

# The Thirteenth Number: *then, there/ here and now*

Tok Thompson

*The number thirteen has several strong connotations in a number of diverse cultures. What is surprising, and puzzling, are the similarities of associations (the moon, women's magic, omens, etc). This paper attempts a cross-cultural view of the number thirteen, and arrives at a hypothetical explanation to account for the widespread occurrences of the phenomena.*

*Several cultures have been investigated, but the ones in which thirteen is an "ominous" number are revealed to use, or have used, lunar-solar calendars. My hypothesis is that the number thirteen's connotations derive ultimately from a natural, and naturally observable regularity-- the 12.41 lunations per solar year. Hence, cultures with a lunar-solar calendar are forced to reckon with an odd thirteenth month every year, and this month is, in this hypothesis, what has given the number thirteen its unique and widespread cultural properties.*

The number itself is enough to send chills down the spines of some Euro-Americans. Both in folklore and in popular culture, the number resonates with connotations. Hotels avoid the number of thirteen for a room, and whole buildings are designed eliminating the thirteenth floor (hence the rather odd discovery of someone who travels up a flight of stairs from floor twelve, only to suddenly find him or her self suddenly on floor fourteen). The "silences" are deafening.

In Hollywood, thirteen has been as popular as it was earlier in folklore. The many-sequelled *Friday the Thirteenth* movie series was instrumental in defining the horror genre. More recently, a movie was released which drew extensively out of folklore, entitled *The Thirteenth Warrior*. This movie was an adaptation of Michael Crichton's book (Crichton being the author of such popular successes as Jurassic Park, Andromeda Strain, and more.). This book, and rather faithfully reproduced movie, was essentially a retelling of *Beowulf*. However, Michael Crichton felt that he needed an outside interpreter to help the audience understand the situation, and so conflated *Beowulf* with the famous accounts the land of the "Rus" by the Arab explore Ibn-Fadlan, with the handsome and dashing Antonio Banderas playing the part of the Arab observer (who must become the 13th warrior) while the story of *Beowulf* unfolds.

Since I was already interested in the number thirteen, I decided to investigate a bit further. From which source, I wondered, did Crichton derive the central "thirteen?" Clearly, thirteen is a number that plays and has played a large role in European numerological considerations. There are many folkloric precedents that would lead one to expect the formula that Crichton presents: thirteen being a portentous number of a group,

omens referred to the number of moons, female witchcraft, and that the thirteenth of something should be somehow different from the other twelve.

In the movie, there is an old woman identified as the “angel of death” who was assigned to the job of the sacrifice of one of the deceased king’s slaves. The “angel of death” appears clearly in the Ibn-Fadlan account as well:

“Survint une femme âgée appelée l’Ange de la Mort qui fit le lit; elle était chargée de coudre et d’arragner le tout et c’est elle qui sacrifiait les femmes esclaves. Je vis que c’était une sorcière, corpulente et rébarbative.” (Fadlan 61)

However, in the movie, there is an additional scene, in which the angel of death is called upon for supernatural advice regarding the future. The gathered warriors have all heard the plea from the son of “Rothgar “to help rid his people of a monster, and have turned to the sorceress for advice. The instructions given from the sorceress was that the war party must be of twelve Norse warriors, and one person who was not like the others. It is the defining moment of the film, and it is also one that has many precedents in folklore.

But not, interestingly, in *either* the accounts of Ibn-Fadlan, or in *Beowulf*.

To understand this, I suggest a turn towards a comparative view. Thirteen is of prime symbolic importance not just to European cultures, but to several diverse and distinct cultures around the world. Why is this? Why not eleven, also a prime number greater than ten, or fourteen, its numeric neighbor? Why would Michael Crichton’s “Angel of death” prophecy be understandable within our culture, or, even more interestingly, in other cultures as well, such as the Aztec or ancient Tibetan?

Such complex cases of polygenesis are rarely studied, or even acknowledged in the modern field of folklore, most folklorists either favoring the Finnish historic-geographic method or avoiding origin studies altogether. While “independent invention” is recognized, there are relatively few studies on the complexities of such occurrences.

Many cultures with traditions on thirteen are mentioned by writers. To formulate my study, I narrowed down my investigation into four (possibly five) groups, all with very prominent symbolic traditions on thirteen. The first was the early European tradition, with its rich modern (including cinematic) descendants. The second was the Aztec and Meso-American traditions. The third were several North American Native traditions, and the fourth was the pre-Buddhist Tibetan tradition, which Robert Ekvall had theorized as being connected to the Mongolian (the “possible fifth”). Interestingly, there are many observable regularities and similarities amongst these traditions. Among the most common are connections with the moon and the calendar.

It should be noted that attempting a comparative study across such a wide variety of cultures holds both promises and difficulties. The chief difficulty is that one must rely on secondary sources, on the experts themselves (it is rather unrealistic to expect any folklorist to have fluency in the widely-varying cultures exhibiting the data). Deciding who the expert is, of course, is not always without contention. I can only say that I have in all culture areas relied on the standardly accepted sources. Where considerable controversy exists (for example, in the case of interpreting megalithic structures in Europe) I give a brief synopsis of the debate. In none of my examples, however, is there much contention over the issues covered in the current paper. My role was not to challenge experts in their own field, but rather to compile the data in order to illuminate the puzzling similarities that the area experts themselves have elucidated.

While we must bear in mind that similar data does not necessarily result from the same root cause, I will attempt in this paper to show a cluster of motifs surrounding the mysterious case of the number thirteen, and to offer what I consider the most likely hypothesis.

