Mead:
A Study in Human Culture's Interaction
with the Natural Environment
and Other Animals

Wherever mead flows there is a communion of animals, plants and human aspirations. Usually associated with Celtic and Old Norse cultures, mead, or fermented honey, has a global and multicultural history that starts with the interaction of humans and bees. Humans can directly cultivate the barley and grapes that give us beer and wine, but mead requires the bee as intermediary between humanity and human attempts at domination of the natural world. Historically, mead has been portrayed as both a liberating and a humbling drink, and its prevalence has been tied to the requirements and survival of bees.

Flowering plants producing nectar and pollen and the first insects to forage on them evolved at roughly the same time as the very first mammals, some 150 to 100 million years ago during the Jurassic and Cretaceous periods. Twenty to ten million years ago, the social honeybees of Asia, Africa and Europe first appeared, most likely evolving from solitary bees in the region that is now Afghanistan. There are now two subfamilies of bees that produce significant amounts of honey: the Apinae and the Meliponinae. The Meliponinae are social bees with residual traces of stingers, and these “stingless” bees can be found throughout the tropics of Asia, Africa, Australia and the Americas in five genera and many species. The subfamily Apinae has four main species of social bees, with Apis dorsata and Apis florea building single combs in the open and never spreading beyond Southeast Asia, while the more successful Apis mellifera and Apis cerana build true hives in cavities and
are found west and east of the Himalayas respectively (Crane, “History of Honey” 440; Crane, Bees 4-5, 15-16). Apis cerana, the honeybee of China and Japan, does not seem to have had a great deal of influence on these Asian cultures early on, and a distinct term for honey does not appear in the Chinese language until the fourth century BCE. As late as the first century CE, honey was listed as an import to China from the west, and silk was traded for it in the important caravan-city of Samarkand (Crane, “History of Honey” 457-58). At roughly the same time in Europe and Africa, honey and mead, produced by Apis mellifera, were being enjoyed by a number of different cultural traditions, who fairly early on came to write about the admirable social practices of the bees themselves.

Foraging honeybees fill their honey sacs with nectar and pollen from flowering plants and trees. In the honey sacs, the bee’s saliva and enzymes start transforming nectar and reducing the pollen content of the honey even as the bee is flying back to the hive. We now know that upon arrival the bee will tell its hive mates the location of its food source by doing an elaborate waggle dance that demonstrates distance and position vis-à-vis the sun (Maurizio 102; Toussaint-Samat 23; Wilson 177). The contents of her honey sac are regurgitated into one of the hive’s wax combs, and they are ingested again by workers who further refine the mix, transforming it into honey, a mixture of water, sugars like laevulose and dextrose, and some trace proteins, nitrogen and ash (White 158). Together with brood food, royal jelly and pollen, honey becomes one of the food items consumed by different members of the hive at different times.

Honey is a food cooperatively produced and cooperatively used, leading human authors like the Roman naturalist Pliny the Elder (23-79 CE) to praise the bees for their government, discipline and military-like organization (qualities dear to an ancient Roman), as well as their usefulness to people. Though Pliny erroneously claimed that “honey comes out of air” to be collected by bees, he still lauded the bees for their transporting the honey back to their hives, “For they recognize only what is in the common interest” (149, 153). Much later in seventeenth- and eighteenth-century England, treatises on bee-keeping still gave a great deal of attention to what could be learned from the social organization of bees. Joseph Warder wrote of their loyalty, and John Levett of their regal power and civil discipline (Thomas 62). As cultural meaning and metaphors were developed around bees, honey and mead, one significant theme that arose was the social discipline exemplified in the bees’ producing honey. An energy-rich foodstuff for them, it would also become a highly valued food for another social animal, and humans would add to the social meaning of honey and
bees through the deliberate fermentation of the bees' honey, further refining what another animal had processed and produced.

Created between 10,000 and 6,000 BCE, a rock painting in the La Araña shelter in eastern Spain near Valencia clearly shows honey hunting by human beings. Similar ancient rock paintings are found in South Africa and Zimbabwe (Toussaint-Samat 16-17; Brothwell and Brothwell 69). That humans and human ancestors should have hunted honey from an early date is unsurprising. Our closest living relatives, chimpanzees, who share with us some 98.7% of their genome-wide DNA and shared a common ancestor with us some five to six million years ago, have been observed on many occasions to raid beehives for honey, despite the hyper-aggressive nature of the African subspecies of *Apis mellifera* (Goodall 255). If later written accounts of human interaction with forest hives are reflective of what might have occurred in prehistoric Spain, many of these hives and many bees may have been destroyed in order to acquire the honey; a destruction of the source of this edible gold that may have led to active apiculture or the keeping of bees.

