

WHIRLWIND WOMAN: NATIVE AMERICAN
TORNADO MYTHOLOGY AND
GLOBAL PARALLELS

By

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ABBREVIATIONS

AMNH	American Museum of Natural History
BAE	Bureau of American Ethnology, Smithsonian Institution
CMM	Cahokia Mounds Museum
FMNH	Field Museum of Natural History
Gilcrease	Gilcrease Institute of American History and Art
NCDC	National Climatic Data Center
NMAI	National Museum of the American Indian
NMNH	National Museum of Natural History, Smithsonian Institution
NOAA	National Oceanographic and Aeronautics Administration
NSF	National Science Foundation
NSSL	National Severe Storms Laboratory
NWS	National Weather Service
SINAA	Smithsonian Institution National Anthropological Archives
SPC	Storm Prediction Center

PREFACE

Chasing Tornado Myths

Towering thunderstorms roiling across the vastness of the Western skyscape have always fascinated me. Seeing a tornado magically emerge from a dark wall cloud and dip down to earth was a thing both of dread and wonder. For my father, the meteorologist, tornadoes were an object of scientific study. For my great aunt Fannie, a Seminole woman, they had required propitiation. Whenever a bad storm began to brew on the Oklahoma horizon, she took down her one pound tin of Prince Albert tobacco and silently sprinkled loose tobacco around the house. For my mother, a child of Oklahoma and West Texas, thunderstorms were welcome for the rain they brought to her garden. And like the other women in her family, she made a separate peace with tornadoes.

Scholars of Native American cultures have generally failed to engage the topic of tornado myths seriously. Interpretations of material remains, art, and iconography still depend on a set of beliefs shaped on a “hunter-warrior” ethic dominating a static pre-contact cultural landscape. Deeply rooted ideas of “man the hunter” still eclipse the reality of “woman the gatherer,” even as researchers concede that the term “forager-hunters” more accurately portrays early subsistence behaviors.¹

Many scholars selectively interpret ethnographic material in the absence of historical, religious, or cultural context. Most importantly, there continues to be an aversion to recognizing issues of female power in ancient cultures as anything other than

problematic. While symbols supposedly of male power are accepted casually at face value by scholars, intimations of significant female power evoke probing cross-examination, extensive qualification, and a demand for rigorous proof and analysis.

The goal of this dissertation is to elucidate an understanding of the oldest retrievable tornado myths in North America: their key themes and motifs; their wider global context; and their implications for ancient cultures. I examine the myths within the context of meteorology and early agriculture. In order to gain a global perspective, I also survey traditional tornado myths from areas of ancient agriculture around the world. These two broad surveys of ethnohistorical tornado material thus allow an exploration of the commonalities, contrasts, and historical implications of tornado beliefs arising from a shared archaic meteorological - agricultural context.

My thesis is twofold: (1) Native American tornado myths reflect the presence of ancient and complex religious beliefs involving a powerful female deity operating within a very early agricultural context (i.e., before 800 CE), and (2) the concept of ancient female agricultural deities linked to tornadoes is not unique to North America.

The first objective of *Whirlwind Woman* is to identify major tornado themes from a wide selection of tornado-related mythology and traditions representing different linguistic populations of North America. The second objective is to determine the key environmental, agricultural, and social contexts influencing these myths. The third objective is to place these myths in a global context by comparison with analogous tornado myths of other regions of the world.

The tornado mythology comprising the primary corpus of material for this study is organized by general region and within each region, by tribal groups within the same

linguistic population. It is impossible to be exhaustive within the scope of this work; many myths and legends still await discovery. Many groups are not included in this survey as result of time and resource limitations. Focus on these communities must await the next sally. The myths examined here were found among peoples following a variety of social and subsistence patterns since the sixteenth century.

Most of those retelling such myths were from horticultural traditions with strong matrilineal or matrilocal traditions, such as the Arikaras (Caddoan speakers), the Long House tribes (Iroquois speakers), and the Mandan and Hidatsa tribes (Siouan speakers). There are, however, variations on this pattern. The Crow have sacred whirlwind tales and are matrilineal but have been known as a hunting society since at least the eighteenth century. The range and persistence of similar tornado myths across geographic, cultural, linguistic, and even subsistence strategies reflects a deep anchoring in shared experience. Language communities within larger regional contexts appear to offer the most continuity of expressed experience.

I have adopted an interdisciplinary approach to analyzing the material. Although most of the particularized cultural context of tornado mythology must be lost to us in the present, it is possible to gain an informed awareness of how people, animals, weather, and agriculture interconnect. By interpolating environmental knowledge, particularly meteorological information, with myths, we gain a better grasp on how actual experiences may have informed such stories. After all, ancient peoples did not invent tornado stories to serve allegorical ends – tornadoes were an essential and life-giving, or life-destroying, aspect of reality.

I have incorporated the most recent research concerning early agriculture, natural history, and other areas to provide fresh insights and to avoid the trap of older, now questionable, traditional assumptions. Tornado myths from all over Native America consistently incorporate some specific animals into their tales. A close review provides clues as to how and why these animals are linked to weather, women, and agriculture around the world.

Finally, a global context is provided by looking at similar myths from other parts of the world. I present whirlwind legends from other countries, including Mesoamerica, for comparison and contrast. Ancient folk-lore from other countries contains similar references to female agricultural deities who appear as whirlwind beings who bring rain and sustain agriculture, promote war and sex, validate kingship and delineate social roles. These benevolent deities are just as often characterized as destructive wind demons or witches.

There are several direct benefits resulting from this research. First, interpretations of artifacts, art, and iconography can be attempted in a much fuller conceptual context than has previously been the case. A deeper awareness of lifeways, gender roles, religious belief, animal symbols, and environmental context can only enhance interpretations of the archaeological and ethnographical record. Second, some myths contain intimations of antique rites and rituals. Many of these are elements were – and often still are – deemed so abhorrent that they were simply taken as “proof” that the tornado represented a monstrous creature (for example, a witch). By openly acknowledging cannibalism, castration, and other actions detailed in some mythic traditions, we may gain better insight into actual historical behaviors.

The benefits of making a global review of tornado-related myths include shedding light on the construction of the Native American myths as well as identifying possible universal aspects of early agricultural societies. This is not to espouse the idea of *cognitive* universals, but to pursue instead larger insights into culture change; movement of populations and ideas; and adaptive development in the context of prehistoric agriculture. The wealth of Native American data relating to this topic, and the absence of pre-Columbian pastoralism in the Americas, may provide a new interpretive approach for examining other agricultural civilizations of the world. Since the ethnographic record is relatively rich in the New World, ethnographic analogy may, in this case, allow an invaluable glimpse into archaic beliefs that are ultimately irretrievable elsewhere.

A Whirlwind Historiography

Scholarly studies of tornado myths in any context are rare. In Native American academic literature, there are only two articles specifically concerned with tornado myths. In 1905, the well-known historian of Native America, Clark Wissler, published an essay on the elk and whirlwind motifs among the Dakota.² In 1993, Michael Marchand, a graduate student in Kansas, published an article recounting the Kiowa Red Horse myth, using James Mooney's original field notes as found in the Smithsonian's National Anthropological Archives.³

Both articles discuss tornado myths as reflective of important conceptual beliefs, but neither pursues the topic much beyond simple description. Wissler's earlier article acknowledges the profound respect the Dakota attached to the dragonfly, insect cocoons, and other symbols of the whirlwind. It also references the explicit sexual dynamics

inherent in the elk motif, common to tales of seduction, courtship, and marriage. While his essay reflects a patronizing attitude towards Native religious sophistication, he nonetheless recognizes the complexity of the religious beliefs tied up in these ideas. Marchand details versions of the Kiowa tornado myth that Mooney recorded in the early twentieth century in Oklahoma, as well as variants collected separately by Elsie Clews Parsons. He ultimately relates these stories to a psychological need for mastery over the elements and eschews deeper historical-cultural analysis.

Unlike tornado myths, Native art and iconography have been of continuous academic interest for more than two hundred years. While a great deal of scholarship has been accomplished in this area, most of it has been divorced from wider contexts, relying primarily on unexamined, flawed assumptions and stereotypical perspectives. There appear to be no interpretations after the early 1900s that include consideration of tornado mythology.

With the absence of attention to issues such as women, weather, and pre-corn agriculture, motifs have been interpreted in an immense vacuum of understanding. Analyses often reflect the happy imaginings of (mostly male) scholars obsessed with warriors and hunters. Even in some of the most recent literature, animals inextricably linked to agriculture are connected back to war and male hunter iconography.⁴ A re-examination of Native American rock art, design, and decoration motifs in the light of an active awareness of tornado myths and implications will yield valuable and innovative new interpretations of these materials.

In 1997, the anthropologist Robert Hall published his work, *An Archaeology of the Soul*. Hall advocates a deep-time, wide ranging perspective and writes that he “culled

from the published literature – archaeological, ethnographic, and historical--” records which he then used to discover “mental associations between otherwise discrete classes of phenomena, associations that provided clues to patterns of thought and belief.”⁵ Focusing on Calumet pipe ceremonialism, Hall offers detailed interpretations of and links between selected versions of rites, rituals, myths, and iconography. However, he assumes throughout a dominant male perspective and sets arbitrary boundaries in his quest to trace linkages back in time. For example, while explicitly acknowledging that the White Buffalo Calf Maiden sacred-pipe ceremonies were probably introduced to the Sioux by the Arikara, he declines to examine that connection – which would have led to Whirlwind Woman.⁶ It is telling, therefore, that the index to his book contains *not one reference* to tornadoes, whirlwinds, whirlwind woman, or even matriarchy. It is a supremely male, *non-agricultural* past he chooses to evoke. Whereas Hall’s stated goal is to take a deep time approach to native traditions, his context must be expanded to include a larger reality.

Assumptions of a static past firmly rooted in patriarchy have underlain nearly all discourse on Native American cultures into the present century. Historians have given slight attention to matriarchal traditions in Native America since Lewis Henry Morgan published his findings of a system of matriarchy in *The League of the Ho-de-no-sau-nee, or Iroquois* in 1851.⁷ Challenges to conventional narratives of continuous patriarchal systems began in earnest in the 1980s, partly inspired by archaeologist Marija Gimbutas, who argued that prehistoric European iconography arose from a matrifocal world.⁸

Based on exhaustive review of symbolic artifacts from Paleolithic contexts in Europe, especially the Balkans, Gimbutas argued for a female-oriented cultural complex

across Europe that was overridden by patriarchal horsemen from the East. While her concepts were long derided by other archaeologists, recent discoveries have revealed a previously unsuspected horse culture in Kazakhstan.⁹ In 1988, Canadian professor Jordan Paper wrote that study of sacred pipe rituals had convinced him female and male roles in Native American religion were once on a par.¹⁰ Because the enthusiasm and imagination of scholars like Gimbutas and Paper at times overtook the contemporary scientific evidence (and cultural prejudices), thoughtful research into gender roles and female divinities suffered a “backlash” (to borrow Susan Faludi’s term)¹¹ from mainstream academe and lapsed.

Only in recent decades have scholars, now including many more women, begun to question established interpretations of historical material in this regard. Yet as archaeologist Larissa A. Thomas points out in a 2000 article on female iconography of the Mississippian culture, the scholarly bias of presumptive patriarchy and assumptions of what constituted male roles and female roles continues to be “subtle and implicit.” In her article Thomas discusses the case of an eagle dancer decoration which had long been identified as a “deformed male.” As she demonstrates, however, it is quite obviously a *female* eagle dancer.¹²

Some ethnohistorians and archaeologists have begun to adopt a truly interdisciplinary approach to the problem of reconstructing a pre-contact past, one that includes meaningful consideration of women, gender, and matriarchal traditions. Juliana Barr, in her 2007 book, *Peace Came in the Form of a Woman*, inverts the standard patriarchal narrative of Western “conquest” and recasts Spanish – Indian interactions in the eighteenth century Southwest in terms of prevailing Native paradigms of gender,

power, and kinship relationships.¹³ Archeoastronomers like Ray Williamson have also contributed valuable insights on the sophisticated star lore of Native Americans, including references to female deities.¹⁴ Much of this material has yet to be incorporated into newer ethnohistorical interpretations.

Native American archaeologists such as Timothy Pauketat have begun stepping back to reexamine fundamental, widely-accepted assumptions about presumed Mississippian “chiefdoms” -- and discovering that the physical evidence separated from conventional presumptions may point in other directions.¹⁵ Noting that scholars have found that the feminine-oriented iconography of Cahokia differs from male-oriented styles of other southeastern complexes, Pauketat argues that this situation begs the question of why, to date, male-female cultural representations have not been well investigated.¹⁶

Alongside this absence of attention to women and the importance of early horticultural behaviors is a parallel blindness to the cultural impacts of weather. *Climate*, as referred to by archaeologists and ethnohistorians alike, is almost always reduced to temperature ranges and landscape. In a recent highly respected book on Cahokia and the Mississippian cultural complex, Pauketat develops what he terms an “ethnoscape” in which he ascribes bountiful crop yields to a combination of rich alluvial soils, adequate rain, and seasonal warmth. In a completely different section, he discusses tornadoes only once – describing at length how disastrous they were in mid-summer, destroying corn crops and washing away fields! Tornadoes and the severe storm systems that spawn them are thus considered completely separate phenomena from the “adequate precipitation” that characterizes the spring growing season.¹⁷ In just this manner, the

ancient storm-gods have been shuffled away into a category of male-oriented, war-like entities, divorced from immediate and intrinsic relevancy to cultures profoundly dependent on, and at the mercy of, the weather deities.

A number of editors, including Al Hurtado and Peter Iverson, Donald Fixico, Michael Nassaney, Eric Johnson, and Colin Calloway, have assembled wide-ranging contributions to Indian scholarship that address old assumptions and encompass gender issues.¹⁸ Even so, most recent bibliographies, including the D'Arcy McNickle Center's *Writings in Indian History*, still contain no indexed entries for cyclones, tornadoes, whirlwinds, whirlwind woman, or (in most cases) even for matriarchy.¹⁹

Terminology

Tornado terminology in translated materials can be tricky. Until the mid-1900s, the terms *cyclone* and *tornado* both described the destructive wind funnel emerging from thunderstorms. Confusion arises because *whirlwind* could denote either a tornado or a dust-devil, and tribal translators often employed this term for both phenomena. The *Big Black Wind* of a famous Arikara myth leaves the reader in no doubt as to its subject (a large tornado), but in the absence of clear context or clarification some *whirlwind* references may be more problematic. Where appropriate, I will reference these cases or qualify statements regarding them as necessary. Although dust-devils are not related meteorologically to tornadoes -- and Native American myths reflect a clear awareness of this fact -- the dust-devil motif does occupy a precise place within the larger narrative system of tornado mythology and will, therefore, be included in this study.

In this paper I employ the neutral terms CE (Common Era) and BCE (Before the Common Era) except for direct quotations using alternate forms.

Sources and Methodology

Sources for most of the tornado narratives and concepts consist of a corpus of oral traditions and material collections assembled by such ethnologists and researchers as George A. Dorsey, James Mooney, Robert Lowie, Elsie Clews Parsons, Alfred Kroeber, George Bird Grinnell, Clark Wissler, James Howard, Peter Nabokov, Douglas Parks, and others. Eighteenth and nineteenth-century studies, publications, informal and unpublished documents and transcriptions have also proven to be rich sources of information. Twentieth-century versions of myths are only included as they can be linked to earlier traditions and tracked over time to useful effect. This is done to avoid modern ideas regarding tornadoes that may have little or nothing to do with older traditions that survived among the tribes before the turn of last century.

Most societies continually re-create their own pasts and “invent traditions” by manipulating symbolic myth and language in conjunction with changing cultural dynamics.²⁰ Tornado mythology is no exception. Many of the myths recorded in the last two centuries carry internal evidence of significant cultural, geographic, and demographic changes in the distant past as well as in the recent past. This study proceeds on the assumption that key elements persist in mythic tradition, even as they are explicitly manipulated to create new narratives and ancient symbolic meaning is forgotten.

In a few cases, it has been possible to track the same myth across several generations in a given tribal group. This makes it possible to watch a myth undergo a distinctive set of changes reflecting cultural shifts as much as individual choices. One benefit of this approach is in documenting both how culture shapes ideas over time as well as demonstrating the persistence over time and culture of key mythic elements. Material from the following regions and linguistic groups guides the research. Maps of the major linguistic and cultural groups surveyed are provided in Figures 1 and 2.

I. Northeast

- Iroquoian speakers
- Algonquian speakers from the Northeast & Great lakes
- Siouan speakers (including Dhegiha- and Chiwere-Siouan branches)

II. Southeast

- Caddoan speakers from the Southeast & lower Mississippi Valley
- Cherokee (Iroquoian) speakers
- Muskogean speakers (Seminoles, Natchez, Creeks)

III. Southwest

- Athapascan speakers
- Western Pueblos (Zunis and Hopis)
- Yuman speakers (Maricopas and Mojaves)
- Uto-Aztecan Piman speakers (Pimas and Papagos)

IV. Northwest

- Northern Paiutes
- Kiowa-Tanoan speakers (Kiwias)

- Penutian speakers (Maidus and Miwoks)
- Achomawis

Organization of the Research

Chapter II presents a representative group of tornado-related myths and ethnographic material arranged first by geographical source location and second by historical tribal groups according to linguistic affiliations. The geographical locations, delimited in cardinal points *not culture areas*, approximate the physical locations of tribes during the early Woodland Period (i.e., before 800 CE) and not during the contact period. Language groups appear to share the oldest narrative elements despite major shifts in geographical location or subsistence patterns over the past millennia.

Presentation of the ethnographic material will follow, as closely as space permits, the exact transcription or textual passage evinced in the archival records. Every care is taken to avoid any judgmental or inaccurate summaries of the material originally recorded. Passages recorded in Latin will be translated either by the author or others with the original Latin text available in Notes. Attention to the details of the original material as transmitted is a key objective of this research.

Presentation of myths is followed by discussion of the major themes, along with environmental and cultural references. Specific symbols and iconographic elements are also discussed. Conclusions about the myths will center on internal coherence; environmental linkages including astronomical and meteorological insights; historical and symbolic references, and cultural processes, including change of a given myth over time and the treatment of sexuality and gender-specific roles reflected in the myths.

Chapters III and IV present tornado-related myths from global mythologies on five continents. There is an abundance of folkloric material from many cultures that intimates the existence of ancient themes of female storm deities. It is impossible to do all of the world's cultures justice in this regard. Therefore, selections were made on the basis of accessibility to historical oral traditions, explicit tornado associations, and diversity of cultures and locales. This section includes a few Mesoamerican (Olmec) examples with suggestive links to tornado beliefs. However, the scholarly jungles of Mesoamerica and South America are too vast to explore in this foray. That arena awaits focused attention, but promises to be a rich area for future research in tornado myth and symbolism.

Discussion will focus on identifying key elements and dynamics within these chosen myths on both local and wider regional levels. Due to the fluid history of mythology and population movement across continental Europe, for example, a discussion of Celtic folklore will be juxtaposed against similar elements that characterize folk-lore in other parts of Eurasia. Examples from Australia, Africa, and China are also included, along with reference to ancient Mesopotamian and Hellenistic beliefs well documented (if not well understood) from written texts.

Chapter V provides a discussion of various patterns, themes, symbols, and dynamics reflected in the myths under review. It also gives an extended look at some of the animal familiars whose consistent appearance in myths worldwide has significant implications for historical study. Discussion includes the animals' natural history as well as their mythic performances.

Chapter VI summarizes conclusions based on the diverse research findings and synthesizes results within a larger global, environmental, and historical context. It also

sets out some of the many implications this research has for future interpretations of both global and American Indian history, culture, art, and iconography.



FIGURE 1. Approximate Locations of Selected Language Families and Tribes, ancient archaeological sites, and Major River Systems in Central and North America circa 1500 – 1700 CE



FIGURE 2. Approximate Locations of Selected Language Families (circa 1800 CE), Ancient Sumerian and Hittite Civilizations, and Selected Ancient River Valley and Agricultural areas in Africa, Eurasia, and Australia

NOTES

¹ Sylvia J. Hallam, "Plant Usage and Management in Southwest Australian Aboriginal societies," in *Foraging and Farming: The Evolution of Plant Exploitation*, ed. D.R. Harris and G. C. Hillman (Boston: Unwin Hyman, 1989), 136. Adrienne Zihlman, "The Paleolithic Glass Ceiling," in *Women in Human Evolution*, ed. Lori D. Hager (New York: Routledge, 1997), 106-07.

Zihlman discusses a 1993 study of prehistoric dioramas that illustrates how pervasive the problem remains: out of 88 dioramas, adult males were in 84 per cent, making up 50 per cent of the individuals while adult females were in fewer than 50 per cent, making up less than 25 per cent of the individuals. In the majority of scenes the women were kneeling, scraping hides, while men stood posed erect over them.

² Clark Wissler, "The Whirlwind and the Elk in the Mythology of the Dakota," *The Journal of American Folklore* 18, no. 71 (1905): 257-68, <http://www.jstor.org/stable/534694> (accessed January 14, 2009).

³ Michael J. Marchand, "Mankayia and the Kiowa Indians: Survival, Myth, and the Tornado," *Heritage of the Great Plains* 26 (1993): 19-29.

⁴ Vernon James Knight and Judith A. Franke, "Identification of a Moth/Butterfly Supernatural in Mississippian Art," in *Ancient Objects and Sacred Realms*, ed. F. Kent Reilly III and James F. Garber (Austin: University of Texas Press, 2007), 136-51.

Knight and Franke diligently dissect tobacco moth/butterfly imagery, link it to Birdman battles, and then also link it to La Flesche's Osage material, which they interpret as war ritual (instead of sacred vows taken by priesthood candidates). They double back on this forced interpretation by deeming any reference to storm winds as being representative of "prowess in warfare." *Ibid.*, 148.

⁵ Robert L. Hall, *An Archaeology of the Soul: North American Indian Belief and Ritual* (Chicago: University of Illinois Press, 1997).

⁶ *Ibid.*, 79. Hall notes that "the idea of deriving the Lakota Hunka ceremony from the Arikaras dwelling along the Missouri is supported by earlier observations of J. L. Smith that the nature of the Sacred Calf Pipe bowl itself indicates a likely origin among the farming 'river tribes', such as the Arikara." See J. L. Smith, "A Short History of the Sacred Calf Pipe Bundle of the Teton Dakota," *Museum News* 28 (Vermilion, North

Dakota: W.H. Over Museum): 7-8; and “The Sacred Calf Pipe Bundle: Its Effect on the Present Teton Dakota,” *Plains Anthropologist* 15, no. 48 (1970): 87-93.

⁷ Elisabeth Tooker, *Lewis H. Morgan on Iroquois Material Culture* (Tucson: University of Arizona Press, 1994), 4.

⁸ Marija Gimbutas, *The Goddesses and Gods of Old Europe* (Berkeley: University of California Press, 1989); Marija Gimbutas, *The Language of the Goddess* (San Francisco: Harper & Row, Publishers, 1989).

⁹ Alan K. Outram et al, “The Earliest Horse Harnessing and Milking,” *Science* 323, no. 5919 (6 March 2009): 1332-35, <http://www.sciencemag.org/cgi/content/full/323/5919/1332> (accessed July 21, 2009).

The authors present evidence of horse domestication (milking, riding) in the Eneolithic Botai Culture of Kazakhstan, from about 3500 BCE (Bronze Age). The evidence supports theories that horse domestication first occurred on the Eurasian steppe. Horse cultures have long been linked to the spread of the Indo-European language, whose linguistic homeland is also a matter of intense discussion.

¹⁰ Jordan Paper, *Offering Smoke: The Sacred Pipe and Native American Religion* (Moscow, ID: University of Idaho Press, 1988), xiii.

¹¹ Susan Faludi, *Backlash* (New York: Crown Publishers, Inc., 1991).

¹² Larissa A. Thomas, “Images of Women in Native American Iconography,” in *Interpretations of Native North American Life*, ed. Michael S. Nassaney and Eric S. Johnson (Gainesville: University Press of Florida, 2000): 321.

¹³ Juliana Barr, *Peace Came in the Form of a Woman* (Chapel Hill, NC: University of North Carolina Press, 2007).

¹⁴ Ray A. Williamson, *Living the Sky: The Cosmos of the American Indian* (Boston: Houghton Mifflin Company, 1984) ; Ray A. and Claire R. Farrer Williamson, eds., *Earth & Sky: Visions of the Cosmos in Native American Folklore* (Albuquerque: University of New Mexico Press, 1992).

¹⁵ Timothy R. Pauketat, *Chiefdoms and Other Archaeological Delusions* (Lanham, MD: Rowman & Littlefield, 2007), 135.

¹⁶ Ibid.

¹⁷ Timothy R. Pauketat, *Ancient Cahokia and the Mississippians* (Cambridge: Cambridge University Press, 2004), 26-8.

¹⁸ Colin G. Calloway, ed., *New Directions in American Indian History* (Albuquerque: University of New Mexico Press, 1992); Donald L. Fixico, *Rethinking*

American Indian History (Albuquerque: New Mexico Press, 1997); Michael S. Nassaney and Eric S. Johnson, eds., *Interpretations of Native North American Life: Material Contributions to Ethnohistory* (Gainesville: University Press of Florida, 2000).

¹⁹ Jay Miller, Colin C. Calloway, and Richard A. Sattler, eds., *Writings in Indian History, 1985-1990*, The D'Arcy McNickle Center Bibliographies in American Indian History Series, Vol. 2. (Norman: University of Oklahoma Press, 1995).

²⁰ Eric Hobsbwaum and Terence Ranger, eds., *The Invention of Tradition* (Cambridge: Cambridge University Press, 2006), 1-14.

According to Hobsbwaum, “invented tradition” generally implies “a set of practices, normally governed by overtly or tacitly accepted rules and of a ritual or symbolic nature, which seek to inculcate certain values and norms of behaviours by repetition, which automatically implies continuity with the past. In fact, where possible, they normally attempt to establish continuity with a suitable historic past.” *Ibid.*, 1-2.

CHAPTER I

INTRODUCTION

Again they journeyed, and they came to a place where Mother-Corn stopped and said: "The big Black-Wind is angry, for we did not ask it to come with us, neither did we make it one of the gods to receive smoke. But," said Mother-Corn, "the Black-Meteoric-Star understands this storm; it will help us." Mother-Corn went on, and said: "Here we are. We must hurry, for the big Black-Wind is coming; taking everything it meets. There is a cedar tree. Get under that cedar tree," said Mother-Corn. "The Black-Meteoric-Star placed it there. The Star stands solid, for its right leg is cedar; its left leg is stone. It cannot be blown away. Get under its branches." So the people crawled under its branches. The Black-Wind came and took many people, notwithstanding.¹

-- from Arikara myth

White Shell Bead Woman, who lives where the sun goes down,
Mother Whirlwind, father Sus'sistumako, mother Ya-Ya, creator
of good thoughts . . . I ask your intercession with the cloud people.²

-- a rain song of the Sia

Native peoples in the Americas, much as other peoples of the world, wove experience of the environment into their cosmologies. Weather spirits like thunderbird are well known as ubiquitous performers across the mythological landscape of Native America. Tornado myths, however, are much less well known. Mention of such tales occurs only rarely in scholarly anthologies or literary collections despite the fact that

nearly half of all the tornadoes recorded in the world each year occur in the United States.³

There are, however, records of such myths; an impressive tradition of tornado myth, lore, and art was recorded and collected in North America from the eighteenth century and into the twentieth. Ethnographic material from this period includes documentation of widespread, often sacred, tornado myths among many tribal groups of the United States. Evoking similar themes and references, tornado beliefs were especially well-attested among the horticultural tribes of the Southwest and the Eastern United States. These often elaborate myths reveal that the tornado was once conceptualized as a significant female deity, intimately linked to rain and agriculture, sexuality, medicine, and magic.

Three types of tornado-related myths emerge from the recorded Native traditions. These myths concern: (1) a primal deity that helps create the world or a seasonal deity that returns each year; (2) an anthropomorphic tornado goddess, known as *Whirlwind Woman* among several plains tribes, linked with sexuality, mystical rites, medicine, tobacco, and agricultural rituals. Placated, she validates male leadership and brings the tobacco pipe; but spurned, she becomes a fearsome enemy bringing disease and destruction; and (3) an anthropomorphic dust-devil who appears as a wise, old hag or a witch, or is a sexual foil for male tricksters such as Coyote. Some myths feature male tornado deities. However, close examination reveals these are often “re-gendered” versions of ancient myths with identifiable roots in older female deity beliefs.

The answer as to *why* these myths vanished from both the popular and scholarly repertoire is complex. Cultural disruption and demographic collapse undoubtedly

shattered the continuity of many sacred oral traditions among Native groups. Tornado myths have discernable foundations in the cultural context of early agriculture (well before 1000 CE). As active elements of dynamic cultures, these myths were constantly changing in many respects long before contact. However, the introduction of strict patriarchal norms in the twentieth century ensured the abrupt disappearance of those female-focused myths that had persisted among American Indians. The larger society's aversion to discussion of sexuality and female power functioned to render the surviving myths irrelevant at best and unrepeatable at worst, even in academia.

Fortunately, ethnographers of the nineteenth century were enthusiastic and often very conscientious collectors, less concerned than later researchers with editing out the more titillating aspects of the myths they heard. These include scenes of explicit sexuality, human male castration and consumption rituals, and at least one direct reference to female homosexuality. Passages describing overt sexual behavior were retained in the records, usually transcribed into Latin. A few scholars ventured to discuss the motifs encountered in these myths. But as social disapproval of such topics hardened in the early decades of the twentieth century, the topic of tornado mythology and its uncomfortable symbolism ceased to be considered or repeated even in academic circles, much less among the general public. Thus ignored, the deity seemingly vanished.

What is the environmental and cultural context within which tornado myths operated? The remainder of this introduction addresses these questions. The following section provides a close look at the meteorology, behavior, and characteristics of severe storms and tornadoes. Next, a cultural overview includes current thinking on early

agriculture in the Americas – an area that has recently gone through, and continues to see, significant revision.

Environmental Context: Severe Weather and Tornadoes

Tornado myths cannot be comprehended without a broad understanding of their environmental settings. Most discussions of ancient mythology prefer to ignore questions of physical context completely while giving historical issues only nominal attention. Scholars have found it easier to infer abstract supernatural beliefs and post-modern metaphysics from mythic signs and dynamics.

Pulsing down from a black thunder cloud, a twister can strike a single object and retract, or descend to plow a path of devastation ranging from a few hundred yards to hundreds of miles long. Tornadoes are mobile and unpredictable events; wherever large thunderstorms develop, they are a possibility. Such characteristics imbue tornadoes with almost human-like agency and intent. Even today people speak of “killer” tornadoes. Anyone who has witnessed a fully developed tornado scouring the western plains knows the deep chords of awe, fear, and humility the sight evokes. (See Figure 3). They are beyond any human ability to affect or control. The tornado arrives and departs seemingly at the whim of the heavens, in various shapes and sizes, usually accompanied by intense storms of thunder and lightning, rain, and pounding hailstones.



FIGURE 3. Tornado near end of life outside Cordell, OK
May 22, 1981

Source: NOAA Photo Library, NOAA Central Library; OAR/ERL/National Severe Storms Laboratory (NSSL). Image ID: nssl0052 NSSL Collection

Tornadoes are one of the most powerful forces on the surface of the earth. They are also quintessentially American. Although tornadoes occur all over the globe, no other region on earth experiences the number and intensity seen on the North American plains.⁴ Nearly half the tornadoes in the world occur in the United States each year, averaging more than 1,000 sightings.⁵ By comparison, Canada documents about 100 tornadoes per year. It is important to note that tornadoes are officially documented by visual sightings; they cannot be independently recorded by instruments or satellites (unlike lightning strikes). So there are certainly more in any given region than those actually reported. The United Kingdom has proportionately more tornadoes per land area than any other country on earth, although they are generally much weaker and less destructive than American twisters. Other regions with known regular tornado outbreaks include northern Europe, western Asia, Bangladesh, Japan, Australia, and New Zealand.⁶

Although tornadoes occur in all parts of the continental United States and parts of central Canada, their frequency is much higher in that swath of territory from Texas to Canada and including the Southeast known today as “Tornado Alley.”⁷ Figure 4 demonstrates where and how often conditions favored tornado formation in the United States over the past decade. The widest range of tornado occurrences covers southern Texas and Louisiana to the Canadian plains, reaches east across most of the Midwestern prairie states, and includes parts of Florida, the Great Lakes, and the Northeastern woodlands. There is also occasional tornado activity over parts of Arizona (Phoenix).

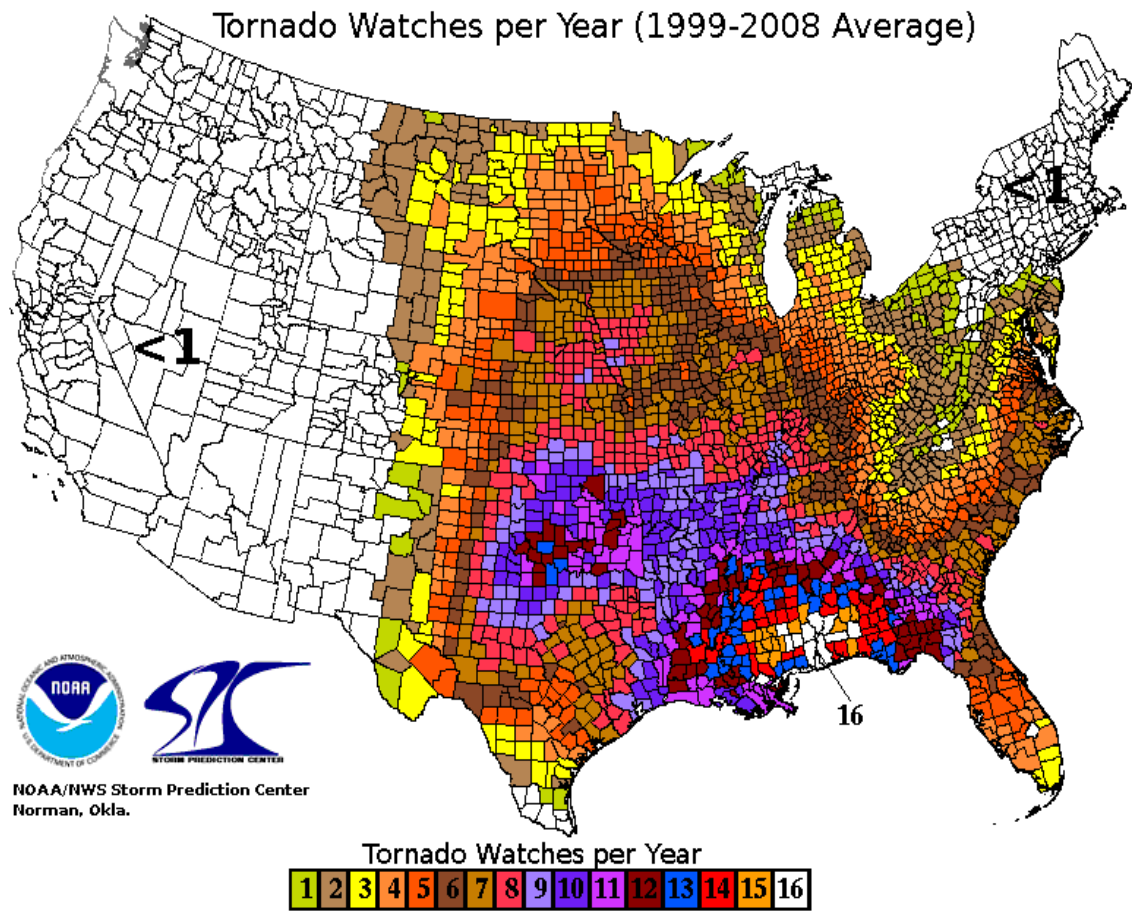


FIGURE 4. Tornado Watches per Year (1999-2008 Average)

Source: <http://www.spc.noaa.gov/wcm/10ytora.gif> (accessed 11-2-09)

In Tornado Alley, cool dry westerly winds, descending from the Rockies confront warm moist air moving north from the Gulf of Mexico. This collision takes place over the expansive and relatively flat terrain east of the Rockies with no mountainous projections that might otherwise disrupt weather systems. Here strong thunderstorms find the necessary atmospheric conditions and area to grow and develop into sometimes massive severe storm cells. By definition, according to meteorologists Eduardo Aguado

and James Burt, “severe thunderstorms are those whose wind speeds exceed 93 km/hr (58 mph), have hailstones larger than 1.9 cm (.75 in) in diameter, or spawn tornadoes.”⁸

Significantly, storms that generate tornadoes have one relatively predictable behavior – they occur most often in spring and early summer. In spring, the meeting of cool Polar winds and warm Gulf air loaded with moisture is especially dramatic. The jet stream strongly controls tornado occurrence in the central and southeast United States which generally follows warm season progression. The earliest spring tornadoes usually develop in the southeast and south central regions (Mississippi, Louisiana, Arkansas) by April. Tornado occurrences generally peak in Texas, Oklahoma, and Kansas by May; in Illinois, Wisconsin, and Nebraska the season’s high point is June. Canada sees most of its tornadoes from April to October, usually in southern Ontario (between Lake Huron and Lake Erie) or in the Prairie provinces and southwestern Quebec.⁹ The lowest frequency of tornadoes is during the winter months.

Most tornadoes occur in the afternoon or evening hours as the atmosphere is most unstable during this time. They are composed of a rapid, rotating wind funnel that rotates counterclockwise most of the time in the Northern Hemisphere (cyclonically). But there have been documented instances of clockwise rotating funnels in North America. The destructive winds in a tornado result from the impressive differences in atmospheric pressure over short distances.

Severe thunderstorms can provide up to 60% of annual rainfall in parts of the central United States and Canada.¹⁰ (See Figure 5.) For example, in eastern Oklahoma thunderstorms occur an average of 50-60 days per year; and more than 75% of Oklahoma’s tornadoes develop during the spring.¹¹ Most importantly, the same

conditions conducive to generation of tornado-producing thunderstorms – moisture and seasonal temperature variation -- are those also essential to supporting agriculture.¹²

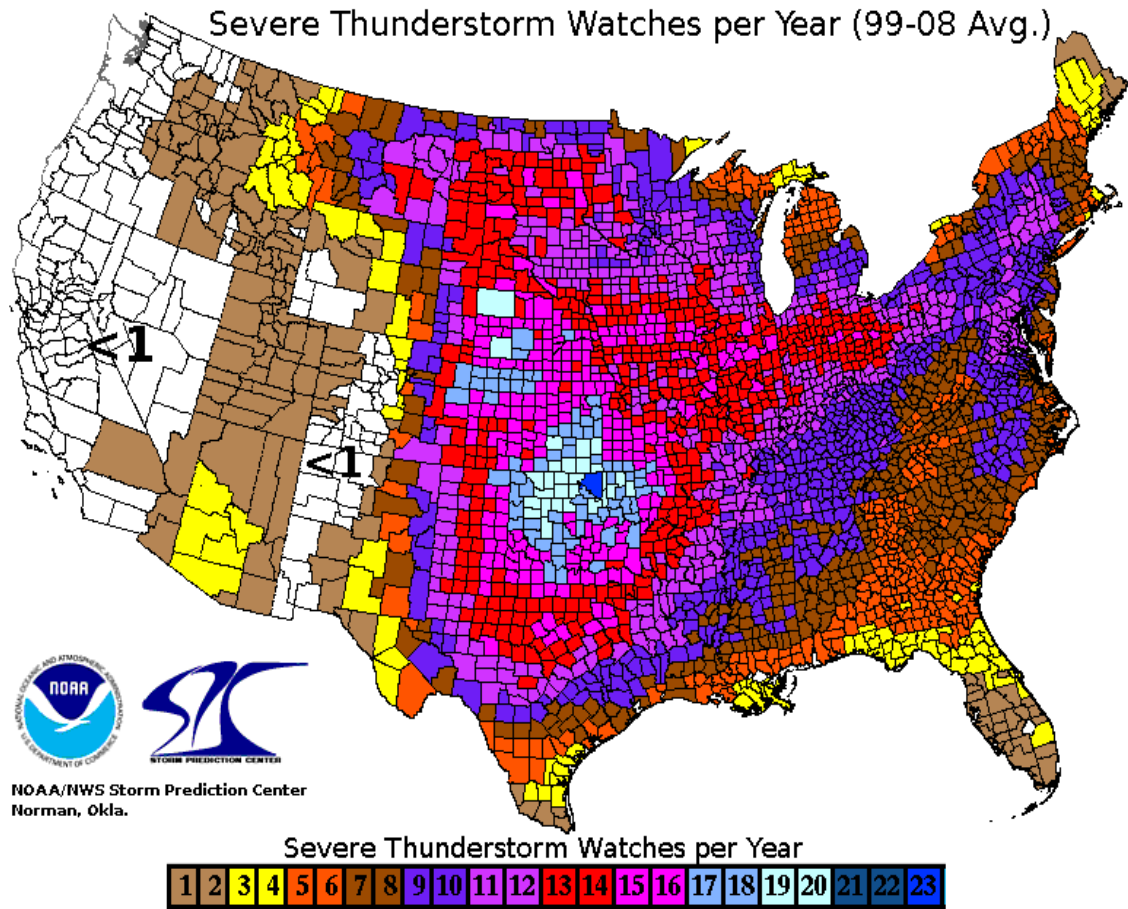


FIGURE 5. Severe Thunderstorm Watches per Year (1999-2008 Average)

Source: <http://www.spc.noaa.gov/wcm/10ysvra.gif> (accessed 11-2-09)

Tornadoes and Agriculture

The relationship between tornadoes and agriculture is a global phenomenon. Tornadoes are a product of severe thunderstorms, and have been documented on every continent except Antarctica. The most favorable conditions for thunderstorms are in the

middle latitudes of the earth and, as severe storm researchers have noted, those regions where tornadoes have been most frequently documented encompass some of the most fertile agricultural zones of the world. This co-incidence results from the fact that seasonal precipitation from intense thunderstorms in these areas enables rain-fed agriculture to thrive. Figure 6, created by Dr. T.T. Fujita, one of the most important tornado researchers in the twentieth century, reflects correspondences he noted in the mid-1980s between traditional agricultural regions and reported tornado sightings.