### **The Case Studies:**

#### ***European Traditions:***

Perhaps we should begin with the European tradition. In a sense it is the easiest, since much more has been written on this. In another sense, this can also make it difficult to untangle the various claims over time. Still, the multi-faceted appearances of the tradition in our own culture are, in themselves, quite impressive. These appearances range from triskaidekaphobia as a psychologically-recognized condition to thirteen as unlucky at a dinner table. Other examples include the well-known tradition of omitting thirteenth floors in buildings, omitting thirteen as a plane or train number, numerological ruminations on the ill-fated Apollo thirteen space flight, Friday the thirteenth (of any month) as an ominous day, and so on. So far, no problems present themselves. After all, once a superstition is set in motion, it doubtless serves psychological and/or social functions which allow it to be maintained, and spread.

Furthermore, there is little doubt that this symbolic thirteen is an old and widespread tradition. It is unclear exactly *how* old, but most scholars tend to see it as ancient indeed. One early Norse example that is often cited is the tale of “Loki’s Quarrel,” in which a dinner party is set for twelve gods. The trickster half-god Loki attends uninvited, and proceeds to cause trouble, precipitating the death of the beloved god, Baldr. However, the passage in Snorri’s Elder Edda does not make it perfectly clear if the number of guests is, in fact, thirteen. Certainly, though, it is the case that in many of Snorri’s writings, generally taken to be among the best written representations of the old pagan beliefs of Scandinavia, the number thirteen explicitly plays a prominent role. Almost always in Snorri’s writings, thirteen is a number of a company. To be more specific; the number of a company of people is usually twelve, plus a leader (war-party, tribunal (see “Trial of Satlea”). There are also thirteen gods “of true divine descent,” (Aesir) which includes Odin, the All-Father.

Nor does the tradition seem to be confined to Scandinavian sources. In *Triskaidkadische Studien*, Otto Weinrich analyzed various aspects of thirteen, especially its relationship to twelve, which he terms a sacred group, symbolizing completeness, in harmony with the twelve Gods of Olympus, twelve Apostles, and other examples. The thirteenth, then, is seen as transformational, breaking away from completeness. He notes a variant of Sleeping Beauty where parents have a dinner party set for twelve fairies. Eleven come, one by one. But when it is the twelfth’s turn, the thirteenth fairy comes instead. Realizing they were not prepared for him, the thirteenth fairy gives the young daughter a “prick curse,” causing deep death-like slumber. The twelfth fairy eventually comes to her, and relieves the curse. Several other examples follow as well.

In a similar, yet even more elucidating study, Ernst Boklen, in *Die Ungluckszahl Dreizehn und ihre mythische Bedeutung*, presents many examples in European folk tales of thirteen as being a lucky number, rather than unlucky. Importantly, Boklen goes on to suggest a “purely lunar” origin for the numbers twelve and thirteen in “myth.” He

gives direct (where the numbers are mentioned in the story along with the moon) and indirect evidence (thirteen or twelve is weakest, or runt of litter, is both weakest and strongest, etc.) Boklen gives many examples in narratives to illustrate these points.

Frazer, in *King of the Bean and Festival of Fools* notes the tradition of the Twelve Days of Midwinter (Christmas), replete with its Lord of Misrule -- usually a peasant, who would serve symbolically as the lord-- and his twelve attendants (Frazer 1911:332). Frazer states this rite was connected with the new year, and hence with the calendar. In addition, the twelve days of Yule seem to have been an intercalary period coming after the twelve full months.

Importantly, Frazer saw the relation between “true” months (that is, observable rotations of the moon), and the solar year as being socially problematic, which would be reflected in the folklore of the group. The solar year is about 365.24 days, while a lunation is 29.52 days. (This is simplifying things a bit, but should suffice for our investigation). Hence, any calendar attempting to coordinate these two highly noticeable cosmic recurrences would soon discover that there are less than thirteen, but more than twelve, months per year (12.41, to be nearly exact).

Margaret Murray wrote on the early European tradition of the number thirteen as well (see Margaret Murray’s “Witches and the Number Thirteen” in *Folk-Lore* 31) in which she attempted to prove that thirteen was the number of witches’ covens, by looking at confessions recorded during the witch trials in Scotland. Most folklorists find her data inconclusive, particularly as the accounts of the witches’ were for the most part given under torture, and quite possibly at the suggestion if not invention of the inquisitor.<sup>1</sup>

Margaret Murray’s reputation as a scholar has come under some serious fire recently (See for instance, Jacqueline Simpson’s “Margaret Murray: Who believed Her and Why” in *Folklore* 105), and indeed some of her theories seemed too far-fetched to possibly be true, but there are also other folklore scholars who have examined European links between witchcraft and thirteen. The well-respected and prolific Spanish author Baroja notes in *The World of the Witches* a story which includes some of our most common motifs: the moon, thirteen, magic, witchcraft, and a Goddess. In this case it is the story told by Theocritus of a spurned woman, who turns to witchcraft to regain the object of her affection. As a part of her spell, she prays to the Moon, as the goddess Selene, repeating the prayer twelve times, with a shorter, final prayer at the end to conclude. Baroja describes several such connections of the moon and witchcraft.

Again we see thirteen as being defined as twelve plus one. If we have any doubts as to the depths of this tradition, we need only remind ourselves of Ulysses and his twelve men, of twelve men of the jury plus the judge, Conchobar and the twelve heroes, of King Arthur and his twelve knights, etc. (and let’s not forget Antonio Banderas, *The Thirteenth Warrior*)

Turning now to the Aztec, and related Meso-American, traditions, we find that this notion of a group as defined of twelve plus one occurs here as well.