Reliefs showing the subduing of bees with smoke and the extraction of honey in a manner that would sustain the hive date back to the fifth dynasty of ancient Egypt, ca. 2494-2345 BCE (Brothwell and Brothwell 76). Between 500 BCE and 476 CE, during the classical era of Greece and Rome, bees had been kept and admired for their honey in the Mediterranean world for quite some time. What was less admired by that time in the Mediterranean basin was mead, the fermented drink made of honey, water and yeast. While the Egyptians drank a barley-based beer, many Middle Easterners alternated between beer and wine. The Greeks and Romans concentrated on wine, though they would sometimes mix this wine with honey, producing what the Romans called *mulsum*, which they consumed as an aperitif or dessert wine. Mead, which appears to have been a more dominant fermented drink among the Greeks before 1600 BCE and the rise of viticulture, came to be denigrated by them as the drink of northern barbarians (Giacosa 22, 197, 198; Austin et al. 8). To those northerners, it possessed all the richness of mythic imagery that wine had for the Greeks and Romans. Mead, like wine, was a gift of the gods. Like wine, it could inspire poetic ecstasy and promote rich communication among people and the building of community. In northern Europe, honey mead functioned in ritual and the mead hall like honey and waggle dances do in the beehive. However, mead also was seen as disrupting appropriate social ties and oaths. There were dangers associated with mead. Even as the Greek god of wine and civilizing theater, Dionysus, was said to be accompanied by frenzied women, the Maenads, who rejected all conventions and tore wild animals to pieces, the Norse god Odin was
portrayed as dishonoring himself in order to acquire mead. Intoxicating drink, from Mediterranean wine to the bees’ gift of mead, was seen as magically containing the potential for both great good and evil. While the bees’ communal transformation of plant matter into honey could serve as a social exemplar, humans’ transformation of honey into mead was more ambiguous.

There is no direct evidence that mead was the first intoxicating drink consumed by humans, but given its presence in a number of different cultures and the antiquity of honey-gathering, it remains a strong candidate. In Africa, the Bambaras of Mali emphasize mead’s capacity to impart inspirational wisdom and knowledge (Toussaint-Samat 36). Among the Matako foragers of the twentieth-century Amazon rainforest, mead was said to have been invented by an old man. The myth says that the old man had to prove that the mead was not poisonous, and it is only after he awoke from a drunken stupor that the people were convinced that he was not dead as a result of drinking mead (Lévi-Strauss 107-08). The Matako valued mead, but they also portrayed it as a dangerous means to an altered state reminiscent of death.

As with the Bambaras and Matako, it is in a special and ritualistic capacity that mead appears across the cultures of the Indo-European linguistic group. The Indo-Europeans were a group of linguistically related peoples who apparently arose some time before the third millennium BCE in the steppes of southern Russia and the Ukraine. They were not a “race.” A number of extremely similar words in languages as diverse as ancient Greek, Latin, Sanskrit, ancient Persian, and the Germanic, Slavic and Celtic tongues point to the postulated existence of a language, Proto-Indo-European, that was once shared by speakers of these unique languages (Baldi 3-14; Wells 168). In the ancient Sanskrit of India, the word māḍhu meant nectar, honey, anything sweet, mead and any sweet intoxicating drink. The word’s resemblance to “mead” is transparent, and the lack of distinction between “honey” and “mead” is compelling. In Celtic tongues, the distinction is already made. Welsh speaks of mēl for honey and medd for mead. Breton identifies mel as honey and mez as mead, while Irish Gaelic has mil for honey and miodh for mead. Wherever people that spoke an Indo-European language went, they seem to have taken honey and mead with them (Le Sage 429-31).