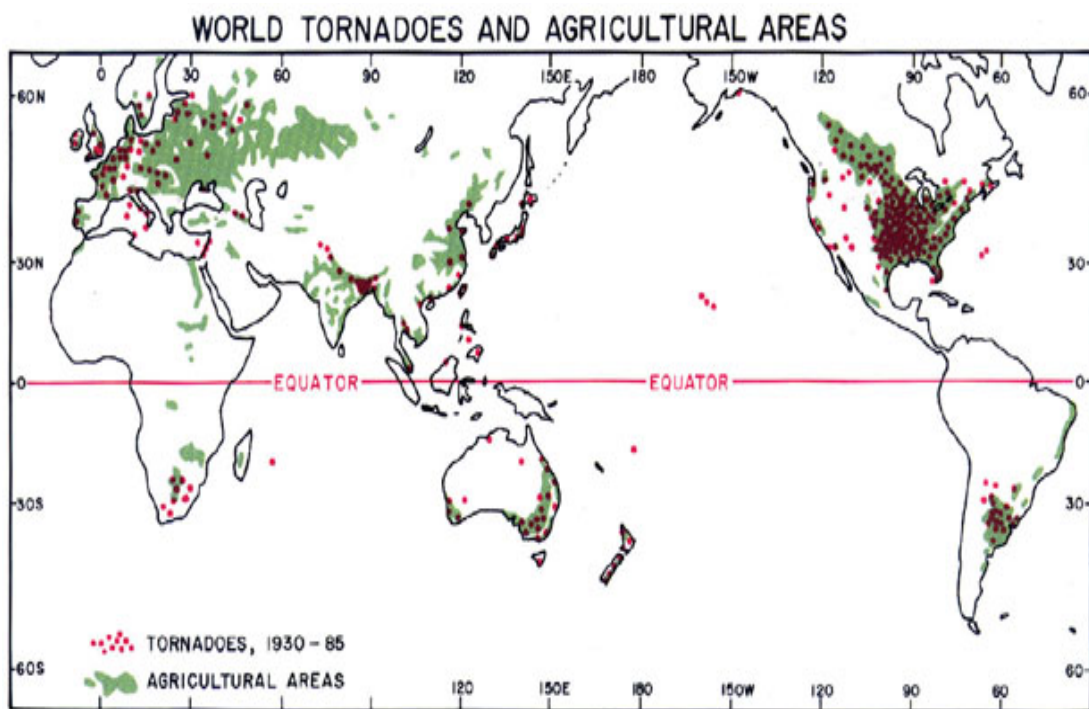
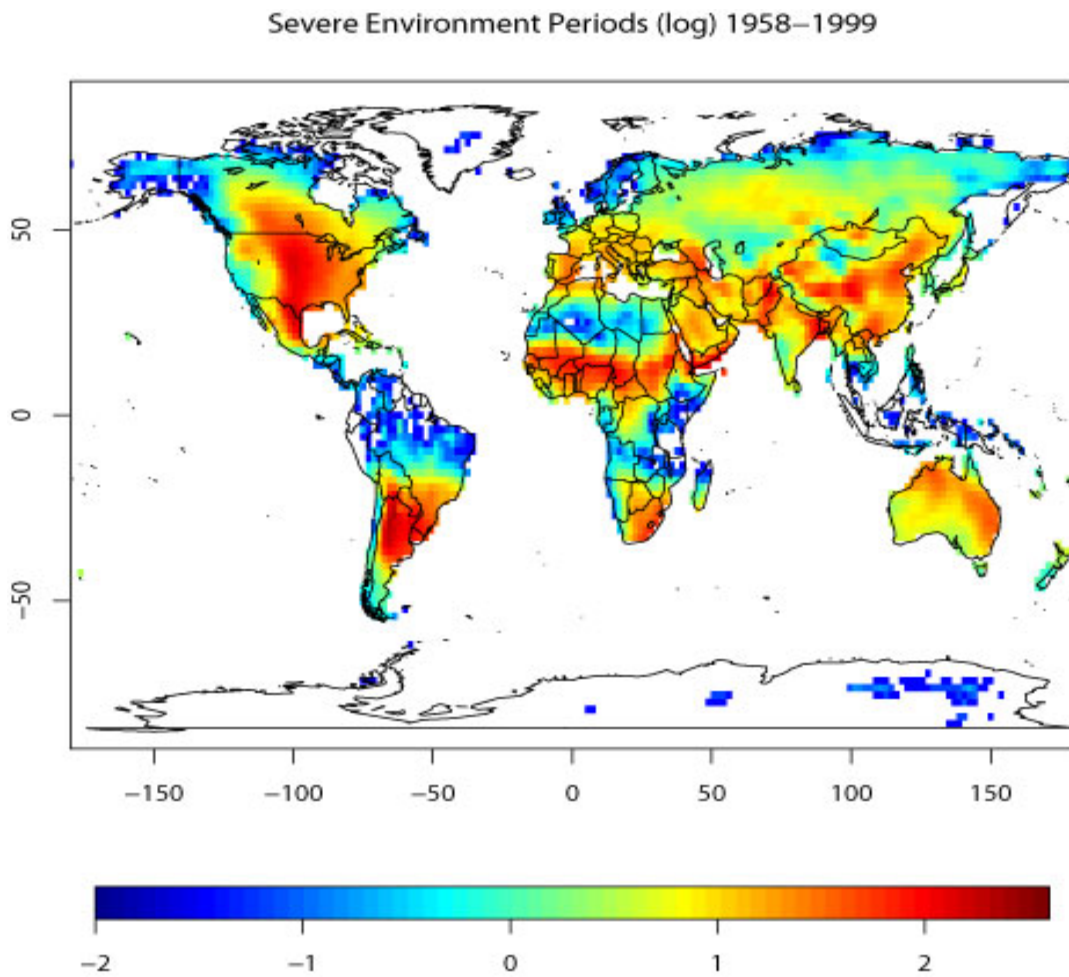


FIGURE 6. Map of World Tornadoes and Agricultural Areas (1930-1985)

Note: tornado numbers are only those *seen and reported* during the time period, thus large areas are blank due to lack of such data

Source: Dr. T. T. Fujita, University of Chicago "Windows to the Universe" <http://www.windows.ucar.edu/> (accessed July 28, 2008).

More recently, tornado researchers such as Harold Brooks, James Lee, and Jeffrey Craven have examined the environmental conditions separately associated with severe thunderstorms and with tornado formation on a global scale. Using a tool called proximity sounding analysis, they have estimated the frequency of conditions for both types of severe weather events.¹³ (See Figures 7 and 8.)

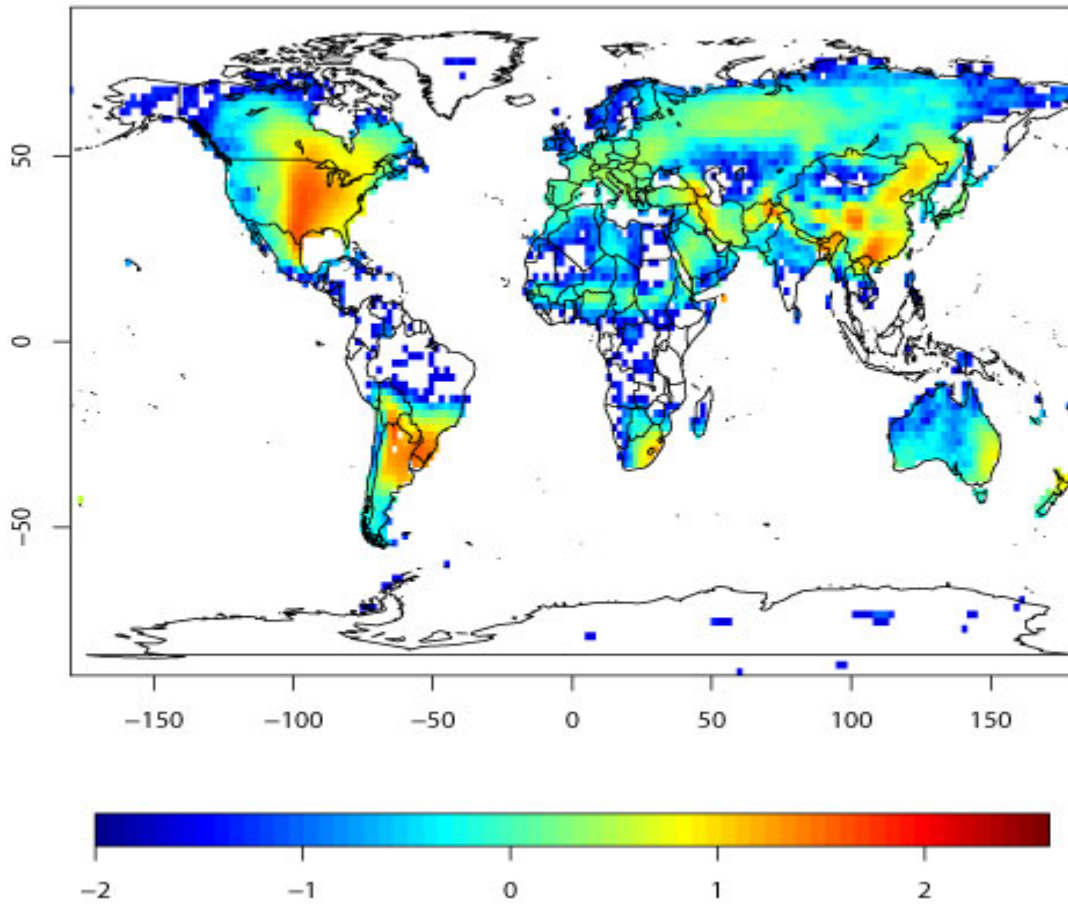


Scale is base 10 logarithm of the number of 6-hour periods with threats per year. That is, a "2" is $10^2=100$ periods per year. Max would be 1460 periods per year

FIGURE 7. Global Map of Severe Weather Environments 1958-1999

Courtesy H. E. Brooks, NOAA/National Severe Storms Laboratory, Norman, Oklahoma

Tornadic Environment Periods (log) 1958–1999



Scale is base 10 logarithm of the number of 6-hour periods with threats per year. That is, a "2" is $10^2=100$ periods per year. Max would be 1460 periods per year

FIGURE 8. Global Map of Tornadic Environment Periods 1958-1999

Courtesy H.E. Brooks, NOAA/National Severe Storms Laboratory, Norman,

The rich American bottomlands associated with the major river systems of the central United States (e.g., the Mississippi, Missouri, Illinois, and Ohio rivers) experience the most common tornadic environmental conditions in the world. Other areas with significant tornado conditions are in southern Brazil, northern Argentina, and in Bangladesh.

Scholars make much of the rich alluvial deposits that provided Native Americans, and other ancient world civilizations, with cropland for millennia. At the same time, they view reliable precipitation as a climate condition of only secondary importance. Focusing on irrigation opportunities, historians overlook the essential dependence on rain for successful plant growth and to maintain rivers and water tables.

The essential link between rain from thunderstorms and the tornadoes that often enough accompany them has gone unrealized by historians. Yet appreciating that link and its cultural significance is key to gaining a clear understanding of how peoples in both the New World and the Old experienced their environments.

Periodic and often severe droughts have characterized the Holocene climate of Mesoamerica and most of the American regions since 10,000 BCE, but climate has not significantly changed overall with respect to general patterns of seasonal precipitation and tornado formation.¹⁴ Tornado-prone regions of antiquity were almost certainly more or less concurrent with the greater tornado alley range familiar to North Americans today, a range that encompasses some of the richest agricultural lands in the world.

Tornado Characteristics

Tornadoes can assume a wide variety of shapes, sizes, and behaviors. Most are about the diameter of a football stadium. They can last for a few minutes to a few hours and usually maintain a speed of about 30 mph. Wind speeds within the funnel can range from 40 mph to 300 mph (confirmed). Many times, observers note a dust whirl at ground level and a funnel aloft; as debris is sucked up the rotating column, the funnel becomes visible. Some have rope or snake-like appearances, twisting like a whip and assuming

varied angular positions across the sky as they decay. Others develop a large, thick vortex that can plow across the landscape, often for miles. Some storm cells produce multiple vortices touching down simultaneously, often described as snake-like writhing columns. Tornadoes can make rapid sideways movements and have been known to reverse direction, make u-turns, and go in circles.¹⁵

A tornado on the ground can range from a few feet across to a mile wide or more. They can travel just a few yards or hundreds of miles. The longest path on record dates from 1917 and documented an Illinois tornado that traveled some 293 miles from Louisiana to Indiana. Several tornadoes seen east of the Mississippi in the twentieth century were said to have traveled from 100 to 200 miles.¹⁶

Lightning, thunder, and tornadoes are intimate traveling companions. All three are products of precipitation-laden storm systems. Hail often makes a fourth in this gang of violent phenomena. Lightning can only take place in clouds that extend in the atmosphere about the freezing level and contain sufficient moisture. Thunder is the sound of the air expanding explosively during a lightning stroke. The term *heat lightning* incorrectly implies lightning seen without hearing thunder; in reality, the sound of the resultant thunder simply does not reach the observer. Hail consists of extremely dense ball of ice of varying sizes which are most commonly generated by spring and summer thunderstorms. The powerful updrafts of seasonal storm systems circulate through the wet and icing phases long enough to create large hailstones that finally plummet to earth with destructive results.¹⁷

Dust Devils

A common phenomena in hot dusty areas are dust devils. These mini-twisters are meteorologically distinct from tornadoes; a distinction Native Americans fully appreciated. Unlike the tornado which is a product of thunder clouds and large scale atmospheric, dust devils swirl up from the ground as a result of micro-meteorological conditions involving heated earth and cooler air just above it. These conditions can rapidly produce a mini-vortex that just as rapidly dissipates and is usually very weak. However, on rare occasions huge dust devils have been known to generate a degree of force during their brief life spans.

Cultural Context: Early Agriculture in North America

A brief overview of each region and tribal groups is provided at the beginning of each section. The overview describes the probable origin area of each language group circa 700 C.E. It will also discuss known or presumed subsistence patterns and cultures, as well as migrations and other changes preceding the contact period with “Old World” peoples. A general overview regarding the long history of peoples in the Americas as well as the current consensus on the origins of agriculture and its development in North America will be provided. Many long-held traditional assumptions about both these subjects have been overturned in recent years.

Information about human origins in the New World has accelerated rapidly in recent years as a result of newer DNA and other dating techniques. Recent research indicates that humans out of Asia were on the west coast of the Americas at least 13,000 years ago and were accompanied by dogs.¹⁸ Results from interdisciplinary research have

led to a general scientific consensus that humans were well-established along South American shores at least some 16,000 years before present.¹⁹ Very recent genetic research has confirmed that Native American peoples from Alaska to Chile, from Inuit in Greenland to natives of the western edges of the Bering Strait, all descend from a single ancestral population.²⁰ All of this indicates that humans had been arriving at or moving down along the coastlines long before they penetrated the interiors of North America, where Clovis sites are significantly younger, with dates of around 10,000 BCE.²¹

The present geological epoch, termed the Holocene, began with the end of the last major Ice Age about 10,000 BCE. It is at this point that scholars believe agricultural societies emerged independently in different regions of the world, including the Americas.²² Although major droughts, warm and cold periods have alternated in the mid-latitudes over the millennia, the main agricultural regions of North and South America have remained relatively the same. Agriculture in these areas has depended for the last 10,000 years on certain climatic conditions, including seasonal precipitation. By 8,000 BCE, deciduous forest covered much of what would in later years be the United States from the Mississippi River to the east coast.²³

Debates concerning the origins of agriculture in America have shifted between arguments for only Mesoamerican sources versus some eastern Woodlands innovations. Recent research suggests that several primary New World cultigens – e.g., squash, sunflowers, beans, maize, pumpkins, – were first cultivated in Mexico, although not in the highlands as once assumed. Evidence from plant microfossils like phytoliths (crystallized seed fossils) now indicates lowland, tropical locations, such as the Yucatan Peninsula, as probable origin sites.²⁴ Squash (*Cucurbita pepo L.*), one of the oldest

plants associated with North American cultures, appears to have been domesticated by 8,000 BCE in Mexico.²⁵ Persuasive new evidence based on archaeogenetic data indicates that the sunflower (*Helianthus annuus L.*) was already part of Mexican horticulture by 2,700 BCE.²⁶

Agriculture in the Southwest

Evidence suggests that maize, squash, and beans were being cultivated from at least 1000 BCE in the Southwest region of North America. However, the consensus is now that these crops had little effect on the prevailing forager subsistence culture for millennia. In fact, the “evidence from food remains [shows] that broad-spectrum foraging still provided the greater part of the diet after 1000 BCE . . . Foragers in the South-West probably began to use maize and other crops after circa 1000 BCE not to change their way of life but to preserve it.” Early maize cultigens were much less productive than sunflowers and nuts, although they stored well.²⁷

As maize finally became established as a food resource in the first millennia CE, dramatic changes can be observed in Southwestern cultures. The Mogollon, Hohokam, and Anasazi of the San Juan Basin that engaged in a new intensification of maize agriculture were once thought to represent the highest levels of pre-contact agriculture north of Mexico.²⁸ However, recently some scholars report evidence that “southwestern native people had adopted a sedentary maize agricultural lifestyle long before the first major developments in the remote semiarid San Juan Basin . . . and adjacent portions of the four corners states.”²⁹ An increase in rainfall in the centuries preceding 700 CE is thought to have accompanied, if not stimulated, the move to intense maize production

and complex irrigation systems.³⁰ For whatever reason, sometime during the second millennium CE these groups shifted south to become (or merge into) the historical Pueblo peoples of New Mexico and Arizona. Some scholars theorize that the Mogollon became the Zuni tribes by 1400; that the Hohokam continue among the Pima and Papago tribes; and that the Anasazi relate to present-day Keres, Tewa, Tiwa, Towa, Hopi, and Zuni peoples.³¹

Agriculture in the Eastern Valleys, Lakes, and Woodlands

From the beginning of the warmer and wetter Holocene (often referred to as the Archaic Period) Native Americans used broad-based foraging and hunting strategies across eastern North America, taking advantage of plants such as marsh elder, sunflower, goosefoot, knotweed, little barley, and squash. Bruce Smith in his “floodplain weed” theory proposes that people were already actively cultivating plants from the early Holocene.³² After 5000 BCE, as climate aridity increased, people began to frequent riverside locations more often and to incorporate more fish, shellfish, waterbirds, and local plants into their diets. The disturbed habitat that resulted enabled floodplain weeds (especially marsh elder, goosefoot, pepo squash) to flourish and to become a significant subsistence resource. Certainly by 2,000 BCE, many of the forager-fisher-hunter peoples had become at least part-time horticulturalists.

The period from 2,000 BCE to about 800 CE (Woodland Period) includes the spread of agriculture, sedentism, pottery, weaving, and widely traded, sophisticated craft objects. Mound Builder cultures in the Mid-West thrived, best exemplified by the Adena and following Hopewell cultures (about 200 BCE – 700 CE). The Adena were sedentary

agriculturalists, known to have cultivated sunflowers, pumpkins, squash, goosefoot (lambs quarter) and other plants in and around present day Illinois.

The most common domesticated tobacco in North America, *Nicotiana rustica*, flourished in the fertile soils of the eastern river valleys and forests of North America. According to Gail Wagner, a paleoethnobotanist, researchers generally agree that this species “likely spread to eastern North America from Mexico rather than from the Southwest.”³³ This tobacco is found in contexts from the first century BCE. In the Southwest, evidence for use of a native tobacco plant, *Nicotiana attenuata*, has been found in agricultural sites dating to the first few centuries BCE.³⁴ Evidence of widespread tobacco use begins to emerge only after 300 CE, although the distribution of specimens still remains “strikingly concentrated in the Mississippi, Missouri, Illinois, and Ohio river drainages.”³⁵

Succeeding the Adenas were the Hopewell peoples of the Ohio and Illinois River valleys. These groups practiced a more highly developed agriculture and grew a variety of crops including beans, squash, and sunflower. The Hopewell cultural complex covered a much larger geographic area than the Adena peoples, with a vastly expanded trading region and sophisticated craftsmanship. Corn, however, was never exploited to the extent later seen by Mississippian societies and appears to have been restricted in use, with indications it may have been limited to ritual use. Centers such as Spiro (in present-day Oklahoma) grew starchy seed crops but not maize until after 1000 CE.³⁶

The period from 800 CE until contact in the late fifteenth century, traditionally referred to as the Mississippian Period, saw the rise of dense population centers located along the Mississippi, the Missouri, Illinois, and Ohio river drainages. This increased

activity accompanied the rapid expansion of maize-based farming. The Mississippians were master farmers, cultivating corn, beans, squash, pumpkins, and tobacco in large fields often far from their living quarters. They were also mound builders and scholars have described them as highly stratified societies with complex ceremonials, although now some question whether these societies are portrayed accurately as “chiefdoms” exercising control over monolithic cultural landscapes.³⁷

Sometime after 1300 CE, Cahokia, a major center of the Mississippian political-cultural landscape, declined and dissolved. At the same time, much of the surrounding central Mississippian region saw its populations break apart and migrate elsewhere. Many tribes later associated with the Plains to the west and the north, notably the Dhegiha-Siouan peoples and the Caddoan speaking peoples, have traditions and mythologies suggesting ancient homelands near Cahokia. But one of the great mysteries still remains to be addressed: where are the stories and memories of these once great cultural centers along the rivers? Perhaps Whirlwind Woman is one such mythic relict, hiding in plain sight.

NOTES

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⁸ Aguado and Burt, *Understanding Weather*, 325.

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¹⁰ Ibid., 326.

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¹⁹ Tom D. Dillehay, C. Ramirez, et al., “Monte Verde: Seaweed, Food, Medicine, and the Peopling of South America,” *Science* 320, no. 5877 (May 2008): 784 – 86. See also David Hurst Thomas, *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity* (New York: Basic Books, 2000), for further discussion of this issue.

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²⁵ *Ibid.*

²⁶ David L. Lentz, Mary Deland Pohl, Jose Luis Alvarado, Somayah Tarighat, and Robert Bye, “Sunflower (*Helianthus annuus L.*) as a Pre-Columbian Domesticated in Mexico,” *Proceedings of the National Academy of Science* 105, no. 17 (April 2008): 6232-37.

²⁷ Graeme Barker, *The Agricultural Revolution in Prehistory: Why Did Foragers become Farmers?* (New York: Oxford University Press, 2006), 246-48.

²⁸ Carl Waldman, *Atlas of the North American Indian* (New York: Facts On File, Inc., 2000), 17.

²⁹ Timothy R. Pauketat, *Chiefdoms and Other Archaeological Delusions* (New York: AltaMira Press, 2007), 165.

³⁰ Barker, *The Agricultural Revolution*, 248.

³¹ Waldman, *Atlas of the North American Indian*, 19.

³² Bruce D. Smith, *The Emergence of Agriculture* (New York: Scientific American Library, 1995), 196.

Also see: Bruce D. Smith, "Seed Plant Domestication in Eastern North America," in *Last Hunters, First Farmers: New Perspectives on the Prehistoric Transition to Agriculture*, ed. T.D. Price and A.B. Gebauer, 193-213, (Santa Fe, NM: School of American Research Press, 1995).

³³ Gail E. Wagner, "Tobacco in Prehistoric Eastern North America," in *Tobacco Use by Native North Americans: Sacred Smoke and Silent Killer*, ed. Joseph C. Winter (Norman: University of Oklahoma Press, 2000), 185.

³⁴ Karen R. Adams and Mollie S. Toll, "Tobacco Use, Ecology, and Manipulation in the Prehistoric and Historic Southwestern United States," in *Tobacco Use by Native North Americans: Sacred Smoke and Silent Killer*, ed. Joseph C. Winter (Norman: University of Oklahoma Press, 2000), 143, 152-153.

³⁵ Wagner, "Tobacco in Eastern North America," 195.

³⁶ Pauketat, *Chiefdoms*, 111.

³⁷ *Ibid.*, 15-20.

CHAPTER II

MYTHS FROM NORTH AMERICA

The Black Snake Wind came to me;
The Black Snake Wind came to me,
Came and wrapped itself about,
Came here running with its songs. ¹

-Pima medicine song

Native Americans, in common with other world cultures, have long traditions that identify the four quarters of the earth with various winds. Wind spirits representing the four cardinal points of the compass are one of the oldest concepts in human mythology. Tornadoes are one of the most powerful wind phenomena on earth. Thus, it seems appropriate to frame examination of North American tornado mythologies in terms of the quadrants of a compass rose.

An important premise of this research is that tornado mythologies originate in an archaic period of agriculture in the Americas, long prior to the maize mania that erupted across North America only after 800 CE. Therefore, this chapter assigns discussion of selected tribal mythologies to those quadrants where historians believe ancestral groups of contemporary tribal language speakers were established before 800 CE.

The geographical point of reference is the Mississippi river valley, a focus of agriculture for thousands of years. The Rocky Mountains to the Northwest comprise a natural barrier that limits talk of tornadoes to groups generally located east of that mountain range. The Southwest section encompasses groups from New Mexico to California. The Southeast section embraces many of those agricultural tribes now associated with the Great Plains as well as those characterized as the Southeastern Cultural Complex. The Northeast selections draw on the woodland and Great Lakes Iroquoian and Algonquian speakers.

From the Northeast

Iroquoian Speakers

Five northeastern tribal groups sharing a similar language and culture inhabited most of New York and environs when Europeans encountered them in the late 1500s. It appears that they were once part of a semi-sedentary population known as the Owasco, possibly derived from a population in central Pennsylvania (Clemson's Island culture), which became established in New York between 900 CE and 1000 CE. The *Ho-de-no-saunee* (People of the Long House) were sedentary horticulturalists living in villages marked by the use of longhouse structures. There is persuasive evidence that they had long been a matrilineal and matrilocal society.²

By the time of European arrival (Cartier traveled up the St. Lawrence in 1534), this group consisted of geographically and socially distinct tribes. The Mohawk, Seneca, Cayuga, Onondaga, and Oneida Nations continued to co-operate within a political alliance known as the Iroquois Confederacy. The Tuscaroras in North Carolina joined as

a sixth nation in the 1700s. Strong affinities existed among these nations, the Hurons to the North, and the southern Cherokees.

The Iroquois nations at contact were matrilineal and matrilocal; they were also aggressive warriors and determined to establish trading networks with the newcomers. The word “Iroquois” is, in fact, a Basque term meaning “killer people.”³ Women were powerful and influential leaders of their communities. They voted for chiefs and council members and were decision makers in various aspects among the several tribes. In the tribes of the confederacy, children belonged to and inherited from their mother’s clans.

The horticulture of the Iroquois at contact was based on the “three sisters”: corn, beans, and squash. Women-only societies existed among most of the Nations whose sole mission was to preserve and guard agricultural rites and mysteries. The Senecas called the three sisters *Dioheko*. The women’s society dedicated to their ritual maintenance and crop success, the *Towiissas*, referred to themselves as the “friends of the Dioheko.”⁴

Two key festivals of the year for traditional Long House groups involved the linked medicine societies, called the False Faces and the Husk Faces. Masked members of these groups performed at autumn and spring ceremonies. The False Faces were a Medicine Society performing in carved wooden masks with the intent to drive out disease. The Husk Faces were an Agricultural Society appearing in plaited corn husk masks to ensure successful crops and healthy children.

Important mythical deities of the Senecas and other Confederacy members were the *Genonsgwa* (Stone Coats or Stone Giants), the *Hi’no* (Thunder People), the *Dagwanoenyent* (Whirlwind People), the *Shagodiioweq* (Wind People), and the *Djogeon* (Dwarf People). Interpretations of who and what these groups represent have varied

since the seventeenth century. Probably the most important and most ancient concept underlying Iroquoian myth and tradition is that of the Crooked Face masked being, or Whirlwind. It is probably that the separate Thunder, Wind, and Whirlwind peoples represent a fragmentation of an original single primal storm entity.

Jeremiah Curtin and Curtis Hewitt collected Seneca tales for the Smithsonian in 1887. In the 32nd report of the Bureau of American Ethnology, Curtin and Hewitt detailed Seneca myths and legends at great length. A great many of these tales concerned the Whirlwind peoples. Curtin also notes that the name *Dagwanoenyent* appeared to mean “what habitually hits or knocks our heads.”⁵

They recite an important myth concerning how the elder female head of the Whirlwind peoples (*Dagwanoenyentgowa S’hagodigendji*) looked after her two grandchildren, a boy and a girl. After they were swallowed and abducted by the Stone Giants or Stone Coats, the old woman summoned all the other Whirlwind peoples to fight the giants. They won and piled their bodies in the river, creating a huge dam which then created “The Lake where the Stone Giants are Buried.”⁶ Other myths refer to the Whirlwind as “The Great Head.”⁷ Curtin recorded reports that an irritated Whirlwind (*Dagwanoe yent gowa*) caused death and destruction, but could also bestow the gift of rain if properly honored. It often appeared as a huge head with no body.⁸

Harriet Converse, who was adopted by and lived among the Seneca for many years, described folk tales of how the winds were named. *Ga-oh*, the Spirit of the Winds, called different animals to take charge of the four winds. The cold North Wind was *Ya-go-ah*, the Bear. The softer breezes of the South Wind were identified with *Neo-ga*, the Fawn. The chill rains and storms of *O-yan-do-ne*, the Moose, were the East Wind.

Ga-oh then “trumpeted a shrill blast, and all the sky seemed threatening; an ugly darkness crept into the clouds that sent them whirling in circles of confusion; a quarrellsome, shrieking voice snarled through the air, and with a sound as of great claws tearing the heavens into rifts, *Da-jo-ji*, the Panther, sprang to the gate . . . Said Ga-oh, ‘You are ugly, and fierce, and can fight the strong storms, you can climb the high mountain, and tear down the forests; you can carry the whirlwind on your strong back, and . . . snarl at the tempest . . . You shall be the West Wind.’ ”⁹ This linkage of the whirlwind and the West wind to the panther can be seen repeated throughout traditions among the North and Southeastern Native peoples.¹⁰

Tales of “flying heads” are also well known and widely disseminated among tribal groups. Harriet Converse provided the following abbreviated version of one such story in 1908. She noted that in some versions, the heads were explicitly identified as False Faces and confirmed that the Mohawks consider the Flying Heads to be the original False Faces of Iroquois tradition.

Ko-Nea-Raw-Neh, The Flying Heads

The Long House was new and the people were tranquil in its peace when they were terrorized by the visitations of the Flying Heads. These odious Heads were enveloped in long, fire-flaming hair which streamed to the wind in their flying, dazzling and blinding those who dared look at them ... they shot through the air like meteors . . . These Heads were of enormous size, yet, upon the land or among the forest trees, they could become no larger than the head of a bear ... but whether in the air or upon the land, there seemed no human power able to combat them ..Many of the medicine men said they were bad spirits who had escaped from some place of confinement ... people were powerless to restrain them ...These dread visitations would be interrupted for varying periods often extending through several months, when the people would return to their quiet, always hoping the Heads had departed forever . . .¹¹

The concept of a monster or a huge head or forest-dwelling creature having long flowing hair on its huge head is an image found in numerous myths and stories of the North and Southeastern tribes.

Another common association with whirlwind entities is that of disease and evil-doing. To the extent that ancient Whirlwind deities once linked to medicine, mysteries, and death had declined in sacred power, it is unsurprising that these once all-beneficent associations should become all-evil. Demonization of the original being, with its strong female component, is reflected in nineteenth century portrayals of Whirlwind.

In several other legends collected by Curtin and Hewitt, the whirlwind took the form of an evil old woman. In one of these stories, an old woman invited a host of whirlwinds to supper hoping they would kill her son-in-law.¹² In 1950, Gertrude Prokosch Kurath -- a leading researcher in musicology and dance ethnology -- reported that the Long House Iroquois continued to celebrate their “ancient nightlong ritual to the dead, the *Ohgiwe*” twice a year, in autumn, around Hallowe’en, and in the spring. Kurath observed that the main ceremony was a *women’s* ritual of singing and dancing. She wrote that “the Iroquois share with the Chippewa the belief in the presence of the dead among the living during the ritual, invisible except to a favored few. However, they also have a malignant power to cause disease as they travel in a whirlwind or as witch fire (will-o’-the-wisp). Because of these baneful effects the *Ohgiwe* also functions as a curative rite in the patient’s home.”¹³

The whirlwinds referenced in these ceremonials and folklore traditions are thus less powerful than mythic deities, although equally as important and influential. Seneca folklore from this time includes an extensive repertoire of evil or witch-like dust-devil

stories. In these, the whirlwind is a wise, but sly and dangerous old woman (or evil mother-in-law). A common dynamic is seen in the plains, prairie, and Southwest tales (to be discussed later) where the ‘dust-devil as bad hag’ theme is common among many of the tribes.

At the core of these disparate Whirlwind traditions appears to be an ancient concept of a primal deity. According to Arthur Parker, an ethnologist of Seneca descent writing in the 1920s, the Senecas considered the deity known as Whirlwind to be one of the original creation entities, whose name means He-Who-Defends-Us. This appellation, he explained, resulted from a promise Whirlwind made that he would protect the tribe from disaster. Parker reported that the crooked mouth, false face mask *always* represented Whirlwind. The facial disfigurement supposedly occurred when Whirlwind chose to test his power against the superior being, Good Mind, who promptly slammed a mountain into the presumptuous tornado. Admitting Good Mind’s pre-eminence, Whirlwind agreed to drive off diseases and protect mankind from evil influences. Parker noted that the Iroquois still used the wooden Whirlwind mask during many ceremonial events, particularly at mid-winter celebrations. He also reported that the thunder god (*Hi’no*) was lower in order of hierarchy than Whirlwind and Good Mind, who were the two most important beings.¹⁴

The recordings of these Seneca myths date respectively from the 1800s and the 1920s. Parker, Curtin, and Hewitt all make the explicit link between an entity referenced in some myths as “the Great One,” the False Face concept, and Whirlwind. The strength of this connection is supported by the crooked face mask itself, which is plainly

reminiscent of a whirlwind-like twisted face, and its frequent linkage in traditions from the nineteenth century onwards to a deity known as the Great One.

In 1937, William N. Fenton, working on the Tonawanda Reservation in the U.S. Indian service, reported on the “Seneca Society of Faces.”¹⁵ He wrote that the masks symbolized mythical peoples that wanted only tobacco and mush but could, if so inclined, prevent disease and cure illness. Fenton also noted that Indians he spoke with were conflicted about how to classify the wooden masks, since they could be highly individualized. However, he wrote, there were many commonly employed facial features and masks were always red or black.

Fenton refers back to observations from the seventeenth and eighteenth century. He quotes from the Jesuit observers, Dablon and Chaument, who observed a ritual in 1656: “[they] describe their host, covering himself with corn husks from head to foot, who went accompanied by two women with blackened faces and bodies covered with two wolf skins. Each woman carried a club or a great stake.”¹⁶ Fenton also refers to a 1743 traveler who was kept awake by “a comical fellow; he had on a clumsy vizard of wood colour’d black, with a nose 4 or 5 inches long, a grinning mouth set awry, furnish’d with long teeth, ...he carried in one hand a long staff, in the other a calabash with small stones in it, for a rattle.”¹⁷ The Whirlwind mask is just such a face, with mouth “set awry.” (See Figures 5 and 6.) Fenton observed that the masks “show little fundamental change from generation to generation” except that resulting from better or worse tools and the skill of the mask-maker.¹⁸



FIGURE 9. False Face Mask, Iroquois (Ontario, Canada)
Courtesy: American Museum of Natural History
North American Ethnographic Collection Catalog No. 50 / 6475

Fenton also obtained a version of the origin myth from his informants, Chauncey Johnny-John and Henry red-Eye. Part of Fenton's abbreviated version follows.

The Struggle for Control of the Earth

...As the creator went on his way westward, on the rim of the world, he met a huge fellow – the head man of all the Faces. The creator asked the stranger...whence he came. The stranger replied . . . the Rocky Mountains to the west and that he had been living on this earth since he made it. They argued ... and agreed to settle the title by contest. The Creator agreed to call the stranger “headman,” should he demonstrate sufficient magic strength to summon a distant mountain towards them. Now the great false face ... summoned the mountain [only] part way... the Creator summoned the mountain ... directly up to them . . . his rival, becoming impatient, suddenly looked around, and the mountain struck his face...the pain distorted his mouth. Now the Creator realized that this fellow had great power. He assigned him the task of driving disease from the earth ...and the Creator gave him a place to dwell in the rocky hills to the west...and he agreed to come in whichever direction the people summon him.¹⁹

As Fenton's informants relate, the Great One was *shagodjowehgowa* whose face was red as he came from the east and turned black as he went westwards. He controls the winds and diseases. They reported that his masks always have the broken nose and grimacing mouth or mouth with distended lips for blowing. In other words, the Great One's mask is that of the crooked face (Whirlwind) or blowing (Wind) variety.²⁰

The ethnologist, Frank Speck, published his work on the Cayuga in 1949. He repeats an origin myth that follows the versions given above with a few exceptions. In Speck's tale, the Great Spirit is arguing with the False Face about who is greater. False Face shakes his rattle and tries to move a mountain, but cannot. The Great Spirit moves it and False Face smashes his face against it. False Face then asks “to control the whirlwind that brings disease to mankind” and . . . to leave men the songs appropriate to his

services.”²¹ Speck adds a footnote to explain that the Cayuga at that time thought that the whirlwind was a spirit that went abroad and could paralyze those whom it touched.²²

In 1966, Harold Blau argues that any mask could represent the “Great Defender” (*S’hagodiowe’gowa*) and that attempts to classify the masks was fruitless. He saw masks as individual creations with little intrinsic significance. However, Blau also repeatedly refers to the “original False Face, the Evil-One of mythology.”²³ Blau repeats a version of the myth from an Onondaga elder (in abbreviated fashion) as follows:

The Evil-One had traversed the earth infecting all places with his power. When he met Sogweadisai, the Creator, he challenged him to a test of power, seeing which of them could cause a mountain to move. The Creator commanded the mountain to move after the Evil-One had failed. The mountain moved up so close behind the Evil-One that in turning around he scraped his face against the rocky surface. That is why he has a twisted face. The Creator having proved his power exacted a promise from the great being to aid mankind [and] cure disease. The Evil-One agreed to help the people if they would burn tobacco in his honor, address him as “grandfather” and wear masks of his likeness as they drove out disease. Now the people carve masks after a dream or vision and regard themselves as his grandchildren.²⁴

Whirlwind (*Dagwanoenyent gowa*) is now an “Evil One” who “infects” places. But s/he is not powerless. Blau recorded traditional beliefs that accompanied the treatment of masks that were consistent among the Iroquois. Among them are the following two examples:

1. “If some hair from a mask gets loose it can cause a high wind.” Blau noted that “although the Onondaga have no masks which can prevent high winds...The Cayuga... have whirlwind masks, painted half red and half black vertically, which, if hung up on a house or tree in the face of an impending storm, are said to ‘split the hurricane,’ thereby mitigating its force.”²⁵ He adds that the Huron considered storms to be the fault of the “original disease-

causing demon, *Awaterohi*” and speculated that the “flying head in the midst of a whirlwind in Iroquois legend is probably...*Awaterohi*.”²⁶

2. “If you wear a mask you have the power to cure.” Again, Blau refers to Huron examples to illuminate Onondaga practice. He writes that masked performers in “Huronian” also exorcised disease in the *Awaterohi* rites. As he notes, “the older, now archaic, form of other false face curative rite was called *Wnatainu?ni*: ‘scaring witches’ or ‘demons’.”²⁷

Algonquian Speakers

One of the largest and most diverse linguistic groups are those represented by the wide-ranging Algonquian tribes from Newfoundland and New England to the Great Lakes and the Canadian Prairie provinces. Europeans arriving in the 1600s found mostly seasonal agriculturalists like the Wampanoags, Passamaquoddy, and Abenakis along with various fisherfolk in the Canadian Maritime provinces. The Algonquian speaking nations were regularly at war with their Iroquois neighbors. The agricultural basis was mostly of maize, beans, and squash with women farming and men fishing and hunting. Farther west around the Great Lakes were the Shawnee, Illiniwek, Miami, Sac and Fox; Ojibwe, Chippewa, Ottawa, Pottawatomi. On the northern plains were the Cree, Arapaho, Blackfoot, and Cheyenne.

Chippewas. Sister Marie Inez Hilger was a trained anthropologist who began field work among the Great Lakes tribes in the 1930s and later worked for the Bureau of American Ethnology. Hilger collected weather concepts among the Chippewa on the

Red Lake reservation in Minnesota in the early 1930s. They told her that the thunder bird, *Nemikig*, produced thunder and lightning. The rainbow, however, represented the sleeves of *magegekwa*, a mythic “woman who raises her arms over the sky so that her fingers interlock.” Sister Hilger reported that when thunderstorms began to approach, elderly men would offer the storm tobacco and pipe smoke, along with imprecations to the thunder bird to quiet down and go elsewhere. But, she added, “not everyone can do this effectively; only those who have dreamed of thunder.”²⁸

Potawatomes, Crees, Ottawas, Passamaquodies, Ojibwas. These tribes ranged from Canada to Lake Superior, and the Atlantic. They all shared a firm and imaginative belief, as other Algonquians did, in a powerful thunder-bird or wind-blower being that as ultimately responsible for storms, winds, lightning, and tornadoes. The existence of this being was quite real to many people, so much so that the anthropologist A. F. Chamberlain wrote in 1890 that the Potawatomes “look on one of the high mountain peaks at Thunder Bay as the abode of the thunder, and that at one time a nest containing the young thunder-birds was there discovered by them.”²⁹ The Ojibwas also believed that the thunder-bird laid eggs on a mountain in the West and hatched their young like eaglets.³⁰

Most myths describe a wondrous bird-being that flapped its wings to cause winds, shot lightning from its eyes, and battled earth monsters and earth-serpents. The resemblance of these Algonquian beliefs and those of the Siouan peoples, especially the Omaha and Ponca (see descriptions below) are quite extensive, as Chamberlain himself was at pains to point out.³¹

Shawnees. James Howard, a distinguished anthropologist of the mid-twentieth century, did extensive field work among the Northern Plains tribes. In his book *Shawnee!!*, he discusses religion and cosmology of this tribe and its neighbors at some length.³² For the Shawnee, sacred fire was used to communicate with two major entities: Grandmother spirit and Cyclone Person. They also believed in Thunderbirds and their mythic enemies, the Giant Horned Snakes common to Native American and tornado mythology. These snakes, however, were not purely evil and were often linked to Grandmother spirit, medicine, and other benefits. According to Howard, the Shawnee identify the chief serpent as “the evil grandson of Our Grandmother, the Creator, and the brother of her other grandson, Rounded-Side or Cloudy-Boy.”³³

Howard notes that the anthropologist Trowbridge discovered that the Shawnees “of his day sometimes prayed, though in secret, to the Giant Horned Snakes,” usually by casting secret offerings of tobacco into fires.³⁴ The Underwater Panther, a mythic creature known to the Ojibwas and Santee Dakotas among others, was, Howard writes, quite similar to the Giant Horned Snakes. They were often viewed as “benevolent deities, because they are believed to taught the use of herbal medicines to the Indians.”³⁵

The importance of similar tobacco offerings into a purposefully created sacred fire has remained virtually unchanged since European observances of the practice in the late 1700s. Howard’s Shawnee informant, Mary Spoon, explained to him the critical dual role of the smoke from this fire, sometimes referred to as Fire Person. First, the smoke served as a method for delivering prayers from the people to Our Grandmother. But just as importantly, it also served “to remind Cyclone Person that Indians are living near the fire.”³⁶

According to the tale as Mary Spoon told it, Howard writes, “Cyclone person is a Shawnee who, in a period of four days, gradually changed into his present form. His Shawnee friends fed him while he was undergoing this metamorphosis and he informed them on the last day that they should not return but rather let him know their future whereabouts, through Fire, so that he might avoid their dwellings and only visit those of the whites. When thus advised and reminded through the smoke of the sacred fire, Cyclone Person keeps his promise to the present day. The Shawnees formerly kept an eternal flame or fire continually burning in a special lodge set aside for this purpose.”³⁷

Our Grandmother was the ultimate Creator deity to the Shawnees. She lives in a lodge in the West, which is a Shawnee type of heavenly realm. The majority of their cultural habits and traditions they ascribe back in some way to her edicts. Her close associates are “her Grandson, her little dog, her “Silly Boys.” This grouping also includes on occasion a rooster, the devil, and Cyclone Person.³⁸ Notable in its absence from this sacred assemblage is Thunderbird.

In a Spring Bread dance described by Mary Spoon to Howard, the main theme is thanksgiving to the Creator, her grandson, Cyclone Person, the Four Winds, the Thunderbirds, Corn Woman, and Pumpkin Woman. Each of these entities is asked to continue favoring the agricultural endeavors of the coming year. Note that Cyclone Person is addressed and entreated as a entity separate from either the Winds or the Thunderbirds.³⁹

Mary Spoon’s narratives thus provide a key linkage between the sacred fire -- a cultural tradition shared by many tribes associated with a post-Mississippian diaspora -- and the appeasement of Cyclone using tobacco. Although the sacred fire and other

traditions have long been identified with bird-man figures and other male entities, the fact of culturally persistent ritual offerings to Cyclone are at least as important – if not more so. The sacred fire of the Shawnee was carefully maintained for centuries, but has now gone out.⁴⁰ It is telling that its two prime purposes, according to Mary Spoon, were to communicate with the Grandmother Creator deity and Cyclone (aka Whirlwind).

Cheyennes & Arapahos. The Cheyenne and Arapaho tribes are closely affiliated Algonquian groups and not surprisingly share many tornado themes and symbols. They both revered the tornado as a primal power, integral to their spiritual and religious beliefs. James Mooney recorded many Cheyenne ghost-dance songs, many of which refer to the dreamer riding “our father, the whirlwind” to meet the messiah and other members of the spirit world.⁴¹ Immediately after providing these whirlwind song references, Mooney states his conclusion that “this song probably refers to the Thunderbird.”⁴² This casual dismissal and incorrect assumption demonstrates a fundamental reason why the whirlwind as a separate and ancient deity was lost to historical consideration.

According to anthropologist George Bird Grinnell, the Cheyenne believed that a great whirlwind always blew in the west, which in turn produced the winds and the snow while the thunderbird created thunder, lightning, and storm; in turn, the rainbow was a trap for thunder, by which means the storm would end.⁴³

The thunderbird was a common theme among most Algonquin tribes, so it is not surprising to find it with the Cheyenne. The Arapaho, on the other hand, retained a much older myth, one that refers back to the origins of their culture. According to George Dorsey and Alfred Kroeber, Whirlwind Woman was at the core of Arapaho myth and ritual, encompassing art, time, creation, and life.

Whirlwind Woman (*Neyooxetusei*) was the First Woman on earth. She wandered across the first, small world created by earth diver, not knowing where to rest, roaming from point to point. As she circled the tiny new earth, it began to expand and grow in size until it was as large as it is today. When Whirlwind Woman was done circling and enlarging the world, she created women's quilling-embroidery to commemorate her labors. The first quilling pattern to symbolize her journey was a tent ornament design of black and yellow concentric rings, known as the "Track of Whirlwind Woman."⁴⁴ (See Figure 10.) Other quilling patterns attributed to Whirlwind Woman included a relatively uncommon pattern called "bear foot" (*wasixcta*) which Kroeber considered to be the oldest of the parfleche designs among the Arapaho.⁴⁵ They also held that a certain food bag decoration was her creation; a series of six black spots, repeated four times across the pattern, symbolized six places Whirlwind Woman rested while painting the design.⁴⁶ (See Figure 11.)