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<sup>1</sup> The case of Isabel Gowdie is a notable exception. Gowdie seems to have freely confessed without much prompting to belonging to a coven of thirteen, twelve female witches and one male “Devil.” The rest of Murray’s data, however, is not so unproblematic.

*The Meso-American, and particularly Aztec, tradition:*

There have been several works touching on the Meso-American traditions of thirteen. The only book completely dedicated to the subject is *El numero 13 en la vida de los azteca*, by Angel Lopez.

Lopez, a well-respected historian on early Mexican history as well as translator of Aztec glyphs, notes the various manifestations of the thirteen's symbolic significance, starting with the complex Aztec calendar, adopted from earlier Meso-American sources. The Aztecs had two calendars, a civil one based on 365 days per year (actually, 360 days, and five days of "nothingness"), and a 260 day year, based on the Venus cycle.

Calendars, the systems by which man measures time, have various manifestations around the globe. In general, though, most people seem to note the earth's rotation on its axis (days and nights). Furthermore, many people count the lunar rotations as "months" (although our modern months scarcely do justice to the term, as they are only vestigially related to the actual moon phases), and many people delineate the earth's rotation around the sun as "years." Some traditions are purely lunar, such as the modern-day Arabic calendar, or the Africa Temne calendar. Others are purely solar, such as the ancient Egyptian seems to have been.<sup>2</sup> Importantly, however, many traditions used both lunar and solar reckoning in their calendars, and this is instantly problematic, as the reckoning produces the more than twelve, but less than thirteen, divisions of the year (there are roughly 12.41 lunations per solar year). Such a calendar does have its advantages. However, in a society trying maintain a lunar-solar calendar, keeping track of the odd thirteenth moon and accounting for the complex 12.41 fraction must have been very difficult indeed.

It is surprising, then, that the Aztec calendar seems to have relied on the magic number thirteen primarily not as a lunar-solar corrective device, but rather as an integral part of their complex sacred calendar system. The calendar system of the Aztecs built largely on the accomplishments of their predecessors, particularly the Maya. The Maya calendar calculated 11,958 days per 405 months, giving a lunar value of 29.52592 days, just 7 minutes short of modern calculations (Mendisabal 1923:319) (Brecher 1979: 85) . They also kept track of the lunations in their calendar (Aveni 1980:168-180), although Aveni notes that their system is "markedly different from that proposed for the Megalithic people of Great Britain" , since the Maya seem to have had no great interest in the extremes of the lunar cycle (Aveni 1980:203). Certainly the Aztec calendar was a culmination of complex calendrical achievements, and thirteen was one of their most potently symbolic numbers in their tradition, often occurring in the familiar twelve plus one pattern.

Thompson, in "The Moon Goddess in Middle America" notes several aspects of moon goddesses in the region. One Mayan story portrays the Sun and Moon as lovers. When their elopement is opposed by other figures, Sun escapes but Moon is killed. Thompson writes:

"The dragonflies collected her flesh and blood in thirteen hollow logs. After thirteen days Sun opened the logs. Twelve contained various noxious insects and snakes

<sup>2</sup> At least, the Egyptian Civil Calendar seems to have been purely solar-- perhaps due to the solar timing of the floods of the Nile-- when Julius Caesar used it for transforming the Roman calendar, and in doing so formed the basis for later Western calendars.

which escaped. Previously there had been none of these in the world. The thirteenth hollow log held Moon restored to life.” (1939:169)

The other main number for the mesoAmericans was four. Four is generally recognized as having profound significance throughout a number of North and Central American areas, usually based on the four directions. (See, for instance, Aveni 1980: 135)

Thirteen solar years represented official puberty to Aztecs, the time when a boy becomes a man. Four years times thirteen is 52, which the Aztecs regarded as the end of adulthood, and the beginning of old age. 52 is also the number at which the Venus ritual years and the civil solar years re-orient. Thus, the anniversary of one’s birth occurred once in one’s lifetime, at 52 years of age. Furthermore, thirteen multiplied by 52 years produced 676 years, which the Aztecs called a “sun,” or era, which were of divine importance. Cortez is said to have appeared at one such era’s node.

For their day count, the Aztecs had two cycles, one of twenty (which they called a “moon,” representing the luminescent phase of the lunar periods), and one of thirteen. A day would be identified by both cyclic nomenclatures, thus allowing individual names of days to equal 260 days, which they regarded as the Venus cycle (in the Mayan Dresden Codex, Venus is described as a “morning star” for a period of 236 days, followed by a 90-day absence from the sky, then a 250-day “evening star,” and finally another disappearance from the sky, this time for 8 days. Thus, the Mayans calculated the complete Venusian cycle as 584 days (Markman & Markman 1992: 88), quite close to the modern figure of 583.92 days), and they also regarded the luminescent 260-day calendar cycle as the human period of gestation (usually now stated at 265 days, but with a fair amount of variation).

Thirteen high gods of Aztecs presided over the heavens. To reach them, temples were built with thirteen ceremonial steps. Furthermore, Lopez states that twelve and thirteen are considered as a divine couple (Lopez 1984:49). Town councils are recorded as having twelve members, plus the leader, for a total count of thirteen. Partitioning of conquered land was done in thirteen units. Repetitions of thirteen were used in song, dance, sculpture, sports and art. Sovereigns and other leaders tended to reign in thirteen year cycles, or multiples of thirteen (or at least they were so recorded by the codexes), and at age thirteen solar years a male could ascend to the positions of power.