Even the ancient Greeks and Romans, consummate wine-drinkers that they were, recognized a time when mead took precedent in their Mediterranean lands. Plutarch wrote that before viticulture, mead was the drink poured out in libations to the deities, and Pliny the Elder and the Hispano-Roman agronomist Columella wrote that mead and beer were drunk prior to wine in ancient Italy. In the nearly interchangeable
forms of ambrosia and nectar, the food and drink of the Greco-Roman gods and goddesses was recognized as somehow honey-based and mead-like (Turner and Coulter 42). The texts of the ancient Greek Orphic mysteries say that the Titan Kronos slept intoxicated with honey when his son Zeus overthrew him. Myths told on the island of Crete claimed that Zeus was raised there as an infant and fed on goat’s milk and honey. And as late as the first century CE and Roman imperial times, Columella describes the aperitif and dessert wine mulsum as grape must and the best honey carefully mixed together and stored in a sealed flagon for thirty-one days to ferment before being strained and resealed in a new container (Brothwell and Brothwell 165; Tous-saint-Samat 20-21; Columella 269-71).

While the Greeks and the Romans made much of wine as a drink of refinement, it should be noted that one reason why the ancients may have chosen wine and beer over mead was the sheer cost of honey as contrasted to grapes for wine and grains for beer. Apis mellifera in a natural state will construct their hives in the hollows of trees, but as human agricultural practices expanded and human populations grew around the Mediterranean basin, natural habitat for honeybees decreased. In sheer acreage, grapes and grains produced far more quantitatively than the seven kilograms of honey a year per colony still produced by bees in traditional straw hives in twentieth-century Germany and cork or wooden box hives in Spain and Portugal (Smith 106-07). With barley and emmer wheat, as in ancient Egypt, peasants could make bread and use some of the grains to produce beer, the common alcoholic drink of ancient Egypt. Without a great deal of access to fields of flowers and forests of flowering trees, kept hives of Apis mellifera could only produce so much honey, and wild honeybees would disappear as forests were cleared for growing populations and increased agriculture in the Mediterranean basin.

By the mid-fifth century BCE, an important mercantile city-state like Classical Athens relied on imports of timber for the construction of its fleet and grain for the sustenance of its population, while, “already in ancient times heavy rains made the river Adonis, just behind Byblos, run red into the sea with dislodged soil (which was believed to be the blood of the dying fertility-god killed by wild boars).” In actuality, it was the run-off of mountainsides stripped of their pines and oaks for Phoenician shipbuilding and construction in the densely populated region that is present-day Lebanon (Grant 61). By the second century CE deforestation “was predominant all over the Roman empire” to serve the needs of agriculture, urbanization, shipbuilding and the wooden fortifications of the Roman legions (Chew 93; Williams 84).
In ancient northern Europe, on the other hand, populations were sparser, and more contained agricultural fields provided for the Germanic tribes and the Old Norse, while also allowing for greater expanses of forests and open fields where both humans and bees could forage (Williams 102, 279). Though still costly, and more common among the elite of northern Europe than the common folk, mead would continue to be imbibed as a premier and relatively more common drink.

There are many northern myths regarding the origins of mead. One of the most poignant is told in the Icelandic Elder or Poetic Edda compiled some time after 1200 CE. In “The Words of the High One,” the supreme Norse god Odin is made to relate both the spirited, poetic qualities and the dishonorable results sometimes associated with the imbibing of mead. In disguise, as he so often was in Norse myth, Odin acquired the mead through deceptive and “honeyed” words. Upon gaining entrance to the abode of the giant Suttung as a laborer, Odin seduced Gunnlod, the giant’s daughter, thereby gaining the mead from her hands and returning to his home in Asgard with it. Seen by the Old Norse as the source of poetic inspiration and a gateway to personal growth and wisdom, as well as a means to establishing camaraderie among warriors, mead was a precious gift from Odin to humanity as well as to his fellow gods and goddesses. In the Elder Edda, “Odrerir” is a word used to describe both the mead’s container and mead as imbibed by poets for inspiration (Poetic Edda 30 n. 47). As the “High One,” Odin says:

What I won from her (Gunnlod) I have well used:
I have waxed in wisdom since
I came back, bringing to Asgard
Odrerir, the sacred draught.

