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Women, Orangutans and the Moon

Nothing could have surprised me more when I began my menstrual flow at the dark of the moon in October, 2004. I am post-menopausal and haven't bled for 2_ years. Why did this happen? Was it because I had just finished reading *Blood, Bread and Roses: How Menstruation Created the World* by Judy Grahn?[1] Was it because I had written a short paper describing my own menstrual story to share with my Metaformic Theory[2] class? Could my own focus on menstruation actually bring on a period after such a time? Perhaps it was because we were two weeks away from a total lunar eclipse and I was feeling the lure of the mistress of tides.

More questions flooded in during the four days of the blood flow. How susceptible is the appearance of my period to narrative and a focus on my memories? Is there research on the connection between the phases of the moon and human menstrual cycles? Is the synchrony of women's menstrual cycles anecdotal or is there a scientific basis for it?

Further, because of my background in wildlife biology, I wondered if there were other primates who had similar menstrual cycles to humans, who too, bled and ovulated with the phases of the moon. These questions became the basis for this paper, which discusses human women, their menstrual synchrony with each other and with the moon, and looks at orangutans, a primate relative with the same average menstrual cycle.[3] The paper reflects on the physical and cultural connection between human menstruation and

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[1] Grahn, *Blood, Bread and Roses,* (Boston: Beacon Press, 1993).

[2] Metaformic theory is the basis for Grahn's book which describes metaforms, the act or form of instruction that makes a connection between menstruation and a mental principle (20). Grahn uses rituals, myths, patterns, words, art, body ornament and even food to show how menstruation is at the heart of human culture.

[3] Birute M.F. Galdikas, "Orangutan Reproduction in the Wild," *Reproductive Biology of the Great Apes: Comparative and Biomedical Perspectives,* ed. Thomas Buckley and Alma Gottlieb (Berkeley and Los Angeles: University of California Press, 1988), 284.

the moon and questions what effect the moon might have on orangutan biology and cultural development.

I discovered, while researching this paper, that I needed a background in anthropology, biology, evolution, human cultural development, astronomy and primatology. There are many pieces to the puzzle which would take years to put together. Rather than assume that I have all the answers, or any of them, I end the paper with ideas for more research that would help arrange the pieces in an understandable pattern.

Traditionally the length of a woman's menstrual cycle has been defined as 28 days or the length of the lunar cycle. Lunar cycles are actually 29.5 days and studies have shown that a woman's cycle may normally be anywhere between 23 and 35 days, the average being described as 29.1 days[4] to 29.5 days.[5]

Shuttle and Redgrove cite the research of Walter and Abraham Menaker[6] who compare the mean length of the menstrual cycle at 29.5 days with the length of the synodic lunar month[7] of 29.5 days. They show that the mean duration of pregnancy from last menses is precisely 9.5 lunar months. In going back to conception, the mean duration of pregnancy is nine lunar months; therefore, it is likely that a child conceived on a given day of the lunar month would be born on a corresponding day nine months later. The Menakers counted more than 120,000 births in a New York City hospital during 13 lunar

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[4] Janet E. Shepherd, "Your Menstrual Period," *Vibrant Life*, March-April 1990, http://www.findarticles.com/p/articles/mi_m0826/is_n2_v6/ai_8337057.

[5] Penelope Shuttle and Peter Redgrove, *The Wise Wound: The Myths, Realities and Meanings of Menstruation* (New York: Grove Press, 1986), 149. Also Winnifred B. Cutler et al., "Lunar Influences on the Reproductive Cycle in Women," *Human Biology* 59 (1987), http://www.athenainstitute.com/lunarmpl.html.

[6] Walter Menaker and Abraham Menaker, "Lunar Periodicity in Human Reproduction: A Likely Unit of Biological Time," *American Journal of Obstetrics and Gynecology* 117 (1973), 413, quoted in Shuttle and Redgrove, 149-150.

[7] Arne Sollberger in his book, *Biological Rhythm Research* (Amsterdam: Elsevier, 1965) defines the sidereal month of 27.5 days as the period when the moon returns to the same position among the stars and the synodic lunar month of 29.5 days as the time when the moon returns to line up with the sun. Thus, the synodic lunar month is considered the time from new moon to new moon.

months and found that fewer births occurred on the day of the new moon than on any other day. This is what would be expected if more women tend to have their periods at this time than any other. Full moon days, however, had more births, which is also what you would expect if people tended to ovulate on the full moon.