While there are some accounts of the number thirteen being used in procreative and magical concepts, Lopez states that these may be suspect, as all such written accounts currently existing were recorded by Christian monks, who may have been already expecting to find thirteen as a part of such “deviltry” (providing a close analogue with Margaret Murray’s dilemma).

It is interesting to note the close analogues we have already seen in such disparate traditions: thirteen is defined as twelve plus one (never as one less than fourteen), and is reflected in the proper groupings of companies of men. The number thirteen is seen as a part of the calendrical system, as well.

In addition, Burland, in *The Gods of Mexico*, writing on the divinities of the thirteen-day periods, notes:

“The thirteenth period commenced with the day Ce Olin, or One Movement like an Earthquake. Its goddess was the witch, Tlazolteotl, wearing her elaborate head-dress of raw cotton. ... She is clothed with many symbols of the moon. Her own symbols are

a young man executed before the gods, his head and his heart laid upon a sacrificial block. There is also the offering of the witch's broom, a bundle of herbs which was used to sweep away dirt from the huts and also magically, to sweep away evil from the souls of men." (1967:101)

Later on Burtland continues describing Tlazolteotl:

"Tlazolteotl has been labelled 'the witch goddess' so often in books about Mexican religion that it is difficult to separate our ideas from theirs and to realize that she was a perfectly normal member of the pantheon. She was regarded as a quite special expression of the feminine sex in general, and naturally associated with the moon. She was a sorceress, but her magic was only considered black by the Aztecs because they were in a state of frustration between their puritanical social law and the natural desire for a normal sex life." (1967:122)

Thompson also notes Tlazolteotl as the God of the Thirteenth day period, and her earthy, sexual, magic, and reproductive aspects (1939: 136). Tlazolteotl seems primarily connected with women's magic and sexuality, and temple prostitutes were housed in her name. (Burland 1967:123) (Thompson 1939:136). Thompson notes that Tlazolteotl was also called Toci, meaning "our grandmother" and Teto-inan, meaning "mother of the gods." (Thompson 1939:137). According to Thompson, Tlazolteotl was the divinity invoked in divination with maize and gazing at bowls of water. (1939:143)

#### *North American traditions:*

This connection between thirteen, the moon, and women is also found among various traditions in North America. Lunar-solar calendar sticks have been reported in several traditions; some museum pieces remain. Alexander Marshack (1985) notes the case of one such stick from the Winnebago tribe.<sup>3</sup>

Among the Ojibwa, the *Wabeno*, or "White Light of Dawn" shamans, also kept calendar sticks. The Wabeno directed several transitional seasonal rituals, while in their private duties engaged in fertility magic and prophecy (Williamson 1984: 240) Several other tribes seems to have employed calendar sticks, including some in California (see Williamson 1984:13). The Tolowa of northern California had an interesting story in which there used to be fifteen moons. Coyote, worrying that this was too many, hid outside their sweathouse, and attacked them as they emerged. He killed two of the fifteen, but only partially wounded a third, thus leaving twelve healthy moons and one wounded one. (Williamson, 13).

In most North American traditions I have seen, the moon is regarded as female (this may be a reflection of my research into tribes with lunar-solar calendars). The Seneca, another East Coast tribe, had their sacred Thank-You Prayer, recited at almost every public occasion, except funerals (Zolhrod 1992:26). There are seventeen divisions, reflecting the thirteen moons plus the four directions. The thirteenth poem, "The Moon" is as follows:

<sup>3</sup> Alexander Marshack is also known for work on solar and lunar notations in the European Upper Paleolithic. Note, for instance, his observation that the famous Goddess of Laussell, a bas-relief Venus in limestone, holds a crescent-shaped horn with thirteen notches, while her other hand rests on her quite-possibly pregnant belly

### The Moon

“Now when the Sun has rested.  
Because there is a length of time that he passes over the Earth.  
The shadow will pass over the earth.  
Now he has authorized another.  
She will be the one to give light  
so that everything will go on all right  
if something should happen to the families by night.  
Now he had given her more things to do.  
He has authorized her to take care of the months.  
She just changes from one end of the month to the other.  
Also there are little ones being born.  
The people count it by these months.  
Now this time of day.  
We give thanks to our Grandmother the Moon.  
This is the way it should be in our minds.”  
[transl: John 1972] (Zolhrod 1992:41)

Kroeber, in 1907, gathered information among the Yurok (neighbors of the Tolowa, with the interesting Coyote story, discussed above). The Yurok maintained solar and lunar calendars, and used their sweathouses for observations of these cycles. They also seem to have had occasional intercalary festivals, called “world renewal dances.”

Kroeber recorded largely on the male traditions of sweathouses, and giving little attention to the “menstrual huts” (several authors regard this as a misnomer, preferring “birth houses” or “women’s sacred houses,” noting the various functions which these houses served). However, there are reports that women used lunar calendar sticks to keep track of their monthly cycles (notes, Buckley and Gottlieb 1988:274). In Kroeber’s time, little was known of the intricacies of menstruation. McClintock’s 1971 demonstration of menstrual synchrony between co-habiting women surely sheds light on the social use of such “birth houses.” Women, living in synchronicity, would have gone to the women’s ritual houses not shut away in isolation, but in the company of most of the fertile women in the community. Buckley notes that this would most likely mean, then, that for ten days out of every month, all of the menstruating (which would likely be most of the fertile) women would be removed from mundane activities, and required to undertake ritual, contemplative, or sacred exercises. Obviously, such cyclic patterns of behavior would have deep effects on the community as a whole, especially given the other taboos regarding menstruating women (which were numerous, including not touching foodstuffs, not having sexual intercourse, and even precluding the husband of any menstruating woman from hunting or warfare) (Buckley 1988:205).