But Odin also shows regret for his duplicity and his ill use of the giantess Gunnlod in order to gain mead:

Gunnlod sat me down in the golden seat,
Poured me precious mead:
Ill-reward she had from me for that,
For her proud and passionate heart,
Her brooding foreboding spirit. (Elder Edda 52)

In effect, Odin lost his soul-mate since he was generally portrayed as a god who brooded over his mead while listening to the wisdom gathered for him by his two world-traveling ravens Hugin (Thought) and Munin (Memory). However, it should also be noted that the myth knowingly refers to lying words of praise and love that often continue
to coincide with the drinking of alcoholic beverages in mixed company to the present day. In the presence of mead, Odin lied to Gunnlod. He used her, and the “High One” is made to speak of the occasion as both a victory and a dishonorable act of shame.

On earth, or Midgard, as well as in Odin’s Asgard, the drinking of mead in a vast hall was one of the vital rituals of the Old Norse and the Germanic tribes in general. It was a community-building ritual that also afforded the opportunity for conflict and disaster. As with the Matako of the Amazon, mead in traditional northern European cultures bore the potential of transforming its drinkers for good or ill. In the projection of human affairs and human relations that was Asgard, Odin often drank his mead in Valhalla, the hall of the slain, where fallen human warriors, honored for their heroism on earth, were served by female warriors, the famed Valkyries. This replicated the real practice of women serving mead and ale to men in the halls of Germanic and Norse chieftains on earth, and it constructed a patriarchal and gender-biased vision of appropriate social relations by having spear-bearing Valkyries continue to serve men in warriors’ heaven. In reality, Norse and Germanic women, as well as their Celtic counterparts in places like Ireland and pre-Roman Britain, helped in the fields, tended animals, gathered berries in the woods, and sometimes even went into battle like the Celtic warrior queen of Britain’s Iceni, Boudica (Clover 37, 48; Herlihy 26-7; Jesch 138-9; Jochens, Women in Old Norse Society 121, 137; Tacitus 328-31). They were strong women who could transform the intended submissive act of offering a bowl, goblet or horn of mead to gathered warriors into a display of talent and a community-building opportunity.

In the Anglo-Saxon epic poem Beowulf, composed some time between the middle of the seventh and the end of the tenth century CE, the Danish Queen Wealhtheow is represented as an orator who uses her task of serving mead and ale as a means to strengthening bonds of alliance between her own people and the hero Beowulf and his Geats. She is admired by the men of the poem for using “measured words,” for showing a talent in wordcraft, and for being generous with her gifts to warriors of Beowulf’s stature. In her independent gift-giving, Wealhtheow performs the task of an individual who controls her own resources, and Anglo-Saxon historian Christine Fell has noted that of all the Old English wills that survive, over a quarter are by women of property, and a number of other wills are by husbands and wives jointly (Beowulf 43, 83-7; Fell 94-6; Magennis 23). Service of alcoholic beverages like mead and ale in the drinking hall illustrated a patriarchal point, but it also gave women an opportunity to display talent and express themselves. In Old Norse sagas, “sober queens” often prevent drunken
boasts from ending in blows or wars, and while women are portrayed drinking with men in mixed company, they are generally pictured as drinking less than their male counterparts (Jochens, “Gender and Drinking” 174).

Indeed, Celtic mythology finalizes a northern European recognition of the ambivalent power of mead and the association of women with the drink. Medb (also Meadhbh or Maeve) was the old Irish goddess of territory, fertility and sovereignty. Her name itself translates as “she who intoxicates,” and it is related to the Irish and Welsh words for mead, “miodh,” and “medd,” respectively. In Irish myths associated with the warrior hero Cúchulainn, she is eventually responsible for his death after he foils her attempts to acquire the brown bull of Ulster (Ellis 40-45; Green 147-48; MacKillop 288-90). A patriarchal, and even misogynistic bias, associates “she who intoxicates” with the downfall of a great man, the Irish Heracles, who, like his Greek counterpart, is often out of control. While, on the one hand, the myths lay the blame for a man’s own weakness on a scheming, vengeful and highly eroticized portrayal of womanhood (i.e., Medb was called “Medb of the friendly thighs”), on the other hand, it metaphorically speaks of mead’s power to befuddle the senses as well as to make one wax poetic. Less reflective than the portrayal of Odin in the Elder Edda, the symbolic representation of mead in Irish mythology still speaks of the dangers of intoxication, and just as the giantess Gunnlod controls the mead in the Elder Edda, the source of intoxication in ancient Irish tradition is female.