The Menakers did two other studies at private hospitals, each looking at 250,000 pregnant women. Once again, the new moon was associated with fewer births and the full moon with an increase of them. They found that births on day fourteen, the full moon, when the Menakers postulated the likelihood of ovulation occurring, deviated "to an extraordinary extent above the mean."[8] They concluded that there is a small but statistically significant synodic lunar influence on the human birth-rate, and presumably on the conception rate and the ovulation rate.

These studies were done in New York City, where the lunar influence on humans, if it is based on light, must be rather small in an era where electric light floods our cities day and night.

Contemporary research into the topic of menstrual synchrony began with a 21-year old woman at Wellesley College in the early 1970's. Martha McClintock was asked to attend a conference where scientists were discussing pheromones—chemical messages that pass between organisms without their conscious knowledge—and how they cause female mice to ovulate all at the same time.

McClintock mentioned that women who live together in a college dormitory also tend to have menstrual periods at the same time. The speakers were surprised and skeptically challenged her to address the issue scientifically. McClintock studied 135 women in her dorm during her senior year, found statistical evidence of menstrual synchrony and published the results in the prestigious journal, *Nature* in 1973.[9]

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[8] In Shuttle and Redgrove, 150.

[9] Martha McClintock, "Menstrual Synchrony and Suppression," *Nature* 229 (1973), 244-45.

McClintock postulated that human pheromones were the cause of the menstrual synchronization found with women who live together.

Twenty-seven years later, in 1998, McClintock, then a professor at the University of Chicago, published additional research in the same journal.[10] McClintock found the compounds taken from the underarm secretions of women who were in the early, or follicular phase of the menstrual cycle can shorten the cycle of women exposed to the extracts. By contrast, compounds extracted from the women at midcycle, when they are ovulating, can have the opposite effect on recipients, lengthening their menstrual cycle.

Winifred Cutler, at Wayne State University, studied women who had 29.5 ±1 day menstrual cycles and found there is an increased propensity for menstruation at or about the full moon.[11]

There is earlier historical evidence of women synchronizing their periods with each other and with the moon. The Temne are the largest ethnic group in Sierra Leone, having been in the current location since at least the 14th century. Largely rural, they live in small villages of about ten households. Even the larger towns have small clan-based enclosures.[12]

The lunar calendar of the Temne is ancient, predating Muslim contact. It consists of 12 named months based on the synodic lunar cycle. The moon is considered female as the wife of the sun and waxing and waning is associated with the female condition in pregnancy. Lamp cites three historical references which tie the moon to women's cycles.[13]

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[10] Martha McClintock, "Regulation of Human Pheromones," *Nature* 392 (1998), 177-79.

[11] Cutler, <http://www.athenainstitute.com/lunarmpl.html>

[12] Frederick Lamp, "Heavenly Bodies: Menses, Moon, and Rituals of License among the Temne of Sierra Leone," in *Blood Magic: The Anthropology of Menstruation*, ed. Thomas Buckley and Alma Gottlieb (Berkeley and Los Angeles: University of California Press, 1988), 212.

[13] Ibid., 218.

The first from Jean Barbot, describes various peoples along the coast of present-day Sierra Leone in 1678. Barbot states that during every new moon, the Temne abstain from all work and do not let strangers stay with them. Otherwise their maize would grow red, the new moon being a day of blood. The men commonly go hunting that day.

The second reference comes two hundred years later in the mid-19th century from a missionary, Christian Schlenker, who compiled a book of Temne oral narratives. The primordial couple became interested in procreation, so God gave them medicine to introduce fertility and the knowledge of coitus. Of the eight doses of medicine, the woman ate five and the man, three. "This is the reason the woman has a stronger sexual desire; this is the reason that all women are sick in the belly, when the moon is full, again when the moon is dying."[14] Lamp believes this may refer to menses at the full moon and 15 days later, the discomfort of post ovulation.[15]

In 1965, the first President of Sierra Leone who was also a physician, Dr. Milton Margai, wrote a section of a medical handbook which referred to the emission of blood every month as "washing the moon." Margai describes women's cycles as being in tune with the moon cycles.