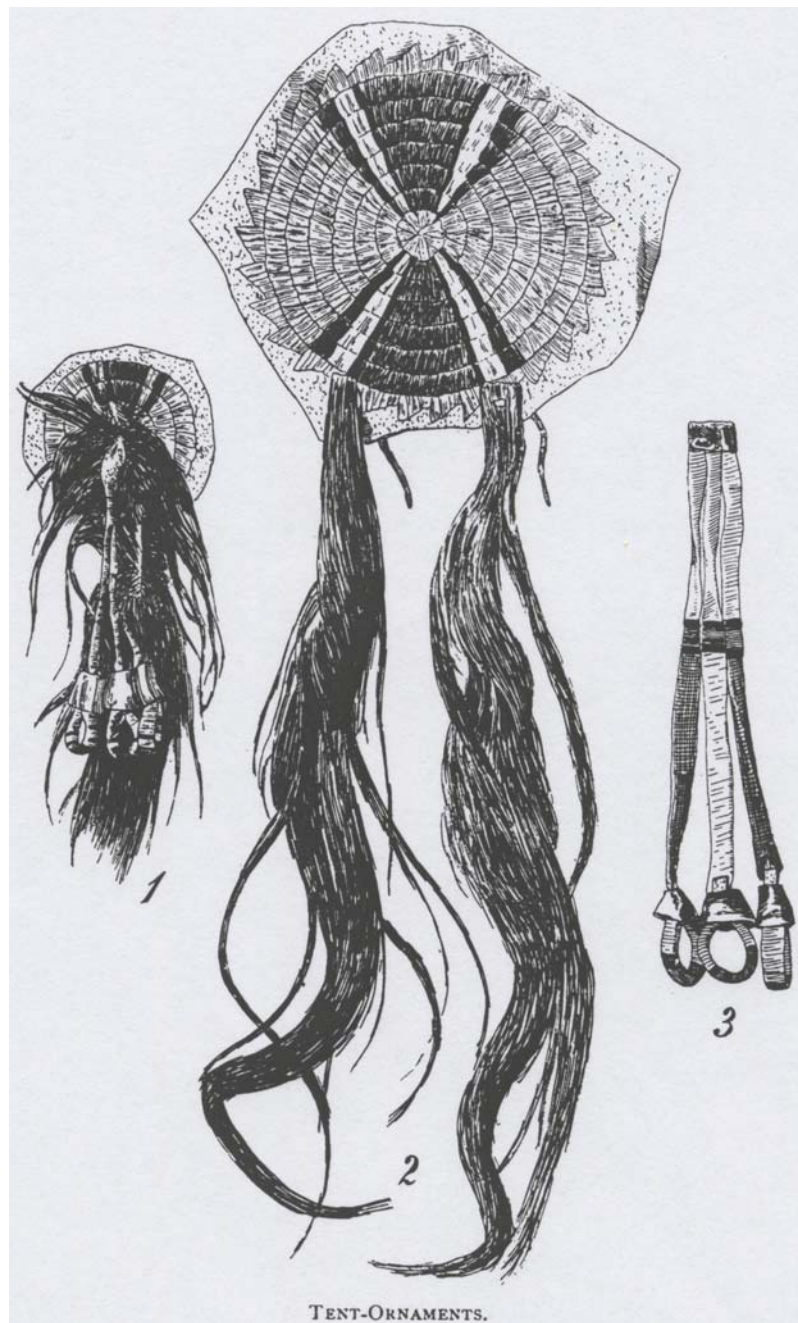


FIGURE 10. Arapaho Tent Ornaments

“Track of Whirlwind Woman” design of alternating black & yellow concentric circles, four black-edged radii

Source: Alfred L. Kroeber, “The Arapaho: General Description and Decorative Art.” *Bulletin of the AMNH* 18 (Washington, DC: GPO, 1902), 62.



FIGURE 11. Arapaho Parfleche

Designs attributed to Whirlwind Woman

Bottom right bag design: "Whirlwind Woman makes the World"

Source: Alfred Kroeber, "The Arapaho: General Description and Decorative Art,"
Bulletin of the AMNH 18 (Washington, DC: GPO, 1902), 121.

Other plains tribes incorporated tornado symbols into traditional quilling patterns. The Lakotas have quilling designs that represent the whirlwind as a realistic angular double triangle marked with stripes across the bottom half and as inverted cones like arrows.⁴⁷ A frequent Oglala design was a large single spiral, signifying Twister (*Ho-Bo-Bo*)⁴⁸ Whirlwind Woman created the four buttes in four directions where the Four Old Men who sent the winds lived. Dorsey reported that if a person happened to encounter a whirlwind, he would squat down, cover his face, and wait until it passed, thus giving it the honor required. Those failing to respect Whirlwind would suffer physical ailments the rest of their life.⁴⁹

The Cheyennes and Arapahos portrayed dust-devils as dangerous female spirits. In one tale, the jokester-hero Nihancan was out walking and kept running into Whirlwind Woman (here a dust devil, not a tornado). He rudely told her to move aside each time and she would spin away, only to return again in his path. Eventually, he felt attracted and asked her to be his sweetheart. She refused, saying she was not wife-material, for she was always on the move. Nihancan claimed he was as strong as she and able to keep up with her, at which point Whirlwind Woman promptly blew him head first into the river, leaving a permanent part, or whorl, in his hair. The Arapahos believed that anyone with a whorl in his/her hair was “dull, lazy and talkative” and in their language, *neyooxet* refers both to *whirlwind* and to the *whorl on top of the head*.⁵⁰ Kroeber reported that *neyooxet* also denoted *caterpillar* because whirlwinds were thought to be caused by caterpillars, and because (he assumed) caterpillars themselves curl up into a spiral position.⁵¹

The Cheyennes and Arapahos, along with other northern tribes, also believed in a direct relationship between cocoons and the whirlwind; the cocoons caused the

whirlwinds.⁵² Entomologists now realize that cocoons only hatch when there is a drop in barometric pressure, often just ahead of a storm front. The high winds ensure that the newly hatched insects are blown far from their parents' territory and towards new food sources.⁵³ Native Americans, being keen observers of natural phenomena, were well aware of this fact. They imagined the cocoons released the whirlwind when they hatched.

Garrick Mallery, in his article from the late 1880s about picture writing among the Oglalas, identified several tornado symbols. One was a small cylindrical object above a bear; others depicted heads wearing sticks topped by cylinders. Mallery mistakenly thought the cylinders showed "a number of fallen leaves packed against one another and whirled along the ground."⁵⁴ They are, however, quite clearly cocoons (see Figure 12). In a 1905 article, Clark Wissler noted Mallery's error, adding that the Dakotas often took a twig with a cocoon and wore it on their head, as a prayer to the power of the whirlwind.⁵⁵



FIG. 964 - LEAFING

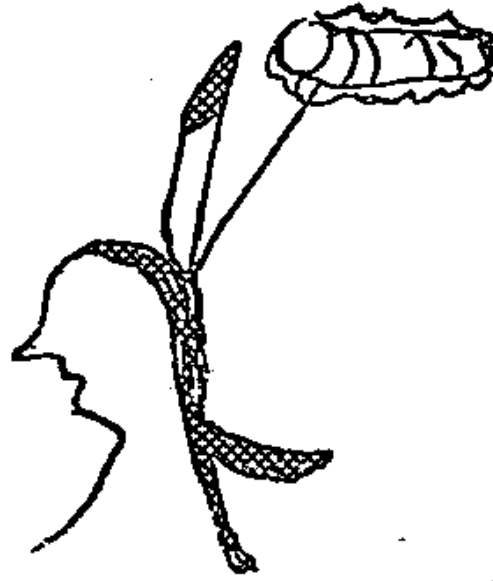


FIG. 963.—White-Whirlwind.

FIGURE 10. Cocoon Stick Signifiers

Two Oglala individuals from Red Cloud's Census

Source: Garrick Mallery, "Picture Writing of the American Indians," *Tenth Annual Report of the Bureau of American Ethnology, 1888-1889* (Washington, DC: GPO, 1893) : 604.

Dragonflies and butterflies also represented the whirlwind among the Cheyennes and Arapahos. Grinnell reported that the dragonfly was literally called *whirlwind* (*te wo witus*) because (he assumed) it made its own small whirlwind. Warriors wore dragonfly and butterfly charms in their hair and painted dragonflies on their bodies before battle to prevent the enemy from seeing and striking them, and to bestow on them the agility and speed of the insects. Roman-Nose, a famous Cheyenne warrior, even boasted a war bonnet with dragonflies painted down all the leather strips that supported the bonnet feathers.⁵⁶ Grinnell surmised that the insect's agility was the motivator for its use as a

charm, not realizing that the symbolism reflected observed natural phenomena linking cocoons, dragonflies/butterflies/moths, and tornadic storm fronts. He did, however, note that the Cheyennes labeled a particular butterfly species the “thunder parasite” as it usually appeared just before or after storms and the Indians said that the thunderbird shook them off when it was angry.⁵⁷

In the mid-summer ceremonies called Medicine Lodge, there was traditionally a great deal of dragonfly body painting.⁵⁸ Dorsey reported that one of the four main groups of paints for the Sun Dance was the so-called “Black Paint,” also called the green-black or white-black Cyclone or Dragon-fly Paint; these patterns featured either a green or white dragonfly motif generously scattered across each participant’s back and head.⁵⁹ As Dorsey recorded, “the black was symbolic of the clouds, while the green dragon-flies symbolized the wind, cyclone or whirlwind. They are supposed to bring the streams, hence water, and hence rain to make the water.” According to Dorsey, the brown painted loin cloths traditionally worn with these paints were covered with rabbit track symbols.⁶⁰

Other tribes also used the dragonfly as a power symbol in battle. The Kiowa warrior Big Bow (1833-1901) figured prominently in James Mooney’s calendar history of the Kiowa. All depictions of his war deeds showed him carrying a Red Dragonfly shield.⁶¹ Many of the Kiowa artists’ shields commissioned by James Mooney have dragonfly designs incorporated into their decoration (see Figure 13.)

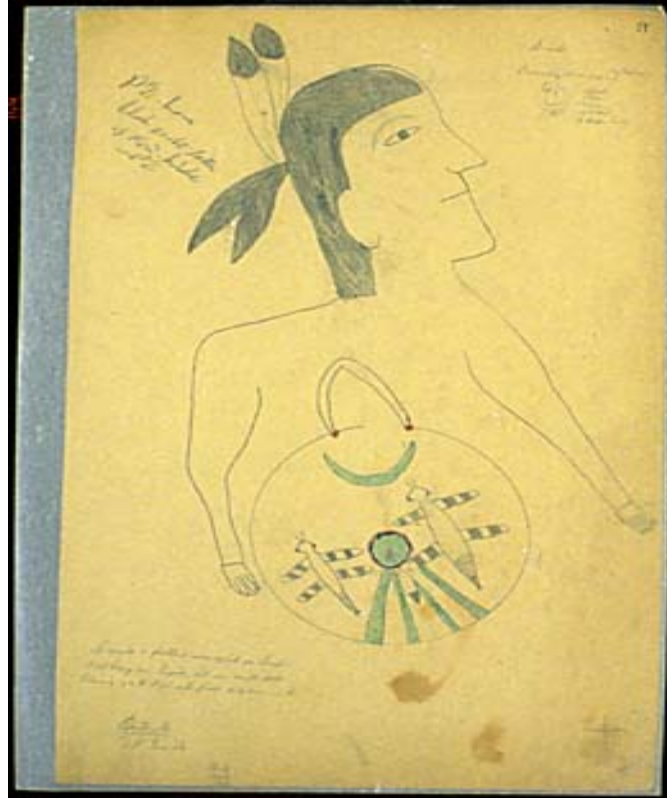


FIGURE 13. Drawing of Indian with Shield Decorated with Dragonflies, Sun, and Moon

by Native artist to illustrate James Mooney's notes
on Kiowa shield and tipi designs

Source: Smithsonian Institution National Anthropological Archives
Manuscript 2538: Box 2 Folder 1,

Siouan Speakers

Crows. The Crows of the northern plains respected tornadoes as powerful supernatural entities. Two Leggings, a Crow warrior born about 1848, told his life story and many traditional narratives to William Wildshut in the 1920s, including a tornado tale of ritual significance and meteorological precision. The old warrior explained that the legend "Bear White Child" was the most sacred advice a young, ambitious warrior could

receive.⁶² In this tale, an orphan boy was left for dead after a run-in with a bully and wintered alone in the mountains. In spring, dreams and birds told him Bear Up Above was going to adopt him. As the boy watched a large storm roll in one evening, a voice told him not to fear what was about to happen.

The hail fell all around, but the boy was not touched. Again he looked in the direction the storm had come; a black cloud hung in the middle of the hail. The cloud's center began taking shape and he saw the head of Bear Up Above. At the moment the upper half of the bear's body appeared the hail stopped. The bear sang a song as he reached down to embrace the boy. It lifted him into the air and when it finished singing, put him down.⁶³

Four times the funnel picked him up and put him down. Then the tornado's spirit appeared, bestowed power on the boy, named him Bear White Child and instructed him to return and torment the bully, One-Eye, and ultimately kill him. Bear White Child first took One-Eye's prettiest wife, telling the women to make an elk tooth dress for her. After more attacks on One-Eye's status, Bear White Child magically slew him by throwing bear sinew in the fire, declaring he would never indulge in slow revenge again.⁶⁴

This legend is fascinating in several respects. First, it reflects keen observation of tornado behavior. Large hail characteristic of severe storms reduces the chances of being struck; the cessation of precipitation equates with being within the vortex. The shape the boy sees as Bear Up Above can conceivably be attributed to cloud activity known to occur inside funnels and the "song" sung by the tornado is a well-known audible phenomena. The tornado put down the boy "when it finished singing," or when it ceased rotation. This detailed account concurs with modern descriptions of what happens when someone is caught up in a tornado.⁶⁵ The tale, whether mythological or historical in origin, certainly has elements drawn from personal experience. Secondly, Bear White Child instructs the women to make an elk-tooth dress for his bride. Although the

symbolism of the woman and the elk dress may have been lost to Two Leggings, he was careful to retain these elements in his story. The association of whirlwinds, women, elk, and sex are persistent themes repeated across plains cultures and marks the tale of Bear White Child as part of an authentic mythic tradition.

The Crows believed dust-devils to be ghosts who haunted gravesites and hooted like owls.⁶⁶ They also portrayed smaller whirlwinds as female, independent, and quite undesirable -- or at least unsuited to the marital state. In a story Robert Lowie collected in the early 1900s, Old Man Coyote pursues and marries Whirlwind Woman, a ghost that hunts at night and sleeps by day. She moves their lodge every night, dragging her husband atop the lodge poles through thickets and briars. Coyote becomes exhausted and frustrated, finally escaping the unhappy alliance by changing into a mouse. When Whirlwind comes searching for her errant husband, the mouse convinces her to repudiate Coyote and move on. He then returns to his own form and resumes his restless freedom.⁶⁷

Lowie labeled this a ghost story, but the tale might be more aptly entitled “Coyote Meets His Match.” One implicit message was that willful and independent women were not good wives. Lowie said that “when a Crow sees an approaching whirlwind, he thus addresses it: ‘Where you are going, it is bad, go by yourself!’ To say to a person that he is like a ghost is one of the worst insults: in a folk-tale a wife at once leaves her husband when he makes the odious comparison.”⁶⁸

Mandans & Hidatsas. The preeminent agriculturalists of the Upper Missouri were the Mandan and Hidatsa tribes. Matrilineal traditions remained strong among these tribes and children were reckoned as belonging to their mother’s clans. Once a numerous population, smallpox had already begun to seriously reduce their numbers, along with

those of the Arikaras, by the time the trader, Jean Baptiste Trudeau, traveled among them in the late 1700s.⁶⁹

Mandan myths collected by Alfred Bowers in the early years of the twentieth century are often explicit in linking storm winds to their agricultural deity, Old Woman Who Never Dies. A version related by Mrs. Good Bear states that two young men were out hunting and saw an area where the ground was bubbling up. They the shot arrows into the ground ...”and a strong wind came out of it and blew them far out into the water onto an island. When the wind went down, the two brothers looked about and saw an earth lodge and many whitetail deer nearby. . . the Old Woman Who Never Dies was glad to see them and the...the two brothers told of the big wind that had brought them there.” The young men notice that Corn Spirits in the form of water birds were wintering there with the woman. She presents them with corn balls to feed the snake on the water with one eye that “resembled a sunflower very closely except that at times lightning would flash forth.” Old Woman Who Never Dies also kept a large garden where she “raised corn, squash, sunflowers, and beans in great quantities.”⁷⁰

Bowers reported on sacred pot rituals used for rainmaking among both the Mandans and the Hidatsas. In these ceremonies, “two large clay pots were a part of the Old Woman Who Never Dies ceremony at Nuptadi Village when that group lived...on the east side of the Missouri River...these pots were said to have been given to the Nuptadi by Old Woman Who Never Dies. . . . One pot was symbolic of the Old Woman and the other represented her husband, a large snake.” After the destruction of the village and the sole remaining bundle-owner with pots, after the first smallpox epidemic,

the ritual died out completely as far as Bowers could determine.⁷¹ Similar use of large clay pots in Mayan rites for supplicating the rain deities is probably not accidental.⁷²

Analysis of corn ceremonies led Bowers to summarize this way: “Old Woman Who Never Dies bundles and secondary bundles belonging to this ceremony were found in all Mandan Villages and in many Hidatsa, Awatixa, and Awaxawi villages. The ceremonies and beliefs with few exceptions were identical between villages and tribes. This seems to be an older, widely diffused Mandan-Hidatsa ceremony to which new practices, particularly the fertility or consecration of the seed rites, were added.”⁷³

Another artifact of ancient corn ceremonies was a sacred Corn Pipe. Bowers reported that the rituals associated with this pipe went extinct after 1837 and the smallpox epidemics. Mandans told him, he wrote, that “the pipe was noted for its supernatural powers in producing winds... People were not permitted to climb on the lodge in which it was kept. If it was dropped or touched, the wind would blow.”⁷⁴

The tale of the pipe was that a woman went down to a flooded river and found the pipe and an ear of yellow flint corn floating by one day. But the holy men of her village were frightened because whenever the pipe was dropped a high wind would come up. They tried to dispose of it, but the pipe and the ear of corn followed the people regardless. In this way, yellow flint corn was brought to the villages.⁷⁵

Closely linked to the Old Woman Who Never Dies was the Goose Society of the Mandan and Hidatsas. These migrating waterfowl were believed to be messengers of the Old Woman. According to Bowers, “the most important meeting of the Goose Society was held in the spring when the first water birds arrived from the south” and someone

would prepare a feast for them” when they returned so the Goose women could pray for good crops.”⁷⁶

Bowers goes on to describe how “the women of the village would come to the singer who was performing the ‘fertility’ rites on his earth lodge to receive a few kernels of each variety of corn, beans, squash, and sunflowers.” Just as geese were messengers of Old Woman Who Never Dies, so Goose society women were dedicated interlocutors of the sacred bundles. Bowers believed from his research that “all rainmaking rites were undertaken on the initiative of this society.”⁷⁷ The Hidatsas thought that the spirits of the corn and of all the other agricultural crops wintered over in the lodge of Old Woman Who Never Dies near the mouth of the Mississippi River.⁷⁸

The classic text, *Buffalo Bird Woman’s Garden*, provides a narrative recounting by an elderly Hidatsa woman, Buffalo Bird Woman (born 1839), about how she and her female relatives laid out, negotiated for, and tended their agricultural lands up until the early twentieth century.⁷⁹ Gilbert L. Wilson, an anthropologist, carefully transcribed the detailed information provided by Buffalo Bird Woman, including rituals and recipes. One of the unusual customs she described was the tradition of the young women singing to their gardens “just as people sing to a baby to make it be quiet and feel good” as they sat in watch stations from early spring until the corn was ripe.⁸⁰

Sioux. Zitkala-Sa (Gertrude Bonnin), a Dakota woman, recorded a myth, “Chief of Thunder and Whirlwind People,” that is an amalgam of mythic themes. The first part of the story echoes the older Arikara whirlwind girl story, while the second part follows a plot commonly attested among northeastern tribes involving the thunder people and a giant grub or earth/water monster.

The myth begins with a boy living alone in the forest with his sister, Huntka, who gradually evolves into an evil person. She at first brings back plums to her sibling but becomes an increasingly unreliable provider and leaves her brother alone while she marries two different men. The brother grows up and one day the thunder beings warn him that his sister means him harm. He escapes and flies with the thunder people to help them find and slay the earth monster, a huge grub under a lake, whereupon the boy is transformed into a powerful spirit. Wherever he goes, whirlwinds and thunder accompany him; thus he becomes *Tahince-Iheya*, Chief of Thunder and Whirlwind Peoples, and is always seen at the front of storms and tornadoes.⁸¹

The mythic roots of the two parts of this tale can be easily distinguished. In the first part of the story, two children are surviving alone until the sister becomes sexually active and, thus it appears, a mortal threat to her brother. In the Sioux version, unlike the Arikara myth, she is diminished in power and marginalized. The boy escapes the threat with spirit help and it is he who achieves dominion over the whirlwind. The plums speak for themselves. The second part links to Iroquois legends where an evil earth spirit replaces the evil sister, the plums are missing, and the boy simply goes home after killing the great grub instead of becoming Chief of Thunder and Whirlwind.⁸²

As this story demonstrates, the Sioux adapted multiple tornado themes into their mythology. Another example comes from James LaPointe of Pine Ridge Reservation, who wrote that the Lakota believed tornadoes formed when a giant turtle in the sky lowered its tail to the ground.⁸³ This visual image was not confined to the Americas but is also attested among African mythology (see African Myths in Chapter IV). There is also ample evidence that the Lakota had ancient traditions closely linking spiders and

whirlwinds. James Walker, recording ethnographic material on Pine Ridge Reservation from 1896 – 1914, noted that the symbol showing “a circle with marks across it meant the spider and a whirlwind.”⁸⁴

James Howard described a “tree dweller” Dakota folk spirit that was evil but had apparently once been revered as well as feared. James O. Dorsey, according to Howard, compared this forest character to similar embodiments of the screech-owl among the Ponca and others. Howard then quotes Skinner’s own detailed description of the little being: “an elf who dwells in a hollow stump, open at the top, and who maintains himself by his magic arts. For example, his power extends upward into the sky for an indefinite distance, in the form of an enchanted cylindrical shaft, the size of the opening in which he dwells. When wild fowl fly over . . . they are stricken dead . . . Even Thunderbirds fear and avoid the tree-dweller’s home.”⁸⁵ The image of a terrible, death-dealing funnel reaching into the sky is highly suggestive of a tornado.

Medicine women and men might have wooden figures of the tree-dweller among their paraphernalia, but these were rare and potent objects. Yet the spirit had the power of prophesy and medicine and could share this for good purposes through the correct ceremonies. But otherwise, the tree-dweller was to be avoided at all costs. Howard provides first hand stories about how frightening some found the mere sight of such wooden figures. He also records possibly the only first-hand account of a curing ceremony involving a wooden figure among the Yanktonai.⁸⁶

The little dolls were said to once have been able to dance with their owners, but that no longer occurred. Howard points out that this folk tradition is clearly a Woodland

trait that has persisted quite long among the Dakota tribes, as well as the Menominis, Potawatomis, Sauks, Fox, Delawares, Shawnees, Ojibwas, and Winnebagos.⁸⁷

The Lakotas believed that *Yomni*, spirit of the dust-devil, was the youngest son of Tate, the wind spirit. Yomni was weak and small, but served as a messenger for the supernatural spirits and was himself the presiding spirit of gambling, games, and love.⁸⁸ The Sioux also said that Tate sent Yomni to direct the people to hold the first Hunka ceremony.⁸⁹ Clark Wissler reported that the Sioux in general thought the dust-devil was responsible for confusing people's minds and if a "man loses his presence of mind he is said to have been overcome by the power of the whirlwind."⁹⁰ Linking love and gambling with mental confusion is obviously a universal concept. Gambling, or the casting of lots, is also an ancient form of divination. This type of activity could possibly echo an antique practice related to acquiring divine guidance.

The Dakota Sioux believed that moths caused whirlwinds and that their cocoons acted as magic bundles, holding and releasing the whirlwind's power. They said that buffalo bulls were praying to the whirlwind when they pawed the earth to raise swirling clouds of dust before a fight. James Mooney noted that during Wounded Knee, Yellow Bird, a respected Minnecongou (Teton Lakota) leader scooped up a handful of dust and tossed it into the air as a prayer calling for power from the whirlwind, while the soldiers mistook the action for a battle signal.⁹¹ The Blackfoot also believed that buffalos threw up dust like whirlwinds, but they equated the moth with sleep and dreams of power, as well as with women's medicine.⁹²

The ethnologist Clark Wissler wrote an article in 1905 exploring mythic concepts of the whirlwind and the elk among the Dakota, who associated dust-devils and possibly

tornadoes with sex, and special enchantments or love charms. According to Wissler, these Sioux love charms were similar to those found among the Blackfoot, who called them Cree Medicine in the belief they originated with that tribe; this love medicine was connected to the moth or butterfly. The bull elk associated with the love charms was the ultimate symbol of male sexuality for northern tribes. Wissler related a famous legend of how a bull elk spirit gives sexual power to a poor young man who uses it, by means of a magic flageolet (flute), to seduce the girls in the camp. The youth eventually overplays his hand by seducing all the girls and, either killed or threatened with death by the tribe, he circles up into the sky to vanish. Another boy tries to use another flute with an owl charm, but falls short of his friend's success.

The Dakota flute, as Wissler described it, usually had five holes and carvings of both an elk and a nude woman. The Blackfeet and Ojibway had nearly identical flutes used to the same purpose of seduction. Other love charms were mirrors with lightning around the edges to represent thunder. Dakota youths wishing to seduce girls employed robes painted with elk, spider, and whirlwind symbols, sometimes with lightning zigzags, and used them with or without flute. Men kept score and flaunted their conquests by toting up female figures along the edge of the robe.⁹³

About 1900, Wissler collected myths from a group of older Oglala Men at Pine Ridge, South Dakota. In a tale called "Turtle goes to War," the men recited a lengthy tale about a turtle who lives with his sister and decides to go to war. Turtle gathers together a coal of fire, a grasshopper, some wasna, a yellow butterfly, and a travois stick. Almost immediately, a whirlwind comes.

The butterfly boasts "now I shall show you what I can do."
So he spread out his wings to make a great flight. The

whirlwind, however, began to carry him away and as he was whirled about he cried, “stop, my brother! Stop, hey!” The whirlwind paid no attention and the butterfly was soon out of sight.⁹⁴

The others suffer a similar fate until only turtle is left.

Zitkala-Sa provided a different version of this tale in her book, *Old Indian tales*, in 1901. In a story called “The Warlike Seven,” she listed Ashes, Fire, Bladder, Grasshopper, Dragon Fly, Fish, and Turtle as an ill-fated war party. After several misadventures, Fish and Turtle survive by convincing the enemy to toss them into a lake. Their opponents then summon a swallowing monster, Iya, the Eater, to drink the lake. At that point, the hero, Iktomi, enters the story – and enters the belly of the monster. “Within the great Iya he was looking skyward. So deep was the water in the eater’s stomach that the surface of the swallowed lake almost touched the sky. ‘I will go that way,’ said Iktomi, looking at the concave within arm’s reach. He struck his knife upward in the Eater’s stomach, and the water falling out drowned those people of the village.”⁹⁵

This Native American swallowing monster tale has compelling similarities to other global myths that likewise feature heroes stabbing “eater” tornados with iron weapons to both destroy it and to release the rain and destructive energy pent up inside (along with hapless friends, family, and farm stock on occasion.) The description of the lake reaching the sky and Iya’s “concave” surface evoke images of a powerful tornado funnel, along with the deluge of rain that follows the disintegration of the funnel.

Dhegiha-Siouan Speakers

The Dhegiha-Siouan peoples are a Southern Siouan group of several tribes who share very similar linguistic and cultural traits. These include the Osage, Omaha, Ponca,

Quapaw, and Kansa. As noted by Robert Hall and others, their origin myths consistently contain elements that intimate an archaic location in the vicinity of Cahokia.⁹⁶ There is very little comprehensive ethnographic information about most of these tribes, even though they were in contact with Europeans from the sixteenth century. As a result, material from oral narratives before the nineteenth century is scattered and difficult to locate. Tornado myths, per se, appear to be largely absent. Several intriguing elements in Dhegiha-Siouan myths, however, intimate links to archaic tornado beliefs.

Poncas. In the mid-twentieth century, anthropologist James Howard could not elicit any original tales from the Ponca about weather or meteorological events, although he knew that James Owen Dorsey had mentioned a Ponca Thunder god in an 1885 report. Now, Howard wrote in the 1950s, they “have no theories about the origin of earthquakes, rain, snow, or hail.”⁹⁷

Howard has written at length on the ceremonials and traditions of the Poncas as he experienced them in the mid-twentieth century. The Poncas celebrated regular annual sun-dances each spring. They also played the shinny ball game, again, only and every spring, as a ritual activity. Howard notes that J.O. Dorsey wrote that women had their own version of the ball game.⁹⁸

Musical instruments were commonplace among the Poncas. According to Howard, all manner of drums, whistles, and rattles were employed in various rituals and sun dances. But Howard notes: the “Indian flute was used in courting. It was the only Ponca instrument that was not connected with some dance or ceremony and was used solo. OYB [Obie Yellow-Bull] was the last Ponca flute-maker and player among the Ponca. By 1954 he had ceased to play his instrument, though 2 years earlier I was

privileged to hear the wonderful quavering tones of his instrument at a twilight concert.”⁹⁹ The fact that the flute was not associated with any remembered ceremonies no doubt contributed to its fade into oblivion in the twentieth century. It may well have been the last remnant of more ancient whirlwind and courtship ritual activities that fell into disuse as the whirlwind mythological tradition itself was forgotten.

Feathers of many different birds were used in a variety of rites and practices, from bundles to headdresses. But Howard again remarks that: “the feathers of the owl are usually avoided, as their use marks the owner as a shaman.”¹⁰⁰ Again, the owl, wise women, and the whirlwind are a common linkage in Native traditions.

As Howard relates, the Poncas had three important annual ceremonials: the sun dance, the Pipe (*Wa-wa*) dance, and the so-called war dance (*Heduska*). The Sun dance takes place in midsummer. It is marked by a center pole that holds the nest of the Thunder-Bird. As George A. Dorsey described it in his work on the Ponca Sun Dance in 1905, “in the fork of the pole is the nest of the Thunderbird . . . this bird produces rain, thunder, and lightning.”¹⁰¹ Howard sadly remarks, however, that the Poncas he spoke with had no memories of the actual symbolism linked to their Sun Dance. But as it resembles closely the Plains-Ojibwa and Plains-Cree dances, he suggests that it is intended in like fashion to summon the thunder-bird who brings rain for the crops.¹⁰²

It should be noted that the Poncas, according to Howard, dress as young thunder-birds and fast because “they are waiting for the ‘mother’ thunder-bird to come and feed them.”¹⁰³ The thunder-bird, in other words, is a female storm and rain provider. Both men and women could be members of the medicine society known as “those to whom the thunder has shown compassion.”¹⁰⁴ They could summon or deter stormy weather.

In 1935, William Whitman worked with Black Eagle, an Oklahoma Ponca man, who told him of one Sun Dance leader who was a powerful old woman who quite terrified him. Whitman notes that although women rarely had power equal to a man, this woman struck fear into all and was considered extremely powerful. As Whitman explains further in “Xube, A Ponca Autobiography,” *xube* indicates supernatural power and

any man or woman who is thought to be able to control this supernatural power is said to be a xube. ‘Contraries’ were xube through thunder and the Sun Dance of the Ponca was connected to thunder. All the leaders were xube through thunder.¹⁰⁵

Omahas Closely affiliated with the Poncas are the Omahas. The name Omaha means “upstream people.”¹⁰⁶ Alice Fletcher, an anthropologist, closely collaborated with a member of the Omaha tribe, Francis La Flesche, to compile an exhaustive collection of Osage and Omaha cultural material over several decades from the late nineteenth century into the early twentieth century. Their research on the Omahas, published in 1911 as a report of the Bureau of American Ethnology, represents a landmark study of any single Native American tribe.¹⁰⁷ Fletcher and La Flesche reported that Omaha tradition claimed the Ponca had once been a clan that later separated from the Omaha Tribe.¹⁰⁸

Fletcher and La Flesche noted that the Omahas were greatly influenced by the Arikara, whom they first encountered on the upper reaches of the Missouri River. The Omahas exchanged their bark huts for the earth lodges of the Arikara, eventually displacing them from former Arikara territory. They preserved a mythic tradition of receiving maize agriculture from the Arikara. Fletcher and La Flesche seriously doubted the validity of this idea, however, and believed the Omahas had long been horticulturalists themselves before moving into Arikara lands.¹⁰⁹

Similar to Ponca belief, Thunder was considered a major deity by the Omahas, according to Fletcher and La Flesche. If a warrior died in battle it was because Thunder had made it his fate. Many Omaha traditions mirrored Ponca ones and suggest ancient matrilineal structures. Flutes were used by young men for courtship. Couples who married had to be from different maternal bloodlines as well as of different gentes. Husbands who were sent away by their wives found themselves homeless, as tents always belonged to the woman. Orphans whose father had no brothers would then revert automatically to the mother's brothers' care. Maternal uncles always played an important role in children's upbringing.¹¹⁰

The Omahas maintained into the twentieth century a sacred tent also known as the Tent of War. The clan responsible for this assembly kept an ancient cedar pole inside, separate from the Sacred Pole used for mid-summer rituals, whose attendant rituals unfortunately had been long forgotten by the time Fletcher and La Flesche began to investigate. They speculated that it had probably once embodied the Thunder god. The actual pole they described in detail: "The Cedar Pole was 1 m. 25 cm. in length. . . . In the middle of the pole was bound another rounded piece of the wood, steadied by a third and smaller one . . . It is said that the pole typified a manlike being. . . . the lower piece was called 'the leg,' and it may be that the stick bound to middle represented a club. The Thunder god, we are told, used a club for a weapon."¹¹¹

Since the idea of a tornado seen as a huge leg is not uncommon around the world (in particular, see African Myths below), it may well be that the Cedar Pole was representative of a deity with a tornado as its "club." In support of this idea, note further information Fletcher and La Flesche collected regarding the Pole's previous role:

“There is a tradition that in olden times, in the spring after the first thunder had sounded, in the ceremony which then took place this Cedar Pole was painted, with rites similar to those observed when the Sacred Pole was painted and anointed at the great tribal festival held while on the buffalo hunt. If this tradition is true, these ceremonies must have taken place long ago, as no indication of any such painting remains on the Cedar Pole.”¹¹²

Since similar Sun dance ceremonies among the Plains-Ojibwa and Plains-Cree were known to be designed to summon spring rain by providing a nest for the thunderbird in the Sun dance pole, it is very likely (as Howard also pointed out) that the Omahas and Poncas had a similar ceremony using the Cedar Pole found by Fletcher and La Flesche.

Osages Francis La Flesche collected extensive first person material on Osage ceremonial and religious traditions, which he was able to translate himself since his native Omaha dialect was closely aligned with Osage usage. Although he devoted his attentions primarily to interpreting religious rituals, he also assembled a large amount of folklore and traditional beliefs. Few of his materials directly discuss tornado mythology per se, yet one sacred song he collected does appear to be linked to an ancient whirlwind deity belief, similar to that attested among the Sioux and others. This song called “The Penalty *Wi-gi-ee*” and it relates what will happen if a candidate for the priesthood breaks faith with his obligations as a candidate. Examples of the overriding motifs of the song are provided below. The entire 96 lines of the song can be found in Appendix A.

The Penalty *Wi-gi-ee*

Verily, at that time and place, it has been said, in this house,
In the midst of the Winds that precede the approaching storm,
Move the *Wa-ca-ki-the* of the little ones.

My grandfather (referring to a great butterfly, one of the *Wa-ca-ki-the*)
Is, verily, a being from whom nothing is hidden,
He is the Great Butterfly (*Dsin-tha'ton-ga*),
Who moves amidst the winds that precede the storm,

...
The mottled eagle also (*A'-hui-ta-ta*),
Moves amidst the winds that precede the storm,
Guarding the acts over which hang the penalties,

...
Amidst the winds that precede the storm,
The great dragonfly (*Tse'-pi-tha ton-ga*),
Moves always.¹¹³

La Flesche notes that the symbols in the song related to seven different clans. Also the term for the great butterfly in the song was evidently an archaic usage, no longer used by the Omaha in his day, as was also the term for the mottled eagle. The great dragonfly he identified as being a symbol of the Sun carrier clan.

Kansas. Alanson Skinner reported that the Kansas viewed owl feathers attached to the calumet during the calumet dance as representative of rain. Other items on the pipestem were duck heads and woodpecker bills (to summon fair weather) and eagle plumes. Finally, Skinner notes, “four grains of corn also accompany the wand and these are planted later to symbolize the desire of the people for fruitful crops ... Two wands are used; one with white eagle feathers is the male, the other with black, the female.”¹¹⁴

One of the major gentes recorded by ethnologists including Skinner was the Thunder People (*Lunikucana nikucinga*). Their role included setting prairie fires to summon rain during drought and to perform rituals to control or avert severe weather, usually involving burning cedar leaves.¹¹⁵ It is unfortunate there is not more ethnological material about the “Wind People.”

Chiwere - Siouan Speakers

Chiwere is another Siouan language thought to originate among peoples of the Great Lakes area and closely associated with small agricultural communities scattered along the bluffs of the Mississippi and Missouri River valleys and the upper Iowa River who were known to Europeans by the mid-1600s. Modern day linguistic descendants are associated with the Iowas, Otoes, Missouriia, and Winnebagos, among others.¹¹⁶

The ethnologist Alanson Skinner collected names of Iowa clans still alive or at least recalled by tribal elders during the early twentieth century. Four clans that still existed included the Elk Clan and the Eagle & Thunder Clan, which encompassed an intriguingly named subclan called Always Raining or Walking Rain. This subclan of Eagle & Thunder would seem to be an apt evocation of a tornado.

It should be noted that two of the personal clan (Gentile) names associated with this particular clan were *Wakandathere* (translated by Skinner as “Black God”) and *Wakanda* (“God”).¹¹⁷ One of the special possessions of the Thunder Clan was a “ghost bundle,” explained by Skinner as being an oath bundle having “sacred power, which came from Wakanda.” Warriors who challenged each other over the bundle and lied about war coups stood the risk of being struck dead by lightning.¹¹⁸

One of the sacred Iowa dances Skinner believed to be quite ancient was the Red Bean (mescal) dance. This dance took place in the early spring “when the sunflowers were in blossom on the prairie, for then nearly all the vegetable foods given by wakanda were ripe. . . . [dancers] painted themselves white and wore a bunch of split owl feathers on their heads.” After the dance, the Iowas would hold a vegetarian banquet thanking

Wakanda for the bounty of the earth and tobacco. Warriors also wore red bean belts into battle as sacred protection against injury.¹¹⁹

The four clans no longer in existence among the Iowas by the beginning of the twentieth century were the Red Earth, the Snake, the Beaver, and the Owl clans.¹²⁰

According to a researcher of the mid-twentieth century, Martha Royce Siegel (later Martha Blaine), the older Iowas still associated owls with witchcraft and illness.¹²¹

Similar beliefs among the Iowas were documented by government Indian agents in Indian Territory in 1878.¹²²

From the Southeast

The archaeologist Timothy Pauketat points out that the Mississippi River is appropriately compared to the Nile River, for it served as “a major transportation corridor, a political boundary, a rich resource zone, and a living symbol of the Mississippian cosmos.”¹²³ In the rich agricultural and temperate tropical region from the Mississippian Bottom to the southern East Coast, a large array of often prosperous Native nations thrived for millennia in the past. Coastal and riverine environments provided fish and waterfowl, as well as water-loving plants, both wild and domesticated.

Extensive tracts of alluvial soils supported early horticultural and larger farming activities long before the Mississippian period’s industrial – sized corn agriculture took over the countryside about 1000 CE. The major linguistic and cultural groups considered from this region are the many nations of Caddoan speakers originally from the region of the Mississippian Bottom, the Muskogean speakers of Florida and Alabama, and the Cherokees of Georgia and Tennessee.

Caddoan Speakers

Arikaras. The Arikaras preserved a rich trove of ancient tornado mythology. One set of legends was a fundamental feature of their origin myth and involved an insulted tornado god that demanded proper attention and periodically became angry and destructive. A second myth was quite different. This whirlwind was female, powerful, and dangerous; but she would bestow power when men properly appeased her. Both legends are obviously important narrative relics.

The first myth reflected common themes of spring tornado behavior. The second less commonly retained an echo of primeval rites and was obviously not meant for general entertainment; this version of a whirlwind woman myth contains story elements that have not surfaced in other collected narratives. A variant of the second myth, recited eighty years after the first, showed major changes in the story's details. The omissions are obvious – and predictable, given the focus on female deity, power, and sexuality.

George Dorsey collected Arikara myths in 1903 at Fort Berthold in North Dakota. His translator was a Skidi Pawnee, James Murie, who spoke fluent Arikara. They recorded several versions of the Arikara Origin Myth and all begin by following the pattern of how Mother-Corn led the people out of the earth, sometimes with the help of Badger, and established rituals and laws. As the people walked westward, they encountered a forest and Owl cleared a path for them. One informant paused during his tale-telling to comment that “the Owl and Whirlwind are enemies. The Whirlwind left sickness, while the Owl gave roots and herbs to cure diseases.”¹²⁴

Notably, a version recited by another informant, Bear's-Tail, follows the same story line, but he told that Whirlwind came and made a path through the timber for the

people and that although Whirlwind was mad because it had not been properly supplicated, it did not hurt the people.¹²⁵ After this, Dog came running to say that mother-corn had forgotten him and Whirlwind, who was extremely angry and would now bring disease to the people. Dog, on the other hand, declared that he was not angry and would protect the people, asking in return that they sacrifice his meat first to the gods. In this way, Dog became mankind's guardian and his meat became the first ritual sacrifice.

Mother-corn then asked the heavens for help against Whirlwind:

There was a noise in the heavens and a Rock fell by the Cedar-tree. A Voice spoke from the heavens, and said, 'I am the Big-Black-Meteoric-Star. I shall assist the Cedar-tree to save the people.' The people then ran up to the Cedar-tree and around the rock. The Whirlwind came, and some of the people ran away, some going north, some west, some south and some east, and when the Whirlwind struck these people it changed their languages. The people who stood upon the Cedar-tree and the Rock remained as the Arikara...the Whirlwind passed the people and it turned back and came to Mother-Corn. It said to her: 'You have slighted me in your smoke, I became angry. I have left behind me diseases, so that the people will become sick and die. You wanted your people to live forever, but I have left sickness behind...always remember...to give me smoke towards the last, so that I shall not visit the people very often.'¹²⁶

Thus, according to Arikara belief, the first peoples scattered to the four directions and began to speak different languages and the cedar tree remains twisted and bent to this day as a symbol of its encounter with the first Whirlwind.¹²⁷

The mother corn myth is common among the agricultural complexes of central and southern plains tribes and reflected the Arikaras' ancient Caddoan roots. They acknowledged Whirlwind as a primal element, but various narrators appeared conflicted about whether it was an evil and brought sickness or a benign power that cleared a path for the first people. In either event, whirlwind requires proper rites and respect from the

people in exchange for which it will limit its appearance. It was also the cause for the historical dispersion of the Caddoan peoples.

George A. Dorsey collected many legends from the storyteller, Many Fox, including “The Girl Who Became A Whirlwind,” a unique and evidently ancient myth. According to Many Fox, a band of Arikaras moving westward on a buffalo hunt accidentally left behind a seven year old girl and a five year old boy. They wandered off into the western forest and found refuge in a cave. The girl went out to forage and one day a whirlwind took her away. She soon returned, very happy, but often went off after that for long periods of time. As the children grew up, she brought her brother bows and arrows and he noted that whenever he heard a storm approaching, his sister would suddenly appear. One day Owl came to the boy and warned him that his sister was a Whirlwind, traveling from place to place killing people. Owl told the boy he was her next intended victim and that she cut off men’s testes and took them home to eat them. When the boy later saw his sister eating her “special meat,” he knew Owl spoke the truth. He then hid in Owl’s den and when his sister came for him there, Owl advised him to make a deal. “Your sister wants a woman,” Owl said, “tell her that the first woman you marry you will give her.”¹²⁸ The boy pledged this to his sister, who accepted the deal and departed. He then returned to their tribe and performed wonderful deeds, helping the tribe locate buffalo herds and winning battles. The grateful chief, in return, gave him his daughter as a bride. The boy did not forget his promise and summoned his sister. Whirlwind was delighted and took the boy’s new wife into the tipi and made love to her there, while the boy spent his wedding night elsewhere. The next day, the happy sister bestowed a club, medicine, and the power of the whirlwind on her brother. She declared

that she was the Whirlwind and that she would now leave and stay in the southwest but would always heed their people's prayers and never destroy them. The boy used his new power to become a great warrior and chief.¹²⁹

Dorsey's forward to his collection of Arikara myths contains the following enigmatic comment about this whirlwind story: "The story of the whirlwind girl (No. 48) contains certain elements not yet known to exist among any of the Plains tribes."¹³⁰ Nowhere else does he discuss the myth. The "certain elements" referred to and rendered only in Latin translation are presumably the eating of men's testes and/or the description of explicit female homosexuality. While the Pawnee retained a closely related version of the myth involving raccoon testes, the castration and eating of human male testes and the female homosexual ritual are unattested (it appears) among other Indian narratives. It would be interesting to investigate whether these elements have been recorded elsewhere in the Americas, or if they are truly unique to this one Arikara myth.