Serving the mead, and most likely usually making it as one of their household tasks, the women of northern Europe were portrayed as being in charge of a magic with transformative, community-building, and community-disrupting properties. The dispensing of mead and other alcoholic drinks like ale provided women with an opportunity to display verbal prowess and generosity in predominantly patriarchal societies. While dispensing mead, women became central to the development of community through communication, very much indeed paralleling the dances of bees.

Across the Atlantic, at roughly the same time in Mexico and Central America, bees, their honey and the transformative power of mead were seen as informative of human relationships with nature and the construction and disruption of human community. The Postclassic Maya apiculturists of 900 to 1500 CE fasted during the month of Zotz in order to purify themselves for their interaction with their stingless Melipona beecheii bees. During the rituals of the following month of Tzec, they prayed to the four deities known as Bacabs, who held up the four corners of the sky, especially to Hobnil, the Bacab associated with honey. A primordial force of nature, the god Hobnil has a name
that resembles the Mayan word “hobonil,” meaning “of the beehive.” During the ceremonies associated with Tzec, Maya beekeepers offered wax, honey and the sweet resin of the copal tree to the deities. Both wax and the copal tree’s resinous sap were “itz,” a sacred transformative substance through which the fertility of the gods and nature was made manifest. Human blood and a mother’s milk were also itz, and the bees who made honey, as a mammalian mother makes milk, were called Ko’olel kaab, or “woman of the honey.” The Maya not only correctly identified the importance of the female in bee society, they honored female bodies that produced milk and honey as a transformative source of life in their mythic discourse, with the Mother of the Gods even being used in the Classical Maya city-state of Palenque to justify the rule of two queens, Kanal Ikal and Zac Kuk, around 600 CE (Schlesinger 247-50; Sharer 548, 551-52; Schele and Freidel 219-28).

At the very end of the Tzec rituals, the Mayas prepared and drank balche, a mead made from fermented honey, water and the bark of the ba’al che’ tree (Lonchocarpus yucatanensis). Intoxicating mead bound the Maya with the deities who controlled nature and provided for its fertility, and Maya apiculturists in Mexico and Central America ritualistically honored the bees that they worked with and kept in hollow logs on their farms.

Times and traditions have changed however. In the 1930s and 1940s, the European honeybee Apis mellifera, valued for its greater productivity, began replacing Ko’olel kaab among Maya apiculturists. Likewise, in her Animals and Plants of the Ancient Maya: A Guide, Victoria Schlesinger reports:

Years ago, one hundred or more, trees were laden with honeycomb. During a drought or when food was scarce, the Maya could live on the high-calorie sustenance, but today honey is a rare food to find in the forest. Maya beekeepers say that as there is less jungle and less pesticide-free water, the bees produce less honey (Schlesinger 248).

The rarity and decline of mead production and mead-drinking can be related, it seems, to the decline of foraging land, of flower fields and forests, for bees. In northern European lands like the British Isles and Scandinavia, mead was always a more valued drink than cheaper, more cost effective ale made from barley, oats and wheat malt, and as European populations grew over the course of the Middle Ages and beyond, more and more land was taken up directly for agricultural practices. The foraging forests and fields of the bee were decimated as they had been in Greece and Phoenician Lebanon at an earlier date. Still, even as mead became a more exotic rarity in northern Europe, we have the strongest written indications of the role played by women
in its production—this by means of recipe books dating back to the seventeenth and eighteenth centuries.

Widowed twice, Hannah Wolley of England became a professional cookbook writer after having earned a living as a housekeeper for the nobility and other social ranks. In the second edition of her *Queen-like Closet* (1672), Wolley included a recipe for metheglin, or herbal mead. Her mead-maker is first told to take spring water and enrich it with enough honey so that the mixture “will bear an Egg.” After boiling the blend, “whole Spice, Rosemary, Balm, and other cordial and pleasant Herbs or Flowers” were to be added. Cooling and removing the bag of spices would be followed by the introduction of yeast to bring on fermentation: “When it is almost cold, put in a little Yest, and beat it well, then put it into Vessels when it is quite cold, and also the Bag of Spice, and when it hath stood a few days, bottle it up…” (Wolley 160; Theophano 197-202). While a modern-day mead-maker like Brett Canaday may use a sterilizing agent like potassium metabisulfite instead of boiling the honeyed water to bring about pasteurization, he still relies on introducing 8 pounds of honey for every 4 gallons of water in his dry meads. Enough honey to produce a mixture that would “bear an Egg” is vague enough to have produced a sweeter variant, but the “few days” allowed for fermentation, with herbs and flowers serving as a nutrient source for the yeast, coincides nicely with Canaday’s five to seven days fermentation with fruit as a nutrient source—the week-long fermentation producing a subtle fruit flavor (Canaday 2004). In the ninth edition of Elizabeth Moxon’s *English Housewife Exemplified in about Four Hundred and Fifty Receipts* (1764), two separate mead recipes are given. One used one quart of honey for every three quarts of water, while another supplemented a mere two quarts of honey in twelve gallons of water with eight pounds of sugar (Moxon 145-46). Moxon’s reliance on sugar in one of her recipes forces the reader to wonder if honey had become harder to come by in eighteenth-century England than the sugar produced in larger quantities now that Europeans possessed slave-run sugarcane plantations in the Americas (Mintz 45-52).