Furthermore, there was the Yurok belief that the moon would help “synchronize” women who were out of synch in their cycles (and thus, out of the cycle of the women’s society at the women’s ritual houses). Buckley’s modern, though traditional, informant describes the custom as “talking to the moon” and “asking it to balance them.” (Buckley 1988:203).



This belief may have once been (and may yet be) very widespread indeed. For example, we see the same belief in Africa clearly documented as well among the Temne, discussed below. A fascinating tidbit is that modern researchers, working on precisely this possibility, have demonstrated the timing of menstruation can be effected by constant light during sleep, most probably due to the reception of light by the pineal gland, a mysterious gland known to have effects in the regulation of hormones. In 1978 Dewan, Menkin, and Rock showed the effects of a 100-watt bulb during the fourteenth through sixteenth or seventeenth day of their cycle (with the onset of menstruation as day 1) as having significant effects on regulating their cycle. The timing of the exposure to light was a purposeful imitation of the natural duration of full moonlight during one lunation. (Buckley 1988:203) Although the full moon is much dimmer than a 100 watt bulb, research on body-clock regulation have shown that the body can process minuscule amounts of light in the purpose of cyclic regulation. Other studies have lent support to this theory as well (see, e.g., Knight 1991:253). With the advent of artificial lighting, so the theory goes, this relationship, and perhaps even the knowledge of its existence, was largely lost.

Clearly, Yurok women believed this when Western science did not, and may have been able to accomplish synchronicity through their “magic” while science at the time would have been unable to assist. Moreover, given the social implications of the synchronicity of menstruation, this may have been very important to Yurok women. Noting Frazer’s well-regarded axiom that “magic is a deficient form of science,” this example reminds us that sometimes the reverse may be true as well.

Such correlations of the moon and fertility cycles comes vividly to light in the case of Bondo ritual of the Temne tribe of Sierra Leone, in Africa. The Temne are reported as having a purely lunar calendar, with, not surprisingly, no special significance on the number thirteen being mentioned. They do, however, pay very close attention to the moon, and to what they believe are its effects on the human female fertility cycle. In “Heavenly Bodies: Menses, Moon, and Rituals of License among the Temne of Sierra Leone,” Frederick Lamp investigates the timing of Temne rituals. Lamp notes that the Bondo ritual is an important dance, which includes ritual transvestitism and inversion of gender roles, followed by a period of sexual license, wherein any married women becomes free to have sexual intercourse with any man, without fear of reprisal or sanction. The Bondo ritual, like all Temne rituals, is timed according to the moon, and, in Temne thought, menstruation. Lamp shows how this time of indiscriminate sexuality is timed to correspond with periods of low fertility in the women’s cycles, whereas other Temne rituals, such as the release of brides to their husbands, are timed to correspond with lunar-derived periods of the greatest possibility fertility.

In all probability, this association was noticed by many other cultures as well. The English word “menses” is related to the Greek *mene*, or “moon.” Many other cultures maintain similar linguistic connections. The interplay of celestial events and human physiognomic processes may well have been deemed greatly important. Judy Grahn, in *Blood, Bread and Roses: how menstruation created the world*, takes the view that this human-cosmic correspondence “taught humans to see from outside of the animal bodies, and to display that knowledge externally, in physical culture. The menstrual mind, became externalized because females were forced to teach its perspective to members of the family who did not menstruate. Males, in learning the pattern, greatly extended

it, rearranged it, ..." <sup>4</sup> (1993:6) Grahn sees this connection between humans and the cosmos as giving rise to Cosmology as the first idea that the celestial heavens were connected with us, even to our development of symbolic thought ("it is connected to me, but not me"). Grahn presents an extreme view, yet a fascinating one nonetheless. In any event, many, if not most, cultures associate menstruation and the moon.

At this point we can clearly see clusters of motifs emerging from the ethnographic data. In North America, connections with females, the moon, fertility, and menstruation seem paramount. I have found little data suggesting that the "twelve plus one" motif was used as a social organization for groups, or for reigns of power.

### *Tibetan and Mongolian traditions:*

However, this motif does play a part in the pre-Buddhist Tibetan and Mongolian traditions. In "Significance of Thirteen as a Symbolic Number in Tibetan and Mongolian Cultures," Robert Ekvall uses symbolic interpretations of the number thirteen to attempt to prove early links between the Tibetans and Mongolians, although they are geographically separated by great distance and other ethnic and cultural groups.

Ekvall states that the number thirteen appears with great frequency in early Tibetan cosmology and history.