Lillian Brave, an elderly Arikara storyteller, recited a very different version of the whirlwind girl tale some eighty years later to ethnologist Douglas Parks. In her version, "The Brother and Sister Given Elk Power," a bull elk enchants and leads two young children away from their tribe on the march, taking them to a tipi haunted by the ghosts of their dead brothers recently killed in battle. The spirits tell the girl to cook cornballs and care for the tipi while they leave at night and return each morning. During a dance in which their bones fly around the tipi, the ghosts discover that the boy has strong owl power and they grow afraid. The spirits lead the boy and girl to their burial grounds and ask the children to return and tell their parents to bring proper offerings of cornballs and meat. Before sending the two back, however, they give the girl elk medicine, including a

flute that conveys the power to captivate women. They also give the boy a medicine pipe with which to offer smoke to the East so that peace and prosperity would come to the tribe.¹³¹

The change in emphasis and detail is clear. Cornballs replace testes, female homosexuality is absent; the boy still has owl power but the girl is now just a tipi-keeper. There are no longer any contractual agreements between the two or exchanges of favors. It has become an everyday tale, suitable even for children, and has lost almost all of its mythic nuance, except that the girl is still the one gifted with elk medicine – the ability to enchant women into love. It is in her power to use or bestow this love medicine on others.

Parks gives concordance references for almost all stories in his collection, a great many referencing earlier Dorsey and Kroeber versions. However, he provides no references or commentary for this particular story, despite the fact that it is certainly a variant of “The Girl Who Becomes a Whirlwind” as recorded by Dorsey in 1903. It is, to say the least, an interesting omission.

Pawnees. The Pawnees, like others, considered dust-devils as ghosts who had power to heal or to harm. George A. Dorsey collected a story told him by the Pawnee, Big Crow, and entitled “The Ghost Man Who Became a Whirlwind.” In this tale a ghost-healer closely resembles similar Kiowa-Apache ghost-shamans, who were feared more than respected.¹³² The term *whirlwind* in ghost tales probably references dust-devils.

Big Crow described Ghost-Man, who “lived in graveyards” instead of his lodge and who was accompanied by whirlwinds whenever he came among the people. The Pawnee believed that ghost-whirlwinds would envelop people and steal away their spirits

and Ghost-Man heard of someone who was very ill after a whirlwind had attacked him like this. Ghost-Man went to the sick man's bedside, evoked a whirlwind, and healed the man. Afterwards, Ghost-Man was asked to heal others and he performed many such ceremonies. But on one occasion, Ghost-Man turned himself into a real whirlwind. When he tried to return into human form, however, nothing reappeared but bones. He had become a whirlwind and so had died.¹³³ This tale reflects a nearly universal theme among plains tribes concerning the dangerous power of the whirlwind – and of the shamans who invoked it for their own purposes.

The Skidi Pawnees were sophisticated astronomers, as reflected in their precise celestial calendars for ritual and agricultural needs and a mythology closely tied to the movements of the stars and seasonal progression. They envisioned weather spirits as interlocutors for a deity; Clouds, Wind, Lightning, and Thunder were messengers of the evening star.¹³⁴ A narrative James Murie recorded about 1910 is closely related to the Arikaras' "Whirlwind Woman" myth.

Doctor Chief of the Kithahahki band of Chawi Pawnees told Murie a long myth that explained the origin of a sacred bundle Murie had collected for the American Museum of Natural History. Doctor Chief told of a mischievous boy who wished to marry his sister and so was sent away by their father. He leaves, but his father soon follows after him and meets with several sacred characters, including four owls representing the west and the female moon. The owls sing women's songs and teach the father a sacred corn ceremony. The boy eventually returns, marries his sister and relates the details of his sacred journey into the west where a spirit voice guided him and a whirlwind transported him from place to place. Near the end of this journey, he had gone

into a cave during a storm and the spirit voice told him to cut up an animal resembling dark clouds. The voice then instructed him to use the penis of this magic animal to eat consecrated meat and further directs him to cut off the penis of the first raccoon he consecrates after returning home again. He was also given a bag with corn, squash, and bean seeds. The whirlwind then swept him up and deposited him on a hill where he awoke from his dream-state. He gathers bird feathers, sees a raccoon, and realizes that this animal had been his spirit guide and is to be consecrated. Murie wrote that the Chawis consecrated raccoons, which were closely associated with “the underworld powers to which the doctors pray.”¹³⁵

Key similarities to the Arikara myth are evident in this detailed Pawnee legend. There are two children, one of whom journeys to the west and returns, empowered by the whirlwind. The magic child castrates animals and these testes are linked to the eating of consecrated meats; in the meantime, the tribe learns the corn ceremonies. The boy marries his sister and brings seeds back to the tribe. The raccoon guide represents the Pawnee underworld and is an essential spirit guide while the owl plays a similar mythic role for the Arikara and other northern tribes. The two legends clearly share common roots in specific ancient traditions of an agricultural society.

Caddos. The Caddo tribe envisioned a Cyclone constantly at odds with Thunder, until Cyclone realized that both were essential to earth’s fertility. Cyclone could bestow power on worthy young men, but they needed to learn control, just as the Cyclone must only blow in spring. The Wind and the Cyclone are powerful male spirits, working in tandem with the other elements. The underlying theme of earth’s seasons shares this myth with an emphasis on balance and measured use of power.

George A. Dorsey recorded an important Caddo myth entitled “Path of the Cyclone.” In this tale, a young boy was sent by his grandmother to build endurance by diving into a cold river every day. One day, a spirit -- Power of the Cyclone -- appeared by the riverbank and explained to the boy that he had been searching for someone worthy to assume his power, for his strength was waning. Power of the Cyclone instructed the boy to stand and swing his arms and when the boy obeyed huge black clouds came rolling in and wind storms erupted in the forest, uprooting trees and roiling the waters. The spirit told the boy that although he now had great power, he should never abuse it, just as the tornado only came in spring when it was necessary. Declaring the boy’s new name to be “Path of the Cyclone,” the spirit disappeared and from then on, people saw the boy flying with the cyclones in spring.¹³⁶

The fact that the hero assumes the name Path of the Cyclone instead of Power of the Cyclone seems rather curious and may indicate some original missing element. Dorsey’s informant placed particular emphasis on teaching young warriors control and use of power by means of this tale.

Another Caddo myth mimics one Opler recorded among the Chiricahua Apaches (see discussion of Southwest myths below). In this legend, Wind and Thunder quarreled over which of them did all the work keeping earth in proper order; each claimed they had the greater power. Wind blew and blew to prove the point. Thunder declared that the earth needed him more and rumbled away in anger. Wind howled at being left alone, but decided that he would just work by himself making the earth fertile and green. So he began to blow and blow, yet nothing grew and the earth turned brown. There was no rain, only drying wind. Finally, Wind gave up and realized that thunder was necessary after

all, admitting he could not take care of the earth alone. Thunder rumbled in agreement, rain fell again, and plants began to grow. From that time onward, Thunder and Wind worked together to take care of the Earth.¹³⁷ One point of difference with the Chiricahuas' version is that the Wind (also called little Cyclone) is the provider of rain, not thunder. But in all versions of the Caddoan tale, Wind is the one who leaves the earth and must be persuaded to return. The theme of spring giving way to winter, embodied by ancient Greeks in the myth of Demeter and Persephone, is evoked in this widespread story of Cyclone and Thunder or Lightning. Cyclone is the creative force that brings spring's rebirth each year, after a long absence.

Wichitas. The Spanish first encountered the Caddoan agriculturalists we now know as the Wichitas on the Arkansas River in 1541. They subsequently moved south to the area of the Brazos, Trinity, and Red Valleys. Originally composed of many separate bands, of which the Wichitas were just one alongside the Tawakonis and the Wacos, the latter day remnants of the nation became known simply as the Wichitas. They were forced to move north out of Texas altogether and into the Washita Valley in present-day Oklahoma in 1859. Dr. John Sibley first recorded tribal myths and other contact information as a U.S. Indian agent in Louisiana Territory in 1811. Previously, several French and Spanish agents and envoys in the mid- to late-eighteenth century had reported on various aspects of Wichita life and culture.¹³⁸

George A. Dorsey began his recording of Wichita myths and music in 1903, with the assistance of a Wichita interpreter, Burgess Hunt, and first published his collection in 1904, under the auspices of the Carnegie Foundation.¹³⁹ His myths contain a great many references to animals, especially the dog and the bear, and star lore. Mother Corn is

widely cited and most of the myths contain agricultural references. While many of the myths reflect clearly a great deal of post-sixteenth century influences, a few key elements appear to persist from more ancient traditions and display strong linkages to archaic traditions among other tribes, both Caddoan and other linguistic groups.

Mother Corn, who became the Moon, supposedly gave the women the “double-ball game” to entertain themselves and for their “use in traveling.”¹⁴⁰ Many myths involving balls and flight are linked to astronomical designations. But the repeated references to women using a double-ball has a marked resemblance to whirlwind behavior, as the women repeatedly touch down and fly up again across the landscape.

In the tale of “The Seven brothers and the Woman,” told by a Waco band member, a young woman is warned by an old woman to escape from the lodge of her son, Cross-Timber, who plans to eat her.

She was given power to get away. Early that morning she was given the double-ball and stick to go on. The old woman stood on the north side of the fireplace, and the young woman too put it on the fire, and as the smoke went up she went with it. The smoke of the fire went for a long way toward the South . . . After the woman had lighted on her feet, she ran along for a way, and then took the stick and tossed the double-ball towards the place where she was going . . . When she tossed the double-ball she went with it up in the air.¹⁴¹

The young woman takes shelter in an underground cavern of sorts with Man-with-Supernatural-Power (*Nihosikiwarikit*) and his sons. They decide to help her. The young woman remains with them and she eventually joins them in the sky as a star just underneath the North Star, which is the Man with Supernatural Power.

Another possible link to spring tornadoes appears in the figure of the Headless Man. In a Waco tale called “The Deeds of After-birth Boy,” a father gives his boys a ball, sticks, arrows, and

...a netted ring. When making the ring he told the boys not to roll it toward the West. He then forbade them to go to several places: Spider-Woman (*Itsezgarhenegits*), Thunderbird-that-had-a-Nest (*Geleassegits*), Double-faced Monster (*Witschatska*), and Headless Man (*Chearppeschaux*); And the place where their father forbade them to go.¹⁴²

Of course, the boys disobey their father. They experience a long set of adventures, including having Thunderbird blast After-birth-Boy with wind and lightning, but they ultimately prevail. Finally, the boys set off to find the Headless-Man. They find him and he challenges them to a ball game for their lives. The boys accept, but trick the Headless-Man into chasing balls to and fro across the landscape until he is exhausted.

The Headless-Man then begged the boys to let him live and not to kill him, promising them the same kind of powers that he himself had. After-birth-Boy told him that he did not want any such powers. After-Birth-Boy then took the string off from his bow, passed it four times through his hand, and killed the Headless-Man with it. The Headless Man's ball was black and his shinny stick was black. The two boys had a green ball and green sticks, green representing the spring of the year. Since that time, the shinny game is played in the spring, under the power of After-birth-Boy.¹⁴³

The image of a tornado as a "headless person" is a common occurrence across global cultures. The explicit connection here to spring and annual ball games is suggestive of an old link with storm rituals. The associations with Spider-Woman and Thunderbird, and the Monster reinforce the argument for archaic persistence.

Dogs are frequent characters in the Wichita myths. They almost always appear in the context of accompanying young girls and women. In the Tawakoni myths "The Story of Child-of-a-Dog" and "The Old-Age-Dog Who Rescued the Chief's Son," Wind (Thinking-of-a-Place-and-At-Once-Being-There, *Tsikidikikia*) impregnates a girl's dog companion. The dog gives birth to a human child, which is then raised by the girl. After many adventures, both dogs and humans are transformed.

So, as Child-of-a-Dog was the son of the wind, he became the Wind and his boy child also became something. Sometimes, when the Wind blows and is blowing slowly, it is the child of Child-of-a-Dog, and sometimes when it blows harder, it is Child-of-a-Dog. The mother then became a raccoon. This is why the raccoons know so much, for it is said that raccoons are the smartest of living beasts.¹⁴⁴

Many of the myths explicitly connect women, dogs, and wind. It should also be noted that the dogs are not hunting with males, but generally depicted as accompanying and assisting the women and children. Wind has an intimate relationship with Dog, a link echoed in other Caddoan myths (such as the Arikaras'). Raccoon also appears in many Pawnee whirlwind tales as a sacrificial or sacred animal.

Cherokee Speakers

Cherokees. Europeans found the Cherokees a strongly matriarchal and sophisticated agricultural people living in the verdant southeastern mountains. They practiced matrilineal descent and women were powerful leaders. As James Mooney, a famous student of their culture, reported they followed an ancient tradition common to northern Iroquois of “war women” whereby women decided the fate of prisoners (to be killed or adopted).¹⁴⁵

Tornado references are nearly impossible to find even in Mooney’s exhaustive published reports. Yet mythic fragments and certain tales contain intriguing echoes of a primal thunder/rain goddess and usual associates such as Owl. This goddess was probably completely displaced by the advent and ascension of Selu, Corn Woman, who even today continues to figure as a vital female deity in the Southeastern pantheon. As

Mooney noted, “in Cherokee belief, as in the mythologies of nearly every eastern tribe, the corn spirit is a woman, and the plant itself has its origin in the blood drops or the dead body of the Corn Woman. In the Cherokee sacred formulas, corn is sometimes invoked as *Agawe’la* “The Old Woman,” possibly a relic of another, more ancient deity.”¹⁴⁶

Cherokee myths of creation revolve around the two supernatural figures of *Kanati* and *Selu*. Mooney recorded that storms, whirlwinds, and cyclones were considered part of the attributes of *Kanati*, “the Lucky Hunter,” the first man. *Kanati* was married to *Selu*. Their two sons became the Thunder Twins, who live and constantly argue in the “Darkening land”, e.g., the West.¹⁴⁷ They are always depicted as having great power and being capable of doing much good.¹⁴⁸

Kanati is also known as “The Great Thunder who lives in the West” with his sons. As Mooney explains, “The two sons of *Kana’ti*, who are sometimes called Thunder Boys and who live in *Usunhi’yi* above the sky vault, must not be confounded with the *Yunwi Tsusnsdi’* or “little People,” who are also Thunderers, but who live in caves of the rocks and cause the short, sharp claps of thunder. There is also the Great Thunderer, the thunder of the whirlwind and the hurricane, who seems to be identical with *Kana’ti* himself.”¹⁴⁹ Interestingly, Mooney also notes that Hagar (another researcher) was told once that “Thunder is a horned snake and lightning its tongue, and it lives with water and rains.”¹⁵⁰

Mooney remarks that people acting crazed were thought to have fallen under the influence of the *nanehi*, the little people who “cause men to lose their minds and run away and wander in the forests. They wear very long hair, down to their heels.”¹⁵¹ This possibly refers to very old whirlwind concepts; the description of long haired beings (small whirlwinds) causing (or symbolizing) extreme mental confusion and losing one’s

way is a global theme. Mooney also records that the Creeks had a similar belief that these Little People could confuse a person's mind.¹⁵²

Cherokee creation myths relate how the owl, the panther, and others were the only animals to stay awake and maintain vigils while the world was being shaped. Therefore, they alone were granted the power to see in the dark. Their prey animals (who slumbered at the wrong time) were not so fortunate.¹⁵³ While birds common in other tribal myths are rarely treated in Cherokee myth, several owl species are prominently mentioned. Owls were considered witches or ghosts and their haunting calls interpreted as evil omens.¹⁵⁴ But Mooney also was told that owls "particularly are believed to bring prophetic tidings to the few great conjurers who can interpret their language."¹⁵⁵

There are many myths concerning birds who marry daughters of widows. Invariably, the widows are unhappy since the bird husbands turn out to be lazy good for nothings and usually end up being driven from the house and the cornfields the husbands were supposed to be tending.¹⁵⁶ The implication in these myths is that men once performed many of the required horticultural labors, a behavior not unknown in other global societies (as Chapter IV will demonstrate.)

Muskogean Speakers

Seminoles. Clan origin myths among the Creeks and Seminoles reflect the enormous variety of cultural influences at work over the past several hundred years in the Southeast. Robert F. Greenlee was a scholar who collected material about medical practices and beliefs among Southeastern Indians during the 1940s. A tale he collected refers to whirlwind explicitly.

Panther clan followed Wind clan from the navel of the earth. Panther had a big head and couldn't get out. The Wind clan come out like a whirlwind and came out on one side of tree roots which grew on a mound while Panther clan came out on the other side. Bird clan came out third and Snake last. The trees grew up so fast that Panther was held down at first, Wind clan blew up the roots and then Panther clan came out followed by Bird and Snake. They came out of the mound just like new babies.¹⁵⁷

Panther and Wind clan were the first of forty-seven clans to emerge eventually. They were "like brothers" according to Greenlee's informant, and the "Snake clan was called King."¹⁵⁸ Similar linkages between Panther, Wind, Snake, and Bird occur in the Cherokee mythic tradition and these entities appear to represent an ancient and persistent religious syllabary.

The well-known anthropologist, James H. Howard, collected extensive material among the Oklahoma Seminoles in the mid-twentieth century. His Seminole collaborator was Willie Lena. Howard's book, *Oklahoma Seminoles: Medicine, Magic, and Religion*, details Seminole weather rituals and beliefs and specific methods to avert tornadoes.¹⁵⁹

Howard explains that "To make it rain the old-time Seminoles caught an old turtle and hung him up by the neck. They then proceeded to scratch him, just as they scratch the men and boys at the Green Corn. While they were scratching him they threatened this powerful emissary of the 'water world,' telling him that they would cut his throat unless he made it rain. . . ." ¹⁶⁰ In 1980, Willie Lena demonstrated to Howard how to "accidentally" spill a ritual drink at the summer Green Corn Ceremonies in order to summon rain to counter a particularly arid dry spell. Yet another rain summons was "to cut off the head of a stag or horn beetle and place it in water."¹⁶¹

According to Howard, the Seminoles conceptualized a tornado "as a giant old woman carrying an enormous broom or a *sofki* paddle."¹⁶² (*Sofki* is a ritual ground corn

dish among the Creeks.) This “old woman” was barefoot, hence one way to guard against her visits was to break up a terrapin shell and scatter it on the ground. However, Howard explains, the “four scutes at the top of the shell . . . are saved and put into the fire when a tornado threatens. When they burn they make a loud popping noise. The tornado woman hears this and knows that the Indian have placed fragments of broken shell around their house, fragments that will hurt her bare feet if she comes near.”¹⁶³

Another Seminole belief regarding tornadoes was that they could “harness a tornado.” This was done by getting an old terrapin shell, drilling holes in either side, and tying it to a flat board. Howard continues, “The board is placed so that the raised front of the shell . . . is pointed in the direction of the approaching tornado. If even a small portion of the deadly twister enters the shell the tornado is rendered harmless. Willie gave me such a device in 1980, to protect my home, explaining that to protect a dance ground from tornadoes, hailstorms, and other bad weather, four such devices should be used, one at each of the four sides of the square ground.”¹⁶⁴

Included in Howard’s book cited above is a sketch by Willie Lena portraying a Seminole medicine man facing down a twister, entreating it to “go around.” In the drawing, a prayer stick with eagle, hawk, crow, and owl feathers tied to it is stuck in the ground in front of the medicine man alongside a stick with a turtle shell on it.¹⁶⁵

There were also rituals involving offerings to the storm deities. The author’s own great aunt, a full-blood Seminole living in Oklahoma in the early twentieth century, would sprinkle tobacco around the house whenever a threatening storm seemed to be building on the horizon. This act was accompanied by silence, no open songs or prayers, and was witnessed by many members of the family.¹⁶⁶

Similar to many other peoples, the Seminoles believed that witches often appeared in the aspect of owls, specifically horned or screech owls.¹⁶⁷ They could also appear as a dog, a bear, or as an insect, often a moth. The weapons of choice against witches were arrows fletched with owl feathers. An owl-foot hung around the neck was thought to protect against witches in a large group of people.¹⁶⁸

Creeks. John R. Swanton was a preeminent ethnologist of the Southeastern tribes during the early twentieth century, working for the Bureau of American Ethnology. The bulk of his investigations and field work was among the Muskogean speaking tribes and the Caddos. Research among the Cherokees he left largely to James Mooney's focused attention. Swanton collected numerous myths and tales among the Creeks, including a many stories of Tie-snake and Thunder-being, two mythic entities closely linked to myths concerning the origins of corn.

In most of these stories, tie-snake and thunder-being fight and an orphan boy finding them thus engaged is persuaded by thunder to kill the snake. Thunder-being then gives powers to the boy, who listens to owls and gains the power of knowledge and prophesy to enrich his tribe. In another version, the boy is preparing sofki in a hunting camp and "one day he heard a kind of roaring in this stream. He went in the direction of the sound and saw something standing up over the water, part way up which another creature had wrapped itself. . . . The thing it was wrapped about was quivering and making a thundering noise. This was Thunder and the creature coiled about it was a Tie-snake or Strong-snake (*Stahwanaia*)."¹⁶⁹ Each being asks for the boy's help and he eventually chooses to shoot an arrow at the snake, causing it to collapse back into the water. Later the boy returns to his uncles in the aspect of a rainbow and "the boy went

along making it thunder and lighten until by his powers his uncle saw him destroy [an] entire town.”¹⁷⁰

In tales concerning the origin of corn, Swanton was told that corn first came from a woman who would be locked away in a corncrib four days, during which time thunder rumbled in the distance. After the end of the set period, the crib would be filled with corn. In other versions of the same basic tale, an old woman would secretly grind corn off of one hip, and beans off of another.¹⁷¹

Natchez. Swanton found a different set of tales concerning corn and weather among the Natchez of Mississippi. Here he found tales similar to rolling head stories of the Iroquois, Pawnee, Arapaho, and many other. Among the Natchez they are linked closely to involved tales of female competitions. The young woman with thunder and cyclone power inevitably wins the contests and she and her family depart westwards.

In “The Rolling Head” story recounted by Swanton, two brothers go out and one brother is eaten by a fish. Only his head is recovered. The head thereafter flies around in the air and has multiple adventures and exchanges between the other brother and women. One of the favored women overcomes all other women in various contests involving popcorn, pots, and ballgames. She ultimately births a child, Thunder, who then proceeds to kill all the other women. Finally, “she and her children were then left and her children scattered from her while she herself went westward.”¹⁷²

In “The Cannibal Woman”, Swanton records a set of tales in which a young woman’s mother kills and eats all of her daughter’s suitors. One young man outsmarts the old woman’s efforts to kill him. In a final ball-playing contest the daughter and son-in-law summon “a number of beings to aid them, such as wind, cyclone, and thunder. . . .

Cyclone went round and round lifting the opposing players up from the ground, and thunder and lightning began tearing them to pieces.” The old couple are thus destroyed and burned in a huge bonfire while the story ends with the victorious young couple heading westwards.¹⁷³

The Southeastern tribes were enmeshed in European and other global cultures since the 1500s. The effects of this rich and ever-changing cultural marketplace are clearly apparent in the mythologies and beliefs recorded among various groups. It is impossible to sort out the multiple influences that have shaped and been shaped by the southeastern societies for the past several hundred years. Yet certain themes still emerge that seem to track back to early agricultural themes. Women, corn, and beans, are all linked inextricably with thunder and tornadoes. Thunder writhes in eternal combat with the tie-snake, which evokes water spouts and tornadoes. Successful male hunters and dominant females are linked to thunder power and agricultural abundance.

Especially remarkable is the Seminole conceptualization of the tornado as an old woman with a sofki paddle or broom. This concept is identical to that of another old world tornado and agricultural goddess, Baba Yaga, who zooms across the Russian plains with her mortar and pestle and broom. (See Russian Myths in Chapter Three below). This may not be a borrowing, but a shared remembrance of profoundly ancient links between ancient agriculture, women, and tornadoes.

From the Southwest

The residents of the American Southwest, especially the enduring Pueblos cultures, are credited with practicing agriculture earlier than perhaps any other people in

the region north of Mesoamerica. Connections between these ancient farmers and Mesoamerican civilization are still being teased out and debated. Other tribal groups lived and moved between the mesa-top pueblos, including the Utes and Athapascan speakers such as the Kiowa-Apaches; the Lipans, Mescaleros, Chiricahuas, Jicarillas, and Western Apaches; and the Navajos. Many of the Apache peoples were agriculturalists and share tornado myths similar to those of tribes farther east. This section will first survey myths of a few Athapascan speakers before moving on to the dry-land farmers of the Western Pueblos.

Athapascan Speakers

Jicarilla Apaches. The Apaches had profound respect for the tornado as an image of creation and rebirth. The Jicarilla Apache origin myth, recorded by anthropologist Morris Opler, put the tornado front and center: “In the beginning nothing was here where the world now stands; there was no ground, no earth, --- nothing but Darkness, Water, and Cyclone.”¹⁷⁴ In other Jicarilla Apache tales, Cyclone took on Thunder and Lightning in a power contest that resulted in mass destruction. But most importantly, is how they conceive of man’s creation. The god of the underworld was Black *has’in* who wished to create man and so “sent Whirlwind into the figure he had traced on the ground and rendered it animate. The whorls at the fingertips are evidence of the path Whirlwind took into the body.”¹⁷⁵ At death the spirit departs from the physical body “as a whirlwind from the bottoms of the feet.”¹⁷⁶

In the Jicarilla Apache story entitled “The Creation of the White Man,” Coyote is shown as regularly teasing his erstwhile friend, Cyclone. Cyclone would get irritated and

chase Coyote, who would easily evade him. But one day Coyote convinced Child-of-the-Water to join him in this game. Although Coyote again outran Cyclone, Child-of-the-Water was not so lucky and he “was lifted up and broken into many pieces and scattered all over.” A woman used leaves covered in his blood to make soup, thereby reincarnating Child-of-the-Water as a new baby, which the woman raised to manhood.¹⁷⁷

In a telling observation, Opler remarks that Turkey (as a mythic character) was not respected by the Jicarilla (neither was Buzzard) *until* after the Indians had begun developing a significant horticultural subsistence complex. Only at that point, he argued, did Turkey assume a legitimate mythic role as guardian of plants.¹⁷⁸ Most tales of this sort concern Turkey as chief overseer of corn cultivation; but narrators also described Turkey’s role more globally on occasion: “Turkey was responsible for all growing things.”¹⁷⁹ Mythic evidence exists that this may simply reflect a later growth in corn-intensive agriculture (along with an associated link to Turkey) arising from a much older horticultural repertoire.

Such evidence can be elicited from a very old folk-tale Opler collected. The story “When Tanager and Robin were Chiefs” reflects disregard for Turkey and Buzzard, who were considered “liars.” In this tale, the bird chiefs are in charge of providing people with an extensive list of plant products that humans should rely on for food: primarily sunflowers for bread, wild potatoes, aspen, various berry plants, wild onions, and cowparsnip.¹⁸⁰ Tanager and Robin make no mention whatsoever of corn. While the food stocks are mostly those known to sophisticated foragers, Opler’s source takes pains to point out that the birds are important in “singing for the rain.”¹⁸¹

Although contemporary tales focus on Turkey's connection to corn, Opler collected recitations from among the Jicarilla story tellers that associated Turkey Hactcin with other, older crops. For example, one narrator said that "Turkey had planted all kinds of plants next to the fields, sunflower, and all the other plants."¹⁸² In this tale, Turkey goes on to discuss with Talking Hactcin how best to teach the people to eat this new kind of plant crop. The implication is clearly that corn is a new and unknown kind of food source, and that Turkey had long known how to plant other crops, most importantly sunflowers.¹⁸³

According to Opler, the Jicarillas thought Old Man Thunder brought spring rains and kept disease away from the people. The sound of thunder, he reported, made them happy. Opler attributed this positive concept of thunder and lightning – a concept quite opposite that of other Apache tribes - as again due to the Jicarillas' greater dependence on corn culture.¹⁸⁴

In contrast to the ghostly dust-devils of other Apache speakers, whirlwinds of the Jicarilla Apache often served as agents or messengers for the supernaturals, bearing instructions, searching for lost people, or discovering and spreading the latest gossip.¹⁸⁵ It is indicative that the Jicarillas could believe in benign dust-devil spirits given their deep-seated fear of ghosts. Such messenger whirlwinds were clearly of a different order of spirit altogether, either related to older beliefs in Cyclone traditional among the Jicarilla Apache or borrowed from agriculturalists to the east.

Chiricahua Apaches. The Chiricahua Apaches told a story in which Wind argued with Lightning about who did the most good, and in a fit of petulance, Wind hid from the earth and so there was no rain. Bee eventually found Wind and begged him to return. Coming back in the form of a Cyclone, Wind and Lightning embraced and agreed to work together again to keep earth fertile.¹⁸⁶ For the Apaches, such tornado myths explained earth's seasonal rotation as well as nature's power for destruction and creation.

Kiowa-Apaches. The Apaches and Navajos believed the common dust-devils to be ghosts or vengeful spirits. Among the Kiowa-Apaches, Athapascan speakers long affiliated with the Kiowas, fear of these ghosts was intense and elaborate rituals existed to protect people against the dead spirits.¹⁸⁷ Children were considered especially at risk and, as Morris Opler reported: "because ghosts sometimes appear as whirlwinds or as sparks (lightning?) that move ahead of whirlwinds, children were taught to look away or cover the eyes at the approach of a whirlwind and the face of a baby was shielded by an older person so he would not see this phenomenon."¹⁸⁸ There were medicine men who used on the power of ghosts and owls to cure certain illnesses, but the people evidently feared as much as respected their skills.¹⁸⁹

Navajos. Several of the Southwestern tribes incorporated the horse into older storm deity concepts after its introduction into the Western interior in the early 1700s.

In the anthropologist Pliny Earle Goddard's collection of original Navajo narratives, there is a description of the creature that Changing Woman sang into being:

Its feet were made of mirage. They say that because a horse's feet have stripes. Its gait was a rainbow, its bridle of sun strings. Its heart was made of red stone. Its intestines were made of water of all kinds. Its tail of black rain. Its mane was a cloud with a little rain. Distant lightning composed its ears. A big spreading

twinkling star formed its eye and striped its face. Its lower legs were white. At night it gives light in front because its face was made of vegetation. Large beads formed its lips; white shell, its teeth so they would not wear out quickly. A black flute was put into its mouth for a trumpet. Its belly was made of dawn, one side white. One side black.¹⁹⁰

The Navajos have long associated a mythic water horse with healing powers for damage done by snakes, disease, water, arrows, and lightning. Laverne Clark, in her book, *They Sang for Horses*, explains that “this creature, which figures occasionally in Navajo myths and sandpaintings, belonged to Water Monster, and its main responsibility was to guard the door of that deity’s home.”¹⁹¹ Various versions of myths collected in the early 1900s recount how White Shell Woman (aka White Bead Woman and Changing Woman) created horses for the Navajo. Many of these legends have been recorded by Pliny Earle Goddard, Gladys Reichard, and Eileen O’Bryan.¹⁹²

Referencing Frank J. Newcomb and Gladys A. Reichard’s book *Sandpaintings of the Navajo Shooting Chant*, Clark describes water horse depictions: “Plate XXIX [of Newcomb’s book] reveals Water Horse as a pink creature with lightning symbols on its forelegs and mane. In Plate XXXIII we see the four Water Horses, black, yellow, blue, and pink. They breathe lightning out of their mouths, their bodies and upper legs are clothed in rainbows, and they have horns made of rainbows.”¹⁹³

Explicit references to whirlwinds not linked to horses were also found in Navajo tradition. These are probably derived from traditions that long precede the arrival of horses among the Navajo. Goddard recorded a narrative called the “Wanderings of the Navajo,” which includes songs sung by Bear who protects the wanderers from their enemies:

My Hogan,
I being a whirlwind,
My Hogan,
I being a gray bear,
Lightning strikes from my Hogan,
There is danger from my Hogan,
All are afraid of my hogan.
I am of long life of whom they are afraid.
Hihinyi hi'
I blow my breath out.¹⁹⁴

And also:

They are afraid of my black face.
I am a whirlwind.
They are afraid of me.
I am a gray bear.
They are afraid of my black face.
It lightens from my black face.
They are afraid of the danger issuing from my black face.
I am long life, they are afraid.¹⁹⁵

The chain of associations between storms, White Shell Woman, and horses indicates that the *arriviste* horse swiftly assumed a dominant mythic role by conveniently appropriating the symbols of the older storm deity. The previously non-pastoral, non-horse agriculturalists of the Americas now had a new paradigm – one that shifted men's activities out of matriarchal orbits. This new tornado-storm deity is male.

Western Pueblos

The numerous pueblo enclaves of New Mexico and Arizona can be broadly differentiated into two groups with respect to environmental conditions affecting agricultural production. The Eastern Pueblos are located close to the Rio Grande and ground water resources. Irrigation technology has been in use in that area for thousands of years. These are also the most Christianized pueblos. The Western Pueblos -- inclusive

of Zuni, Laguna, Acoma, and Jemez -- and the Hopi, have been traditionally dependent on dry land farming; seasonal precipitation is thus a major factor in crop failures or success.

These different subsistence patterns are reflected in the groups' ceremonial activities. As Elsie Clews Parsons noted, "by and large in the East the ceremonials are short and simple compared with the long, elaborate, and dramatic ceremonials of the West. All the pueblos, however, had rituals revolving around rain."¹⁹⁶ The Keresan Pueblos of the Rio Grande drainage celebrated four rain deities known as *Shiwana*. Counterparts, to a greater or lesser extent, are the *kachina* of the Hopis, and the *Shiwanakwe* of the Zunis. Gertrude Kurath recorded that a special god brought lightning for the Keresan Pueblos in the East, who were more dependent on rain than others.¹⁹⁷

The languages of the Pueblos are a varied and complicated network of related dialects and linguistic stocks. The Keresan of the Eastern Pueblos is perhaps the most ancient and certainly one of the most complex Pueblo tongues. This dynamic quarter of the country has seen the ebb and flow of cultural change for millennia. Interpretive accounts by multiple ethnographers have produced a richly varied record of traditions, some of which contradict each other. Nevertheless, some basic themes appear to be persistent.

Zuni and Hopi. The Hopis, Zunis, and most other Western Pueblos were still matrilineal and matrilocal societies to various degrees in the nineteenth century. Clan Mothers guarded fetishes. Parsons and other ethnologists noted in the early twentieth century that the "oldest" house of a Pueblo clan was defined as the "maternal ancestral house." The link between the maternal house, the fetishes it guarded, and the rituals it

maintained was essential. As Parsons summed up in 1921, “if the women of the house die out or turn Christian (i.e., Protestant, which is the same as dying, as far as ceremonial consequences go). Then the fetich [sic] has to be buried and its ceremony let lapse.”¹⁹⁸

Rain rituals were the prime focus of ceremonies wherein both men and women participated. Storm attributes such as thunder and lightning were ritualized entities. Interestingly, explicit references to whirlwinds are noticeably absent from the records of most ethnographers. Only Ruth Bunzel specifically noted that whirlwinds were a feature of some folklore, but not ritual in Zuni.¹⁹⁹ A close examination of myth and ritual does, however, suggest links to whirlwind traditions farther east and, possibly, an archaic presence now vanished.

Most pueblo ceremonies centered on rain ceremonies. Central to Hopi rites are the *U'wanami* (rain makers) and priesthoods who perform the necessary rituals. The Hopi kachina society play a critical part in these observances. The Hopi kachina refers to male impersonators of mythic entities who perform in public dances or along with other members of their society in religious ceremonies. *Kachina* also refers to images (e.g., wooden figures) representing the masked impersonators.²⁰⁰ Parsons described many details of kachina dress, noting that their regalia included “the downy eagle feather [as] the breath of the rains” and that “in his belt, sometimes in his yucca switch, the kachina carries his ‘heart,’ a small package of corn kernels of all colors, squash, melon, and sometimes wild seeds...[which he] gets ... from his mother or wife.”²⁰¹ She explains that these “hearts” are what give the kachina their special power.²⁰²

Parsons was well aware of the essential link between the kachina and the rain rituals. She speculated that “any irrigation system independent of rainfall will be fatal to

the prestige of the kachina.”²⁰³ It is interesting to juxtapose Parson’s observations with those of Franz Boas concerning the cultural effects of new agricultural technologies. Boas famously stated that women usually begin to lose power in traditional agricultural societies as new technologies emerge, such as sophisticated “irrigation or building of terraces.”²⁰⁴

Jesse Walter Fewkes’s description of the Oraibi flute altar included a “representation of the god *Cotokinunwa*, Heart of all the Sky, or Star god . . . the remarkable thing about the image is the great length of the legs and the total absence of a body. These legs are straight, slightly divergent below, and have the lightning symbols depicted along their whole length. No attempt is made to represent knees or feet . . .” In addition, Fewkes was informed that two large wooden slats on each side of the image’s legs were symbolic of “rain gods” (*Omowuh*). They were also painted “with rain-cloud and falling rain symbols.”²⁰⁵

Since rain clouds, falling rain, and lightning had designated decorations in this sacred place, the tall shapeless legs of the main image and its accompanying wooden boards would seem to be excellent candidates for tornado representations. Unfortunately, it appears their ancient meanings were lost on Fewkes’ sources. Close study of mythic transcriptions may, however, be able to shed light on the symbols in future.

According to Frank Cushing, who recorded a version of the Oraibi origin myth in 1883, the “water-shield” (*k’ia’allan*) was “productive of rain” and a gift of the Sun father to Older Brother of Pueblo origin myth. Younger brother received the rainbow bow and the lightning arrow.²⁰⁶ These two boys were also known as the War Gods or Cloud

Twins. Since tornadoes are not mentioned in these myths, it is very likely that the Plumed Serpent represents the massive whirlwinds produced by thunder storms.

The Horned or Plumed Water Serpent (*Kolowisi* to the Zuni) is linked to the U'wanami just as it is linked to storm deities in the eastern United States. Walter Fewkes described a Walpi ritual in 1902 in which “a masked man representing Shalako . . . [holds] an effigy of the Plumed Snake which he causes to coil about his body and head and to dart into the air.” According to Fewkes, “this act represents the Sky-god wielding the lightning.” Yet he also noted that “these effigies are made to knock over a symbolic cornfield . . . representing how the floods and winds destroy the works of the farmer.”²⁰⁷

In most contexts, the Plumed Snake can just as easily be interpreted as a tornado instead of lightning. Many myths have the Water Serpent whisking away a Water Girl to a shrine in the San Francisco Mountains. There a female deity puts the girl through sacred tests. The allusion to a snake-like tornado ‘whisking’ someone up into the clouds or mountains is a logical association and one attested in myths around the globe.

From about 1883 – 1893, ethnologist Alexander M. Stephen recorded Emergence stories among the Hopi on First Mesa. One famous tale concerns the youth (Tiyo) of the Snake Clan who must search out snake rituals and thereby bring benefits back to his clan. Spider Woman begins to lead him to the kiva of snakes and “so they travelled to the west and north till they came to a large rock where a great snake sat upright. Upon his head he carried a cloud and he sustained himself by sucking water from the cloud with his long forked tongue.” After Tiyo makes a requisite corn pollen offering, the snake informs him that he has come to the source of water and the kiva he sought. He chooses a wife and is called Chief of the Antelopes by Spider Woman after that. Stephen’s informant later

explains that priests sing at the celebration of the Snake Ceremony “for rain also, for does not the Great Snake bear the clouds upon his head, and through the Antelope comes rain, and snow and green grass.”²⁰⁸

The conceptualization of a great snake bringing rain appears to thus antedate a newer set of beliefs associated with the Antelope clan, but the Hopi of First Mesa were still mindful of the original associations even into the late nineteenth century. The image of a great snake bearing rain clouds on his head is an apt depiction of a rope-like tornado.

There are an abundance of butterfly references in Pueblo myth. There is a common tale about a Zuni rain-priest’s daughter who chases a butterfly on her way to the cornfields. She follows it to a hollow tree where the butterfly turns into a butterfly-girl. This being brings the young girl inside the tree where other butterfly girls teach her how to weave butterflies on baskets. The girls turn back into butterflies and take the young maid home, where she practices her new skills. And that is why all the rain-priests use butterfly-decorated trays (Moki trays) to put their prayer plumes on.²⁰⁹

Fewkes described a Hopi dance called *Bulintikibi* – the butterfly dance. These dances were performed by members of the Butterfly clan and Fewkes noted that it differed from other Hopi dances in several ways. He speculated that it had once been a sacred ceremony, but had declined into a secular harvest-home celebration. This was evidenced by the fact that it was very similar to Rio Grande pueblo dances in which women wear tablets on their heads (tablita) that show rain-cloud terraces. His conclusions were that Rain Cloud clans had introduced a more sophisticated rain cult belief system to a simpler Hopi observance sometime in the distant past.²¹⁰

The repeated associations between butterflies and rain demonstrate once more Native understanding that flying insects hatch as a result of barometric pressure drops in advance of severe storm systems. The butterfly is a logical and natural symbol of the rain entity. It is not simply a marker of spring; the butterfly links to young girls, sacred places, and sacred items that are critical to successful rain rituals.

Witches are frequently encountered in Pueblo myth. Mischa Titiev, an anthropologist doing field research in the 1930s was bemused by the fact that the Hopis thought witches and other evil beings could “influence Cloud gods to obey their wishes.”²¹¹ Just as in whirlwind/witch tales of the eastern United States, owls feature prominently in Pueblo tales as special beings linked to the mythic beings. In Zuni belief, for instance, witches all meet at the *Muk’yanna* (Owl Water).²¹² On the other hand, owl is summoned to help the first peoples soften the too-hard corn first produced at the beginning.²¹³

Yuman Speakers

Maricopas. The Maricopas are traditional agriculturalists in Arizona and have creation myths very similar to those of the Jicarilla Apaches. Stewart Culin recorded a summary of the Maricopa myth in 1907, as he received it from Louis L. Meeker, who collected it in 1904.

Once, when there was yet no earth, a whirlwind came down out of the sky into the turbid water, and they were man and wife. Twins came. Winds carried them about . . . At length the elder changed the other into a spider and sent him [to spin webs and shape the earth.] . . . Then he went about making green things grow, shaping what came forth after subsequent whirlwinds into living things and men and women, teaching them how to build houses, and make the earth fit for them to live upon. So his Pima name is Earth Doctor.²¹⁴

Mohaves. George Devereaux, an ethnologist working in the early twentieth century, collected a series of Coyote (hukthar) stories among the Mojave, a branch of the Yuman Indians. The Mohave were ancient farmers established along the Colorado River. Many of their tales feature animals, especially birds, and explicit sexual behaviors and descriptions.

In one important long narrative, a grandmother saves a grandson from death by fire by causing clouds and rain to appear. When the boy, Patcekarawe, ventures into the sky to battle a giant with huge testicles who eat human flesh, he succeeds and then returns to earth in the shape of a butterfly. Next he battles the mountain lion, Numet, who swiftly tears him to shreds. But then, “out of nowhere a whirlwind came and put the scraps together once more. Now it was the boy’s turn to tear up the puma. Again a whirlwind rose, this time reviving Numet, who was ready once more to face his human foe. Each of the two was torn up and put together again three times.” By the fourth time the boy had torn up Numet “not even the whirlwind could revive him again.” The hero, finally infiltrates a Maricopa camp in the shape of a dove. When the Maricopas get wise to his presence, they try to kill him, at which point he changes into a butterfly and flies away westward, as his mother sings a butterfly song.²¹⁵

Yumas. Edward Winslow Gifford, in his report “*Yuma Dreams and Omens*,” recounts a tradition told to him by Joe Homer, a Yuma Indian and interpreter (56 yrs old in 1921):

Whirlwinds (*matsikwer*) are believed to embody spirits of deceased persons. When someone lay dying a small whirlwind was often seen going from house to house. This was believed to be the spirit of the dying person making its final visit to its friends. When a

whirlwind moves a house or carries away clothing or other objects, those things are not used again, but are burned, because it is believed that the spirit of a dead relative was in the whirlwind that carried the objects. "Ghosts travel not only as whirlwinds but as rattlesnakes called *xikwil* . . . to kill one would result in the killer's becoming a cripple. It is believed that whirlwinds become *xikwil*, and *xikwil* become whirlwinds." ²¹⁶

Uto-Aztecan Piman Speakers

Pimas and Papagos. The Pimas of Arizona and the Papagos are Uto-Aztecan peoples, considered separate tribes, but have commonalities of language and customs. They have had close trade links with the Zunis for centuries. Parsons reported that they thought sickness was carried by the winds, including Whirlwind. ²¹⁷

In the early twentieth century, Henriette Rothschild Kroeber wrote up creation and origin tales she heard from Juan Dolores, an educated full – blood Papago. ²¹⁸ They include the tale she summarized below.