Robert Gayre, author of *Wassail!* *In Mazers of Mead*, reviewed the decline of mead in relation to the growing costliness of honey in England from the eleventh through the eighteenth centuries. In the eleventh century, honey sold at 6 pence to 7 pence a gallon, but by the fourteenth century the cost had risen to 1 shilling 2 pence per gallon. By comparison, in the fourteenth century, Gascon wine sold at 3 ½ pence per gallon, and unsurprisingly made up ninety percent of English imports. Imported wine from France was selling at a cheaper rate than the honey required to make mead. By 1682 in Cambridge, mead itself sold at 1 shilling for two bottles, and in 1702, a gallon of mead sold at 2
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shillings 4 pence (Gayre 101). Gayre proposes a number of arguments for the costliness and decline of mead, but the most compelling is an environmental one:

We saw that at the beginning of historic times there were wide woods and pastures throughout northern Europe, and the lindens, chestnuts, acacias, thorns and field flowers hummed with bees in their seasons, and the natural wild bee population was at its greatest, while the men were few. But as time passed the human increased, and, as a result, the amount of wild honey declined compared with the numbers of men. This was offset, to some extent, so far as the stocks available to early man were concerned, by the domestication of the bee, but this did not increase the actual amount of nectar being sucked by the bees from the flowers—that could not be increased by domestication. In point of fact, the total amount of nectar being collected must have been declining, even at the very time when man was, temporarily, increasing his own supplies by the domestication of the bee. For, at the same time, he was putting the axe to the great trees which provided nectar, and was putting the plough into the fields, and planting in the place of wild flowers, grain plants which yield no nectar for the honey bee. (Gayre 100)

Gayre's hypothesis is borne out by the evidence for Europe from the fifteenth through the eighteenth centuries, as it is borne out by the observations of modern-day Maya apiculturists. Historical demographer Massimo Livi Bacci estimates the European population to have been some 84 million in 1500 and 195 million by 1800. Many forests and fields were cleared to feed these growing numbers, and in 1595, the bakers of Montpellier in the south of France had to cut down bushes to fire their ovens. Half of all the forest cover of France may have been destroyed after 1000 CE—some 13 million hectares out of an initial 26 million. England was so thoroughly denuded by the seventeenth and eighteenth centuries that it imported timber for its growing imperial mercantile and naval fleets from Norway, Sweden, Russia and Denmark. By the end of the seventeenth century, warships for the British Royal Navy were being built in North America, and during the eighteenth century, a third of Britain's navy came from their North American colonies. Before that the Portuguese had decimated the once dense forests of the Madeira Islands to satisfy their desire for farmland and timber, and Philip II of Spain relied on northern trees for his Invincible Armada of 1588 (Bacci 8-9, 30-35; Braudel 140; Ponting 278-80; Williams 215). The original forest homelands of Apis mellifera were in rapid decline as European empires expanded to conquer people and dominate nature elsewhere. Mead, so reliant on human interaction with bees and the interaction of bees with flowering trees and plants, became a rare and exotic luxury when it may have once been the very first intoxicating beverage.
Indeed, mead’s last hurrah in England may have centered on the dinners of King Charles II (reigned 1660-85), famed as he was for his mistresses and general joie de vivre. Sir Kenelm Digby (1603-1665) reports that the king’s mead master, a man named Webbe, made a dry mead that was “about one part of Honey to six of water” (Digby 9). Like beer, Master Webbe’s mead also employed hops and represented a serious transition where intoxicating beverages were concerned. In England between 1300 and 1600, the brewing industry was transformed from a small-scale cottage industry pursued by women in their homes into a male-dominated craft aiming for mass production in the cities and towns. Judith Bennett notes, “When brewers in England began to use hops (an early fifteenth-century innovation that first took firm hold in towns of the southeast), they were able to produce a new beverage—called beer to distinguish it from unhopped ale—that was clearer, cheaper, and more easily preserved and transported” (Bennett 9). Using hops even in the king’s mead, Master Webbe reflected a process that had undermined the alewife who supplemented her family’s income by brewing malt into ale for sale as well as home consumption. While beer would eventually standardize production values over its centuries of growing dominance, Digby’s collection of others’ recipes demonstrates the diverse methods employed in mead-making by different individuals. It also gives us a number of women’s recipes to add to those of Wolley and Moxon, with Lady Gower calling for one gallon of virgin honey to every four gallons of water, and Lady Morice calling for one or more parts of honey to every “three parts of the clear” (Digby 19, 29).