More recently in 1978, and in a very different location, Thomas Buckley studied the Yurok Indians in northwestern California and visited an Indian friend who told him that because his wife was "on her moontime", she went into seclusion for ten days, cooking and eating her own food by herself.[16] Later, the wife told Buckley that she learned from her aunts and grandmothers that a menstruating woman should isolate herself because this is the time she is at the height of her powers. She was told that in old-

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[14] The original source of this quote is from Christian F. Schlenker, *A Collection of Temne traditions, fables and proverbs* (London: Christian Missionary Society, 1861).

[15] Lamp, 222.

[16] Thomas Buckley, "Menstruation and the Power of Yurok Women," *Blood Magic: The Anthropology of Menstruation*, ed. Thomas Buckley and Alma Gottlieb (Berkeley and Los Angeles: University of California Press, 1988), 189-190.

time village life, all of the household's fertile women who were not pregnant menstruated at the same time, a time dictated by the moon. Further, if a woman got out of synchronization with the moon and the other women, she could "get back in by sitting in the moonlight and talking to the moon, asking it to balance [her.]"[17] Buckley later found A. L. Kroeber's field notes of his studies with the Yurok people in 1902 which provided information to support these statements as an expression of an older tradition.

Regarding the use of the moon in restoring menstrual synchrony, Buckley notes recent biological research and findings. The timing of ovulation in 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.[18] Buckley describes further research by Dewan, Menkin and Rock[19] which demonstrated that the onset of menstruation itself may be directly affected by the exposure of ovulating women to light during sleep. The researchers found that by exposing ovulating women to the light of a 100-watt bulb during the 14th to 16th nights of their cycles caused the menstrual cycles to become regular, with a significant number of 41 experimental subjects entraining[20] to a 29-day cycle. The three to four nights of exposure was based on the natural duration of full moonlight during the lunar month.

Doing contemporary research on women's menstrual synchrony with the moon is difficult because of the change in the amount of light exposure we have had in the last hundred years due to the widespread use of electricity. As I read more about this issue, two questions came to mind: When did human synchrony with the moon first occur and why? The previous studies mentioned here seem to show that women's menstrual cycles

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[17] ibid., 191, quoting an unidentified Yurok woman.
[18] Ibid., 189-190.

[19] E.M. Dewan, M.F. Menkin and J. Rock, "Effect of Photic Stimulation on the Human Menstrual Cycle," *Photochemistry and Photobiology* 28 (1978), 581-585.

[20] Entrainment is the quality of two similarly timed beats to link up and become synchronized in each other's presence.

are influenced by a certain amount of light and that pheromones excreted by women can keep them synchronized.

But what did anthropologists say about human social origins? Would this research get me closer to an answer to these questions?

I found that until the 1960's, no section of the scientific community was devoting itself in any consistent way to unraveling the mysteries of human social origins. It is extremely difficult to look at bones which are hundreds of thousands, indeed millions of years old and speculate about consciousness and sexuality.

Current thought puts the change from an early ape into an australopith which has a combination of ape and human traits, at 5-6 million years ago.[21] These proto-humans lived outside the rain forests, had teeth that were adapted for crushing, rather then shearing and chewing foliage and walked upright. The australopiths were considered the first hominids—a group composed of two-legged primates in the family Hominidae.

For the next 4 million years or so, hominids thrived in a variety of species, showing evidence of eating large mammals and using cutting tools to slice meat off the bones. Brains became bigger. The next step was a big one and according to Wrangham, an important one.[22] About 1.9 million years ago, *Homo erectus* evolved from *Australopithecus habilis*[23] in a short transition, maybe a few tens of thousands of years. These early humans had females that were 60 percent bigger than *Australopithecus*. *H. erectus* had smaller teeth, smaller guts, arms no longer adapted for hanging in trees, and longer legs. They also doubled their brain volume to within 300 cubic centimeters of modern humans. Males were no longer hugely bigger than females—only a mere 15 percent heavier.

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[21] Richard W. Wrangham, "Out of the *Pan,* Into the fire: How Our Ancestors' Evolution Depended on What They Ate," *Tree of Origin: What Primate Behavior Can Tell Us About Human Social Evolution,* ed. Frans B.M. de Waal (Cambridge: Harvard University Press, 2001), 121.
[22] Ibid., 123.

[23] Although *A. habilis* was first called *Homo habilis,* some anthropologists have argued that the fossils are closer to *Australipithecus* than *Homo*.