Story of the Wind and Rain

In a village full of people with power to do things, a wise man told his daughter that she could marry whom she pleased. She did not laugh herself, but had the power to make others laugh. So her desire was to find someone who could make her laugh. Whip-poo-will tried and failed. Coyote tried and failed. Then one day, Whirlwind, one of the other powerful people in the village, blew on her and exposed her to all the other young men. Her father, furious, insisted Whirlwind leave the village.

Now, Rain was Whirlwind's best friend. Because Rain was blind, he depended on his friend to lead him about. So when Whirlwind was exiled, Rain followed him. They were both gone four years and, of course, in all that time, there was no rain or wind. The villagers became concerned and sent out searchers. Coyote tried to smell them but failed. The Buzzard flew about looking for them, but could not find them. Bear turned over stones and explored caves,

but failed to find them. Every animal returned in four days having failed in the search. The villagers then asked a little Bird “a little larger than the humming-bird, but without its long tail and bill.” He cleverly took sick, tied a piece of his down on it, and then followed a stream of water into a cave by watching how the down fluttered in the air. He discovered the two, Rain and Whirlwind, asleep in a cave. Bird then told the pair how the village was suffering from drought and famine without them. Whirlwind agreed to return if and when the villagers called for them four times. The Bird returned to the village and conveyed the instructions. The villagers called four times and the on the fourth day, the wind arrived, and afterwards a lengthy rainstorm

After this, whenever the people wished rain, they had to call on these two, and they would come at certain times. Whenever Whirlwind came, he had to lead his friends along, because Rain was blind and he had to follow. They say there used to be more rain in Arizona, because they do not call on the rain any more.²¹⁹

In this charming tale the whirlwind is directly linked to the rain, which follows him wherever he goes. If the whirlwind leaves the village, rain departs as well. The description of how down is employed as a sensitive wind indicator and water-finder is important. There are frequent references to down in rain and whirlwind related rituals and ceremonial bundles from across the country. Seldom has mythic tradition retained any explanation of its precise use in this regard, however.²²⁰

Rock art and Petroglyphs are especially abundant in the Southwest. Much of this iconography is of obscure origins. Figure 11 illustrates an intriguing set of whirlwind pictographs discovered in the 1800s and submitted to Garrick Mallery’s attention by Thomas Keam. These come from Keam’s Canyon, Arizona Territory, together with a local legend. The single whirl looks very much like a monkey, perhaps reflecting Mesoamerican sources. The double spiral associated with it has intriguing resemblance to identical ancient designs in Europe.

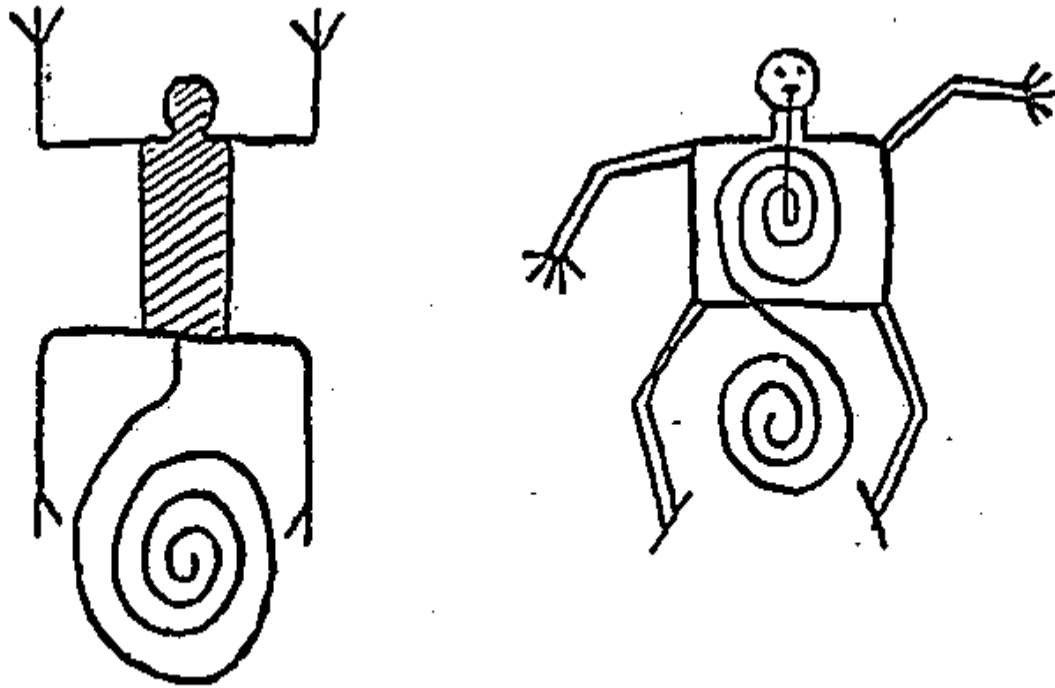


FIG. 965.—Whirlwind.

FIGURE 14. “Whirlwind symbols”

Reported by Thomas Keam to be “of great frequency as rock etchings in ruins” in Arizona Territory, the single spiral represents (he states) “*Ho-bo-bo*, the twister, who manifests his power by the whirlwind.” The double spiral is “the keeper of breath . . . the whirlwind and the air which men breathe comes from the keeper’s mouth.”

Source: Garrick Mallery, “Picture Writing of the American Indians,” Tenth Annual Report of the Bureau of Ethnology, 1888-1889, “Washington, DC: GPO, 1893), 604-05.

From the Northwest

While the incidence of severe tornadic storms declines sharply in the Rocky Mountains and westwards, they are by no means unknown. Tornadoes often develop during the spring season. Native Americans have also been traversing these regions for

millennia, moving in and out of tornado-prone regions. So although one does not think of twisters visiting Idaho, Montana, or California, the fact remains that tornado tales are also found among ancient residents from the Western Rockies to the West Coast.

In addition, researchers are beginning to discover that even coastal peoples – often referred to as the “Salmon People” -- were in reality much more dependent on plant foods than hitherto appreciated. It appears they had a well-developed horticultural tradition of growing, gathering, and processing nuts and wapato tubers in addition to exploiting all kinds of seafood, not just salmon.²²¹

Northern Paiutes. Judy Trejo, an Idaho Paiute, recorded an origin myth that explains how troublesome whirlwinds were “taken” from the Paiute homeland (Oregon, Idaho, and Nevada) to the plains. The Paiutes believed that dust-devils were ghosts, so it is probable that the whirlwinds of this tale referred to tornadoes. The whirlwind often served as a powerful poetic image for the Paiutes and James Mooney recorded many of their ghost dance songs in 1892, including several important songs about the whirlwind and the coming of spring.²²²

According to Trejo, the home of the Paiutes was once plagued by tornadoes. People and animals all lived in fear of being swept away. Finally, Grandmother Owl convened a meeting of the animals to discuss the situation. Bear, Deer, Rabbit, Bobcat, Porcupine, and Badger decided to collect the whirlwinds, put them in a sack, and take them far away. The animals each helped trick the tornadoes one at a time into a bag which Badger undertook to haul off. But he soon ran into Coyote who insisted on knowing what was in the sack. Badger gave up warning him and hid in a hole while Coyote opened the bag and was blown away by the escaping tornadoes. That is why there

are now so many tornadoes in the Great Plains.²²³ This is one of the few myths in which someone is able to control tornadoes, which the animals do by trickery. Coyote, as usual, undoes the hard work of others through stubbornness and greed.

Penutian Speakers

Maidus and Miwoks. In many of the California myths, the owl and the whirlwind are closely connected and have strong mystical powers. Reincarnation is also a recurrent theme among some groups. The association between owls, ghosts, and whirlwinds is quite powerful.

According to Robert Lowie, working in the late nineteenth century, “most of the Sierra tribes and some of those in Southern California hold that a large owl (usually the Great Horned Owl) makes a practice of capturing ghosts of the departed. This belief I have encountered from the . . . Northeastern Maidu southward to the Tejon and even the *To’ngva* of San Gabriel.”²²⁴ The Southwestern Maidu, he remarked, have a belief that a person after death may turn into an owl or other animal or a whirlwind.²²⁵

Lowie reported that a Northern Mewuk Indian explained that the bony plates around the owl’s eyeball represent “finger nails all jammed tight together of the ghosts caught by the owl.” The Northern Mewuk, he wrote, “believe that the ghosts of good Indians turn at once into the Great Horned Owl (*Too-koo-le*) and remain this bird forever after; but that bad Indians turn into the barn Owl (*Et-ta-le*)” . . . [and other animals such as the lark, the coyote, or the gray fox] . . . The[y] say that whirlwinds and dust whirls are ghosts dancing swiftly round and round, and warn people to keep out of their way.”²²⁶

Achomawis.

The Achomawi Indians were ancient inhabitants of Northeastern California along the Fall River. Jeremiah Curtin collected a few examples of their myths in the last decade of the nineteenth century for the Bureau of American Ethnology.

In the tale Curtin labeled “Pine Marten Marries the Bead Sisters,” a mother sends off two of her daughters to marry the son of Cocoon-Man. As the story teller explains, “He was wrapped up and put away. He had never been outside and had never eaten anything,” The Bead sisters “came from a place far off in the ocean. They came on the water, brought by the wind, and they always sang the song of the wind.” But Cocoon-man refused to let them marry his son and so they decided instead to marry Pine-Marten. After this, Cocoon-man created a trail westwards to help them on their way. He then sat down on the ground and created a rainbow bridge for them from his body to the girls’ home. During the journey on the rainbow, Weasel crafted a flute and played music for the whole world. Another tale of the Achomawi concerned Silver-Fox, who set a strong wind to guard his sweat-house whenever he left it. The guard was effective for “a whirlwind blows up out of it, makes a noise like thunder, and only shamans can go near; but whoever enters is immediately turned to stone inside. Wolf and Silver-Fox left their power of wind there.”²²⁷

Kiowa – Tanoan Speakers

Kiowas. The Kiowas migrated south from the Montana plains and moved into the Southwest in the early eighteenth century. Their Kiowa language is related to a larger

linguistic family that encompasses several of the New Mexican (and one Arizona) Pueblos – the Tiwa, Tewa, and Towa. They were among one of the early tribes to interface and trade with Spanish colonists in the Southwest and to acquire techniques of horse riding, care, and breeding.

The Kiowas, a wide-ranging semi-nomadic peoples, are generally credited with helping introduce Spanish horses from New Mexico to more northerly tribes along traditional trade routes. John Ewers' recent review of the question of dating horse introduction agrees with Wissler's earlier speculation that the Utes, Apaches, Kiowas, and Caddos would have been among the earliest horse users. Marvin Opler, Ewers notes, thought the Ute had them by 1640. The Spanish themselves recorded Apache raids for horses in 1659 and La Salle, the French explorer, recorded that the Gattacka (Kiowa-Apache) and Manrhoat (Kiowa) were engaged in the horse trade by 1682. Ewers also observes that the Kiowas were "known to have traded horses to the horticultural peoples on the Missouri in later years."²²⁸

The horse became a new source of Kiowa prosperity and power. Accordingly, the horse acquired mythic stature when the Kiowas absorbed this symbol of cultural change into the prevailing power paradigm: the tornado myth.

The Kiowas have a celebrated myth that links the origin of the tornado and the emergence of Kiowa horse culture. Red Horse is their popular name for Cyclone (Manka-iH) and generally portrayed as a masculine figure. Intriguingly, however, Red Wind (Manka-gul) is a traditional *woman's* name in Kiowa.²²⁹ According to the myth, the Kiowas saw wild horses and first tried to make a clay horse for their own use; when

only half-formed, this clay creation escaped to the sky as a tornado but still understands the Kiowa language of its makers.

According to Michael Marchand, who wrote about the Red Horse myth using details from James Mooney's original notebooks, Mooney collected a version of the myth in 1891 from the oldest living Kiowa at that time, Tebodal. As he told it, there were first only god-like animals in the world, including four horses that refused to mingle with others. The animals tried to catch them, but failed. Finally, one of the animals hid by the lake and when the horses came to drink, it threw a stone into the water, made a ripple that became a lariat, and so captured one. The rest fled, and so wild horses still exist today. The animals studied their prize and tried to make another in clay, but they neglected to give it legs and used buffalo hair in place of horse hair. Disgusted with the misshapen creature, they threw it into the sky to make rain and it became the whirlwind.²³⁰

Elsie Clews Parsons collected two versions of "Red Horse" in 1927 and noted that she was told by her informants that the myth was considered a "true" or ritual story, as opposed to being an everyday tale. Her variants had elements such as an elk and Spider Woman, traditional mythic references absent from Tebodal's story. Her stories also had much more detail about how the people constructed their clay horse and emphasized that the tornado understood the Kiowa language.

In Parson's first version, the people made a clay horse, using parts of other animals and filling it with wind. But it became a tornado, and went up to the sky. The Kiowas believed afterwards that the tornado would turn aside if they spoke to it. The people then made a second horse after sending two moles to spy on the wild horses. This creation had a prairie dog hide; deer head, ears, and mane; turkey's beard tail; turtle shell

hoofs; and hair for its flanks from *Mataige* (Slender Whirlwind, in other words, a dust-devil.) Finally, they added elk's teeth and deer pads. Parsons notes that a Mescalero Apache version of the Red Horse myth references two slender whirlwinds standing in front of the horse's legs, presumably to give it speed.²³¹

In Parsons' second version, two men spied on the wild horses and created a clay model from memory. Their mud horse had the head, body, mane, and hair of an elk; wolf's ears; buffalo's eyes; turtle shell hooves; and turkey's beard tail. But this horse had no back legs, only two front legs, for the wild horses had bewitched the observers; the clay horse thus had a rump like a cockle burr. The people blew wind and fire into the horse and told it to move but it soon began twisting out of control, wreaking destruction. At this point its makers instructed the tornado horse to stay aloft and never come around their camps. Spider Old Woman next decided to go herself to capture a wild horse at the lake. She threw a stone into the water, wove her web into the ripples to make a lariat, and caught one of the real horses for the people to tame. The tornado horse they called *Tsaeigul* (Red Horse) and he told the Kiowas that if he ever nears their camp, they should call out and tell him to go around another way. The informant for this variant assured Parsons that Red Horse knows and responds to the Kiowa language.²³²

Benjamin Kracht, in his doctoral dissertation on Kiowa religion, cites unpublished notes by Weston Labarre about a story collected in 1935. In that tale, medicine men came upon the wild horses and one became a mole to spy on them. But moles are blind, so the mud model they made was flawed. They built a fire inside it to simulate wild horses snorting and huffing and brought the horse to life, but it became a tornado and can still be

seen “flying through the air breathing fire, with its snake like tail dragging the ground.”²³³

The Red Horse myth draws on richly developed mythic traditions. Many references associated with tornadoes emerge in variations of the story, including Spider Woman, the elk, and moles, who were associated with lightning among some tribes.²³⁴ Marchand speculates that the horse and tornado have interwoven origins because each represents elemental power.²³⁵ It is certain that the tale refers back to a historical time when the horse first entered the Kiowa’s realm of experience. It is interesting that Tebodal’s version, although the oldest recorded, appears to be the least developed of the four variants discussed here. This demonstrates the major influence individual narrators have on shaping oral narrative and tradition.

The Red Horse myth raises several interesting questions. The imagery of the story bears a marked resemblance to equestrian impersonation rituals of the Zia (Sia) and other Keresan pueblos in ceremonies associated with rain and fertility.²³⁶ Still more intriguing is the similarity of this myth to classical evocations of the constellation Pegasus, with only two front legs. Such beliefs would certainly have been in the cultural baggage of early Spanish conquerors and colonists.²³⁷ Is it coincidence that the European constellation Pegasus was also envisioned as a half-horse that mounted to the sky and carried divine lightning?²³⁸ Perhaps the Spanish imported European astronomical imaginings to the plains Indians, who were devoted astronomers and no doubt well acquainted with this constellation pattern.

The tale of Red Horse seems at first glance to be the exception to the rule of a mythic female whirlwind. But closer examination reveals the presence of mythic clues to

its ancient foundations. The makers use parts of an elk to create the new horse, whirlwinds stand in front of its legs, mole and Spider Woman assist in the activity. There is also the linguistic fact that *Manka-iH* (Cyclone) has been re-imagined as Red Horse (*Tsaie-gul*) while *Manka-gul* (Red Wind) remains a traditional *woman's* name in Kiowa.²³⁹ It is logical to speculate that *Manka-gul* may have been an older name for the tornado. The horse myth probably sublimated an ancient female whirlwind myth with the introduction of a new horse culture and Spanish influences when the Kiowa began extensive trade to the south in the late 1600s and early 1700s.²⁴⁰

The Kiowas called the dust-devil *Matou'igyH*.²⁴¹ Not surprisingly, it shared the same traits as dust-devil spirits of other plains tribes; it was usually female, independent, and ill-suited for marriage. The Kiowas featured this whirlwind in many tales, one identical to the Cheyenne tale where trickster marries but ends up single again.

According to Elsie Parsons, once the trickster, Sendeh, tried to marry Deer Woman, but couldn't stomach the grass diet. He then ran across Whirlwind Woman (*Matowikyamayuyi*) and pursued her until, seeming to relent, she asked if he was a strong man, able to hold onto her and never let go. Sendeh boasted that he was and Whirlwind Woman proceeded to take him on a nasty ride through briars, brush, and brambles. When she finally let him go again, he fell down exhausted and bloodied while the whirlwind twisted once more out of reach. Sendeh angrily threw an imprecation after her (the Kiowa equivalent of "Go to Hell") and called her a crazy woman.²⁴²

The widespread appearance of this story rivals even the thunderbird's mythic range. The dual theme of dangerous whirlwinds and powerful females is persistent among many tribes. While most scholars focus on Sendeh almost exclusively, it should

be noted that the other actor of equal significance to the story is the Whirlwind Woman. After all, she is the more powerful entity in the match up, regardless of the version given.

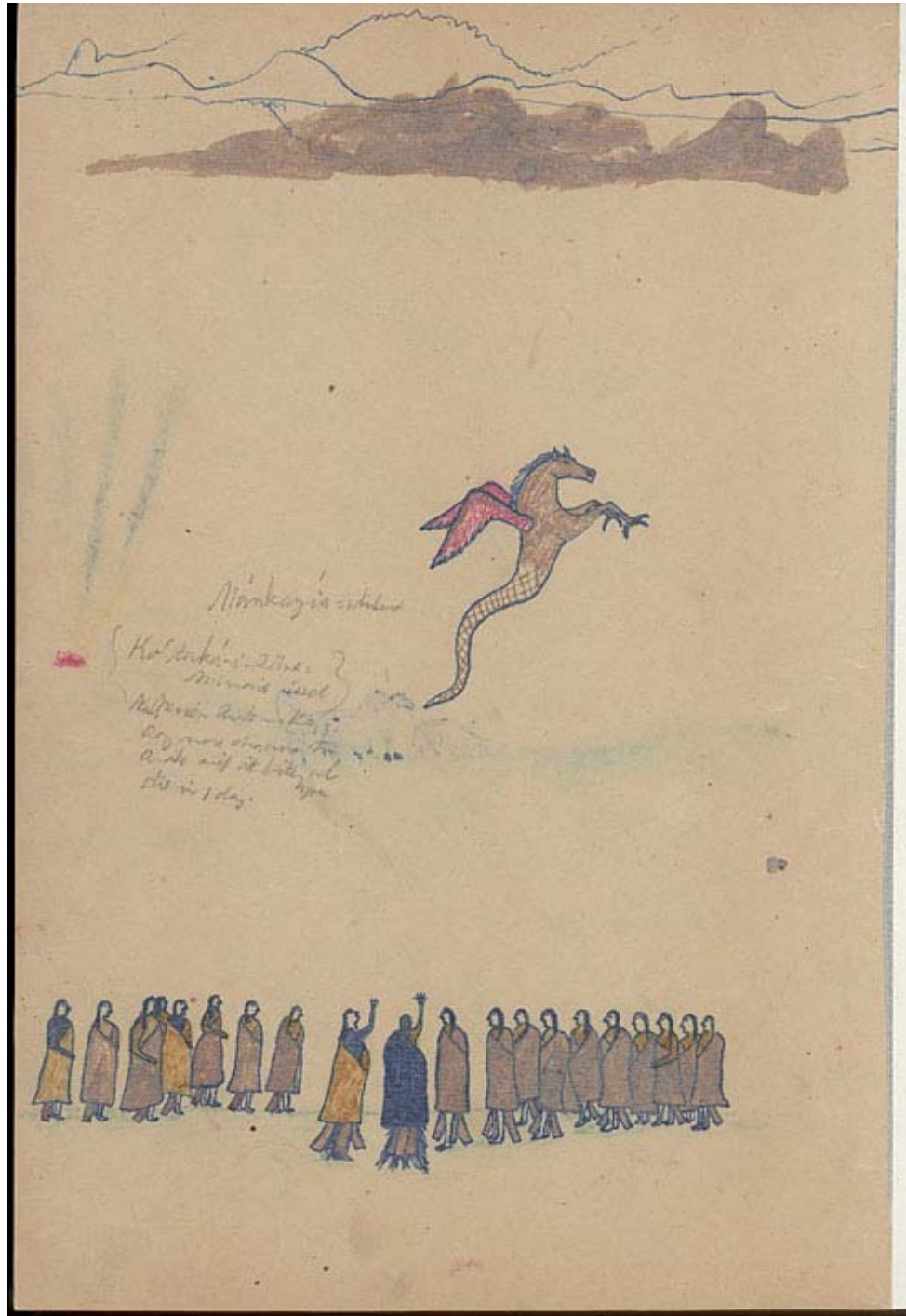


FIGURE 15. Ledger Drawing of Mankayya, the Cyclone

Collected by James Mooney in Oklahoma Territory
Source: Smithsonian Institution National Anthropological Archives
Manuscript 2531, Vol. 2
Summary

As demonstrated by these extracts, there exists an impressive array of tornado-inspired art, tradition, and myth in Native American ethnographical materials. The information, however, is often buried in original narratives and reports, few of which provide the convenience of an index. A great many of the tribal groups surveyed have tornado myths not brought to this discussion. Other groups seem to have lost large chunks of mythological memory by the early twentieth century.

Tribes from coast to coast had tornado legends. Glooscap, a hero of the Micmacs and Passamaquoddys in the Northeast, once tied both of Wind-Blower's wings; realizing his mistake when the earth dried up, he untied one wing to ensure a bit of wind, but no more tornadoes "like those of the olden time."²⁴³ The California Wintus told of a challenge match between Lightning and Wind in which Wind terrifies everyone as a whirlwind: "Lightning said, 'Stop! You beat me, you Wind are frightening! They are all afraid of you, all those who are still alive.'"²⁴⁴ Tornadoes thus existed as a subject of oral narrative all across the country, not only within Tornado Alley.

A common context for these tornado tales is that of rain and agriculture. The wind phenomenon known as a dust-devil is viewed consistently as a different type of entity – a ghost, a messenger, or a witch. Native American myths thus reflect comprehension of the meteorological distinction between tornadoes and dust-devils. They also demonstrate keen understanding of natural science, including how pressure drops stimulate insect emergence, and reflect personal experiences with tornadoes on the ground.

Tornadoes are not unique to North America. They occur around the globe and, as part of seasonal severe storm systems, correlate with rain-based agricultural regions. In the next two chapters, various tornado myths from other agricultural regions of the world and time periods are examined to determine in what ways they may compare or contrast to those of America.

The results are compelling. They provide convincing evidence that a very like set of ancient beliefs linking tornadoes, rain, women, and agriculture have existed at one time or another across the globe. These concepts have persisted as themes and motifs, often unrecognized, in myth and folk-lore around the globe into modern times.

Identifying authentic ancient tornado traditions in other cultures is hampered in two significant ways: the lack of original sources and the problem of linguistic-historical context. Most pre-historic cultures did not have the benefit of curious ethnographers jotting down their myths before the priests arrived. We are thus compelled to work backwards, for the most part, from post-Christian or Buddhist documents, augmented by archaeological remains.

A major exception is the large Mesopotamian literary legacy, un-retouched by intervening narrators for millennia until the nineteenth century.

Nevertheless, latter-day observers did record local beliefs. Folk-lore, being a conservative medium of cultural expression, often preserved old traditions well into the nineteenth century. Even as ethnographers hurriedly recorded North American Indian tales, similar endeavors were underway in Europe, Australia, Africa, and Asia.

Sources used here largely date from the same period as the Native American mythic versions treated in this paper – the eighteenth to early twentieth century.

Exceptions include the above-noted Mesopotamian inscriptions and Chinese sources dating from 600 CE. The myths come from peoples and places where scholars generally agree that ancient agriculture is well attested. The first objective is to document whether and how often tornado references appear in traditions of these regions. The second objective is to examine the overall characteristics of such tales.

The following chapters have divided the inhabited world into two sections. Chapter Three deals with ancient Near Eastern texts, Chinese classical texts, and Australian ethnographic material of the last century. Chapter IV addresses African, Eurasian, and Mesoamerican myths, including ancient Greek material.

Each chapter is organized by major geographic regions and then by linguistic/cultural groups. To the extent possible, ethnohistorical material is used only from collections with well-sourced and respected material that privileges original oral recitations. There are explicit whirlwind myths *per se*, as well as folk-lore containing identifiable vestiges of whirlwind-related elements. Most of the tales are summarized. However, critical original narrative passages are incorporated to the extent possible to avoid interpretive bias. An ironic advantage of Victorian collectors' conceit with regard to their sources was the zeal with which they recorded oral narratives just as received, no matter how provocative, or bizarre the material might have seemed at the time.

NOTES

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⁴ Harriet Maxwell Converse, "Myths and Legends of the New York Iroquois," *Museum Bulletin* 125 (1908 repr., New York: University of the State of New York, 1974), 64.

⁵ Jeremiah Curtin, J.N. B. Hewitt, *Seneca Fiction, Legends, and Myths, Part I: Extract from the Thirty-Second Annual Report of the Bureau of American Ethnology, 1910-1911* (Washington DC: GPO, 1918): 800.

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⁷ *Ibid.*, 488.

⁸ Jeremiah Curtin, *Seneca Indian Myths* (1922; repr., Mineola, NY: Dover Publications, Inc., 2001), 256.

⁹ Converse, *Myths of the Iroquois*, 39.

¹⁰ W. M. Beauchamp, "Iroquois Notes," *The Journal of American Folklore* 5, no. 18 (1892): 223-29, <http://www.jstor.org/stable/532775> (accessed January 29, 2009). Beauchamp writes that the Iroquois were firm believers in witches and he records a tale told to him of a man who went to meet an old woman who suddenly flew into a tree and became a vicious panther snarling at him. When the man stayed calm, the woman transformed back and asked if the man were not afraid. She then helped him become a witch-owl himself. ("Iroquois Notes," 223).

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²¹ Frank G. Speck, *Midwinter Rites of the Cayuga Long House* (1949; repr., Lincoln: University of Nebraska Press, 1995), 70.

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²⁷ *Ibid.*, 573.

²⁸ Sister M. Inez Hilger, "Chippewa Interpretations of Natural Phenomena," *The Scientific Monthly* 45, no. 2 (1937): 178. <http://www.jstor.org/stable> (accessed).

²⁹ A.F. Chamberlain, "The Thunder-Bird Amongst the Algonkins," *American Anthropologist* 3, No. 1 (January 1890): 51-54. <http://www.jstor.org/stable/658327> (accessed 30 September 2005).

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³¹ Ibid., 54.

³² James H. Howard, *Shawnee!: The Ceremonialism of a Native American Tribe and its Cultural background* (Athens, OH: Ohio University Press, 1981).

³³ Ibid., 176-77.

³⁴ Ibid., 178.

³⁵ Ibid.

³⁶ Ibid., 181.

³⁷ Ibid.

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³⁹ Ibid., 245, 297.

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⁴⁶ Ibid., 110.

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⁴⁸Garrick Mallery, "Picture Writing of the American Indians," *Tenth Annual Report of the Bureau of Ethnology, 1888-1889* (Washington, DC: GPO, 1893): 604.

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⁵⁸ *Ibid.*, 266.

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⁶³ *Ibid.*, 8.

⁶⁴ *Ibid.*, 8-10.

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⁶⁷ Robert H. Lowie, *Crow Texts* (Berkeley, CA: University of California Press, 1960), 157-61.

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⁷² Heather Pringle, "A New Look at the Mayas' End," *Science* 324, no. 5926 (24 April 2009): 454-56. <http://www.sciencemag.org/cgi/content/full/324/5926/454> (accessed April 24, 2009). The Maya in western Belize from about 1300 BCE until 960 CE placed pots in caves to appeal to the rain deity Chac. The remains of huge numbers of large pots left during the period 680-960 CE coincided with evidence of a prolonged local drought.

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¹⁴² Ibid., 95-96.

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¹⁴⁸ Ibid., 438.

¹⁴⁹ Ibid., 435.

¹⁵⁰ Ibid., 481.

¹⁵¹ Ibid., 476. Mooney is here quoting from Hagar's MS, *Stellar Legends of the Cherokee*.

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¹⁶¹ Ibid., 87.

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¹⁶³ Ibid., 88.

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¹⁶⁵ Ibid., 87.

¹⁶⁶ Cecil Shipp, personal communication with the author (July 29, 2009). Shipp described witnessing this aunt's storm ritual on several occasions, confirming other family members' similar accounts.

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¹⁶⁸ Ibid., 97-101.

¹⁶⁹ John R. Swanton, *Myths and Tales of the Southeastern Indians* (1929; repr., Norman: University of Oklahoma Press, 1995), 8-9.

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¹⁷¹ Ibid., 9-16.

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¹⁷³ Ibid., 218-22.

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¹⁷⁷ Opler, *Myths of the Jicarilla Apache, 1938*, 95-96.

¹⁷⁸ Opler, Morris Edward, *Myths and Tales of the Jicarilla Apache Indians* (1938; repr., Lincoln: University of Nebraska Press, 1994), 148.

¹⁷⁹ *Ibid.*, 19.

¹⁸⁰ *Ibid.*, 125-26.

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¹⁸⁴ *Ibid.*, 165.

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¹⁸⁶ Morris Opler, *Myths and Tales of the Chiricahua Apache Indians* (Lincoln: University of Nebraska Press, 1994), 95.

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¹⁹¹ Laverne Harrell Clark, *They Sang for Horses: The Impact of the Horse on Navajo & Apache Folklore* (University Press of Colorado, 2001), 221.

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²⁰⁰ J. Walter Fewkes, "An Interpretation of Katsina Worship," *The Journal of American Folklore* 14, no. 53 (1901): 81-94. <http://www.jstor.org/stable/532854> (accessed January 22, 2009).

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CHAPTER III

MYTHS FROM ABROAD:

THE NEAR EAST AND EURASIA

Proud Queen of the Earth Gods, Supreme Among the Heaven Gods,
Loud Thundering Storm, you pour your rain over all the lands and all
the people.

You make the heavens tremble and the earth quake.
Great priestess, who can soothe your troubled heart?

You flash like lightning over the highlands; you throw your firebrands
across the earth.

Your deafening command, whistling like the South Wind, splits apart
great mountains.

You trample the disobedient like a wild bull; heaven and earth tremble.
Holy Priestess, who can sooth your troubled heart?¹

-- hymn to the goddess Inanna from Sumer

Near Eastern Myths

When humans began migrating out of Africa about 100,000 years ago, they moved into the Middle East before fanning out around the world.² Most scholars now believe that agriculture originated about 8,000 BCE in a wide region around the Dead Sea, into Anatolia (Turkey) and the Zagros Mountains.³ Major cultures arose in Mesopotamia (southern Iraq), Egypt, Assyria, and the Anatolian highlands (the Hittite Empire). All of these civilizations were based on agriculture and centered around the

Tigris and Euphrates river valleys and alluvial plains. The weather in such areas is similar to that of other agricultural regions worldwide. Seasonal and often violent thunderstorms bring spring rains and winter snows, along with powerful dry winds in summer.

Written archives from the region are abundant. Dating from about 3,000 BCE, they reflect the existence of a plethora of Mesopotamian deities who represented storm and agricultural themes. Translation and contextual interpretations have been possible since the late nineteenth century, but they are being continually revised and revisited.

This section deals with extracts from ancient Sumer and the Old Hittite Kingdom. Both cultures had a vast array of paired gods and goddesses with a dominant pair of storm deities. What is less clear is the original extent and manner in which these deities shared power. Interpretations of the storm goddess' role have long been based on ahistorical assumptions of a normative patriarchy. It remains to be seen if these views can withstand careful study.

Evidence, both literary and archaeological, is abundant that both male and female storm gods were extremely important. In fact, until the explicit introduction of patriarchal descent by the Hittite King Telapinnu around 1525 BCE, (as a result of his sister's challenge to his rule), kingship was based on the female bloodline. Previously, the King's heir was usually his nephew – specifically, his sister's son. The Hittite scholar Surenhagen describes this system as an “avunculate.”⁴ Yet this male-centric term deliberately obscures the actual dynamic at work: male rule based on female lineage for its validation.⁵

This section looks at one of the most famous storm/agricultural goddesses in history, Inanna, as well as one of the most infamous -- Lilith. The following selections of

mythic material from Sumer and the Hittite Kingdom touch on explicit examples reflecting the relationship between women, agriculture, rain, and tornadoes of this region.

Sumeria

Sumerians spoke a non-Semitic language unattested elsewhere. Referred to commonly as the Cradle of Civilization, Sumer was centered in the area of the Tigris and Euphrates rivers – southern Iraq today. Scholars believe it was the first culture to develop year-round agriculture. This practice led to abundant production, highly developed religious and administrative organization, and written language from about 2300 BCE. From about 6000 BCE, Sumer flourished for millennia. Around 2000 BCE, Babylonia gained power in the North, eventually eclipsing Sumer (whose southern croplands had seriously degraded), and created a united Mesopotamian Empire.⁶

The Sumerian scholar Samuel Kramer considered *Inanna* one of the most important of the Sumerian deities.⁷ Addressed as “Queen of Heaven and Earth,” she was a deification of the planet Venus, both as morning and evening star. She shared her temples with *An*, the Sky God, whose two counterparts were *Ki* (Earth Goddess) and *Nammu* (Goddess of the Watery Deep). *Inanna*’s mate was *Dumuzi* (var. *Tammuz*), a Shepherd-King. Her many attributes included warlike roles, as well as unquestioned submission by the other gods.⁸ She declares to Dumuzi in one inscription: “In battle I am your leader, in combat I am your armor-bearer, In the assembly I am your advocate, On the campaign I am your inspiration.”⁹ *Inanna* was known variously as *Ishtar* in later Babylonian times. As *Astarte*, she was worshipped all across the Middle East by the Biblical period and well into Roman times.

The first two stanzas of “Loud Thunder Storm,” a paeon to Inanna, who appears at the beginning of this chapter, reflect an explicit link to thunderstorms and tornado-like destruction. This goddess is not maternal; she has no children. According to Sumerian verses reciting her story, she was forced into marriage with Dumuzi, a shepherd-god. She resisted for a time, wishing to marry a farmer-god and is soon proven correct in her misgivings. Dumuzi dominates her to become sole King and Inanna visits her older sister, Queen of the Underworld, *Ereshkigal*, to seek justice. The gods finally decree that for part of each year Dumuzi and Inanna will be together, then Dumuzi must go to the underworld for the rest of the year.¹⁰

The theme of female dominated agricultural society shifting to a pastoral-agricultural male rule is interwoven in the normal myth of seasonal cycles. Despite her retrenchment in status, Inanna still retained tremendous influence in Sumerian religious belief for a long period, as evidenced in literature and iconography. Her priestesses are shown validating the authority of kings and presiding over crucial ceremonies, especially regarding agriculture. Her presence is thus intrinsically tied to kingship and agricultural success.

Inanna, however, was not the first great goddess emerging from the archives of Mesopotamia. In Sumerian narratives recovered concerning the origins of the world and Inanna’s own life story, another female presence can be found. In “The Huluppu-Tree,” (dated about 2,000 BCE), the story of Inanna and her brother, Gilgamesh, begins:

“In the first days when everything needed was brought into being,
In the first days when everything needed was properly nourished . . .
a single tree, a huluppu-tree was planted by the banks of the Euphrates . . .
The whirling south wind arose, pulling at its roots, and ripping at its branches
Until the waters of the Euphrates carried it away.
A woman . . . plucked the tree from the river and spoke:

I shall bring this tree to Uruk. I shall plant this tree in my holy garden.
. . . Inanna cared for the tree with her hand.
. . . The years passed . . . then a serpent who could not be charmed
Made its nest in the roots of the huluppu-tree.
The Anzu-bird set his young in the branches of the tree.
And the dark maid Lilith built her home in the trunk.

. . . [then] Gilgamesh struck the serpent who could not be charmed.
The Anzu-bird flew with his young to the mountains;
And Lilith smashed her home and fled to the wild, uninhabited places.
Gilgamesh then loosened the roots of the huluppu-tree;
And the sons of the city, who accompanied him, cut off the branches.
From the trunk of the tree he carved a throne for his holy sister.
From the trunk of the tree Gilgamesh carved a bed for Inanna.”¹¹

The “dark-maid Lilith” is a great goddess more ancient than Inanna. The fact that she is portrayed as a demoness alongside Inanna (who submits to a new king) almost certainly reflects a powerful earlier role for Lilith. Most importantly, Lilith is a primal storm and tornado deity -- deliberately excised from the emerging Sumerian world order of circa 2000 BCE.

As an older deity fundamentally problematic to a new male regime, Lilith was not a suitable candidate for mythic marital domination. This goddess was intrinsic to a sacred tree, which ‘whirling winds’ picked up and delivered to receive sacred status in a garden. The tree and Lilith are later methodically destroyed by Gilgamesh, the male deity. Banished to the desert, she was assigned a demonic aspect, an attribute which persists to the present.

Scholars note that the *father* of Gilgamesh was supposedly a *Lillu*-demon, of whom there were four. The females were *Lilitu*, *Ardat Lili* (Lilitu’s handmaid) and *Irdu lili*, presumably a male counterpart to Ardat. Ardat and Irdu were linked to ghostly or misbegotten children. As Raphael Patai asserts, “originally they were storm-demons, but because of a mistaken etymology they came to be regarded as night-demons.”¹²

Lilitu/Lilith was titled “the beautiful maiden,” but interpreters of Sumerian texts continue to aver that she was (and by inference, always *was*) a “harlot and a vampire.”¹³ Yet her position as a virgin goddess is reflected in the term maid. In addition, her description as a “dark-robed maid” echoes similar “dark-robed” Hittite storm gods and a “dark-cloaked Demeter in her temple” as evoked by Hesiod in the eighth century BCE.¹⁴

A famous terra-cotta relief from the period at the British Museum depicts a beautiful, naked woman with wings. Her feet are bird-like talons and she is standing on two lions facing away from each other. The lions are flanked on each side by gigantic owls. She wears a headdress with horns and holds in each hand a rod and ring device. This is obviously a powerful goddess, *not* a demonic being. The original background was black. Once assumed to be a figure of Lilith, the relief is now titled simply “Queen of the Night” (see Figure 13). This avoids calling her a goddess (why is this so problematic?) and focuses only on the nocturnal imagery. Taken in full context, however, this was no doubt a representation of a powerful storm-wind goddess, probably a Lilith-type deity. The persistence of symbolic imagery including horns and wings associated with a storm goddess in ancient Mesopotamia can be seen by comparing Figure 16 with Figure 17, a much older Akkadian cylinder seal.



FIGURE 16. “Queen of the Night” relief (color restored)

Old Babylonian 1800-1750 BCE Southern Iraq

Courtesy of © Trustees of the British Museum

The presence of wings generally denotes a wind entity. Greek harpies had wings and raptor feet and were linked explicitly to whirlwinds. A seventh century BCE Syrian tablet depicts Lilith as a winged sphinx.¹⁵ The two huge owls in the British Museum tablet are generally interpreted as death and night symbols. But owls have a global legacy as symbols of primal female deities, not simply the underworld. Australian tales specifically link the whirlwind with owls and women. Athena is often depicted holding an owl as a symbol of wisdom, prophecy, and supernatural powers.

The black background may denote storm clouds. Such color association is known worldwide, including North America. In the Middle Ages, Kabbalic lore linked Lilith and three co-demons with the vernal equinox (Lilith), the summer solstice, the autumnal equinox, and the winter solstice.¹⁶ This equation of Lilith with the spring rains may not be purely coincidental, but reflect a persistent understanding of her deeper association with seasonal weather and spring storms.

The rank of goddess is clearly indicated by the well-attested tradition of showing a deity on top of two lions. The tableau of a goddess flanked by or standing on lions is repeated across the ancient Middle East and Mediterranean region. An ancient cylinder seal from Akkad depicts a storm goddess riding a chariot on top of a lion-griffin, holding in her hands bundles of serpent-like rain and being driven by a male storm god and receiving libations from a priest (see Figure 17). A famous figurine discovered by archaeologists at Catalhoyuk, Turkey, and dating from about 6,000 BCE portrays a seated goddess using two large felines as armrests.¹⁷ The famous lion gate at Mycenae echoes the theme, with two lions leaning into a central pillar that replaces the goddess.



FIGURE 17. Worshipper pouring libation before goddess standing on lion-griffin that draws chariot driven by weather god: Cylinder seal impression.

Akkadian 2340 - 2150 BCE Southern Mesopotamia

The storm goddess holds bunches of rain, with snake- or lightning-like appearance. Note the horns on her headgear. The wings of the lion-griffin may connote storm winds.

Courtesy of The Pierpont Morgan Library, New York. Morgan Seal 220

Hittites. The Hittites were an Indo-European speaking people of unknown origins before they appear in the historical records of central Anatolia about 2000 BCE. The Old Kingdom centered at Hattusa, Turkey dates from about 1700 BCE. Hittite power mysteriously collapsed about 1180 BCE. We have a wealth of written cuneiform records of the Hittites dating from 1650 BCE.¹⁸

Storm and weather gods and goddesses permeate the historical and religious texts of the Near and Middle East. While rulers shifted their favored allegiances between

alternating storm gods and goddesses, the pantheon itself remained relatively consistent over a long period of time. The sun-goddess *Arinna*, the storm-god of Hatti, and his son, *Telipinu* (a storm god in charge of agricultural productivity and vegetation) are dominant deities. References to Telipinu clearly link him to violent, spring thunderstorms as well as the vital rain need to nourish the land and its occupants.¹⁹

Hittite records are replete with prayers, rituals, and invocations that demonstrate the supreme importance these weather deities held for the ancient Hittites. Itamar Singer, a respected Hittite scholar, writes, “the joint invocation of the Sun and the Storm deities as the supreme gods of kingship is typical of Old Hittite rituals and ... the word of the gods is compared to an iron peg [to] ‘nail down’ witchcraft and uncleanness.”²⁰

A Hittite prayer credited to the king, Muwatilli, constitutes one of the most complete inscriptions known. Muwatilli’s own personal deity was the storm god of lightning, but this prayer involves a wide-ranging invocation to all the gods of the core Hittite region. A small extract suffices to convey the prayer’s long recitation of storm gods and goddesses that reigned across the land:

(i37-39) Sun-god of Heaven, Sun-goddess of Arinna, Storm-god of Arinna, Mezzulla, Hulla, Zinduhiya, male gods, female gods, mountains and rivers of Arinna, Storm-god of Salvation, Storm-god of Life.

(i40) Storm-god of Lightning, Hebat of Samuha, male gods, female gods, mountains and rivers of Samuha,

(i41-42) Storm-god of lightning, Sun-goddess of Arinna, Hebat, queen of Heaven, Storm-god of the Ruin, gods of the palace of the grandfather . . .²¹

The following myth has very deep Anatolian roots and is widely attested in the Hittite archives. The main character is usually Telipinu, but on occasion the storm god

(father) is the central actor. Trevor Bryce provides this (abbreviated) translation of one well known version:

The god Telipinu has flown into a rage. He puts on his shoes and departs the land. Crops wither and die, sheep and cattle reject their young and become barren, men and gods starve. In great alarm, the storm god, father of Telipinu, dispatches an eagle to search for his wayward son. The search is in vain...In desperation the storm god sends a bee to look for him. The bee searches on high mountains, in deep valleys, in the blue deep. Finally, in a meadow, it discovers Telipinu.

