.

Clearly, the "lake in the middle of the sky" comprises such metaphorical usage, this lake being symbolized by any water used to bathe in during menstruation, most commonly the Klamath River and, less certainly, the "moontime pond" above Meri·p.

⁴ Erikson (1943:295) writes that the Yurok "believe [that] babies come from the sky." The Kroeber notes discussed here, however, suggest that the meaning of this "belief" was far more complex, at least for "educated" (*teno·wok*), aristocratic women. Babies come from *wesʔonah* (the cosmos) by way of its "medicine basket" (the uterus).

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