With these kinds of changes, it appears that *Homo* was eating far better than *Australopithecus*. Although many anthropologists believed this was based on meat-eating, there is evidence that regular meat eating began to occur earlier, about 2.5 million years ago. It is hard to explain the long delay before the new species appeared. Wrangham's theory is that *Australopithecus* learned to use fire to cook food which improved the digestibility and range of plant foods. He believes that it is also possible that the cooking of meat was highly significant. Thus, the availability of more, digestible food which was cooked shortened the change from *Australopithecus* into the first human genus, *Homo erectus*.

Why is the cooking of meat important beyond the change in body size and stature? Having cooked food items may have had a profound change on the social and sexual system of early humans.[24] If food items had to be accumulated into a small area and retained there for several minutes or hours to be cooked, larger males would have stolen food from females. Females needed to protect their hard-won food supplies and bonded with certain males to help them protect their food from scroungers. Therefore, females who were more sexually attractive all the time obtained a higher quality of food guardian. To Wrangham, this would explain why early female humans evolved menstrual cycles which allowed sex to occur at any time.

Chris Knight, in *Blood Relations: Menstruation and the Origins of Culture*[25] wonders why human culture with its taboos, rituals, symbolic systems, complex kinship systems ever evolved at all. "Since non-human primates show no signs of the necessary self-restraint, civic consciousness or ability to observe ritual avoidance, we must conclude that before the hominisation process was completed . . . a truly revolutionary restructuring of primate behavioural norms had to be achieved."[26]

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[24] Wrangham, 138.

[25] Knight, *Blood Relations* (New Haven: Yale University Press, 1991), 169.

[26] Ibid., 199.

This restructuring involved the development of menstrual synchrony. When cycles are randomized, females could be managed and controlled. Synchrony would show female solidarity and allow them greater freedom. Knight suggests that early females may have synchronized their periods to the tides and later to the moon. He does not believe it was because either of these forces was so strong as to cause synchrony. If women in certain localities were synchronizing consistently, it was because they were detecting environmental cues and the result was in their best sexual-political interest.

All humans in the world today are descendants of a population of fully modern humans who left Africa and fanned out across the world only a few tens of thousands of years ago.[27] Knight believes that the menstrual synchrony that developed in a shoreline/tidal population became rooted in an abandonment of area-intensive foraging patterns because of an increasingly cold environment. Human females would have been hit particularly hard by the onset of cold weather which would have required higher levels of mobility and heavier reliance on long-range hunting.

Knight's model involves a strong bonding of females for it to work. He suggests that women ovulated at full moon and thus menstruated at the dark of the moon. Women had to agree that menstrual bleeding meant no sex. The men therefore used this time to hunt, going away from the women and children and returning with meat. Even though not all women were menstruating because some were pregnant or lactating, all women had to collectively share in the symbolic protection of the menstruants to make sure that all the women would share in the meat. Since the females were capable of mating at any time during the cycle, the advantage for all women to agree to no sex at a particular time allowed for better food resources and at the same time, gave support to pregnant women

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[27] Ibid., 270 and also Lucia Chiavola Birnbaum, *Dark Mother: African Origins and Godmothers* (Lincoln, NE: Authors Choice Press, 2001), 5. National Geographic is currently funding the establishment of eleven DNA-sampling centers around the world to collect 100,000 cheek swabs from indigenous peoples. The goal of the project, led by population geneticist Spencer Wells, is to trace the story of how humankind traveled from our origins in sub-Saharan Africa to populate the planet. This data collected over the next five years may give new insight and understanding to human migration and relationships. Michael Schnayerson, "The Map of Us All," *National Geographic Adventure* (August 2005), 78-83, 89-90.

and young children. The tribe then would have better child survival and as it grew, women could benefit from shared knowledge from mothers and grandmothers.

The men would also have to develop a bond which would not allow anyone to stay behind and have access to the women. It would also be important that women in nearby tribes would be synchronizing their cycles and withdrawing from sex, so that they men would not have access to other women. If the men from other tribes were hunting at the same time, it would benefit them to hunt collectively, which might be needed in order to capture and kill the large herbivores of the Upper Paleolithic time period with primitive weapons. Since men could sometimes be away for long periods, they would have a deadline of bringing home the meat—the full moon, which is when the women would be ovulating. As the meat was brought back, celebration and sexual contact began again. Thus, the full moon celebrations were the foundation for much more than the night sky, they celebrated the return of sexual relations, feasting and the success of the contract.