It stings his hands and feet, bring him smartly upright . . . But the god's anger remains unabated . . . In an orgy of destruction, he unleashes thunder and lightning and great floods, knocking down houses and wreaking havoc on human beings, livestock, and crops. Then Kamrusepa, Goddess of magic, is sent to pacify him and bring him back . . . Telipinu returns and once more cares for his land. All is restored to normal. The land once more becomes fruitful.²²

Bryce believes this mythic story dates back to at least the early Old Kingdom of the Hittites, if not much earlier. It is the classic story of seasonal storms and the link to fruitful agriculture. Other versions have the goddess Hannahanna intervene and calm the god down and an eagle is first sent to search, but fails.²³ The appearance of bee sent in search of the missing god has direct parallels in many other (later) world cultures, including Native America. The tempestuous young god represents thunderstorms, spring rain (needed for crops) as well as tornadic-level destruction. The problematic issue of the thunderstorms' dual aspects of destructive and creative power is an eternal dilemma.

Eurasian Myths

This section deals with the area generally reaching from the British Isles to the Russian Steppes, from Scandinavia to the Balkans, and from India to Japan. Beginning with the retreat of the ice about 11,000 BCE, modern humans fanned out across the vast landmass of Eurasia. Most languages spoken in Europe for the last several thousand

years belong to the Indo-European (IE) family of languages. The original homeland of the people who spoke IE is still hotly debated, with alternate theories of a Black Sea or Southeast Asian hearth. Also debated is just how the language, culture, and IE speakers disseminated across the continent.

Within Europe, a few non-Indo-European groups continue to exist. Basque origins are lost in the ice of the Paleolithic. The Finns and Hungarians share a related tongue called Finno-Ugric with its origins in Southwest Asia. Farther east, the Siniatic language family prevails. This vast stretch of peoples and cultures represent perhaps some of the earliest out-of-Africa populations in the world. This chapter will touch on myths of China and Japan, centers of sophisticated agricultural civilizations in East Asia.

Many researchers believe that agriculture probably arrived with the Indo-European speakers from the Levant about 10,000 years ago.²⁴ Evidence for agriculture based on domestic cereals, beans, goats and sheep in Southwest Asia / Southeast Europe indicates seed crop agriculture was developed at least by 8,000 BCE in a range of territory that reached from the Levant into the uplands of Anatolia and the Zagros mountains. Neolithic settlements in Greece date from the seventh millennia BCE and relied on a wide agricultural base that included cereals, beans and other pulses, as well as domestic livestock.²⁵ By 5,000 BCE, agricultural communities are known to have stretched from Greece to the center of what is now Germany.²⁶

Severe weather, including tornadoes, is widespread across Europe and the Eastern Mediterranean, from the Canary Islands to Scandinavia. This fact has not been well appreciated until quite recently. Meteorological research has, however, in just the past few years begun to address the dearth of study and reporting on severe weather and

associated phenomena such as tornadoes in European countries. As the meteorologists Harold Brooks and Charles Doswell concluded in 2003, “severe thunderstorms and tornadoes are much more common in Europe than most Europeans realize.”²⁷

Recent analysis of the data indicates that the frequency of tornadoes is much higher than previously estimated, probably reaching at least 700 actual events annually. Since formal reporting mechanisms only began in Europe in 2006, and do not include all regions, the actual number and strength of tornadoes associated with severe storms are yet to be well understood.²⁸

According to a study in 2003, a large swath of Southern Europe appears to host the greatest frequency of significant severe thunderstorm environments, notably over the Spanish plateau and the region east of the Adriatic Sea. The most significant tornado-prone regions were around Bosnia (with the highest frequency of the continent), France, western Germany, and the Ukraine.²⁹ Intriguingly, this data correlates with the rich tornado mythology found in just those areas.

The British Isles and Scandinavia also experience tornadoes and severe storms. The United Kingdom records more tornadoes per land area than the United States, although the total number is much smaller.³⁰

Indo-European Speakers

Ancient Greeks. Greek myths form the background of the classical Western mythological tradition. Powerful female deities, brother-sister unions, and agriculture loom large in Greek myth. Demeter (agriculture) and sky-king Zeus produce Kore (Spring and fertility). Zeus marries his sister, Hera, goddess of earth, women, marriage

and sexuality. The remains of important wind and whirlwind-linked deities abound in the mythic legacy of the Mediterranean.

Archaeological remains link severe storms and religious rituals in the region. Some of the most ancient temples in the eastern Mediterranean were located on high mountain tops. In these cloud-touching sacred places, lightening rods were incorporated into temple structures. Scholars have posited that attracting lightening strikes into the temple precincts would prove an impressive demonstration of a temple's ability to communicate with the sky gods, particularly rain and storm deities.³¹

But equally important as Zeus, the storm-god was the primal deity, Hecate. According to Hesiod, "Zeus, the son of Cronus, honoured [her] above all. . . . she holds, as the division was at the first from the beginning, privilege both in earth, and in heaven, and in seas. . . . Whom she will she greatly aids and advances; she sits by worshipful kings in judgment, . . . and when men arm themselves for the battle that destroys men, the goddess is at hand to give victory and grant glory. . . ." ³² Hecate has "three bodies and three heads – lion, dog, and mare." She is doubtless a direct heir of the primal storm goddess of the ancient Near East, with lions now complemented by dogs and horses as additional resources at her disposal.

Agriculture was a key aspect of Greek myth. At the heart of the Eleusinian Mysteries is the tale of Demeter and her daughter Kore. These agriculturally-focused initiation rituals are thought to date from at least the fifteenth century BCE.³³ Scholars believe the *Homeric Hymn to Demeter*, a sung prayer, dates from about 650-550 BCE.³⁴ In it, Kore is captured by the underworld deity of death. Despite her mother's best efforts, she is doomed to spend one third of her life below ground in the dark, marking

winter, and two thirds above ground with her mother, celebrating the agricultural year. The parallels with Sumerian Inanna are obvious. The Mysteries were focused on agricultural success and as Helene Foley points out, “all important rites of Demeter in Attika seem to have been linked (at least loosely) to stages of the agricultural year.”³⁵

The serpent associated with wind was also present. Typhon was the son of Gaia, furious at the gods when her giant progeny were killed. Serpents made up the lower part of his body. His approach sent the gods scurrying from Olympus to Egypt. Athena alone remained and dared Zeus to counter the monster. In the battle, Typhon captured Zeus and handed him over to his sister, the serpent-tailed Delphyne [at Delphi]. According to Robert Graves, the Greek commonly ascribed snake-tails to the wind entities and Delphyne’s mate was alternatively called *Python*.³⁶

The Harpies were female Greek wind spirits often associated with destructive winds on sea and land. They were blamed for hurricanes as well as whirlwinds, especially since seaspouts on Mediterranean coast frequently move ashore as tornadoes. Most writers viewed these creatures as malevolent and ugly, snatching up humans and delivering them to the Fates. Robert Graves, the mythologist, interpreted Harpies as the “personifications of the Cretan Death-goddess as whirlwind (Homer: *Odyssey* i.241 and xx.66 and 77) but, in [the context of the Argonauts] appear to have been sacred birds, kites, or seaeagles, for which the Thracians regularly set out food.”³⁷

Athena was an important female deity and as Graves explains, Plato saw her as identical with the Libyan goddess Neith, “who belonged to an epoch when fatherhood was not recognized.”³⁸ Her aegis was a goat-skin bag of serpents, adorned by a gorgon’s head.³⁹ Athena often appeared as either a Virgin warrior goddess or as the Crone who

oversaw the oracles and the arts. Graves comments that Aphrodite preempted the role of sexual being from Athena. In her aspect as wise crone, Athena was accompanied by the owl and the crow. It is telling that Athena also played foster mother to Erichthonius, the serpent-tailed god who represented the mountain winds.⁴⁰

Celts and Cymry Folk-lore in the British Isles also reflects a tangle of continental mythologies and regional-historical legends. The remoter sections of Ireland, the Scottish Highlands, Wales, and parts of Brittany have a characteristic set of myths which have been styled at times as deriving from a “Celtic-Cymry” culture. This section will touch on a few themes from these regions that reflect older whirlwind motifs.

In Ireland, W. B. Yeats collected Irish folklore in the late 1800s and published them in two edited books, *Fairy and Folk Tales of the Irish Peasantry* (1888) and *Irish Fairy Tales* (1892). His work echoed that of the North American ethnographers across the Atlantic during the same time period. Yeats used a wide ranging set of sources and was quite deliberate in his approach to the oral traditions he encountered, although his selection criteria were greatly influenced by “his preference for the most imaginatively extravagant” tales.⁴¹ Several of his tales deal with whirlwind spirits.

Yeats obtained the tale of “Fergus O’Mara and the Air-Demons” from Dr. P. W. Joyce who introduced the story this way: “of all the different kinds of goblins that haunted the lonely places of Ireland in days of old, air-demons were most dreaded by the people. They lived among the clouds, and mists, and rocks, and they hated the human race with the utmost malignity.”⁴² Joyce went on to relate a whirlwind tale which is summarized and partially excerpted below.

In County Cork, a farmer named Fergus O’Mara lived in a remote area on the

south side of the Ballyhoura mountains. Near here, on a hill, “loud fiendish laughter” could be heard on stormy nights. An old monk warned Fergus that if he ever “yielded to temptation ...or fell into sin” the air-demons would have the opportunity they sought. When O’Mara’s seven year old daughter died, she begged to hold a blessed candle at the end. A year later, as Fergus went to Mass, he encountered a magnificent deer chased by a pack of eager Hounds at the area of demon’s Rock. “Seduced by the prospect of a good chase,” Fergus dashed off after them. Hours later, they all disappeared and their cries turned to shrieks. “He started up and set out for his home, but before he had got half-way night fell and a storm came on, great wind and rain and bursts of thunder and lightning. Suddenly here burst on his ears...shouts and shrieks and laughter. A great black ragged cloud, whirling round and round with furious gusts of wind...came sweeping and tearing towards him. ..he rushed for home. But the whirlwind swept nearer, til at last ... he saw the black cloud full of frightful faces. He then saw his daughter quietly seated inside the whirlwind holding her burning candle, with her “long, yellow hair.” She hovered between him and the “cloud of demons... furiously whirling round and round him, bringing with them a whirlwind that roared among the trees and bushes and tore them from their roots.” He made it home safely, and the storm “ravaged the ground...tearing trees from their roots.”⁴³

The description of a tornado is unmistakable. A young girl with long, yellow hair is associated with and able to control the ‘demons’ of the storm, although she is now a Christianized ‘angel’ protecting her father from evil. The appearance of the stag and the hounds as storm beings is a familiar European theme. In the full narrative, the source takes pains to describe the farm and its southerly location (thus prone to storms and precipitation). In the original tale, in fact, the farm receives more descriptive attention than the man. The progress of the whirlwind across the landscape and eventually away into the night is also carefully reported in realistic fashion. The story combines personal experience of tornadoes, an old link to agriculture, and the persistent theme of young girls in the whirlwind.

Several excellent collections of Welsh oral narratives date from the 18th to late 19th centuries. Two categories of fairy women appear in most of them. Young seductive girls associated with lakes and water sources are known as the *Gwraedd Annwn* (ladies

of the underworld/shadow world) and frightening old women of the remote, hill country are the *Gwyllion* (hags or witches) who “lead night-wanderers astray and partake somewhat of the aspect of Hecate of Greek mythology, who rode on the storm).”⁴⁴ The fairy women are usually associated with bread, agriculture, cattle, and marriage (the lake fairies); or with evil, magic, and whirlwinds (the hag).

Versions of the two themes about fairy women presented below come from two students of Welsh mythology. Wirt Sikes was the American consul at Cardiff in the late 1870s. W. Jenkyn Thomas was a schoolmaster in South Wales and published his own collection of tales in *The Welsh Fairy Book* in 1908. Thomas prided himself on retaining authenticity and stated that “nothing has been inserted that is not genuinely traditionary [sic].”⁴⁵

Sikes published *British Goblins: Welsh Folk-lore, Fairy Mythology, Legends and Traditions* in 1880. In a chapter labeled “Lake Fairies,” he writes:

The *Gwraedd Annwn* (literally, wives of the lower world, or hell) are the elfin dames who dwell under the water. I find no resemblance in the Welsh fairy to our familiar mermaid, beyond the watery abode, and their sometimes winning ways. The *Gwraedd Annwn* are not fishy of aspect, nor do they dwell in the seas. Their haunt is the lakes and rivers, but especially the wild and lonely lakes upon the mountain heights ... In the realm of faerie they serve as avenues of communication between this world and the lower one of annwn, the shadowy domain presided over by Gwyn ap Nudd, king of the fairies...the belief is current among the inhabitants of the Welsh mountains that *Gwraedd Annwn* still occasionally visit this upper world of ours.⁴⁶

He also comments that “The water-maidens of every land doubtless originally were the floating clouds of the sky, or the mists of the mountain.”⁴⁷ Briefly summarized, most of these Lady of the Lake tales concern women, medicine, marriage, and bread. A classic version has a young farmer see three fairy women at the lake and hears them sing “*Cras dy fara, Anhawdd ein dala* (Bake your bread, ‘Twill be hard to catch us.)” He eats wet

bread that he finds on the lake and is thus able to marry one of them. She has three sons, known as the *Meddyon Myddfai* (*Meddygon* means physicians). When he eventually breaks his magic compact (by striking her three times), his wife returns to the lake, but gives her sons a magic box containing “remedies of wonderful power.”⁴⁸

Water- spouts – tornadoes on water – are also invoked as guardians of ancient religious water sites. W Jenkyn Thomas tells of Lake Llyn Cwm Llwhch. Here, he writes, “in very ancient times there was a door in a rock hard by, which opened once each year – on May Day -- and disclosed a passage leading to a small island in the centre of the lake. This island, however, was invisible to those who stood upon the shore.”⁴⁹ Anyone who visited the island on May Day would be welcomed. But it was forbidden to take anything away from there. When once a man tried to steal a flower, he was cursed forever with idiocy and the door shut forever. Centuries later, locals thought to drain the lake. But just as they began to dig a trench:

a flash of lightning was seen which averted the blow; the sky became black, a loud peal of thunder rolled among the mountains, making their thousand echoes, and all the workmen ran...as the sound of thunder died away, a sort of ripple was perceived on the face of the water, and the centre of the lake became violently agitated. From this boiling eddy was seen to arise a figure of gigantic statue, whose hair and beard were at least three yards in length. Standing nearly half out of the water, he addressed the workmen:

If you disturb my peace,
Be warned that I will drown
The valley of the Usk,
Beginning with Brecon town.

He then disappeared amidst a terrific storm of thunder and lightning.⁵⁰

The lake figure presents as a large water spout. The description of the secret access way would appear to have some explanatory value regarding the persistently recurrent “ladies in the lake” theme. Smaller water spouts occurring on wind-whipped

mountain lakes might have also encouraged the imagery of a fairy lady on the water. The tales never have her under the water – always hovering on the surface.

There is also a repeated significance of May Day in most of these tales, pointing to remembered Pre-Christian religious sites. Ritual marriages outside the lake temple and the eventual return if/when women were not respected are key themes to the tales. The symbols of bread, cattle, medicine, and magic reinforce the linkage to women, water, and agriculture.

The *gwyllion* or “mountain fairy” is a typical tornado spirit. Sikes explains that “the Welsh word *gwyll* is variously used to signify gloom, shade, duskiness, a hag, a witch, a fairy, and a goblin but its special application is to these mountain fames of gloomy and harmful habits, ... the Old Woman of the Mountain typifies all her kind.” According to one of Sikes’s written sources, referred to as Prophet Jones, The Old Woman of the Mountain appears in the “semblance of a poor old woman, with an oblong four-cornered hat, ash-coloured clothes, her apron thrown across her shoulder, with a pot or wooden can in her hand.” She wails in distress and leads travelers astray during the night or during misty, rain days.⁵¹

In one account, a man is walking toward Caerleon fair. He hears a great noise behind him, which grows in intensity and sounds like a huge coach clattering up. This racket is accompanied by the *gwyll*’s mournful wail. He throws himself off the road and onto the ground waiting for the fearsome thing to pass. Once it goes by, he again hears the birds singing and all is well.⁵²

Another source told Sikes that the “*Gwyllion* often came in to the house of the people at Aberystroth, especially in stormy weather.”⁵³ One Evan Thomas was

“travelling by night over Bedwellty Mountain, when he saw the Gwyllion on each side of him, some of them dancing around in fantastic fashion. He also heard the sound of a bugle-horn winding in the air and there seemed to be invisible hunters riding by. He began to be afraid, but recollected his having heard that any person seeing Gwyllion may drive them away by drawing out a knife. So he drew out his knife, and the fairies vanished directly.”⁵⁴

A repeated idea in Welsh folk-lore is that goats are the original gwyllion. In tales entitled “Cadwaladr’s Goat,” a goat-herder becomes angry at his prize female goat and kills her. Now a spirit woman, she in turn lures him to his own death. Thereafter, goats and gwyllion were linked entities. As Sikes explains, “goats in Wales are held in peculiar esteem for their supposed occult intellectual powers.”⁵⁵

The gwyllion tales – of which there are innumerable versions -- make it clear that storms and whirlwinds correspond to female demons, night-hags, or witches. The linkage of these whirlwind witches with goats echoes similar associations between female spirits and goats in North African and Slavic mythology. The throwing of or metal knives into the whirlwind to “kill” it is also a commonly repeated theme across continents, from Africa to Australia.

The section concludes with lore concerning wells from John Rhys’ book *Celtic Folklore: Welsh and Manx* in 1901. Rhys was a renowned folklorist and Welsh philologist dedicated to field work and collecting authentic oral renditions. Although this selection does not concern tornadoes, it does resonate with the ancient African tale of wells, women, and whirlwinds, and provides an explanation for why a well must be able

to “hold down its water.” In 1893, John Rhys read the following to a joint meeting of Cymmrodorian and Folk-Lore Societies:

It is only recently that I heard for the first time of Welsh instances of the habit of tying rags and bits of clothing to the branches of a tree growing near a holy well. ... It is the custom there [Glamorganshire holy well] for people suffering from any malady to dip a rag in the water...the rag being then places on a tree close to the well...We [Rhys and companion] found the well, which is a powerful spring, surrounded by a circular wall. It is overshadowed by a dying thorn tree, and a little father back stands another thorn which is not so decayed; it was on this latter thorn we found the rags. ⁵⁶

Rhys goes on to detail the many follow-ups with sources and site visits that convinced him that this had been an ancient tradition at many sites in Wales, but was swiftly disappearing. He quotes from another folklorist, a Mr. Gomme, that “in other parts [of Scotland], the geographical distribution of rag-offerings coincides with the existence of monoliths and dolmens.” ⁵⁷ Rhys continues at some length with other instances and details of well offerings, including the necessity to keep river-fed wells covered at all times to prevent out-flooding. He concludes, after extensive discussion of folkloric and other evidence, that women had been linked to guardianship of the wells in question since time immemorial and writes that “we have a succession which seems to point unmistakably to an ancient priesthood of a sacred spring.”⁵⁸

Continental Europeans. Across the continental reaches of northern and western Europe a common myth conceives of thunderstorms as chaotic, violent ‘hunts’ careening across the sky. This image is commonly found in paintings and other artistic depictions.

As Jacqueline Simpson summarized in *European Mythology*:

It [the Hunt] has two sub-types, often overlapping. In one, the Hunter is a solitary ghost, doomed to hunt for ever because in life he had broken the Sabbath for love of the sport, or had tramped the crops of the poor. In the other, he is a demonic creature who rides through the air leading a host of damned souls, with

spectral horses and hounds, and sometime devils too. The Wild Hunt is particularly associated with midwinter nights (Norwegians call it *jolerie*, ‘the Christmas Host’), but may appear at other seasons too. It is sometimes said to emerge from inside a mountain. . . its coming is heralded by fearful noises – thunder, roaring winds, the howls of demonic dogs – and it flattens everything in its path. The sinful ghosts are mutilated and deformed, and cruelly ornamented by the accompanying demons and dogs. Anyone who sees the Wild Hunt approaching should fling himself face down with his arms spread like a cross, lest he be swept up to join them.⁵⁹

Simpson notes that some scholars have discussed whether the Hunt refers to whirlwinds, but then dismisses the idea as not important (!). She also seems to have conflated the characteristics of severe thunderstorms, which primarily occur in spring, with those of winter storms, which rarely produce lightning, thunder, and tornadoes. Winter storms do not, usually, flatten everything in their paths. However, she continues, “many scholars, from Jacob Grimm onwards, have linked it with Indo-European gods, particularly the Germanic Wotan/Odin and the Hindu Rudra. A few areas of Jutland and southern Sweden do indeed name the hunter Odin, while in Austria and Bavaria the Hunt is led by a female figure, Perchta, who is probably derived from a Germanic goddess.”⁶⁰

The depiction of destructive thunderstorm winds and tornadoes is accompanied by the proper response by humans who find themselves in the path of a funnel: they must lie flat on the ground. The traditional linkage to Indo-European gods, especially goddesses, is also evinced in these myths. The Teutonic goddess of life and spring was known as *Eostre or Ostara*. In Germanic belief she is associated with the coming of spring, the full moon, eggs, and rabbits. The seventh century chronicler Bede recorded that the English “in olden time” called the early spring months after goddesses and linked them to important ceremonies. March was called *Hrethamonath* (*monath* meaning moon, as they followed a lunar calendar) after the goddess Hretha to whom they offered up sacrifices.

April was *Eosturmonath*, derived from the goddess named Eostre, “in whose honour feasts were celebrated in that month.”⁶¹

The Slavs. The Slavs are thought to have origins in the middle Dnieper river area. By the eighth century, the Slavs had expanded across an immense range of Central and Eastern Europe and the Balkan Peninsula. The Slavic world includes the Romanians, although they speak an Italic language. Despite this, Romanians and their Slavic-speaking neighbors have deeply entwined cultures and beliefs. Although Christianity arrived in the region relatively early, it was largely a faith of the urban elite. The Slavic countryside maintained fiercely conservative attitudes towards traditional beliefs and rituals well into modern times.

Agriculture and pastoralism continue to characterize the rural environment to the present day. Thunderstorms with tornadoes are common in the region, although not spoken of at large and, until recently, very little studied. That has changed dramatically in recent years as meteorological research has increased significantly in the region as the technological expertise and need for such information has expanded.

Slavic mythology with its ancient mix of Iranian, Indian, and Middle Eastern influences has provided abundant material for folklorists and linguists. This section will highlight only a few of the many storm deities, storm-related related rituals, traditions, and whirlwind myths/ beliefs discussed in the literature.

Procopius, the 6th century Byzantine historian, stated in *Bellum Gothicum* that South Slavs worshipped “a supreme god [whom they] believed...to be the creator of lightning and made sacrifices of bulls to him”⁶² The Slavs possessed a number of deities when Christian missionaries arrived around 800 CE. Among these were ubiquitous

three-headed deity idols and horse oracles. But dominating the Slavic pantheon were *Perun*, the god of thunder and lightning, and his counterpart, *Volos/Veles*, the god of horned animals.

According to Marija Gimbutas, “Helmold, writing of the pagan revival among the Wends in 1134, refers to ‘*Prove deus Aldenburgensis terrae*’...in 1156, he saw a grove containing an oak tree in a court fenced with stakes; it was dedicated to the god of that land, *Proven* (perhaps a distorted name of Perun, the Thunder god).”⁶³

Perun’s linguistic roots in Proto-Indo-European are considered to be *per-/ *perk (*perg-), which means “to strike.” These same roots signify oak trees, oak forests, and mountain tops. Among the Lithuanians he is *Perkunas* and throws an axe or hammer, usually identified with the thunderbolt. The oak was the tree most often struck by lightning, and thereby considered the sacred tree of Perun. But also sacred were the stones said to have been thrown down by the lightning. Stone axes called *strely* (*strela meaning ‘arrow’) were traditionally employed to protect houses from storms, to protect cattle and crops, and to bring good luck to infants and newlyweds. Likewise, any area – or person – struck by lightning became sacred or especially blessed.⁶⁴

Gimbutas provides examples of enduring curses that invoke ancient beliefs: “May Perun kill you!” (Ukrainian); “May Perun strike you!” (Russian and Slovenian); and “May Perun’s bolt strike you!” She gives an old Slavic prayer recited when it thunders: “Sitting in the thunder, commanding the lightning, outpouring rain water over earth’s face, O frightful ruler! Judge over devils, satans and sinners...Amen.”⁶⁵ Gimbutas also reported that when the Slavic soldiers made peace treaties with Byzantium they took their oaths on hills sacred to Perun. For example, a treaty concluded in 971 “records their oath:

that he who would not respect the treaty should be cursed by Perun and by Volos, the god of flocks; . . . and that he should be destroyed by his own weapons.”⁶⁶

Volos is of equivalent ancient heritage as Perun, but for some reason early Christians choose to demonize this deity almost immediately. The Byzantine Saint Blasius replaced him as a protector of cattle. Volos was identified with low-lying water places (as opposed to mountain tops) and appears usually in the context of treaties, the provision of food and wine, building projects, and cattle.⁶⁷ Indications are that Volos was originally a powerful female goddess. She almost certainly presented an implacable obstacle to Christianization efforts, much as the Basque goddess Mari did. This may explain the widespread and total condemnation of this deity. The male deity, Perun, was much easier for Christian missionaries to turn to their own purposes and elements of this storm god’s beliefs continued for some time, although his pagan roots became more problematic over time, as seen below.

Temples to Perun were sited atop ancient hill-forts and were still in use until the late 1900’s. Gimbutas notes: “Around cult places in the hill-forts of the Scythian and later times offerings of acorns, grains, clay imitations of grains and bread, miniature and normal-sized pots, iron ornaments and other objects have been found. The practice of offering-up grain continued among the Slavs in the nineteenth century and is not unknown in the twentieth.”⁶⁸

Perun’s links to tornadoes and pre-Christian traditions are shown in this Russian *bylina* (pseudo historical hero epics) provided by Elizabeth Warner in her book, *Russian Folk Tales*. The tale concerns the perceived dangers threatening Christians in old Russia as posed by ancient pagan beliefs.

In “Ilya of Murom and Nightingale the Robber,” a knight, Ilya of Murom, sets off for Kiev to celebrate evening mass. But the road is blocked.

On the bank of the stream *Smorodinka Solovie* (Nightingale) has his look-out post in a stout oak, the tree once sacred to Perun, from where he challenges the authority of the recently Christianized state. The bird controls the air... When Solovei begins to whistle with the voice of the nightingale, and to howl, the dog, with the voice of the beast, and to hiss, the accursed one, with the voice of the serpent, then the grasses of the greensward are tangled together, all the azure flowers drop their petals and any humans close at hand lie dead upon the ground.⁶⁹

The bird’s various noises and the resultant destruction seem to evoke a tornado, including the hissing sound many human witnesses describe from close encounters with twisters. The linkage of Perun, his oak, and the Nightingale to the tornado as a weapon of choice – especially against the new religion of Christianity -- is explicit.

The Slavic deity *Svarog* is linked to the Greek god *Hephaistos*, the Smith, according to Marija Gimbutas who also believed Svarog reflects influences from the Vedic *Indra* and the Iranian *Vrtaṅna*. “Indra’s great feat is the slaying of the *vritra*, ‘obstruction,’ an evil serpent who has imprisoned the waters behind the ‘mountain’ (i.e., the sky). *Veter* (wind) or *Vikhr* (Whirlwind) replace the dragon as abductors of females in many Russian tales.⁷⁰ The Iranian *Vrtaṅna* is also a smith and “can change into the wind, the gold-horned aurochs, the boar, the horse, or the falcon *Varagna*... It also suggests the creature in folklore...who turns into a whirlwind, called *rarog* in Polish, *jarog* or *rarich* in Ukranian, *rarach* in Czech.”⁷¹ Associated with Svarog are the *vila*, who manifest as falcons, horses, wolves, and whirlwinds, and “when they are dancing on mountain tops or meadow, they shoot at anyone who approaches, or blind him or pull him into the ring and dance him to death.”⁷²

Gimbutas describes traditional ways of dealing with whirlwinds: “From Lusatia to the Urals, it was customary to toss a knife or other sharp instrument into the whirlwind for protection. Only a few decades ago in Pomerania, the West Beskids, and Bulgaria, people would cast themselves face down before a whirlwind, to ward off the misfortune and illness which it brought. Russians, while doing so, would cry, “A belt around your neck!” so that the whirlwind should be strangled. A whirlwind was feared because it contained a demon who was often called *rarog*.”⁷³

According to Gimbutas, the earliest chroniclers identified a female deity called *Mokosh* alongside others including Perun. However, almost nothing in later records refers to this goddess or her worship. Scholars and researchers generally assume her to have been an important female deity, but few details are known about her worship. Gimbutas reports that in sixteenth century chronicles a repeated question posed by the clergy was addressed to women and consisted of the demand: ‘Did you not go to Mokosh?’ [evidently this was by way of a stern rebuke]. Until recent times, peasant women believed that if Mokosh was pleased with their offerings she would help them with their laundry. The Czechs, Gimbutas noted, prayed to Mokosh in time of drought.⁷⁴

Gimbutas also comments that the ‘female’ standing stones – known as *kamennye baby*, may be related to Mokosh worship. Many of these ancient lithic monuments have carved-out breasts and the crippled come to leave offering of grains, flax, wood, animals and money at the foot of the stones. She notes that “when in the nineteenth century archaeologists in the Ukraine removed [such] stones from the Scythian barrow where they stood, the people blamed this action for the start of a drought.”⁷⁵

Alternately, North Russians have a more sinister female creature in their folklore called the *mokosh*, as well. This nocturnal hag was held responsible for tangling and ruining unspun yarn at night that had not been properly blessed. Supposedly, this *mokosha* has a big head, long skinny arms and can at times be heard whirring her spindle.

Many Russian scholars have concluded that *Mokosh* must have been a goddess of “fertility” responsible for the well being of crops and protective of women’s work, especially spinning. Her name, *Mokosh*, appears to derive from the word *mokryi/mokru* (moist, wet). In light of this, some researchers have equated her with another very old deity known as “Mother Moist Earth” (*Mati syra zemlja*), whose festival took place during the summer solstice, featuring great bonfires.⁷⁶ An alternative and more convincing interpretive matrix, however, can be found close at hand in other parts of the Slavic pantheon: with the *Rusalki* and *Baba Yaga*.

Prominent in Slavic folk-repertoire are a mythical group of evocative water beings called the *Rusalki* (*sing. Rusalka*, also known as *iele* (assumed to be represent the third person feminine plural form “they”). This use of a pronoun instead of a proper name is thought to represent linguistic deference to magic entities. However, Gail Kligman, who performed fieldwork in Romania in the mid 1970s, notes that Romanian scholar C. Ghenea pointed out that these fairies are associated with wind and in old Turkish, *ele* means “wind, turbulence.”⁷⁷

The *Rusalki* are envisioned as beautiful, but dangerous, female faeries who are fundamentally water-spirits. They have long, flowing hair and are always wet – to dry out would mean death for them [in contrast *Perun* is always “dry”]. During the winter, they hibernate underneath lakes and rivers. During the late spring week of *Rusalii*,

however, they take up positions in the tops of trees. There they bring rain and people honor them by hanging rags in the trees. Men are warned to take care during this time, for the Rusalki enjoy “tickling them to death.”⁷⁸

Kligman provides a list of alternative names by which the iele are addressed, among them; *imparatesele* (empresses); *frumoasele* (beautiful); *milostivele* (compassionate); *maestrele* (the enchanting); *soimanele* (falcons); and *vintoasele* (strong winds). In Macedonia they are the “*vile*,” and in Bulgaria the “*rusalki*.”⁷⁹

Kligman provides this description of them:

The iele live in water, whether a lake, swamp, marsh, spring, or at the edge of one. Otherwise, they inhabit forests ...or places which have not been explored by human feet... iele travel at night, dancing and singing. They may or may not be accompanied by a bagpiper. A circle left where they dance (the grass having been burned under them) remains barren. Their dances are so fast and complicated that it seems they do not even touch the ground...it is generally conceded that they are most powerful during Rusalii (Whitsuntide). ...They are usually considered to be pernicious beings. Their limited benevolence is manifested in connexion [sic] with music or occasionally with curing. Legends abound about flutes charmed by the fairies... A related anecdote was collected from Romanians living in Hungary: a shepherd led the fairies for nine years, after which time they gave him a charmed flute so that he always played irresistible melodies.⁸⁰

Beginning fifty days after orthodox Easter, on Pentecost/Whitsunday, is the spring festival week known as *Rusalii*. These celebrations have taken place in the agrarian southern Romanian countryside throughout history. Rusalii probably refers to ancient rose cult festivals, possibly dating back to the Thracian and Phrygian period. Roses are still a valuable agricultural product of the region.

The rituals and ceremonies of Rusalii continue for about one week and incorporate both death observances and life-affirming performances (*Calus*) by men's societies known as *Calusari*. This term refers to a 'ritually closed group of seven, nine, or eleven men...all of whom must be exceptionally skilled dancers.'⁸¹ The ritual activities include the men touching women with a wooden phallus (thought to encourage fertility) and placing salt, wheat, garlic, wool and water in the dance space to ensure plentiful rains and good crops.⁸²

An important aspect of the May rituals is the presence of Rusalki spirits, who are believed to be especially potent and active at this time. Kligman quotes from a Romanian text that they are "very beautiful women dressed all in white or naked. According to some popular beliefs, Rusalki caused tempest, hail, pouring rain, and thunderstorms. Ideas about the Rusalki were connected with the pre-Christian spring-summer calendar ritual of the ancient Slavs and with the cult of the dead."⁸³ The Calus rituals during Rusalii include throwing the Calusari flag into the water. Kligman comments that this is sometimes done in hopes of bringing spring rains. Other sources, she states, have said that girls throw roses into waterways on Rusalii with the same intention.⁸⁴

Of particular tornado interest is a countering charm Kligman discovered. It was collected from a *baba* (old woman) in Moldavia in 1870 and published in 1898 by L.

Saineaunu:

You, fairies, enemies of man – mistresses of the wind—
Princesses of the earth—who fly through the air—
and slide through the grass—tread the waves –
Go to places far way – isolated marshes, reeds, --
where the priest doesn't sound the bells –
where the girl doesn't dance, go into the mouth of the wind--

strike the bowels of the earth—but leave the hand, body, leg,
and disappear into a cloud—give man his health,
otherwise you will be beaten by a sword of fire.⁸⁵

Kligman interprets the baba's imprecations to the iele as simply banishing them to "uninhabited spaces." Yet seen in the context of storm winds, the baba is actually sending the spirits back into their rightful place in the "mouth of the wind," telling them to "disappear into a cloud" and then go far away where the wind/tornado will not wreak ill on humans.

A paradox that Kligman identifies lies in the fact that Calusari bands perform cures at specific sites associated with the iele. At these places, the men ritually banish the fairies. Yet the Calusari must be initiated in the same spots. She notes as well that the patroness of *both* the iele and the Calusari is *Irodeasa*, the Romanian version of the goddess, Athena/Diana, whose symbolic rabbit figures in many Calus rituals.⁸⁶

The relationship between the Calusari and iele is problematic. Most academics agree that the Calusari are representative of the iele. Kligman argues that the men are mediators between humans and wind spirits.⁸⁷ However, many Romanian scholars "hold that they represent or personify the iele, by wearing white and dancing in a ring so fast that their feet seem to 'fly;' the old descriptions of their female costume strongly supports this argument.⁸⁸ Alternatively, the Calusari only imitate flying by galloping like horses. As Kligman notes, "in Greece the horse was associated with the wind (the winged horse, Pegasus) . . . Simultaneously, the iele are purportedly afraid of horses and shy away from them. . . .people occasionally put a wooden horses' head on a pole or on their doors, or in carts, as prophylactic measure against possible injury."⁸⁹

What is clear is that the iele or Rusalki are young women and usually move from water sources to tree tops in early spring. They bring rain to the crops, but simultaneously have unpleasant behaviors, including ‘tickling’ men to death. The horse and the rabbit are linked to them. They dance in rapid rings and burn up the ground underneath them – a perfect description of whirlwind-scoured earth. They can appear any time but are most active and dangerous during the early springtime. Death and life are linked in this circle of associations. The fairies hibernate during winter in low lying water when thunderstorms are not active, as opposed to tree-top perches during storm season.

Perhaps the most famous Slavic tornado being is the wonderfully horrid hag of childhood tales, *Baba Yaga*. *Baba* is a common term in Slavic languages for “old woman.” The etymology of the term *iaga* or *yaga* is less well understood.⁹⁰ She lives deep in the forest in a hut that whirls around on chicken legs, a unique twist on witch habitat. Here Baba Yaga waits for the unwitting or lost innocents or seekers after knowledge to enter her domain. She races through the forest in her mortar and pestle like the wind, sweeping all before her, and is famous for trying to bake innocents in her oven (see Figure 15).



FIGURE 18. Baba Yaga with mortar, pestle, and broom

Illustration by Ivan Y. Bilibin, 1899

Source: http://commons.wikimedia.org/wiki/File:Bilibin_Baba_yaga.jpg
(accessed 11-1-2009)

Mythologists generally agree that Baba Yaga was originally some kind of celestial being and that at least some of the beliefs surrounding her are directly linked to ancient traditions of thunderstorms and rain. In Belorussia “ her progress across the skies was supposedly accompanied by thunder and lightning. . . . By others, she has been identified as mistress of the forest and the wild beasts that live there, and by others again as a goddess of the underworld, where she grows crops and herds her cattle.”⁹¹

Her similarity to other ancient storm goddesses such as Inanna and Hecate is quite pronounced. Baba Yaga myths, however, always portray her in the “crone” aspect of a supernatural female. She is an old witch with power, wisdom, and a well-known taste for young children. Her infamous and bizarre chicken-legged hut may be an archaic reference to a sacred enclosure or, more likely, to traditional Scandinavian grain storage huts built on high-cut tree trunks in order to protect stores from animal intrusion. The tree roots often resemble bird feet on the ends of legs under the huts. In common versions of her myths, a maiden, Vasilisa, attempts to gain knowledge from Baba Yaga and then escapes with the help of a young man. In other versions, Baba Yaga commands an army that battles male challengers, who eventually steal both her daughter and her horses.

Aleksandr Nicolai Afanas’ev, a Russian scholar and ardent nationalist, collected a vast amount of Russian folklore and beliefs during the mid-nineteenth century. His goal was to preserve and to craft a new Russian pride that looked to its own cultural roots rather than Western Europe. Despite the fact that this deliberate agenda colors much of his work, his collections of folk-lore are an invaluable starting point for exploring the full range of Slavic, especially Russian, oral narrative and mythologies current among the rural populations in the 1800s.

Afanas'ev recorded multiple variants on a recurrent theme in the folk-lore that involved beautiful women, a young man who must brave mountains to rescue them, and a powerful entity that must be overcome in the process. This evil spirit is variously described as either a male Whirlwind who sexually abuses his captured belles or as the female Baba Yaga. No matter which incarnation the wicked spirit takes, similar dynamics and ritual murders of the tornado (e.g., cutting off its head at one blow) are consistently repeated. Three versions of these unique tales from Afanas'ev, as translated by Norbert Guterman in 1945, are summarized below.

“The Three Kingdoms, Copper, Silver, and Golden”

A king had a wife, Nastaya the Golden-Tressed, and three sons. One day the queen was in her garden with “suddenly a mighty whirlwind arose...seized the queen and carried her off.” When the sons grew up, one named Ivan went in search of his mother. After ritual directions from people along the way, he meets up with his two brothers at a high mountain. The brothers wait below while Ivan climbs up. Reaching a copper castle, he defeats serpents by giving them water from a well. The queen of the copper kingdom, a captive of Whirlwind, gives him a small ball and directions to the silver kingdom. He promises to rescue her later and by rolling the ball, proceeds to a silver kingdom castle, and from there to a golden kingdom, where the same sequence repeats of rescuing queens. Ivan finally finds his mother in a castle of diamonds and precious stones. Here he must water more guardian serpents and his mother warns him that “the wicked, mighty Whirlwind, and all the spirits obey him.”

Ivan's mother shows Ivan two tubs of water in a cellar: one gives strength, one depletes. He drinks from the tub of strength, and then switches them. She instructs the boy to hide and grab the mace of Whirlwind when he arrives. Having done so, Whirlwind carries him "over seas and precipices...over the whole world" but the boy never lets go the mace and so survives. When Whirlwind finally returns to the cellar to renew his strength, he imbibes from the wrong tub. Ivan grabs Whirlwind's sword and cuts off his head with one blow, ritually refraining, however, from striking a second time. He makes a fire, burns the body and head and scatters the ashes.⁹²

"Prince Ivan and Byely Polyenin"

This version of the same tale begins with a King, three daughters, and Ivan, his son. When Ivan succeeds to the throne, neighboring kings assemble to fight him. His sisters urge him to be a brave warrior like Byely Polyenin who "for thirty years has been warring against Baba Yaga the Golden-Legged." He decides to find Byely Polyenin himself and sets off. Reaching a dark forest, he finds a small hut in which an old man lives. He asks the man where Polyenin might be, at which the old man "...blew on a silver trumpet, and suddenly birds began to fly towards him from all sides. A numberless host of them came, covering the whole sky like a black cloud." The birds give Ivan a little ball, instruct him to roll it to find yet another hut and an even older man, who summons the beasts, who then locate Byelin where he is resting from battle. Ivan and Byeley become allies and Byely explains that he is trying to take Baba Yaga's daughter as his bride. They track Baba Yaga to the underworld. Ivan finds her castle and the

daughter; he kills Baba Yaga by striking off her head with one blow, refraining from a second strike, and takes the maiden to Byeley.⁹³

“Maria Morevna”

In this version, Prince Ivan has three sisters and their parents die. The prince “in his sorrow went to walk with this sisters in the green garden. Suddenly a black cloud covered the sky and a terrible storm gathered ... They had no sooner entered the castle than a thunderbolt struck it. The ceiling was cut in twain and a bright falcon flew into the room.” The falcon becomes a suitor who wishes to marry one of the princesses. One year later, Prince Ivan walks again in the green garden with his sisters and again “a great cloud came with whirlwind and lightning.” Another thunderbolt strikes the castle, the roof collapses, and this time an eagle flies in and marries a sister. A year later, Ivan and his sister go to walk in the green garden, “again a cloud came and a whirlwind arose and lightning flashed.” They race home, a thunderbolt strikes and a raven appears to marry the last princess.

Ivan decides to visit his sisters. Along the way, he finds and marries a beautiful warrior queen named Maria Morevna. She gives him the run of her castle, except for one closet. Of course, he must look and he finds Koshchey the Deathless chained up inside. When Koshchey begs for water, Ivan obliges. Koshchey regains his strength then and “flew out of the window in a terrible whirlwind, overtook Maria Morevna, the beautiful queen, seized her, and carried her off to his house.”

Ivan sets out again, finds his wife, and they try to escape but Koshchey – with the help of his magic horse --overtakes them each time. The third time, Koshchey cuts Ivan

up, places the pieces in a barrel and throws the barrel into the sea. Birds reassemble him and sprinkle him with the waters of death and life. Ivan returns and goes to find Baba Yaga. She makes him herd her horses for three days, which he performs with the help of the birds, the beasts, and the bees. He escapes with a colt and Baba Yaga pursues him in her iron mortar, “urging it on with a pestle, and sweeping her traces with a broom.” She ventures out on a slim bridge over the river of fire that Ivan had set up, but it collapses and she dies. Ivan returns to Maria, Koshchey the Deathless pursues them, and Ivan’s horse kills him. Ivan then burns him and scatters his ashes to the wind.⁹⁴

Dravidian speakers

The Gondi. The Gond peoples are ancient agriculturalists in central India who comprise the largest group of Dravidian speakers in India. Many scholars believe this linguistic population may share archaic roots with the Harappa culture of the still-mysterious Indus Valley Civilization. Flourishing some 5,000 years ago in the Northwestern corner of India, the Indus Valley people were premier agriculturalists. What caused their impressive empire to finally decline and dissolve into the surrounding areas is unclear. Perhaps significantly, the Gondi have maintained ancient practices that distinguish them from more recent arrivals in India, such as the Brahmans.

The Gond people’s territory is known as Gondwana (“land of the Gonds”). The Gondi culture differs from that of their predominantly Hindu neighbors. Traditionally polytheistic, the Gondi have held on to traditions, such as pig-sacrifices, that distinguish them from groups of Brahman origin. As researcher Durgha Bhagvat, writing in the 1960s, notes, these ancient agriculturalists have exhaustive numbers of both tribal and

inter-tribal gods. They share a universal but rather abstract belief in a single Creator called *Bhagvan*, who is responsible for all the other gods of sky and earth. However, due to some ancient insult, these gods now hide from human sight except and unless provoked or summoned.⁹⁵

The Gondi have an extremely complex system of minor household and family gods, organized in a complicated manner by septs and numbers, which appears to have at its core the control of exogamous marriage. The Gondi, in common with many central Indian groups, adhere to matrilineal kinship and descent systems as well as matrilineal residence patterns.⁹⁶ This contrasts markedly with the Brahmans who are rigidly patrilineal. At the heart of the system are clan bundles consisting of grass wrapped “godlings” stored in each clan’s designated sacred tree. These sacred bundles, in turn, are referred to as a given clan’s “god.”⁹⁷

The eight most important Gond gods, as listed by Bhagvat, are:

1. Baradeo, the great god
2. Dulha-deo, the bridegroom-god
3. Pharsa pen, the battle-axe god
4. Gagara-deo, the bell-god
5. Sankara-deo the Chain-god
6. Kodyal, the horse-god
7. **Matiya, the whirlwind-god**
8. Hulera, the cattle-god

Except for Pharsa, Gagara, and Sankara, Bhagvat says, the others have all become inter-tribal deities.⁹⁸

In addition to the various tribal deities, there is one that everyone worships absolutely, according to Bhagvat. That is *Dharati Mata*, an earth goddess whose marriage to the sun is widely celebrated every spring by the farming tribes. Many villages also have stone piles heaped up that represent the female goddess *Bijasen*, who guards

children. In Hindu villages, however, the goddess Mata has become associated with *Devi* and as such, is linked to evil and disease.⁹⁹ This Mata is probably a derivative concept of *Matiya*, the whirlwind god.