"According to the Chronicles of the Fifth Dalai Lama, one of the mythological kings of Tibet practiced asceticism thirteen months, following celestial guidance, prayed on the sacred mountain on the thirteenth day of the first moon, married a daughter of Brahma, and had a son who prophesied what the thirteenth generation of his line would do for Tibet in resisting the Chinese." (1959:188)

Ekvall further states that thirteen was the accepted length of meditations. The epic of Gesar, concerning events in the fifth century, begins with a "great convocation of gods and men." Ekvall comments that the affair:

"... begins on the thirteenth of the month, thirteen houses of purification are built, thirteen great flags of happiness are displayed, thirteen sites for invoking blessing are designated, thirteen Bon temples are built, thirteen special prayers are offered, thirteen dances are performed, thirteen songs sung, and thirteen special dishes-- the sweet at the beginning-- are prepared for the feast. The participants are numbered in categories of thirteen. There are thirteen father-uncles, thirteen mother-aunts, thirteen Bla Ma (superior ones) of Gling, and the thirteen protector gods of the land..." (Ekvall 1959:189)

The thirteen gods are enumerated in other sources. The gods seem to have held the collective function of ensuring the prosperity of individuals and families, and Ekvall believes them to have been the original main gods of Tibet. Ekvall notes that very early sources proscribe sacrificial animals to be cut into "twelve portions plus the head thirteen--no more and no less." (1959:189). Furthermore, early Tibetan documents found in Tunhuang include a listing of kings, councilors, fortresses, and countries, each in groups of twelve plus one.

Researching ancient Mongols, Ekvall notes thirteen Buriat malignant sprites. He also notes a recording among the traditional Buriats in 1875 by Vandang Yumsunov,

<sup>4</sup> Certainly, the male sweat-lodges of the Yurok men seem a curious reflection of the menstrual lodges of the women, and other ethnographic examples are even more explicitly so aligned, often with male blood-letting ceremonies. (See Bettelheim, others).

translated into English by Jorma Partanen wherein the first invocation made was to the thirteen *tegris*, a word which has meanings as both “gods” and “heavens.” (Ekvall 1959: 190). Later in the ritual is an invocation to “thirteen princes” of the north, whom Ekvall sees as having connections to the Tibetan list of thirteen original gods.

However, Ekvall’s comparison of the similarities is not conclusive (he notes “similarities of functions” such as the number two of both lists being the “mother goddess”). Ekvall posits two explanations for the significance of thirteen, the first being thirteen solar years as an age of maturity (although this is not for certain in the ethnographic examples) and his more likely explanation of thirteen as being used in synchronization of solar and lunar calendar counts, replete with the necessary intercalary period. Ekvall does present compelling evidence that both early Tibetan and Mongolian cultures did use lunar-solar calendars prior to their adoption of the Chinese calendar, sometime after the 7th century.

Still, Ekvall’s conclusion — that the motifs must have been a result of diffusion — is not so much based on clearly identifiable facts, as on Ekvall’s reliance on diffusion theory. Ekvall states “It is highly improbable that this culture trait arose by separate parallel inventions in both cultures. We are on fairly solid ground when we state that at a very early period it must have moved by diffusion or stimulation diffusion from one culture to another, or been equally diffused to both from a third source as yet unidentified.” (1959:192)

While there is no proof against such diffusion, in light of the global evidence of polygenetic similarities there seems to be no reason, *a priori*, why such “parallel inventions” could not have taken place. Looking only at the data, the similarities between the Tibetan and Aztec cluster of motifs (twelve plus one, thirteen heavens, thirteen gods, etc) would seem equally as compelling.

Unfortunately, such early records of Tibet and Mongolia do not include much on women, and thus there seems little way of knowing if the importance placed on thirteen may have been linked with the concepts regarding women and menstruation as we find among the North Americans. However, Ekvall does note that in these traditions, the yang, or male principle, was represented as the sun, while the passive yin, or feminine, principle, was represented by the moon. Thus, Ekvall believes, the holy significance of the intercalary thirteen would be to achieve agreement between these two cosmic principles as the male solar year ritually harmonized with the female lunar one.

#### *Summation of the Case Studies:*

The investigation of various complexes of thirteen as a symbolic number has revealed a number of recurrent motifs. Some of these motifs are more pronounced in some traditions, some are even absent in some traditions, although to what extent this may be due to the partial record is unknown. Still, I believe that it is evidenced in the record that complex polygenetic structures can and do occur, in contrast to the widely accepted position of most diffusionists. Even “tempered diffusion” theory, generally regarded as the leading folkloric viewpoint towards the past, allows only simple material to be produced polygenetically, and assumes that complex polygenetic material is an indicator of diffusion. (See Burns 1989:10). I think there can be great advantages in recognizing that this is not always the case, and that such complex polygenetic structures,

according to this theoretical framework, result from complex, but universally observable, natural phenomena. It has become quite clear that in each of the four traditions covered, superstitions of the number thirteen are intimately connected with the calendar, and in particular, with lunar-solar calendars.

### **Possible Implications**

With this in mind, what more can we say about the first tradition discussed, and the one with the most intimate connection to the modern Western, the Early European? It is also clear that complex calendrical calculations were used in ancient times in Europe. Calendrical knowledge seems certain to have been one reason behind the construction and use of the ancient megalithic stone circles in the west portion of Europe. Much work has been done on these stone circles, with origins dating from the pre-Celtic Neolithic period. It is clear that the Druids were advanced calendricists, and that they had knowledge of the Metonic cycle, which they used to reconcile lunar and solar years. Early classical writers noted their attention to celestial events, and indeed knowledge of the Metonic cycle would have allowed the Druids to predict lunar and solar eclipses with accuracy.

If we have established early lunar-solar calendars, both Celtic and pre-Celtic, in Europe, what more are we prepared to say? Looking at the unproven connections between witchcraft and thirteen in the European tradition, we can note other motifs frequently occurring in conjunction with both as well, the moon being perhaps the most predominant. We have elsewhere noted the prevalent connection between the moon and human fertility cycles, including the timing of rituals, and even ritual orgies in some cases. The intercalulation between the lunar and solar cycles are often associated with particular notions of thirteen as a symbolic number.