Judy Grahn argues that men were more interested in the hunt because it drew blood and allowed them to participate in "parallel menstrual rites." [28] As women created menstrual rituals and seclusion rites, men too had to create rites of their own, centered on the same subject.[29] These "parallel menstruation rites" involve bloodletting and even visionary or hallucinatory states. According to Grahn, the point of the men's rites, which include the hunt, especially for creatures with horns in lunar shapes, goes beyond the need for meat to the need for the power the men envisioned menstrual blood to have. After all, women were connected to the moon, the waxing and waning of the night light; their blood was considered analogous to such forces as water, "a moving force capable of causing chaos or death." [30]

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[28] Grahn, 132.

[29] Ibid, 44.

[30] Ibid., 25

To share in the power of the menstruating woman, according to Grahn, men used hunting seclusions similar to the menstrual seclusions to entrain with the light, water and other elements of the natural world. The connection with the blood of the animals they killed may have also have brought them the power they sought.

Craig Stanford, although not writing about menstruation but about meat-eating and human evolution, supports the idea that in all human societies from forager to pastoralist to farmer, meat is a highly valued food resource, accorded a status far beyond its nutritional worth.[31] He believes that the role of meat in human society has never been merely nutritional, and compares humans to chimpanzees, who use meat to secure and maintain political alliances, to publicly snub rivals, and at times to attract estrous females.

During the time of human cultural development, I believe, in concert with Grahn and Knight, the moon continued to be a signal for women to bond together, menstruate at the same time and to develop art, music, dance and ritual. Men too, then, learned to live by the phases of the moon, developing their own rituals, and seeking the power they saw in the female form and blood.

If humans evolved to entrain with each other and moon cycles, how did other primate menstrual cycles evolve? Do they have consciousness of the moon? Orangutans are also primates within the family Hominidae and have menstrual cycles that are almost identical to that of humans with an average of 30 days.[32] The fertile period is 5-6 days per cycle. In the wild, orangutan females reproduce when they are about 15 years old.

There are many other similarities between orangutan sexual and social activities and that of humans, according to researchers Kaplan and Rogers.[33] Copulation is not just

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[31] Craig B. Stanford, "The Ape's Gift: Meat-eating, Meat-sharing, and Human Evolution," *Tree of Origin: What Primate Behavior Can Tell Us About Human Social Evolution,"* ed. Frans B.M. de Waal (Cambridge: Harvard University Press, 2001) 109.

[32] Gisela Kaplan and Lesley J. Rogers, *The Orangutans* (Cambridge: Perseus Publishing, 2000), 115.

[33] Ibid., 120.

for reproduction, as it is known to occur at any part of the menstrual cycle. The authors do not state whether this includes sexual activity during the menstrual cycle. Active sexual interest by females is not confined to their period of ovulation. In addition, a female has some say in sexual matters—if she is not interested in sex, she will either move away or threaten the male.

Female orangutan's genitalia do not swell at the time of receptivity, as they do in gorillas and chimpanzees.[34] Sexual contact may be a guessing game, based on negotiation and persuasion. Females do have labial swelling when they are pregnant, which may serve as a warning to males to stay away. Another difference with gorillas and chimpanzees is that orangutans mate face to face (sometimes hanging from branches facing each other!). Sexual activity is all-absorbing with extensive foreplay that is unhurried and measured. The time for copulation is the longest among nonhuman primates, equal in length only to that of humans, ranging from three to 30 minutes.

Orangutans are different from humans in many important ways. They spend their lives in the tropical forest canopy of Sumatra and Borneo 20 to 100 feet off the ground. Staying high in the trees keeps them away from predators such as tigers and leopards. Orangutans build two nests a day; a sparse one for a short nap and a stronger sleeping nest every night. Babies and juveniles, up to about age eight, will sleep with their mothers in their nest. Meat is a very small component of their diet, which is 60% fruit, and includes bark, insects and occasionally, a small vertebrate. For obvious reasons, orangutans do not cook their food.