Thus among the polytheistic Gond and other agricultural tribes of central India there persists into the twentieth century reverence for a whirlwind deity. This god continues to be observed alongside female earth and agricultural deities, and other benevolent protectors of children. At the same time, Hindus, operating within a Brahmanic and strictly patrilineal tradition, associate those same female goddesses with malevolence, disease, and illness.

Basque Speakers

The Basques. Isolated in mountain aeries in southwestern France / northwestern Spain, the Basques were not fully converted to Christianity until the 9th or 10th centuries CE. Their mythology is little known and evidence for pre-Christian divinities is fragmentary. However, scholars agree that they had a supreme goddess *Mari*, a beautiful woman. Her male consort named *Maju or Sugaar* was a snake, *herensuge*, that could assume human form. The sun and the moon were both female deities. Wheat, *Gari*, is also a key spirit in the mythology. *Ur* is the water spirit and *Urstzi* may be another ancient primal deity.¹⁰⁰ One prime characteristic of the Basque goddess, *Mari*, was that she was implacably opposed to Christianity.¹⁰¹

Mari was linked to earth, sky events, and mountain caverns, and often appeared in storm-form, alternately as *Aaxte*, the bull. Thunder, *Inusturi*, was a product of demons. *Odie*, however, was the main storm spirit. Sacred stones associated with lightning strikes

are known as *Oneztarri* while the lightning bolt itself is *Oinaztura*. The *lamin* is a female spirit (like a fairy) with animal feet and is common in myths from the more southerly Basque areas. *Mirukutana* is a spirit of the night in the form of a dog.¹⁰²

The Basque storm deity, *Aaxte*, lives in mountain caves and usually appears as a young bull although s/he can also assume human appearance. *Aaxte* is often accepted as an alternative form of the female goddess *Mari*.¹⁰³ This deity is thought to be responsible for the violent storms that often visit the region, especially when tornadoes result. Either as *Mari* herself or in her alternate masculine bull form, researchers report that the deity is still believed “to hurl storms from the cave at Aketegi or from the one at Murimendi.”¹⁰⁴ The concept of a tornado tearing up the ground like a bull is nearly identical to rural beliefs in Hungary, as recorded by Linda Degh in the 1980s. The Hungarian tale (see below) equates their cloud-bull with male magicians of great power.

The Finno-Ugric Speakers

The Finns. In the late nineteenth century, Elias Loonrot crafted an epic tale, *The Kalevala*, out of an amalgam of traditional *runo* (“sung poems”) by Finnish bards with his own interpolations. Scholars had begun collecting Finnish mythology in the early 1800s; Cristfried Ganander’s *Mythologia Fennica* was published in 1789.¹⁰⁵ But this attention increased significantly in the nineteenth century as Loonrot and others began collecting the *runo* still being orally recited by a few remaining bards.

Finnish myths share many elements with Estonian, Baltic, and other Indo-European mythologies, with a central focus on water and agriculture. The Laplanders (Samis) also share many traditions with the Finns. There are a multiplicity of paired gods

and goddesses associated with numerous crops such as barley or turnips; of the forests, the sauna, hunting, pools and wells, and the house. Many deities were demonized after the introduction of Christianity. It is striking, however, how many female deities persisted in the oral narratives into modern times.

The main god of the Finnish pantheon reflected in the recorded narratives is *Ukko* (“old man”) who was a deity of the sky, weather, and agriculture. Thunder in Finnish is translated as *Ukkonen* or *ukonilma* (“Ukko’s weather”). Ukko’s hammer, axe, or sword would strike off lightning. When he mated with his wife, *Akka* (“Old woman”), thunderstorms resulted. Healers and others would collect old stone-axes in the belief they held power to heal or to hurt.¹⁰⁶

Scholars believe two other deities of the runo, *Ilmarinen* and *Ilmatar*, probably antedate Ukko and Akka as sky gods. Ilmarinen was originally a male air/wind god who became the great smith or maker of heaven. Ilmatar was the female air/wind goddess, daughter of primal creation. She is also named as the mother of *The Kalevala*’s central male character, Vainamoinen, whose father was *Kave*, an ancient sky and moon god, synonymous with Kalevala.¹⁰⁷

Although many elements of the Kalevala epic are Loonrot’s own creation, most of its themes and rituals do come from authentic folk lore. The links to water, agriculture, and women are abundant. The central mystery of the Kalevala – and a key theme of the oral literature - is the *Sampo*, an undefined object of tremendous cultural value linked to agricultural success. Most researchers presume it to have been some sort of ritual object or statue. According to the known runic tradition, the Sampo was made by Ilmarinen at the behest of the Dame of Pohjola (Queen of a land of women), but was stolen by her

male antagonists and ultimately destroyed during a fierce struggle. The Sampo has explicit linkages to agricultural productivity.

Juha Pentekainen, a Finnish scholar, argues that the links to agriculture in *The Kalevala* are supported by authentic bardic tradition. He cites oral recitations of ‘The Theft of the Sampo’ by Ontrei Malinen in 1825 and 1833 to demonstrate that the runo itself was actually a ritual to ensure agricultural success: “When Vainamoinen proposes to the Mistress of Pohjola, who is pursuing him and his men, that they share the Sampo, she responds:

I’ll not share the Sampo,
Inspect the bright dome.’
Thus old Vainamoinen
sifted mist with a sifter,
sifted across the fog,
himself said these words:
hither plowing, hither sowing,
hither all kinds of grain,
hither moons, hither suns,
to wretched Ostrobothnia,
to Finland’s vast spaces.

(The Mistress of Pohjola drowns the Sampo in order to enrich the sea.)

Said the Mistress of Pohjola:
“I’ll try a bit of magic
On your plowing, sowing:
Rain down ice of iron,
Of steel let it fall.”¹⁰⁸

As Pentekainen points out, many scholars, including Loonrot, believed the original Sampo must have been some sort of idol or sacred statue such as a “guardian of the harvest.”¹⁰⁹ The guardian of this precious item and ruler of Pohjola, a land of women, was the Woman of Pohjola, variously depicted in oral tradition as having a “crooked” nose, and pursues the men in harpy-bird form with her soldiers on her

wings.¹¹⁰ Descriptions of her ocean attack on a boat full of men stealing the Sampo is evocative of a tornado-like waterspout (a not-uncommon occurrence in the region). The men in the runo all try to win the ruler's daughters. She plays them against one another and sets tasks which the *Hiisi*, her demon helpers, render impossible.

Scholars believe that the term *Hiisi* originally indicated a sacred grove, only later becoming associated with demons. *Hiisi* is thus translated as "demon(s)" in most Finnish runos.¹¹¹ In *The Kalevala*, Runo 13, "The Elk Chase," features Lemminkainen, a highly sexed male character who wishes to have one of the daughters of Louhi, the Dame of Pohjola. Lemminkainen's first task from Louhi is to catch the "Elk of Hiisi" (*Hiiden hirvi*). He boasts that nothing can outrun him on skis. One smith makes the left ski in autumn, another smith creates the right ski in winter. Then (presumably in the spring), determined to outwit Lemminkainen, the Hiisi (often equated with demons), create a magic elk for him to chase.

The Elk Chase

So an elk they fabricated,
And the devils made a reindeer:
For the head, a hollow stump,
For the horns, a fork of willow;
Legs of shore-line switches woven,
Fen-grown saplings for the shanks,
And a fence rail for a backbone;
Sinews made of withered grasses,
Eyes of yellow water lilies
And the ears of lily pads;
Made the flesh of rotten wood
Covered with a skin of spruce bark.
..then the goblin reindeer ran,
Headlong ran the elk of Hiisi,..
Galloped past the barns of Northland,
Through the yards of Lapland children.
In the tents upset the buckets,

Kicked the kettles off the fire;
Dumped the meat stews in the ashes,
Spilled the sauces in the cinders...
And the Lappish women laughing,
All the other folk complaining.

...Lemminkainen, all the while,
Chasing down the elk of Hiisi,
Skiing over field and fen
And across the open clearings.
From his ski-stick points were smoking-
But the elk ran out of sight,
Out of sight and out of hearing.”¹¹²

The elk continues to overturn everything in its path. Lemminkainen’s skis fall apart and he acknowledges the folly of the chase. At this point, the story takes an erotic turn, he woos the woodland girls, and “all the virgins of the wood” chase down the elk for him.¹¹³

Lemminkainen is set two more tasks by the Dame of Pohjola, but fails in the third and is cast into Tuonela, the river of death. His distraught mother begs Ilmarinen to forge a rake for her and she retrieves her son’s destroyed body. She pieces it together and, after applying divine honey that Honeybee retrieves for her, she brings him back to life using a spell of awakening.¹¹⁴

Both Louhi, the Mistress of Pohjola, and Vainamoinen, the male hero summon powerful winds to serve as transport or to advance their purposes. In the Kalevala, a wind first blows Vainamoinen to Pohjola. After he leaves, with a promise to convey Ilmarinen there to forge the Sampo, Vainamoinen magically creates a fir tree whose crown reaches the moon and the Great Bear. When Ilmarinen refuses to travel to Pohjola, Vainamoinen convinces him to climb the tree and retrieve the moon and the Great Bear. Vainamoinen conjures up wind to carry Ilmarinen to Pohjola:

... grab him, storm wind, Ahava,
Into your boat, your little vessel,
Whisk him over, whirling, swirling,
To the dark of Pohjola!¹¹⁵

When Vainamoinen steals the Sampo, Louhi invokes sea, sky, and wind gods to chase him down. When that fails, she transforms into a bird of prey, “one wing glanced along the clouds, while the other grazed the water...From its shoulders up a hawk, But in body like a griffin.”¹¹⁶ Lemminkainen, also in the boat, strikes off her talons with his iron knife, “all but one weak little finger . . . Still she reached out for the Sampo, hooked it with her nameless finger, Hurlled it . . . into the depths of the deep blue sea, where [it] crumbled.”¹¹⁷ A painting of this scene is shown below in Figure 16. When she fails to recover the Sampo, Louhi “exposes herself to the wind and becomes pregnant.” Her nine sons thus created bring diseases to the people.¹¹⁸ The Dame of Pohjola is a powerful female ruler and guards the sacred Sampo, forged by the wind god, Ilmarinen, in exchange for one of her daughters. A core theme of the Kalevala songs is the battle between a group of male challengers and Louhi and her army of men. Louhi loses the battle for control of the sacred object and, in turn, her control of the land’s agriculture.

Descriptions of Louhi are unambiguously harpy-like and similar to other demonized wind goddesses from Lilith to Baba Yaga. She is vanquished only when an iron knife cuts off her talons – all but one little finger. Here again the themes of iron weapons, the little finger (the tip of a funnel cloud perhaps?), and a bee bringing life to the dead echoes motifs from other continents, including the Americas. The Hiisi creation of a magic elk echoes the Kiowa tale of Red Horse and the elk chase resembles nothing so much as a wild tornado chase.



FIGURE 19. “The Defence of the Sampo”

Painting by A. Gallen-Kallela, 1896

Source: http://en.wikipedia.org/wiki/File:Gallen-Kallela_The_Defence_of_the_Sampo.jpg

The Hungarians. Tornadoes in Hungary are known to be mythically conceived as dueling wizards. There is a belief that a boy born with teeth or extra digits will become a *garavoncias*, a good wizard, in either his seventh or fourteenth year. Then he will have to fight an old wizard in bull form. Linda Degh recorded a 1959 account of such a battle.

The boy drank the water in the trough, and then he shook himself, and all at once he turned into a bull. A bull of leaden-white color. Suddenly, he sees a big cloud coming on. And next thing, it comes down, right in front of them. And as soon as it comes down, a black, sooty-necked bull steps out of it. And in a rage it goes kicking up the earth with its hoofs and tossing it sky-high with its horns. And there it goes, straight for the white bull. And they charge again one another, and in what fury they butt each other! Not under the sun has there ever been such a fight between two bulls.¹¹⁹

The Hungarian bull-wizard is very similar to that of the Basque storm bull, Aaxte. The image of a bull as a storm uniting with earth is a common theme in Slavic and other Indo-European myths. Unlike the Basques, who have retained the concept of both male and female aspects of the storm, most European traditions have a fully male storm bull. As Gimbutas writes: “*Perkunas*, like *Parjanya* in the *Rig-Veda*, is a representation of the cloud and thunder: he is a bellowing bull who makes a horrible noise. Like a bull, or he-goat he sheds the seed, the rain that fructifies the earth. In this archaic aspect the god is seen as identified at once with the thunder, the cloud, the bull or he-goat . . .” She also notes that when Zeus wanted rain, he sat on a goat’s skin. Skulls of bulls or rams were used to protect against ‘the evil eye, illness, hailstorms, and other natural perils.’¹²⁰

East Asian Myths

Chinese Speakers

The Chinese. Recent research has led scholars to conclude that there were at least two separate regions of ancient agriculture in China. In the north, millet-based agriculture developed between the Yellow and Yangtze Rivers by around 7,000 BCE. Because this region became a hearth of culture and civilization, the Chinese regard it as *zhonguo*, the central kingdom.¹²¹ In the south, rice appears to have been cultivated some 6,000 years ago, and domesticated rice agriculture appears between 5,000 and 3,000 years ago.¹²²

In the North, the first well-known Chinese culture, the Shang, grew in power about 1700 BCE. Bronze technology and invention of a writing system around 1200 BCE led to a robust civilization capable of extending its influence far beyond its borders.¹²³ Scholars believe the Shang King exercised priest-king functions, conducting

oracular readings as well as being a military and administrative leader. He ruled by authority of a great god *Di*. When a warrior peoples, the Zhou, overthrew the Shang Dynasty, they replaced Di with their sky god, *Tian*. Their king became known as *Tian Zi* (Son of the Sky God) and continued performing traditional divination using yarrow stalks, a practice detailed in the written text *Classic of Change* or *Yi Jing*.¹²⁴

China's earliest written text is the *Classic of Poetry*. Scholars believe it draws on oral traditions dating from the disintegration of the Zhou Dynasty around 400 BCE. In *Classic of Poetry*, myths appear only as fragmentary passages used as supporting concepts or examples. Later works continue to treat mythic traditions in a similar manner. China has no single epic or narrative story. Chinese myths are, as Anne Birrell describes them, "brief, disjointed, and enigmatic," although still displaying clear parallels with themes found in other world mythologies.¹²⁵

Most of the Chinese myths that survive concern male deities. But, as Birrell comments, this is probably a result of scribal prejudice, whereby later-day chroniclers and authors deliberately marginalized original female deities. Curiously, Chinese myths that have been passed down are mostly devoid of a focus on agriculture. Major themes revolve on the problem of foreigners and warfare; many myths concern warriors and moral issues. There are implications of an older set of beliefs, however.

The farmer god (*Shen Nong*) taught humans agriculture and medicine. Having tasted all the plants and bad water, he passed this knowledge on to humans. He educated people about soil and grains. There is also a separate grain deity, Sovereign Millet (*Hou Ji*) whose name may refer to either a male or female deity, and who conveyed knowledge about growing millet and beans. Grain and earth deities in China are usually feminine. A

passage from the *Classic of Poetry* describes how Sovereign Millet “taught humans how to sow grain, cook it, and offer it in sacrifice as the first food of thanksgiving from humans. The deity also features in the myth of the origins of the early Chinese and the second historical dynasty, the Zhou.”¹²⁶

The god *Fu Xi* (Prostrate or Sacrificial Victim) invented writing, divination and hunting weapons. In this myth, he observed the spider weaving her web and then made nets and showed humans how to use them. According to Birrell, myths reflecting stories of his marriage to Woman Gua surface around 100 BCE. Depictions of each show they have long tails which twine together, in a symbol of mating.¹²⁷

The owl is considered a divine animal along with the turtle. The owl is linked to sky mysteries and the turtle understands water secrets. These two creatures figure in many Chinese myths.¹²⁸ Intriguingly, in ancient China people also often believed that the owl was the soul of a woman who had died in childbirth.¹²⁹

There are also myths that concern evil goddesses. *Woman Drought-ghoul* and *Responding Dragon* are goddesses who wreak divine vengeance on humans for transgressions against the gods. This is usually accomplished by withholding rain and bringing destruction.¹³⁰ Drought myths often involve the king making the ultimate sacrifice: his own body. At the very moment the flames are about to consume him, the rain then begins to pour down. In a mythic fragment, a woman name Woman Deuce (*Nu Chou*) is the sacrificial victim. She is portrayed as a green-clothed goddess of vegetation, whose body is burned by the sun, but who is then reborn in the rain.¹³¹

Anne Birrell summarizes the issue of gender in Chinese myths with this conclusion: “In general, there are fewer female than male deities in the Chinese

pantheon. Yet, a significant number of female divinities are superior to, or equal to, male divinities in terms of role, function and cult in antiquity, it is in the evolution of the mythological tradition that the changing attitudes to male and female roles in the family, and in public that the female role begins to be displaced by the male. This trend is seen in the latter part of the classical era when myths of female figures are minimally or obscurely narrated and when the potency of female deities is diminished in various ways by male scribes who recovered and altered the myths . . . this anti-female bias led to the disappearance of many significant female mythical figures from the mythological record.”¹³²

Japanese Speakers

The Japanese. Heavenly goddesses and whirlwinds are found in Japanese myth as well as in China. The Japanese imperial family traces its divine origins via myths concerning the descent of certain deities from Heaven. These deities, sons of a female sun-or heaven-goddess, depending on the myths, then become divinely ordained rulers. In the 1980s, Obayashi Taryo of Tokyo University compared Japanese myths of descent to similar Korean myths. The rationale was to explore a theory that supposed Korean horsemen had invaded Japan to establish the Japanese Empire. Similarities would be indicative of a possible Korean origin for the founding of the Japanese Empire.¹³³

Taryo’s example was an 8th century CE version of the Japanese myth of Nigihayahi, the grandson of Amaterasu, the sun-goddess. First, Ninigi, the younger son of the sun-goddess descended to earth with certain tokens of his legitimacy as imperial ruler. This is the myth that actually establishes the heavenly genealogy of the Japanese

imperial family. However, a myth including the story of the descent of an older brother, Nigihayahi, appears in a version dated from about the 9th century. In this version, the brother Nigihayahi comes to earth with appropriate tokens, marries, and has son. He dies before his son is born, however, at which point Takamimusubi, “a high god of heaven, dispatched the whirlwind god to transport Nigihayahi’s corpse back up to heaven so his funeral ceremony could be conducted on high.”¹³⁴ In all versions, the younger son, Ninigi, simply dies and is buried on earth. Ninigi’s great grandson, Jimmu, battles and prevails over Nigihayahi’s remaining allies to become the first emperor of Japan.

Korean myths, Taryo found, were quite similar. In their versions, the older deity was struck by a Heavenly Serpent’s Arrow and died. Then a gale god was sent by a deity to bring the body back to heaven. The poet Kakinomoto no Hitomaro, in a poem composed on the death of Crown Prince Kusakabe in 689 CE references the same theme of ascent back to heaven after death in the context of a female goddess who governs the Heavens, “the goddess Hirume, the Heaven–Illuminating One.”¹³⁵

NOTES

¹ Diane Wolkstein and Samuel Kramer, *Inanna: Queen of Heaven and Earth*, (New York: Harper & Row, Publishers, 1983), 95.

² Steve Olson, *Mapping Human History* (New York: Houghton Mifflin Company, 2002), 3.

³ *Ibid.*, 97.

⁴ Mark W. Chavalas, ed., *The Ancient Near East: Historical Sources in Translation* (Malden, MA: Blackwell Publishing, 2006), 229.

⁵ *Ibid.*, 223-24. In DNA terms, the kingship followed the mitochondrial link, the mtDNA, which passes unchanged from mother to daughter. Although a son inherits his mother's mtDNA, *his* son does not. Continuity resided in the fact that all rulers had to have mothers who possessed the same female mtDNA. Thus the son of the king's sister was a legitimate heir. The king's grandson, if his mother was his father's female cousin, could later also assume leadership.

⁶ Jack Finnegan, *Archaeological History of the Ancient Middle East* (New York: Dorset Press, 1986).

⁷ Wolkstein and Kramer, *Inanna*, ix.

⁸ *Ibid.*, 96.

⁹ *Ibid.*, 45.

¹⁰ *Ibid.*, 29-85.

¹¹ *Ibid.*, 5-9.

¹² Raphael Patai, *The Hebrew Goddess* (Detroit: Wayne State University Press, 1990), 221-22.

¹³ *Ibid.*

¹⁴ Hugh G. Evelyn-White, trans. *Hesiod: The Homeric Hymns and Homeric* (London: William Heinemann Ltd, 1936), 311

¹⁵ Patai, *Hebrew Goddess*, 222.

¹⁶ *Ibid.*

¹⁷ Jacques Cauvin, *The Origins of Agriculture*, (2000, repr., Cambridge: Cambridge University Press, 2007), 29-30. Also see Marija Gimbutas, *The Language of the Goddess*, (New York: Harper & Row, 1989) for discussion of this figurine and many similar ones. Ian Hodder provides the most recent discussion of this figurine in the context of the archaeological site in his book, *The Leopard's Tale: Revealing the Mysteries of Catalhoyuk* (London: Thames & Hudson, 2006).

¹⁸ Chavalas, *The Ancient Near East*, 215.

¹⁹ Itamar Singer, *Hittite Prayers*, ed., Harry A. Hoffner, Jr. (Boston: Brill, 2002), 7-9, 54-67. Also see Hoffner, *Hittite Myths*, 15-16.

²⁰ *Ibid.*, 24.

²¹ *Ibid.*, 87

²² Trevor Bryce, *Life and Society in the Hittite World* (Oxford: Oxford University Press, 2002), 211.

²³ Harry A. Hoffner, Jr., *Hittite Myths* (Atlanta, GA: Scholars Press, 1990), 87.

²⁴ Steve Olson, *Mapping Human History: Genes, Race, and Our Common Origins* (New York: Houghton Mifflin Company, 2002), 163.

²⁵ Paul Halstead "The Development of Agriculture and Pastoralism in Greece: When, How, Who and What?" in David R. Harris, ed., *The Origins and Spread of Agriculture and Pastoralism in Eurasia* (London: University College London, 1996), 296-309.

²⁶ Olson, *Human History*, 169.

²⁷ Charles A. Doswell III, "Societal Impacts of Severe Thunderstorms and Tornadoes: Lessons Learned and Implications for Europe," *Atmospheric Research* 67-68 (2003): 149.

²⁸ Rudolf Kaltenbock, Gerhard Diendorfer, Nikolai Dotzek, "Evaluation of Thunderstorm Indices from ECMWF Analyses, Lightning Data and Severe Storm Reports," *Atmospheric Research* 93 (2009) 381.

For research on the underreporting of tornadoes in Europe, see Harold E. Brooks and Charles A. Doswell III, "Some Aspects of the International Climatology of Tornadoes by damage Classification," *Atmospheric Research* 56 (2001): 191-201.

For a breakdown of number of reported and estimated tornadoes by European countries done recently, see Nicolai Dotzek, “An Updated Estimate of Tornado Occurrence in Europe,” *Atmospheric Research* 67-68 (2003): 153-161.

For the most recent data on results from the new European Severe Weather Database and European Severe Storms Laboratory (ESSL) see Nicolai Dotzek et al., “Overview of EsSSL’s Severe Convective Storms Research using the European Severe Weather Database ESWD,” *Atmospheric Research* 93 (2009): 575-86. Dotzek concludes that the actual occurrences of tornadoes were not exaggerated in his 2003 study (above), but are still relatively underreported.

²⁹ Harold E. Brooks, James W. Lee, and Jeffrey P. Craven, “The Spatial Distribution of Severe Thunderstorm and Tornado Environments from Global Reanalysis Data,” *Atmospheric Research* 67-68 (2003): 73, 88.

³⁰ Thomas P. Grazulis, *The Tornado: Nature’s Ultimate Windstorm* (Norman: University of Oklahoma Press, 2001), 232.

³¹ Peter James and Nick Thorpe, *Ancient Inventions* (New York: Ballantine, 1995), 130.

³² Hugh Evelyn-White, trans., *Hesiod: The Homeric Hymns and Homeric* (London: William Heinemann, 1936.), 110-111.

³³ Helene Foley, ed., *The Homeric Hymn to Demeter* (Princeton: Princeton University Press, 1994), 65.

³⁴ *Ibid.*, 29.

³⁵ *Ibid.*, 71.

³⁶ Robert Graves, *The Greek Myths* (New York: Penguin Books Ltd, 1960), 1:133-34.

³⁷ *Ibid.*, 2:232.

³⁸ *Ibid.*, 2:440.

³⁹ *Ibid.*, 2:45.

⁴⁰ *Ibid.*, 2:990.

⁴¹ W. B. Yeats, ed., *Fairy & Folk Tales of Ireland* (London: Pan Books, 1979),
xxi.

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- ⁴² Ibid., 341.
- ⁴³ Ibid., 341- 43.
- ⁴⁴ Wirt Sikes, *British Goblins*, (1880, repr., N.p.: Forgotten Books, 2007), 44.
- ⁴⁵ W. Jenkyn Thomas, *The Welsh Fairy Book* (1908, repr., N.p.: Forgotten Books, 2007), 2.
- ⁴⁶ Sikes, *British Goblins*, 30.
- ⁴⁷ Ibid., 41.
- ⁴⁸ Ibid.
- ⁴⁹ Thomas, 51.
- ⁵⁰ Ibid.
- ⁵¹ Sikes, *British Goblins*, 44.
- ⁵² Ibid.
- ⁵³ Ibid., 47
- ⁵⁴ Ibid.
- ⁵⁵ Ibid., 48.
- ⁵⁶ John Rhys, *Celtic Folklore: Welsh and Manx*, Vol. 1, (1901, repr., London: Wildwood House, 1983), 354.
- ⁵⁷ Ibid., 358.
- ⁵⁸ Ibid., 400.
- ⁵⁹ Jacqueline Simpson, *European Mythology* (New York: Peter Bedrick Books, 1987), 41- 44.
- ⁶⁰ Ibid., 44.
- ⁶¹ Faith Wallis, trans., *Bede: The Reckoning of Time* (Liverpool: Liverpool University Press, 1999), 53-54.

⁶² Elizabeth Warner, *Russian Myths*, (Austin: University of Texas Press in cooperation with the British Museum, 2002): 15.

⁶³ Marija Gimbutas, *The Slavs* (New York: Praeger Publishers, 1971), 154-55.

⁶⁴ Marija Gimbutas, "Perkunas/Perun: The Thunder God of the Balts," in *Journal of Indo-European Studies* 1, no. 4 (1973): 466-78.

⁶⁵ Gimbutas, *The Slavs*, 167.

⁶⁶ *Ibid.*, 157.

⁶⁷ Elizabeth Warner, *Russian Myths*, 32.

⁶⁸ Gimbutas, *The Slavs*, 158.

⁶⁹ Elizabeth Warner, *Russian Myths*, 32.

⁷⁰ *Ibid.*

⁷¹ Gimbutas, *The Slavs*, 163-64.

⁷² *Ibid.*, 164.

⁷³ *Ibid.*, 163.

⁷⁴ *Ibid.*, 168.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*, 169.

⁷⁷ Gail Kligman, *Calus: Symbolic Transformation in Roumanian Ritual*, (Chicago: University of Chicago Press, 1981), 48.

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*, 49.

⁸⁰ Kligman, *Calus*, 49-51.

⁸¹ *Ibid.*, 2.

⁸² Simpson, *European Mythology*, 124.

⁸³ Kligman, 49. She is translating a passage from B.A. Vvedenskij, *Bol'saja sovetaskaja enciklopedija*, 2nd ed., (1955), 389.

⁸⁴ Ibid., 49.

⁸⁵ Ibid., 53.

⁸⁶ Ibid., 55.

⁸⁷ Ibid., 53-55.

⁸⁸ Simpson, *European Mythology*, 126.

⁸⁹ Kligman, *Calus*, 55.

⁹⁰ Various theories include its derivation from *Jadwiga*, a Slavic version of the Germanic *Hedwig*, meaning battle; or it may be related to Sanskrit *agni*, meaning fire. Another common explanation is that it derives from a term for hag, old and ugly. This, however, appears to be a false derivation -- a question of the character defining the term. In other words, because Baba Yaga has been a mythic crone for so long, her name has provided the adjective.

⁹¹ Warner, *Russian Myths*, 72-77.

⁹² Aleksandr Afanas'ev, *Russian Fairy Tales*, 2nd ed. (1945; repr., New York: Random House, 1973): 375-86.

⁹³ Ibid., 475-81.

⁹⁴ Ibid., 553-62.

⁹⁵ Durga Bhagvat, "Tribal Gods and Festivals in Central India," *Asian Folklore Studies* 27, no. 2 (1968): 27-106. <http://www.jstor.org/stable/1177671> (accessed October 31, 2008).

⁹⁶ Harold A. Gould, "A Further Note on Village Exogamy in North India," *Southwestern Journal of Anthropology* 17, no. 3 (Autumn 1961): 297-300. <http://www.jstor.org/stable/3629047> (accessed July 27, 2009).

⁹⁷ Ibid., 30-33.

⁹⁸ Ibid., 33.

⁹⁹ Ibid., 35.

¹⁰⁰ Satrustegui, Jose Maria de, "Basque Mythology," in *Encyclopedia Aunamendi*, trans. Blas Uberuaga, posted under "Basque Mythology," <http://www.buber.net/basque/Folklore/aunamendi.mythology.php> (accessed July 28, 2009).

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¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Everson, *Tenacity in Religion, Myth, and Folklore*, 282.

¹⁰⁵ Cristfried Ganander, *Mythologia fennica* (1789; repr., Helsinki: Soumalaisen Kirjallisuuden Seura, 1960)

¹⁰⁶ Juha Pentikainen, "The Ancient Religion of the Finns," *Virtual Finland*, (Ministry for Foreign Affairs of Finland, Department for Communication and Culture/Unit for Public Diplomacy, 2002), <http://newsroom.finland.fi/netcomm/news/showarticle.asp?intNWSAID=25814> (accessed July 28, 2009).

¹⁰⁷ Ibid.,

¹⁰⁸ Juha Pentikainen, *Kalevala Mythology*, trans. Ritva Poom (Bloomington, IN: Indiana University Press, 1999), 163.

¹⁰⁹ Ibid.

¹¹⁰ Ibid., 172.

¹¹¹ Ibid.,

¹¹² Schoolfield, George, ed. *The Kalevala: Epic of the Finnish People*, Eino Friberg, trans. (Helsinki: Otava Publishing Company Ltd., 1988): 117-20.

¹¹³ Ibid., 124

¹¹⁴ Ibid., 127-33.

¹¹⁵ Schoolfield, *The Kalevala*, 97.

¹¹⁶ Ibid., 321.

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- ¹¹⁷ Ibid., 322.
- ¹¹⁸ Ibid., 49-58.
- ¹¹⁹ Linda Degh, *Folktales of Hungary* (Bloomington: Indiana University Press, 1965): 272.
- ¹²⁰ Gimbutas, "Perkunas/Perun, Thunder God," 470-71.
- ¹²¹ Olson, *Human History*, 132-33.
- ¹²² Bruce D. Smith, *The Emergence of Agriculture* (New York: Scientific American Library, 1995), 121-123.
- ¹²³ Anne Birrell, *Chinese Myths* (Austin: University of Texas Press, in cooperation with the British Museum Press, 2000), 12.
- ¹²⁴ Ibid.
- ¹²⁵ Ibid., 12-14.
- ¹²⁶ Ibid., 21.
- ¹²⁷ Ibid., 22.
- ¹²⁸ Ibid., 34.
- ¹²⁹ Krystyna Weinstein, *The Owl in Art, Myth, and Legend* (London: Grange Books, 1990), 96.
- ¹³⁰ Ibid., 20.
- ¹³¹ Birrell, *Chinese Myths*, 37.
- ¹³² Ibid., 50.
- ¹³³ Obayashi Taryo, "Japanese Myths of Descent from Heaven and Their Korean Parallels," *Asian Folklore Studies* 43, no. 2 (1984): 171-84.
<http://www.jstor.org/stable/1178007> (accessed July 23, 2009).
- ¹³⁴ Ibid., 174.
- ¹³⁵ Ibid., 172-75.

CHAPTER IV

MYTHS FROM ABROAD

Africa, Australia, and Mesoamerica

The lakeside people of Buziba (on the eastern shore of lake Victoria) think lightning and thunder are caused by flocks of small, glittering red birds, which nest in the rocks near the lake. When Kayura, ruler of the storm (he is the son of the one-legged lake-god Mugasha) is so disposed he sends these birds out; the flashing of their feathers is the lightning and the rushing sound of their wings the thunder. During a thunderstorm Mugasha's missing leg is said to be seen in the clouds – a phenomenon of which, so far as I am aware, no explanation has been offered.¹

--Alice Werner recounting a Bantu myth, 1933

African Myths

Researchers generally agree that early agriculture originated in Africa in at least two separate locations. Early millet and bean cultivation began along the southern edge of the Sahara desert by about 7,000 BCE.² This was then a fertile alluvial land including the vast Niger River drainage stretching some 3,000 miles across northern Africa, today called the *Sahel* ("shore" in Arabic). To the north in Egypt, researchers have found evidence for farming from 5200 BCE.³ Agricultural activities began in sub-Saharan African by at least 3000 BCE and farming spread across the southern and eastern reaches of Africa in close association with Bantu and Bantoid language speakers.⁴

In agricultural areas of Africa, thunderstorms are common and can be quite severe. Rain and weather have long been key concerns at the core of ritual and religion. Lightning and thunder beings are still ubiquitous, straightforward mythic concepts. Tornado references, on the other hand, from at least the early nineteenth century have often been obscured by complex traditions. In addition, European scholars appear to have completely missed even clear references to tornadoes, due to their personal unfamiliarity with the phenomena, as seen in the selection above. All told, there remains an unfortunate lack of material on the extent or manner in which storms and weather figured in ancient African traditions.

A few dedicated European scholars collected and annotated oral material from African communities during the nineteenth century. There is extremely little reliable historical material on indigenous beliefs available from before this time. Multitudes of cultures, religions, and peoples have washed across Africa since humankind first emerged there. Still, a careful look at some persistent folkloric concepts alongside deeply embedded legends and traditions has produced some intriguing clues about how early African agriculturalists viewed tornadoes.

A rather eclectic set of narratives is presented here, as a result of the large geographic and cultural area considered. The survey begins with a two-fold look at an historical epic of the Sahel's Hausa people. This is followed by various beliefs of the wide-ranging Bantu-speakers of sub-Saharan Africa, who are thought to have carried agriculture and farming across Africa. Finally, original oral recitations from the Kalahari Bushmen throw light on how these forager-hunters viewed the whirlwind. A brief summary closes the section.

Hausa Speakers

Hausa predominates in western Africa as a language of culture and commerce. The Hausa city-states were a formidable power center from 500 CE until well into the sixteenth century. The Hausa people, mostly in Niger and northern Nigeria, have an epic narrative called the *Bayajidd*, after its main character, a man also known as Abuyazidu. Sources are generally from written Arabic texts of the medieval period, although the legend itself arose from an oral epic of ancient provenance.

This historical epic is often evaluated by scholars as it relates to issues of gender and regime shift during medieval times from matriarchal to patriarchal Islamic leadership. But apparently, it also has deep roots influenced by tornado folklore-- roots neatly severed from most versions of the myths. Intimations of pre-Islamic influences appear by comparing related oral folktales and traditions to the *Bayajidd*. Here is a synopsis of the most common versions of the traditional epic.

“Bayajidda”

The man Bayajidda arrives in Hausaland from the East, usually his city of origin is given as Baghdad. He marries a king's daughter, Magaram, in the state of Kanem-Bornu. They have a son, Biram. Trouble (the reasons vary) soon forces Bayajidda to leave his wife and move on to the town of Daura (in Nigeria.) Here he asks an old woman for water. She says she cannot, for a serpent named *Sarki* (meaning king) rules the well, preventing them from getting water except on Fridays when ritual songs must be sung. Bayajidda goes to the well and when the serpent holds down his bucket, he recites the words and gets water. He then brings up the snake and cuts off its head. The queen,

Daurama, offers half her town to the serpent killer, but he declines and asks instead to marry her. She declines because she must stay a virgin. He moves in anyway, and she gives him a slave girl, Bagwariya, who has a son, *Karap Da Gari* (“he snatched the town”). The queen then has a son named *Bawo* (“give it back”).⁵

In 1995, Dierk Lange recorded an oral version of Bayajidda by the son of a late king of Daura. This narrator stated that the people had become accustomed to a snake inside their well and then had made him a king. However, as Lange points out, all the pronouns and forms of address in the tale the prince actually recited had employed *the feminine form* to indicate the serpent. Also, the prince had himself remarked “at that time the women were ruling; men did farming and hunting.”⁶

The conventional Bayajidda legend makes no mention of tornadoes. Yet one has only to look at a myth related by Maalam Shaihua, a Hausa scribe, to find the missing link. Shaihua’s tale was translated by R. Sutherland Rattray and published in 1913. It is quite long and so is briefly extracted and summarized below, while a much longer extract of Rattray’s translation is provided in Appendix B.

“The Giant and the Thunder”

A man is continually boasting that he is A-Man-Among-Men [giant deity also identified with tornadoes] and his wife scolds him, saying if you ever met the real one, you would run. She then goes to the well to draw water, but cannot bring up the bucket for something holds it down. She meets another woman and small boy. The small boy lifts the bucket for her with ease. She asks who the woman’s husband is and she replied A-Man-Among-Men. The first woman returns and tell her husband. They go back the

next day and the husband cannot lift the bucket of water, but the small boy again comes and does it with ease. Enraged the husband follows the other woman and boy home. The Man-Among-Men comes into his house and smells “the smell of a man.” His wife convinces him to ignore it. The next day the Man-Among-Men giant discovers the man hiding and gives chase:

He was running. He also, the other one, was running till he met some people who were clearing the ground for a farm, (and) they asked what had happened. And he said, 'Some one chased (is chasing) me.' They said, 'Stand here till he comes.'

A short time passed, and the wind caused by him came; it lifted them (and) cast them down. And he said, 'Yes, that is it, the wind he makes (running); he himself has not yet come. If you are able (to withstand him) tell me. If you are not able, say so.' And they said, 'Pass on.' So he ran off, and came and met some people hoeing. They said, 'What chased (is chasing) you?' He replied, 'Some one pursued (is pursuing) me.' They said, 'What kind of a man chased (is chasing) (one) such as you.' He said, 'Some one who says he is A-Man-among-Men. They said, 'Not a man-among-men, a man-among-women. Stand till he comes.'

He stood. Here he was when the wind of him came, it was pushing about the men who were hoeing. So he said, 'You have seen, that is the wind he makes; he has not yet come himself. If you are a match for him tell me; if not say so.' And they said, 'Pass on'; and off he ran. He was running.

He came across some people sowing; they said, 'What are you running for?' He said, 'Some one chased (is chasing) me.' And they said, 'What kind of a man is it who chased (is chasing) the like of you?' He said, 'His name is A-Man-among-Men.' They said, 'Sit here till he comes.' He sat down.

In a short time the wind he made came (and) it lifted them and cast them down. And they said, 'What kind of wind is that?' He, the man who was being pursued, said, 'It is his wind.' And they said, 'Pass on.' They threw away the

sowing implements, (and) went into the bush (and) hid,
but that one was running on.

Eventually, the Forest Giant entity becomes aroused at this chase and challenges A-Man-

Among-Men god to fight for the human. They wrestle:

When they had twisted their legs round one another they
leaped up into the heavens. Till this day they are wrestling
there; when they are tired out they sit down and rest; and
if they rise up to struggle that is the thunder you are wont
to hear in the sky; it is they struggling.⁷

Similar elements are key to both myths. The explicit description of actual tornado behavior attests to the frequency of occurrence in the Hausa region. The women ritually go to a well that seems to incorporate some sort of regulation device, possibly related to irrigation. The well “holds down the water,” and yields only to the son of tornado – perhaps a reference to a legitimated male leader. Important aspects retained in the everyday folktale are the explicit litany of men performing the many agricultural chores, the drawn out tornado chase, and the explanatory nature of the folktale (why there is noisy thunder, etc). The linkage between agriculture and the tornado is thus a very old concept. The depiction of a society where men farm while women rule is unique and strengthens the argument that the context is quite ancient and not a modern creation.

Even though the famous myth of Bayajidda has discarded its archaic tornado references, it remains as evidence of a historical shift to patriarchal rule that may well have been dependent on validation by the (matriarchal) serpent power of the well. Importantly, the Daura queen avers she cannot have sex. Since being virginal was a commonly required attribute of female deities from Ishtar to Athena, and female Siberian shamans as well as other oracles, the queen doubtless represents a deity or priestess. When she does relinquish her virginity, she becomes the mother of kings. It is now her

son who will be the rightful heir and ruler. The essential tornado and agricultural roots of the foundational legend have, unfortunately, been long forgotten.

Bantu Speakers

Bantu is a language spoken by hundreds of different ethnic populations across Sub-Saharan Africa, East to West and down to Southern Africa. It is also used as a general term for the people speaking this language, as they are believed to share what was once an ancestral culture. In this regard Bantu is quite similar to the Indo-European (IE) languages that now predominate across India to Western Europe. A similar dynamic is posed for Bantu as for IE speakers. The research consensus is that Bantu populations fanned out from a homeland in the area of Nigeria or Congo, and then disseminated east and south across the rest of Sub-Saharan Africa. They were sophisticated early on in the manufacture of iron and this undoubtedly gave them a technical edge over neighboring peoples, thus aiding their successful expansion as an agricultural-trading people.⁸

In Bantu myths, access to the sky is accomplished most often by means of tornado-like devices: a very tall tree, a rope unraveling from the clouds, or a thick spider's web also unfolding from above.⁹ The heavens are responsible for sending down rain, lightning, thunder, tornadoes, locusts, and twins. Twins in this case were considered a calamity; often one was killed. Some legends describe little people who live in the heavens and have "tails."¹⁰

Professor Alice Werner (1859-1935), was a renowned professor of Swahili and Bantu at the University of London. She assiduously collected Bantu and other African mythologies from many different tribes during the late nineteenth century. In 1933, she

published an extensive collection of these in *Myths and Legends of the Bantu*.¹¹

Summaries of several common beliefs about agriculture, weather, and tornadoes, are discussed below along with narrative selections from her work that deal with tornado entities – even though they were not always recognized explicitly as such by Prof.

Werner, who found them puzzling. She evidently was quite unfamiliar with tornadoes.

A famous tale from Angola relates that originally there were two brothers:

Ngunza and Maka. Ngunza's mother told him Maka had been taken by Kalunga, Lord of the Underworld. Ngunza then went to a blacksmith and ordered an iron trap with which he caught the lord of the underworld, who took Ngunza to see his brother. Maka,

however, did not want to leave. Ngunza went to take leave of Kalunga, who gave him, as a parting gift, a valuable gift of seeds from cultivated plants. But eight days later,

Kalunga chased down Ngunza and took his revenge by killing Ngunza with his hatchet.

According to the Angolans, Ngunza then was turned into a *kituta* spirit. Werner notes that this kind of spirit “rules over water and is fond of great trees and of hill-tops.”¹² The whirlwind is probably indicated here.

The Ngonde people have a legend about Ngeketo, a former deity, who was “the first to plant maize in the country.” Others killed him out of jealousy, but in three days he returned as a snake. Werner was assured this story predated white influences and she concluded this deity had once planted millet or beans; the maize (a 16th century Portuguese import) was a later substitution. Furthermore, Werner writes, “it is interesting to note, in passing, that where there is a tradition about millet, the discovery is attributed to a woman, and strangely enough, is usually associated with a discreditable motive.”¹³

According to Werner, the Zulu had an original sky-god distinct from the concept later brought by whites. This god, *Mulungu*, was a human who later went up to the heavens by means of a spider's web. Werner noted that this concept of Thunder as a man who went up to heaven was widespread not only among Bantu speakers, but among other groups as well.¹⁴ The concept of climbing to heaven via a thick spider's web is almost certainly a tornado reference, not a poetic device.

Across African agricultural regions, there is a recurrent theme revolving around Thunder's need for a bride. A thunder and tornado deity either comes to the village seeking a girl or an adventurous young maiden ascends to the sky by climbing a tornado-like rope that descends from the clouds. The bride is usually a hard-working gardener and her association with water is usually explicit. Below is a synopsis of a mythic example of the common motif.