The European witches are often associated with the moon in “love magic,” herb harvesting, ritual orgies (which Baroja states was the most consistent motif of medieval European witchcraft), etc. Furthermore, we have evidence of earlier lunar-solar and the later Romano-Christian solar calendars in Europe. Thus, while Margaret Murray may have not proved the number thirteen as being the proper number of a coven, it would actually be rather surprising if, given the circumstances, some special significance were not accorded the number by the witches of Europe, especially given the other motifs we find associated with them.

Most other authors, such as Elliot Rose in *A Razor for a Goat*, maintain that the association with thirteen and witchcraft is due to an imitation of Christian forms. However, I believe it demonstrated that symbolic associations with the number thirteen most likely pre-dated Christianity. Certainly, the influence of Christianity has strengthened this tradition, and may be the origin of the unlucky “thirteen at a table,” stemming in the Biblical tradition from when Judas, the thirteenth, betrayed Jesus. Still, I believe that we are looking at many strands of traditions, overlapping and occasionally conflicting, that have developed elements of the particular cluster of motifs surrounding the ominous number.

How far we can extrapolate such studies of polygenetic material remains to be seen. Certainly, there is variety in the ethnographic record as well as similarity. Also,

such a study is not meant to dispute studies of diffusion, but rather to add to them a polygenetic perspective based on sound reasoning. While most studies of polygenetic material are limited to rather *simple* observable phenomenon, such as the treatment of the Mother figure, I believe it may be important to note that complex polygenetic structures of remarkable similarity also arise.

This all may seem quite a distance from the traditions of today. Yet many of the oft-cited motifs, such as magic, the moon, omens, twelve plus one, and change, are still with us now, as they have been to many people across great chasms of time and geographic space. There is a reason that Michael Crichton included the crucial scene of selecting the “thirteenth warrior” into his movie, and why this became the title. Remarkably, this reason would have seemed appropriate to people from many different cultures. And the reason is a very ancient, yet very modern, one indeed.

This chart is intended as a handy summation of the case studies. I have tried to indicate where doubt exists, and to what level (i.e., leaning towards a “no” or “yes” or in the middle). Still, this is necessarily an oversimplification of the data, and thus should be approached with caution.

Associations with thirteen	Aztec	North American (esp. Yurok)	Early Northern Europe	Early Tibetan
calendar	x	x	x	x
transformational	x	x	x	x
moon	x	x	x	x
magic	x	x	x	x
12+1	x	x	x	x
Omens/ prognostics	x	x	x	x
Lunar-solar calculations	x	x	x	x
# of Gods	x	?	x	x
Goddess	x	x	x	?
Women’s magic/ witchcraft	x	x	x	—?
intercalary	?	x	x	x
# of civil group	x	—	x	x
18.61 year (Metonic) cycle	x	—?	x	—
menses	x	x	x	—
Fertility/reproduction/ sexuality	x	x	x	?
# of districts	x	—	—	x
Years of reign	x	—	—	x
for comparison	Aztec	North American (esp. Yurok)	Early Northern Europe	Early Tibetan
14	—	—	—	—
11	—	—	—	—

## Bibliography

- Aveni, Anthony. *Skywatchers of Ancient Mexico*. Austin: University of Texas Press, 1980.
- Baroja, Julio. *The World of the Witches*. Nigel Glendinning, trans. London: Wedenfeld and Nicolson, 1961.
- Boklen, Ernst. *Die Ungluckszahl Dreizehn und ihre mythische Bedeutung*. In *Mythologische Bibliothek*, v. 2. Leipzig: J. C. Hinrichs, 1913.
- Brecher, Kenneth, and Michal Feritag, eds. *Astronomy of the Ancients*. Cambridge, Massachusetts: MIT Press. 1979.
- Buckley, Thomas, and Alma Gottlieb, eds. *Blood Magic: The Anthropology of Menstruation*. Berkeley: University of California Press, 1988.
- Burland, C. A. *The Gods of Mexico*. New York: G. P. Putnam's Sons, 1967.
- Burns, Thomas. "On the Concepts of Folklore." *Folk Groups and Folklore Genres: A Reader*. Elliot Oring (ed.) Logan, Utah: Utah State University Press. 1989.
- Cott, Jonathan. *Thirteen: A Journey into the Number*. New York: Doubleday. 1996.
- Crichton, Michael. *The Thirteenth Warrior* (Originally *Eaters of the Dead*, 1988). New York: Ballantine Books. 1992.
- Edmonson, Munro. *The Book of the Year: Middle American Calendrical Systems*. Salt Lake City: University of Utah Press. 1988.
- Ekvall, Robert. "Significance of the number Thirteen as a Symbolic Number in Tibetan and Mongolian Cultures." *Journal of the American Oriental Society* v. 79, 1959. 188-192.
- Ellis, Keith. *Number Power: In Nature, Art, and Everyday Life*. New York: St. Martin's Press, 1978.
- Fadlan, Ibn. "Récit de voyage" in *Voyageurs Arabes*, transl. and annotated by Paule Charles-Dominique. Éditions Gallimard, 1995.
- Frazer, J. G. *The Golden Bough*. London: Macmillan and Co. 1911-1914.
- Grahn, Judy. *Blood, Bread, and Roses: How Menstruation Created the World*. Boston: Beacon Press, 1993.
- Hadingham, Evan. *Early Man and the Cosmos*. New York: Walker and Co. 1984.
- Hodson, F. R., ed. *The Place of Astronomy in the Ancient World*. London: Oxford University Press. 1974.
- Hoyle, Fred. *From Stonehenge to Modern Cosmology*. San Francisco: W. H. Freeman and Co. 1972.
- Knight, Chris. *Blood Relations: Menstruation and the Origins of Culture*. New Haven: Yale University Press. 1991.
- Kroeber, A. L. *Yurok Myths*. Berkeley: University of California Press, 1976.
- Krupp, E. C., ed. *Archeoastronomy and the Roots of Science*. Boulder, Colorado: Westview Press, 1984.
- Lopez, Angel. *El numero 13 en la vida de los Aztecas*. Mexico City: Costa-Amic Editores, S. A. 1984.
- Malmstrom, Vincent. *Cycles of the Sun, Mysteries of the Moon: The Calendar in Mesoamerican Civilization*. Austin: University of Texas Press, 1997.
- Markman, Roberta, and Peter Markman. *The Flayed God: The MesoAmerican Mythological Tradition*. San Francisco: Harper Collins. 1992.
- Marshack, Alexander. "A Lunar-Solar Year Calendar Stick from North America." *American Antiquity*, v. 50, n. 1, 1985. 27-51.