Males are much larger and heavier than females at 200 pounds and 110 pounds respectively, a condition which may have been the result of male competition when ancestors of the orangutans were more terrestrial.[35] Interestingly, only recently have researchers determined that there are two coexisting adult and sexually mature male

[34] Galdikas, 283.
[35] Peter S. Rodman and John C. Matani, "Orangutans: Sexual Dimorphism in a Solitary Species," *Primate Societies,* ed. Barbara B. Smuts et al. (Chicago: University of Chicago Press, 1987), 147.

morphs:[36] flanged males (with large cheeks) with fully developed secondary sexual characteristics and unflanged males. Flanged males are intolerant of other flanged males, but often tolerate the presence of unflanged males in their home range. Earlier research described the unflanged males as "immature males" who often mated with adult females.

Another major difference is that orangutan males spend much of their time alone. Atmoko and Van Hooff surmise that as orangutans became more arboreal and solitary, this created a shift where a male morph developed which was a retarded maturation, allowing for less male competition and giving this morph an advantage.[37] A second possibility is that the flanged and unflanged males represent two parallel reproductive tactics where the flanged males wait for the females to find them and the unflanged males go in search of the females.

Female orangutans stay with their infants and juveniles and don't mate again for four years after giving birth. Males do not help raise their offspring. Adolescent females are the most gregarious of any age group of either sex—they have something resembling a regular social life. They spend a lot of time playing and feeding together or just sitting around, appearing to have a good time.[38]

Wild orangutans are difficult to study since they are arboreal and don't live in groups on the ground. There is still so much that we don't know about their lives, their social system and their reproductive biology. We don't know for sure at this point what their average lifespan is in the wild. I could find no information about whether orangutans actually entrain with the moon phases, probably because no one has thought to study this phenomenon.

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[36] Each morph is a form or shape that is distinct from the other.

[37] Suci Utami Atmoko and Jan A.R.A.M. Van Hooff, "Alternate Male Reproductive Strategies: Male Bimaturism in Orangutans," *Sexual Selection in Primates: New and Comparative Perspectives,* ed. Peter M. Kappeler and Carel P. van Schaik (Cambridge: Cambridge University Press, 2004), 203.

[38] Kaplan and Rogers, 119.

Orangutans and humans diverged many millions of years ago and each of our lines in the primate family tree has continued to evolve. There is no reason to believe that the common ancestor did not have menstrual cycles synchronized with the moon nor do we know if they had menstrual cycles at all. Therefore it is curious as to why both species have the same menstrual cycle which in turn is the same as the moon cycle.

There are compelling reasons why humans are connected to the moon cycle, as suggested in this paper. Orangutans, however, have a completely different social system and evolutionary path. Orangutan males, being solitary, have no real control over the females except for their large size difference. Nor are they socially connected except for brief (a few days) "consort" period. One speculation concerning benefit to orangutans of menstrual synchrony to the moon may be that since the males do not live in groups with the females, they would need the light of the moon as a cue for when the females are fertile. They are not nocturnal animals but they may not get in their nests until the moon has risen. It is possible that the moonshine serves as a cue for sexual signaling so the males know when to look for a sexually receptive and ovulating female. The fact that there are two male morphs may also be significant, where the unflanged male responds to the female cycles more strongly than the flanged males, allowing for greater mating opportunities.

There continue to be researchers studying orangutans in the wild. Additional information about menstrual cycles could be compiled by noting the moon phase when copulation takes place and further noting when the labial swelling of pregnancy appears after copulation. Keeping track of male activity of both morphs during the moon phases would also add to the data needed to understand why orangutan females have menstrual cycles the same length as moon cycles. Unfortunately because of the very slow birth rate of orangutan females (they may only have 4 or 5 babies in their lifetimes), this kind of research will not be easy or fast.

Both humans and orangutans have evolved with nearly the same menstrual cycle, which is the same length of time as the phases of the moon. Because the social development of both species is so very different, there may be different reasons for this evolution; however, both may be based on the need for a visual cue based on the large, bright orb in the night sky, a signal of change and transformation.

Sadly, we might never know the secrets to orangutan sexual and social behavior nor be able to determine if they hold any clues to early human development, for they are severely endangered and their habitat in Sumatra and Borneo continues to be destroyed and degraded. The chance for the red apes to survive in the wild is slim indeed.

Again I have stopped my own menstrual bleeding but I am much more aware of the phases of the moon. Every night I check for the reflected light, both the light from the sun which changes the visible shape of the moon, and the earthlight, which allows us to see the dark portion completing the circle. I think of those beautiful, red orangutan cousins half-way around the world, and wonder about our female connection, of bleeding and ovulating in synchrony and what we would explain to each other if we could speak the same language.

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