Even as the bees of Europe were being decimated by increased human populations and their demands on the environment, women who once made and distributed mead and ale were seeing their power over these intoxicants diminished. With mead, women of the northern European elite had once even had the opportunity to display talent and exert political influence, if Wealhtheow in Beowulf stands as a true example (Damic 67). As the bee’s natural environment declined, the social environment of women was being redefined in northern Europe. Meanwhile, in Mexico and Central America, Ko’olel kaab, “the woman of the honey” continued to produce for the Maya. Today, however, Maya apiculturists mourn the decline of their bees and honey production as they note the decimation of the jungle around them. The process of making mead out of the bee’s honey—a process of transmutation twice over that can also transform human consciousness for better and for worse—is intrinsically dependent on humans being able to adapt somewhat to the natural behaviors and needs of bees. Endless agricultural fields and accumulated housing may or may not provide for growing
human populations, but they assuredly interfere with the bee’s ability to forage as these human impositions on the environment consume more and more acreage of flowering trees and plants. If mead is more associated with ancient Celts and Vikings than with the Greeks and Romans, it is because the urbanized and populous Greeks and Romans relied on the tamed gardens and farms praised by the Roman poet Virgil (70-19 BCE) in his *Georgics* (Grant 284). Viticulture could produce much more wine for the ancient Mediterranean cities than bees could produce honey to quench the popular thirst with mead. Even among the Vikings, ale from malt was the more common drink (Gayre 38). Among the Matako of the Amazon forest, as studied by Lévi-Strauss, mead was the drink that raised one’s awareness and threatened one with death. In the rapidly depleted Amazon rainforest the lesson of mead has been preserved to be observed by anthropologists from Europe, even as some of European ancestry toy with that lesson through the growing popularity of Renaissance Festivals. The history of mead, the lesson of mead, is one of humans learning from nature, learning how to interact with nature to their benefit (while avoiding dangers like intoxication), and then destroying what they once cherished.

**Notes**

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2. The exact number of species has been opened to debate in the past fifteen years, with *Apis laboriosa* of the high Himalayas attaining separate species status in 1985, and *Apis cerana* being divided into *Apis nigrocincta*, *Apis koschevnikovi* and *Apis nuluensis*. There are other species that have been proposed as well, once again demonstrating that closely related species blend into each other and do not make up firmly defined categories in the evolutionary world. Zachary Huang, “The Genus *Apis*,” www.cyberbee.net/biology/ch1/. Site accessed May 23, 2004.

3. On page 84 in *Deforesting the Earth*, Michael Williams writes, “Roman-British and Roman Gallic clearing in Britain and parts of France was more widespread than thought, although Germanic lands still exhibited large tracts of untouched forest.” Even after exporting lumber to deforested countries like England in the seventeenth and eighteenth centuries, Norway still had 66% of its land covered by forest circa 1868, while Sweden possessed 60% forest coverage in that year, and Germany 26.58% forest coverage. In contrast, Spain’s forest cover was only 5.52% and Great Britain’s only 5% (Williams 279, Table 10.2).
For a review of deforestation in ancient Greece and its link to the expansion of agriculture, see Curtis N. Runnels, "Environmental Degradation in Ancient Greece."

**References**