- McTiernan, John, dir. *The Thirteenth Warrior*, Touchtone Pictures. 1999.
- Mendizabal, Miguel. "The Nahuatl Chronology: Astronomical Significance of the Number Thirteen." *American Anthropologist*, v. 25. 1923.
- Murray, Margaret, "Witches and the Number Thirteen" *Folk-Lore* v. 31, 1920. 204-209.
- Murray, Margaret. *The Witch-Cult in Western Europe: A Study in Anthropology*. Oxford: Clarendon Press, 1921.
- Olmsted, Garrett. *The Gaulish Calendar: A Reconstruction From the Bronze Fragments From Coligny with an Analysis of its Function as a Highly Accurate Lunar/Solar Predicotr as well as an Explanation of its Terminology and Development*. Bonn: Dr. Rudolf Habelt GMBH, 1992.
- O'Neill, W. M. *Time and the Calendars*. Sydney: Sydney University Press, 1975.
- Rose, Elliot. *A Razor for a Goat: A Discussion of Certain Problems in the History of Witchcraft and Diabolism*. Toronto: University of Toronto Press, 1962.
- Ruggles, C. L. N. *Megalithic Astronomy: A new archaeological and statistical study of 300 western Scottish sites*. Oxford: B. A. R., 1984.
- Saha, M. N., and N. C. Lahifir. *History of the Calendar*. New Delhi: Council of Scientific & Industrial Research, 1992.
- Seth, Ronald. *Witches and Their Craft*. London: Odham's Books, Lmted., 1967.
- Shuttle, Penelope, and Peter Redgrove. *The Wise Wound: The Myths, Realities, and Meanings of Menstruation*. New York: Bantam Books, 1990.
- Simpson, Jacqueline. "Margaret Murray: Who Believed her and Why." *Folk-Lore* v. 105, 1978. 89-96.
- Smith, David. *Folklore of the Winnebago Tribe*. Norman, OK: University of Oklahoma Press. 1997.
- Sturlson, Snorri *Prose Edda*. Berkeley: University of California Press, 1954.
- Swerdlow, N. M. *The Babylonian Theory of the Planets*. Princeton, N. J.: Princeton University Press, 1984.
- Thompson, John Eric Sydney. "The Moon Goddess in Middle America, with Notes on Related Deities" *Contributions to American Anthropology and History* v. 5, no. 29. Washington DC: Carnegie Institution of Washington. 1939. 127-73.
- Weinreich, Otto. *Triskaidekadische Studien; Beitrage zur Geschichte der Zahlen*. Gieesen: A. Toppleman, 1916.
- Willets, R. F. *Cretan Cults and Festivals*. New York: Barnes and Noble, Inc., 1962.
- Williamson, Ray. *Living the Sky : The Cosmos of the American Indian*. Boston: Houghton Mifflin, 1984.
- Wood, John. *Sun, Moon and Standing Stones*. Oxford: Oxford University Press. 1978.
- Zolbrod, Paul "Cosmos and Poesis in the Seneca Thank-You Prayer" in *Earth and Sky: Visions of the Cosmos in Native American Folklore*. Ray Williamson and Claire Farrer, eds. Albuquerque: University of New Mexico Press. 1992.

**Število trinajst:**  
*takrat, tam/ tukaj in zdaj*

*Tok Thompson*

Število trinajst ima kar nekaj skupnih soznačenj v številnih kulturah. Presenetljivo pa je, da so podobnosti tudi med asociacijami na število trinajst, kot so npr.: luna, ženska magija, preroška znamenja ipd. V članku je predstavljen pogled na število trinajst v izročilu številnih kultur. Na tej osnovi je avtor tudi zasnoval hipotetično razlago za široko razširjenost tega fenomena.

Avtor je raziskal in analiziral izročilo, povezano s številom trinajst v številnih kulturah, in rezultati študije so pokazali, da je za tiste kulture, kjer število trinajst predstavlja usodno število, značilno, da so uporabljale lunarno-solarni koledar. Avtor domneva, da izvira konotacija števila trinajst predvsem iz narave oz. iz naravnega sistema kroženja 12, 41 lunacij na sončevo leto. Tako so kulture z lunarno-solarnim koledarjem prisiljene računati z nepopolnim trinajstim mesecem in ta mesec je tisti, ki naj bi dal številu trinajst njegove značilne in široko razširjene kulturne posebnosti.