"The Thunder's Bride"

This tale comes from Ruanda. It concerns a woman whose husband was away at war, leaving her too ill and weak to chop wood for the fire. She despairs and calls out to the "very Thunder of heaven" for help. A fierce thunderstorm arises and lightning flashes to reveal Thunder as a man standing in front of her. He splits her wood and then asks for her unborn baby daughter as payment. She agrees. He then leaves. The daughter is born and named Miseke. Her parents, aware of the unkept promise, refuse to let her go outside when she is older. But when they leave to tend their garden and a storm arises, the child goes outside. She then sees, under the black clouds, a man calling out loudly. He snatches her, carries her away to the sky, and marries her. They have a family and

once Thunder allows her to return to earth to visit her parents. But on the way, a huge ogre emerges and swallows everyone but Miseke and her son, who runs for help. He returns with men and Miseke hears the dogs' bells just in time to call out. The men throw spears at the giant monster, thereby killing it and restoring all of the people and things it had swallowed. After her visit, another storm arrives and she and her family are all whisked back up to heaven.¹⁵

Werner also collected many instances of cords or ropes being used to climb up to the sky. One of her discoveries was an old song from the Baronga of Delagoa Bay:

Oh, how hard it is to find a cord!
How I would love to plait a cord
and go up to the sky!
I would find rest!¹⁶

The Ronga, Werner notes, told the story of a girl fetching water for her mother. She breaks the water jar and is distraught and cries out,

“oh, that I had a rope.” And looking up, sure enough, she saw a rope uncoiling itself from a cloud. She seized it and climbed, and soon found herself in the country above the sky, which appeared to be not unlike the one she had left.¹⁷

Once in sky country, the girl follows an ant's instructions and learns how to perform agricultural tasks in the same way as the other inhabitants of sky country. Later, they send her back to earth with a new baby and riches. Her younger sister becomes jealous and runs off to repeat her sister's luck. But this girl refuses to learn from the ant and destroys the gardens of heaven. For her selfish rudeness and transgressions, she is struck dead and her bones dropped back down on top of her mother's hut.¹⁸

The Ronga people, Werner remarked, also believed that heaven-dwelling people were distinct from humans and had tails. Sometimes when it rained, they said these tailed beings would fall out of the clouds. The Congo tribes had similar ideas about

“cloud folk” having tails. In fact, Werner noted that she found this belief quite widespread. A missionary from among the Wasu people informed her that the tailed cloud-dwellers were conceived as both beneficial entities and as bringers of disaster. Werner expressed bewilderment about the origin of this (to her) perplexing concept.¹⁹

Even more puzzling to Professor Werner were stories of the ogres often called *amazimu*, which she called “weirdly sensational.”²⁰ These giant ogres are frequently described as swallowing everything in their path, and as having only one “leg.” They are often present in tales about a man and his sister. Werner gives an example of such a passage: “On his way back he [a man] met a spirit in the path; it was of enormous size, and had only one leg... before he could move he was struck down by a flash of fire, and the spirit passed on its way.”²¹

Werner discusses this story element further:

it will be noticed that the Akamba, like the Akikuyu, give the *aimu* [*amazimu*], or some of them, only one leg. Dr. Lindblow also mentions this characteristic. In addition he states that the *aimu* is ‘a figure appearing in different shapes, sometimes smaller than a dwarf, sometimes of superhuman size . . . though, on the other hand, he also often appears as a wholly human being . . . he is a gluttonous ogre, and kidnaps people in order to eat them up. . . . The idea of the *aimu* seems to be mixed up . . . with that of the Swallowing Monster in the peculiar form in which it occurs in Basutoland and in Ruanda . . . A favourite ending is that the monster now . . . vanquished, tells his conqueror . . . to cut off his little finger, and [then] people and cattle that he had devoured all come to life again.’²²

Werner provides numerous tales of this village-swallowing monster, who tends to bypass any woman who crouches down or hides in a cave as he goes by. Such a woman then miraculously has a son who is instantly full grown and kills the monster – often by cutting off its finger -- at which point the swallowed items are all disgorged.²³

There was a separate class of myths according to Werner that consisted of half-humans. These creatures would appear described as having one leg, one arm, half a head. They sometimes ferried children through the air, or across streams. Very often they flew in the air. Among the Zulus, one-legged ogres were known as *amadhlungundhlebe*, and they ate men.²⁴ Repeatedly, Werner expresses her bafflement at how to explain such images and ideas.²⁵

Werner recounts tales of lightning birds, which are birds that dwell on the earth but fly up to become lightning. They appear to strike women much more often than men. These tales also contain references to a lake-god, *Mugasha*. And again, Werner is completely mystified by references among the Bantu speakers to this god: “During a thunderstorm Mugasha’s missing leg is said to be seen in the clouds – a phenomenon of which, so far as I am aware, no explanation has been offered.”²⁶

According to Werner, the Lambas believed that when lightning flashed “an animal like a goat, but with the hind legs and tail of a crocodile, descends to earth, let down by a cord like a ‘strong cobweb.’ Ordinarily, it is drawn up again, but should the cobweb break the animal would be heard crying like a goat...it is highly dangerous to approach the creature.”²⁷ Among the Lower Congo inhabitants, the lightning is called *Nzazi* and appears as a magic dog ‘either red or black, with shaggy hair and a curly tail. When he comes down he gives one sharp bark – *ta* – and with the second bark he goes up again.”²⁸

Werner wrote that she found it curious that Bantu speakers regard rainbows as “malignant and dangerous.” They considered it as something that stopped the rain and

was therefore inherently evil. The Zulus, she notes, call it the “Queen’s arch” in reference to the “Queen of Heaven . . . concerning whom it is difficult to exact information.”²⁹

Professor Werner’s Bantu myth collections are replete with references to women, agriculture, and weather spirits. The imagery of the one-legged swallowing monster that regurgitates what it eats and comes in various shapes and sizes is overwhelmingly suggestive of tornadoes and whirlwinds. The fact that Werner herself was quite confounded by the description of a “leg in the storm clouds” supports the argument that European observers (usually from educated, urban backgrounds in cities such as London, Paris, or Berlin) were often unfamiliar with tornadoes and so were unlikely to pick up on references to these or other environmental phenomena with which they were not personally acquainted. The usual response to tornadoes in most of these Bantu myths was to cast spears, knives, or axes – anything manmade, usually of iron -- into the funnel to kill it. The severing of its “little finger” is a curious repeated element, even more so because it is found elsewhere around the globe. This may refer to the moment when a tornado severs contact with the ground and lifts back into the clouds. Thus, if a hero can effectively cause the funnel to detach from the earth, the destruction will end.

The origins of agriculture in these tales are usually tied to the sky folk and involve women learning the skill or bringing back seeds. Both women and men climbed ropes or spider’s webs (almost certainly tornadoes are indicated here) to the sky. The presence and importance of young girls and women in the tales is highlighted. Werner’s observations about the Bantu viewing rainbows as evil and linked to a female deity (which they are, in turn, loath to discuss) are indicative of a powerful ancient association between women, rain, and rainbows in former times.

Khoisan Speakers

The Bushmen (Saan). Persisting alongside these agricultural cultures, but isolated in a remote southwestern corner of Africa, there remain a people who, until only a few centuries ago, preserved a forager-hunter way of life untouched by external influences. DNA studies show the Kalahari Bushmen (Saan) descend from a genetic split in the human race some 200,000 years ago.³⁰ When the stories provided below were collected in the 19th century, Bushmen culture was rapidly disappearing. Yet these last echoes of an archaic set of ideas provide intriguing insights about how the earliest agriculturalists may have viewed weather and whirlwinds.

The forager-hunter Bushmen often viewed the whirlwind as a highly sexed male entity that liked to grab women. Nevertheless, women were still the primary intermediaries when it came to weather rites and ceremonies. The primacy of women as the sources of myths and as instructors of hunting technique as well as foraging skills is intriguing.

Wilhelm H. I. Bleek was a German philologist dedicated to collecting and analyzing Bushmen language and beliefs in the nineteenth century. Beginning in 1857, Bleek began compiling a grammar of South African languages. In 1870, he began studying the Bushmen, appreciating that their language and way of life was swiftly disappearing. His bi-lingual publications of narratives collected from Bushmen men and women form an invaluable collection of authentic oral traditions. There is little documented ethnohistorical material on the Saan other than Bleek's material.

Selections dealing with weather and whirlwinds are summarized below, with Bleek's interpolations. Unusual diacritical marks are descriptive of phonetic clicks and other sounds. Bleek recorded this tale in 1878 by a man who attributed the story to his mother (a common attribution by Bleek's sources). It is summarized as necessary for space reasons, but relevant passages are kept intact.

"The Son of the Wind"

This tale begins: "The (son of the) Wind was formerly still. And he rolled (a ball) to *!na-ka-ti*. He exclaimed: 'O *!na-ka-ti*! There it goes!' And *!na-ka-ti*...felt that he did not know his (the other one's) name." After describing in similar fashion how the boy and his unnamed friend play at ball, the narrator then recites how the human boy *!na-ka-ti* ran to his mother and asked her to tell him the name of his new friend. The mother warns him that she cannot tell him his friend's name until their hut is well secured by his father. She then adds that once the hut is secured, she will tell him the name, but he must immediately afterwards race back home and get inside the hut when he feels the wind is capable of blowing him away. The child goes back to playing with his un-named friend while his father begins securing the hut. When his father is done, the boy *!na-ka-ti* calls out to his friend, using the name he has now learned. "And he scampered away, he ran home; while the other one began to lean over, and the other one fell down. He lay kicking violently upon the *vlei*. Therefore, the people's huts vanished away, the wind blew, breaking their (sheltering) bushes, together with huts, while the people could not see for the dust." The Wind's mother finally emerges from the wind's hut and calms her son by raising him up.³¹

In another tale, this same source states that the Wind “was formerly a man. He became a bird. And he was flying, while he no longer walked...and he dwelt in the mountain (hole)...Therefore, he was formerly rolling (a ball)...he became a bird; and he was flying...” Bleek comments the Bushmen in his day still maintained the ancient belief that the wind assumes bird-shape.³²

In 1878, another narrator told Bleek a story he also attributed to his mother.

“A Woman of the Early Race and the Rain Bull”

“The Rain courted (?) a young woman,...The rain scented her, and the rain went forth, on account of it; while the place became misty...he in this manner trotting came; ... And the young woman became aware of him as he came up; while he lowered his tail. And the young woman perceived him, as he came past her, at the side of the hut. And... she mounted the Rain; and the Rain took her away. She went along; she went along looking at the trees.” She then directs the Rain to take her to a certain tree where she strokes the Rain with special plants and makes it sleep. She then climbs up the tree and makes her escape. According to the narrator, the other women burn horns to assuage Rain’s anger, for otherwise they would all have been killed and turned into frogs.³³

Another tale by the same narrator:

“The Girl’s Story; The Frog’s Story”

In this tale, a girl lies ill in her hut, sickened by eating a taboo food, a Water-Child (according to Bleek, a fungus considered “a thing belonging to the Rain.”³⁴) Another sister spies on her and finds that when everyone is gone, the girl is still sneaking off to

find and eat the children of the Water. When the mother hears this, “she spoke, ‘Something is not right at home; for a whirlwind is bringing (things) to the spring. For something is not going on well at home. Therefore, the whirlwind is taking (things) away to the spring.’ Because her daughter killed the Water’s children, therefore the whirlwind took them away to the spring. ..The girl was the one who first went in the spring and then she became a frog. Her mothers [all the women] afterwards went into the spring; the whirlwind brought them to it, when she was already in the spring...Her mothers also became frogs; while the whirlwind was that which brought them, when they were on the hunting ground. Her father also came to become a frog; for the whirlwind brought her father...to the spring. ..Their things entered that spring (in which) they were. Their mats (grew) out by the spring, like the arrows; their things grew out by the spring.”³⁵

Bleek’s explanation is that the whirlwind punished all the people for eating its “children” by turning them into frogs – a common result of becoming involved with the whirlwind. The mats in the tale are those grasses/reeds from which Bushmen make their huts, according to Bleek.³⁶

The Bushmen believed that the stars are girls whom the Rain carries off, because he is angry with them. In 1876, Bleek recorded this statement of explanation: “The Rain lightens [lightning], killing them; they become stars.”³⁷ They also believed humans return to being clouds and wind when they die: “The wind does thus when we die, our (own) wind blows; for we, who are human beings, we possess wind; we make clouds, when we die. Therefore, the wind does thus when we die, the wind makes makes dust, because it intends to blow, taking away our footprints, with which we had walked about while we still had nothing the matter with us ...”³⁸

Bushmen indicated that women were the ones who controlled weather rituals. An example from 1880 is given here;

My father's mother beat a stone upon the ground. She said; "Fall into the water! ... and the thing (the lightning?) fell into the water. A man does not beat a stone upon the ground. A woman beats a stone upon the ground."³⁹

In almost all of the tales Bleek recorded, the women are depicted as having their digging sticks and foraging for bulbs or "Bushmen rice" whenever events occur. Men tell of receiving instructional hunting lore *from their mothers* more often (it appears) than from their fathers. The Bushmen myths, although related mostly by men are almost all attributed to women – more specifically, *the man's mother* is claimed as the source of the tale.

The Bushmen myths reflect an intimate relationship with the weather. This includes a sexualized male role for the Rain-Tornado entity. However, there is also the playful, ball-rolling Whirlwind who becomes a disastrous tornado when his name is unthinkingly uttered by a man. Most importantly, women's roles dominate the narrative context. Mothers are the source of most myths and hunting lore recited by the males, and women are the controllers of rituals concerning whirlwinds and other storm phenomena, such as lightning.

Breaking whirlwind-related taboos, such as saying Whirlwind's name or eating a certain red fungus were dangerous behaviors. Doing so would result in a retributive whirlwind blowing people into the springs and turning them into frogs. The idea that frogs were once people (and vice versa) was an interesting motif of Saan folklore. Frogs, which emerge after spring rains, were clearly deeply linked to Saan whirlwind beliefs.

Australian Myths

Scholars estimate modern humans' arrival in Australia at some 62,000 years ago, primarily based on human remains dated from the Lake Mungo region.⁴⁰ The indigenous populations of Australia are extremely diverse. Scholars estimate that some 260 *Australian Aboriginal* languages existed when Europeans arrived in the 1700s. Fewer than 200 remain in use, only 20 by significant numbers.⁴¹

In Australia, the southeast and southwestern coasts are the main agricultural regions. The majority of the aboriginal communities were in the southeastern section of Australia, along the Murray River area of present-day Sidney. Another large group lived along the Swan River area of present-day Perth along the southwest coast of Australia.⁴²

In the southern hemisphere, spring occurs during the winter calendar months. Australians today call tornadoes *Willy-willys* and *Cockeyed-Bobs* and they are well-known phenomena along the coasts along with the ubiquitous dust-devils of the interior. Australian tornado occurrences correlate with the number of United States' occurrences of F3 and higher tornado events.⁴³

Evidence for organized horticulture points back tens of thousands of years. In Southwest Australia, according to Sylvia Hallam, "plant processing was important throughout the 40,000 years' time span of occupation of some areas of the Swan alluvium" and excavations in the region demonstrate the longevity of most of these settlements."⁴⁴ Hallam continues: "there is evidence of intensive use of clearly defined areas where plants . . . were harvested; . . . seasonal scheduling of plant exploitation; harvesting and husbanding practices which encourage maintenance and proliferation . . .

semi-sedentism . . . and evidence of ancient, large-scale geomorphological effects.⁴⁵

Similar finds have been reported for other agricultural regions of the continent.

For many years most European scholars believed the Australian aborigines practiced no agriculture at all.⁴⁶ Although native-born researchers such as K. Langloh Parker demonstrated this assumption to be false, many today still perpetuate assumptions that most Australian Natives were primarily nomadic hunters rather than semi-sedentary agriculturalists. While men appear to have eschewed field work to hunt or fish (or just wander around), seasonal agriculture and foraging by the women provided the main food supply.⁴⁷ As Hallam notes, in colonial times there were still “aboriginal families tracing their descent through the female line [who] formed the focus of sedentism in and around these cropping areas [Upper Swan].”⁴⁸

This section draws on collections of oral narratives assembled by native-born Australians from the late 1800s and early 1900s. These researchers enjoyed a close familiarity with the land and the aboriginal peoples, often including a strong grasp local tribal languages and customs. The majority of the following mythic material is drawn from the Euahlayi tribe. Some material is also taken from observations and stories collected from various other Australian tribes, often without specific language contexts. Therefore this section does not categorize by language group or family, only by tribal group.

The Euahlayi Tribe

K. Langloh Parker [1856-1940], a daughter of European colonists, grew up among the Euahlayi in Southeastern Australia and later wrote up their folk-lore in three

books, along with an ethnographic text. *The Euahlayi Tribe*.⁴⁹ Her intimate knowledge of the people, language, and habits is reflected in her work. As a woman, she was able to obtain first hand information about women's lore and rituals that were otherwise hidden from male researchers. Despite prevailing attitudes of the age, her presentations appear deeply respectful and mostly un-retouched in translations.

Parker wrote that the Euahlayi tribe had a male primary deity whom they called *Byamee* even though the tribe followed female descent practices. *Byamee* was the father of all clans but belonging to none.⁵⁰ However, there was also a female deity, the chief wife of *Byamee* named *Birrahgnooloo*, who was likewise styled mother of all but belonging to none.

As Parker notes, *Birrahgnooloo* was unequivocally a *primal* female deity:

she was not to be vulgarized by ordinary domestic relations. For those purposes *Cunnumbeilee* [*Byamee's* second wife] was at hand, as bearer of children and a caterer. Yet it was *Birrahgnooloo* whom *Byamee* best loved and made his companion, giving her power and position which no other held. She too, like him, is partially crystallized in the sky-camp, where they are together; the upper parts of their bodies are as on earth; to her, those who want floods go, and when willing to grant their requests, she has *Cunnumbeilee* start the flood-ball of blood rolling down the mountains."⁵¹

Birrahgnooloo was considered the primary patroness of water. The people believed that she slept in the various caves formed by vast underground water-courses in the area. In such places, Parker regretfully recalls that numerous springs were to be found before the settlers' cattle destroyed them.⁵²

The dust-devil is *Wurrawilberoo*, who was reportedly inclined to grab "spirit-babies" from trees and "whirl along towards some woman he wishes to discredit, and through the medium of this woman he incarnates perhaps twins, or at least one baby."⁵³

Parker reports that in the old days, twins were considered a bad omen and one would

usually be killed. For these reasons, Parker continues, the women “cover themselves under a blanket when they see a whirlwind coming, and avoid drooping Coolabah trees [where spirit-babies hang], believing that either may make them objects of scorn as the mother of twins.”⁵⁴ Women could also conceive twins if they stared at the moon, *Bahloo*, who was male. The sun is female and a “wanton woman” named *Yhi*; she continually chases Bahloo, the moon, who scorns her.⁵⁵

The Milky Way is a *warrambool*, or water overflow. To reach it, one must pass by the *Wurrawilberoo* [two dark spots in Scorpio] who try to capture spirits of the dead; they also come to earth as whirlwinds. These whirlwinds terrify the aborigines, Parker writes, and old men try to protect the camp by tossing spears and boomerangs into the whirlwinds.⁵⁶

Most famous of Parker’s tales is her description of the winds called the *Mayrah*.

The *Mayrah*

There was once an invisible tribe called *Mayrah*. These people...could never be seen by the other tribes...They would hear a woman’s voice speak to them, see perhaps a *goolay* in mid-air and hear from it an invisible baby’s cry; they would know then a *Mayrah* woman was there...One of [the] *Mayrah* men chummed with one of the *Doolungaiyah* tribe..[who] longed to see him, and began to worry him on the subject until at last the *Mayrah* became enraged,...they all burst with rage and rushed away roaring in six different directions, and ever since have only returned as formless wind to be heard but never seen.⁵⁷

Parker comments that, in contrast to tales where the spring wind is male, in some songs, *Mayrah* was referred to as the mother of *Yarragerh*, the spring, or “as a woman kissed into life by *Yarragerh* putting such warmth into her that she blows the winter away.”⁵⁸ One of Parker’s sources told her that *Mayrah*, the spring wind, begins the process of blowing winter away by “blowing up a thunderstorm.”⁵⁹

Boolees or whirlwinds are unwelcome visitors in Australia. The Wurrailberos are blamed for most of the whirlwinds, but doctor-wizards called *wireenuns* also use whirlwinds to transport their dream-spirits, called *Mullee Mullees*. These spirits will be sent on a whirlwind to catch an enemy or kidnap a woman. For this reason, Parker claims, women are much more afraid of whirlwinds than the men.⁶⁰

A common aboriginal theme concerns a very close relationship between the owl, the Coolabah tree, and the whirlwind. An early first-hand collector of native tales was R.H. Mathews, who compiled myths from elderly aborigines in New South Wales and Victoria. He published *Folklore of the Australian Aborigines* in 1899. His tale, summarized below, was attributed to the Wirraidyuri Tribe.

Why the Owl has Large Eyes

Away back in the traditional times, *Weemullee*, the owl, and *Willanjee*, the cyclone, were two young men who were great friends. Although they hunted and had their meals together, and slept in the same camp, and chatted to each other, Willanjee was invisible to his companion.

Weemullee, however, was always trying to see Willanjee and kept constantly staring in his direction, which caused his eyes to gradually grow larger and rounder. When they started out hunting together, Willanjee's weapons and other accoutrements were carried along just as any blackfellow would carry them, but the bearer was not visible.

When the two hunters were stalking kangaroos, Weemullee would see Willanjee's spear poised in the wommera, and thrown at the kangaroo. He would hear Willanjee's voice calling out that he had secured the game and when the two men rushed up to give the animal the coup de grace, Willanjee's club was acting in good form in an invisible hand. All this greatly puzzled Weemullee, besides having the great charm of mystery, and he was forever straining his eyes in a vain endeavour to see his peculiar friend.

One day these two mates were out hunting as usual, and had caught some iguanas and black ducks. Towards evening Weemullee climbed a tree and caught a fat young opossum in one of the hollow spouts. Willanjee called out, "Throw it down to me and we will go

home and cook our super.” Weemullee then descended from the tree and the two mates stated for the camp, carrying with them their day’s catch of game. The opossum was borne along by the invisible Willanjee, and when the camp was reached he made a fire and cooked the different animals in the usual native fashion. The hunters had a great feast, and when it was over Willanjee rolled himself up in his rug and lay down by the camp fire. Weemullee’s inquisitiveness had reached its climax, and he decided to make a close inspection of his friend while he was sound asleep with a full stomach.

By and by, when all was quiet, with his eyes opened to their utmost extent, he cautiously unfolded and lifted up one corner of Willanjee’s skin rug. The consequence was sudden and disastrous. The moment the rug was raised, out burst the wind and scattered everything in the camp in all directions. Weemullee was swept into an adjacent hollow tree and on up inside the hole, coming out again at a top spout. He was then blown away across a plain all the time staring and straining his eyes in the hope of seeing his queer companion. At last he caught a firm hold of a small but tough acacia tree and managed to cling to it till Willanjee the whirlwind had gone past. Ever since that terrible night’s experience Weemullee’s eyes have remained large and round.⁶¹

Roland Robinson lived in Australia from 1921, collecting and retelling numerous stories into his book *Aboriginal Myths and Legends*.⁶² Summarized below are two tales from his book concerning the whirlwind.

“The Winking Owl”

A group of mothers hunting for honey left their children alone in the shade of some trees. The children found a winking owl in a tree and began to chase and abuse him, even plucking out all his feathers. No matter what they did, spitting on him and or poking grass through his nose, he could only nod and wink. Without his feathers, he was helpless and unable to fly away. Finally, the children tossed him high in the sky and he was able to rise up to *Kalaru*, another name for *Wandjina* the Rain Giver in the Wyndam area. *Kalaru* became enraged when the owl told him what happened. He sent various birds to spy out the humans, but each failed on their mission. Finally, the side-winder lizard

helped Kalaru to locate the people and he then created clouds, rain, and finally a tremendous wind. The humans tried to escape but only a boy and girl who clung to a passing wallaby were able to get away. All the others drowned. The two children joined another tribe and to this day children do not play with the owl.⁶³

“The First Women”

Pallyyan was the god of all the waters, including rivers, creeks, lagoon, and the sea itself. One day he drew out two women from the mud of a very deep waterhole. Pallyyan took his two women to his brother, *Pundjel*, who had similarly drawn out of the mud two men. Pundjel paired off the humans, giving spears to the men. Pallyyan gave digging-sticks to the women. Pundjel and Pallyyan stayed with the humans for three days, teaching them how to hunt and find roots. On the third day, a whirlwind together with a great storm came up and took Pundjel and Pallyyan far up and away. The human couples were left alone on the earth.⁶⁴

Northern Tribes (unspecified)

Two sisters, Mary and Elizabeth Durack, published a story book in 1941 in Sydney, Australia using aboriginal material. It tells of a boy and a girl who must journey to where the whirlwind lives to retrieve their kidnapped baby brother. The sisters claimed to have compiled it from tales told by the natives in the northern part of Australia.⁶⁵ Here the owl is a female, living in the Coolibah tree, and the rainbow serpent appears.

In *The Way of the Whirlwind*, two children discover their baby brother has been taken by the Whirlwind. A friendly crocodile advises them to visit Old Father Bremurer

[the great Rainbow Serpent] in his river cave for help in recovering the baby. Father Bremurer tells them to find where “Here-and–There the Whirlwind” goes to sleep. After a set of adventures with various animals, the owl, known as Mother Mopoke, shelters the children overnight in her Coolibah tree nest. The children eventually meet up with some kangaroos and spot Whirlwind playing on the open plains. They race along, trying to catch him but fail. The next day, Father Bremurer helps them out by flinging his rainbow coils across the sky to make a bridge for them to access the clouds. Here they finally locate the sleepy Whirlwind and their baby brother. They promise to play and be friends with Whirlwind when he comes to earth and he allows them all to return home safely.”⁶⁶

In his book on world mythologies, *The Golden Bough* (1922), James Frazer states that he had learned that in Australia men were linked to bats, while women were intimately associated with owls. Killing an owl would provoke outrage among the women for they believed that the souls of their female kin all became owls after death.⁶⁷ For this reason, anyone who harmed an owl would be severely punished.

Although Australia encompasses numerous distinct cultural and linguistic groups, many of these myths (recorded in the nineteenth century) reflected similar ideas. There was a sky goddess who controlled water and the Euahlayi made a special point of emphasizing her as a primal power, above physical and gender-related associations. In other word, she was *not* a maternal or a sexual entity (‘vulgarized’ as Parker so aptly puts it). There are repeated linkages between the owl, the Coolabah tree, and the whirlwind across numerous regional groups. The owl is often female, but also sometimes a male hunting partner of Whirlwind.

The figure of the great Rainbow Serpent, Father Bremurer, indicates a global pattern of linking snakes to rain, rainbows, and female deities of the weather. The association of water, women, and agriculture runs throughout the tales. The sun was female; the moon wanders the sky and mates with earth women, but does *not* mate with the sun.

Despite an emphasis on male dominance in the nineteenth century stories, older themes appear to date from a time period of greater equivalency in male-female roles. It was noted by many settlers that regardless of emphasis on a male god, most of the Australian communities still followed female descent practices when Europeans began to settle in the region.

Mesoamerican Myths

Mesoamerica has long been identified as one of the “hearths” or original locations of early human agriculture in the world.⁶⁸ Recent research has also shown that human inhabitation and domestication of plants in South America is much more ancient than scholars had previously assumed. Evidence of human settlement in Monte Verde, Chile dates from approximately 14,600 years ago.⁶⁹ Squash seeds found in the Andes of northern Peru are now dated at about 10,000 years old.⁷⁰ These dates are nearly double those of traditional scholarly assumptions.

While the highlands of Mesoamerica were long assumed to be the prime locus of early agriculture, paleoethnobotanical evidence now indicates that domesticated maize and manioc first appear in the lowlands of Tabasco (center of Olmec culture) around 5000 BCE. In addition, “fully domesticated sunflowers” were discovered that dated from at least 2667 BCE, alongside Cotton pollen.⁷¹ The oldest known major civilization of

ancient Mexico, the Olmecs, arose from this same lowland region along the Gulf Coast of Mexico. Rounding out their diet with beans, squash, sweet potatoes, and cucurbits, the Olmecs seem to have originally enjoyed a fairly diverse diet that became, over time, increasingly dependent on maize.

There are numerous written inscriptions and collections of ritual documents and codices dating from the pre-Columbian Aztec and Mayan civilizations. First-hand accounts by Spanish observers also serve to document rituals and beliefs in operation at the time of the Conquest. The Olmecs, long ante-dating the Aztec and Mayan kingdoms, were thought -until recently- to have left no written language. They did leave behind many artifacts and remains, including large block monuments and stelae covered with iconographic elements and famously-regarded huge stone heads.

Recent discoveries have uncovered cultural remains not related to elite monuments or as assumed reliance on maize, however. This is the existence of extremely sophisticated asphalt technology. Using this ubiquitous local material, the Olmecs were able to seal boats watertight and thus use riverine travel for trade and communication.⁷²

Mesoamerican traditions are replete with rain and maize deities deserving of a separate study examining their links to Native North American cultures. Because this is such a complex area of study, this review will restrict itself to simply a brief look at Olmec traditions thought to be associated with storm, rain, and crop deities.

The Olmecs

The Olmecs were one of the earliest civilizations in Mesoamerica, flourishing from before 1200 BCE until about 400 BCE along the Gulf of Mexico in the lowlands of

south-central Mexico. Many scholars have considered them a “mother culture” for later societies such as the Aztec and Maya, although this approach has given way to a more nuanced set of ideas about cultural persistence and dissemination. One common element was each civilization’s dependence on agricultural production as well as trade.

The Olmecs practiced sophisticated irrigation techniques, developed complex calendar systems, and left intriguing iconographic inscriptions. In 2006, some researchers concluded that the Olmecs also left evidence of the oldest known writing in the Americas.⁷³ Discovered on a block dating about 1000 to 800 BCE, this engraving may provide a key to accessing authentic original information about the still-mysterious Olmec world. It may be significant that the symbols on the tablet depict maize as well as a clearly defined insect glyph, which has been attested at other Olmec sites.⁷⁴

Even in the Central American tropics, water and weather is critical to the development, regulation, and expansion of any agriculturally-based civilization. This was true for the ancient world as well. According to a recent study, “preliminary analyses of the Olmec Period topography have strongly suggested that comparatively slight differences of land elevation and water table may have significantly affected the settlement pattern, almost certainly because such differences account for variation in productivity and/or security. The rhythms of the Olmec environment have to do with water in all its manifestations. Rain, fluvial systems, and the water table were all aspects that the elite sought to control one way or another. The prediction of rain may have been the most difficult aspect of their job, but control of groundwater was well within their grasp.”⁷⁵

Reconstruction of Olmec mythology has been based, up to the present, primarily on artifactual analysis and comparison to later pre-Columbian civilizations. Scholars believe the Olmecs worshipped a male dwarf-like rain deity, along with a feathered serpent, and a Man of Crops often characterized as a fertility and/or maize god. In mythic traditions of the Aztec and Maya, their Quetzal Feathered Serpent was linked to writing, calendars, maize, death and resurrection, and the planet Venus. These almost certainly reflect similar archaic associations for the Serpent in Olmec myth as well.

Olmec deities are nearly always depicted with a cleft forehead. Interpretations of this marking range from a sign of divinity, to seed holes for maize. The rain god – always a male, often a child – is an important deity across the Olmec/Aztec/Mayan pantheons. In Aztec, he is *Tlaloc*; the Maya call him *Chaac*. In Guatemala, the rain spirit is also linked to thunder and lightning. Human-Jaguar and feline shapes are intrinsic to this set of elements as well.

A 1999 review of exploration of the San Lorenzo Plateau reached some firm conclusions: “Several Olmec monuments relate children and dwarfs with water, rulership, and felines... Based on the context discussed, the rituals and symbolism of rulership were intimately linked to the figure of a patron water supernatural. It is not unreasonable to infer that these rulers regulated water control systems and, by extension, the water itself. The so-called were-jaguar symbolism and the syncretic feline-human metamorphosing bodies thus express a link between water, ruler, and patron supernatural.”⁷⁶

Summary

This survey revealed that tornadoes occur in myths and traditions of ancient agricultural regions around the globe. Moreover, key elements in these beliefs repeat across cultures and languages. The whirlwind is usually female and/or associated with matriarchal elements. It is nearly always embedded in the context of agriculture, spring, rain/water, and powerful women. Sexuality is a key motif and male whirlwinds are considered sexual actors on human women. Weather and agricultural rituals are almost universally women's responsibility. Tornadoes are usually a problematic source of good and evil. Man made, especially iron, tools are a favored weapon against tornadoes. The motif of a funnel's "little finger" recurs with some regularity.

The dynamics of change over time are similar in many myths. A primal female power linked to myths of a storm-tornado deity is overthrown. The older female deity is usually demonized or completely forgotten by ensuing generations. While nineteenth century Russian folklorists appreciated Baba Yaga's tornado links, this association is now all but forgotten. Contemporary renderings of her tales from the twentieth century never mention the connection. Since the early 1900s, mentions of Lilith have depended on Biblical declarations that she was a succubus. Yet the evidence is overwhelming that she was a primal storm goddess and a likely precursor to Athena/ Diana.

An interesting observation is that tornado references have very often been misinterpreted or invisible to European editors or collectors or mythology. For example, Professor Alice Werner, the renowned compiler of Bantu legends, confessed absolute bafflement at what was meant by tales of a mythic giant's "missing leg" reportedly seen in the clouds during violent thunderstorms.⁷⁷ The problem of interpreters unacquainted

with the environmental setting of myths is probably much larger than usually acknowledged. Most Oklahoma natives would immediately recognize the imagery evoked by talk of giant legs and swallowing monsters in the thunderstorm.

Finally, the last hundred years have witnessed a complete divorcing of the myths from environmental context or understanding. The vital chain connecting spring, thunderstorms, and tornadoes in particular with agricultural success is unacknowledged.

The following chapter provides discussion revolving around some of the major motifs, themes, and symbols that have emerged from this survey of tornado myths from North America and around the world. Whirlwind myths viewed in this widest possible context begin to re-emerge from the recesses of mythological memory and take shape in a dramatic and comprehensive manner. The results of this comparative review provide insights and new approaches to the question of global cultural persistence as well as the question of how humans conceptualized their world as early agriculturalists.

NOTES

¹ Alice Werner, *Myths and Legends of the Bantu*, (London: Frank Cass, 1933), under Chapter XV, <http://www.sacred-texts.com/afr/mlb/mlb17.htm> (accessed December 1, 2008).

² Jack R. Harlan, "The Tropical African Cereals," in *Foraging and Farming: The Evolution of Plant Exploitation*, David R. Harris and G.C. Hillman, eds. (Boston: Unwin Hyman, 1989), 335-343.

³ John Noble Wilford, "5200 B.C. is New Date for Farms in Egypt," <http://www.nytimes.com/2008/02/12/science/12egypt.html> (accessed January 5, 2009).

⁴ Clare Janaki Holden, "Bantu Language Trees Reflect the Spread of Farming across Sub-Saharan Africa: A Maximum-parsimony Analysis," *Proceedings of the Royal Society, B* (2002): 269, 793-99. <http://www.jstor.org/pss/3067712> (accessed July 28, 2009).

⁵ W.K.R. Hallam, "The Bayajida Legend in Hausa Folklore," *The Journal of African History* 7, no. 1 (Cambridge: Cambridge University Press, 1966): 47-60.

⁶ Dierk Lange, "Hausa States," in *Ancient Kingdoms of West Africa: African-centered and Canaanite-Israelite perspectives: a collection of published and unpublished studies in English and French* (Dettelbach, Germany: Roll, 2004, Section 3, 155-305, 557-559): 289. http://dierklange.com/pdf/fulltexts/hausa/08_Sources-Bayajidda-legend.pdf (accessed July 31, 2009).

⁷ Maalam Shaihua, *Hausa Folk-Tales*, trans., R. Rutherford Rattray, 1913, <http://www.sacred-texts.com> (accessed November 22, 2008).

⁸ C Magbaily Fyle, *Introduction to the History of African Civilization: Precolonial Africa* (New York: University Press of America, 1999), 142.

⁹ Alice Werner, *Myths and Legends of the Bantu* (1968, repr., London: Frank Cass, 1933): 61.

¹⁰ *Ibid.*, 76.

¹¹ *Ibid.*

¹² *Ibid.*, 39.

¹³ *Ibid.*, 43.

¹⁴ *Ibid.*, 50.

¹⁵ Ibid., 57-61.

¹⁶ Ibid., 62.

¹⁷ Ibid.

¹⁸ Ibid., 62- 65.

¹⁹ Ibid., 76.

²⁰ Ibid., 175.

²¹ Ibid., 172 – 78.

²² Ibid., 178 – 79.

²³ Ibid., 206 – 09.

²⁴ Ibid., 200.

²⁵ Ibid.

²⁶ Ibid., 226.

²⁷ Ibid.

²⁸ Ibid., 227

²⁹ Ibid., 231.

³⁰ “Before the Exodus,” *The Economist*, 24 April 2008,

<http://www.economist.com> (accessed November 22, 2008).

DNA studies published in 2009 have also determined that the San have some of the most diverse DNA in Africa. Results of the largest such DNA research yet done across Africa suggests that “the ancestors of the San led a major migration throughout Africa, spreading out from their ancient homeland.” Ann Gibbons, “Africans’ Deep Genetic

Roots Reveal Their Evolutionary Story,” *Science* 324, no. 5927 (1 May 2009): 575-76.

<http://www.sciencemag.org/cgi/content/full/324/5927/575> (accessed May 1, 2009).

³¹ W.H.I. Bleek and L.C. Lloyd, *Specimens of Bushmen Folklore* (1911; repr., Capetown, South Africa: C. Struik, 1968), 103-06.

³² Ibid., 107- 09.

³³ Ibid., 193- 99.

³⁴ Ibid.

³⁵ Ibid., 199-205.

³⁶ Ibid., 205.

³⁷ Ibid.,

³⁸ Ibid.,

³⁹ Ibid., 429.

⁴⁰ James M. Bowler et al, "New Ages for Human Occupation and Climatic Change at Lake Mungo, Australia," *Nature* 421, no. 6925 (February 2003): 837-40. <http://www.nature.com/nature> (accessed July 27, 2009).

⁴¹ Olson, *Mapping Human History*, 147.

⁴² Australian Government Culture Portal, Aboriginal Studies Press, http://www.aiatsis.gov.au/aboriginal_studies_press/aboriginal_wall_map (accessed August 3, 2009).

⁴³ Harold Brooks and Charles A. Doswell III, "Some Aspects of the International Climatology of Tornadoes by Damage Classification," *Atmospheric Research* 56 (2001): 196.

⁴⁴ Sylvia J. Hallam, "Plant Usage and Management in Southwest Australian Aboriginal Societies," in *Farming and Foraging*, ed., D.R. Harris and G. C. Hillman, (Boston: Unwin Hyman, 1986): 136-51; Hallam notes that "the south and central areas of the west coast of Australia provide a variety of types of evidence for the intensive use of fixed patch resources of plants with subterranean storage organs . . . a consistent picture emerges of extensive but clearly defined plant-harvesting areas, at least one on the alluvium of each river from the Murchison to the Murray...closely associated with other fixed facilities...implying semi-sedentism. This was made possible by a seasonal schedule which used these very substantial plant resources for a large part of the year. . . . Patterns of occupation on the coastal plain and its hinterland showed selective intensive usage of alluvial terraces (providing yams) and swamp areas (providing reed rhizomes.) . . . [All of which] suggests a chronology of more than 40,000 years for the intensive use of plant resources in Australia. Ibid., 145.

⁴⁵ Ibid., 136-37.

⁴⁶ Andrew Lang, "Introduction" in *The Euahlayi Tribe* by K. Langloh Parker, (London: T&A Constable, 1905): under "Introduction." <http://www.sacred-texts.com/aus/tet/tet00.htm> (accessed November 22, 2008).

⁴⁷ Hallam, "Plant Usage," 141. Hallam quotes from an 1830s diary: "The yam is sought chiefly at the commencement of the rains when it is ripe and when the earth is most easily dug; and it forms the principal article of food for the natives at that season."

⁴⁸ Ibid., 142.

⁴⁹ K. Langloh Parker, *The Euahlayi Tribe: A Study of Aboriginal Life in Australia* (Edinburgh: T. and A. Constable, 1905); <http://www.sacred-texts.com/aus/tet/tet00.htm> (accessed November 22, 2008).

⁵⁰ Ibid., under Chapter II.

⁵¹ Ibid.

⁵² Ibid., under Chapter XI.

⁵³ Ibid., under Chapter VII.

⁵⁴ Ibid., under Chapter VII.

⁵⁵ Ibid., under Chapter XI.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ R.H. Mathews, "Folk-Tales of the Aborigines of New South Wales," *Folklore* 19, no. 2 (June 1908): 224-27.

⁶² Roland Robinson, *Aboriginal Myths and Legends* (London: Paul Hamlyn, 1969).

⁶³ Ibid., 90-3.

⁶⁴ Ibid., 20.

⁶⁵ Mary Durack and Elizabeth Durack, *The Way of the Whirlwind* (Sydney: Consolidated Press Ltd, 1945).

⁶⁶ Ibid., 79.

⁶⁷ James G. Frazer, *The Golden Bough: The Roots of Religion and Folklore* (1890; repr., New York: Crown Publishers, 1981), 2:334-37. See also Weinstein, *The Owl*, 15.

⁶⁸ Kevin O. Pope, et al, "Origin and Environmental Setting of Ancient Agriculture in the Lowlands of Mesoamerica." *Science* 292 (5520): 1370-73, <http://www.sciencemag.org> (accessed April 16, 2009).

⁶⁹ Tom D. Dillehay, et al., "Monte Verde: Seaweed, Food, Medicine, and the Peopling of South America," *Science* 320, 9 May, (2008): 784-86. <http://www.sciencemag.org> (accessed January 12, 2009).

⁷⁰ Tom D. Dillehay et al, "Pre-ceramic Adoption of Peanut, Squash, and Cotton in Northern Peru," *Science* 29, no. 5833 (29 June 2007): 1890-93, <http://www.sciencemag.org/cgi/content/full/316/5833/1890> (accessed January 5, 2009).

⁷¹ Pope et al, "Ancient Agriculture," 1373.

⁷² Heather Pringle, "Following an Asphalt Trail to Ancient Olmec Trade Routes," *Science* 320, no. 5873 (11 April 2008): 174. <http://www.sciencemag.org/cgi/content/full/320/5873/17a> (accessed April 11, 2008).

⁷³ Ma. Del Carmen Rodriguez Martinez, et al. "Oldest Writing in the New World," *Science* 313, no. 5793 (15 September 2006): 1610-14, <http://www.jstor.org/cgi/content/full/313/5793/1610> (accessed July 27, 2009).

⁷⁴ Etta Kavanaugh, ed., "Did the Olmec Know How to Write?" *Science* 315, no. 5817 (9 March 2007): 1365-66, <http://www.sciencemag.org/315/5817/1365> (accessed July 27, 2009).

⁷⁵ Ann Cyphers, "From Stone to Symbols: Olmec Art in Social Context at San Lorenzo Tenochtitlan," in *Social Patterns in Pre-classic Mesoamerica: a Symposium at Dumbarton Oaks, 9 and 10 October 1993*, ed. David C. Grove and Rosemary A. Joyce, (Washington, DC: Dumbarton Oaks Research Library and Collection; Trustees for Harvard University, 1999): 165, <http://www.doaks.org/etexts.html> (accessed January 22, 2009).

⁷⁶ Ibid., 164-65.

⁷⁷ Alice Werner, *Myths and Legends of the Bantu* (London: Frank Cass, 1933), under "Chapter XV", <http://www.sacred-texts.com/afr/mlb/mlb17.htm> (accessed December 1, 2008).

CHAPTER V

DISCUSSION OF PATTERNS, THEMES & MOTIFS

Kill the owl-sorcerer, the owlet-sorcerer, the dog-sorcerer,
And the cuckoo-sorcerer, the eagle-sorcerer, and the vulture-sorcerer.
Do thou destroy the demon, O Indra, as if with a mill stone.¹
- from the Rig Veda

In each instance examined of a traditional agriculturally-based culture, the historical material provides evidence of an ancient, probably pre-historical whirlwind-storm deity. This entity is usually female and is a primal power, often alongside a male storm god. Around the globe, this Whirlwind Woman is linked to women, wisdom, agriculture, medicine, life, and death. Equally universal is a cultural pattern of eventual repression and demonization of the female deity and ascension of the male deity.

Whirlwind Woman presided over agricultural matriarchies characterized by male leadership legitimized through female bloodlines. Evidence suggests the growth of pastoralism may have contributed to the decline of formerly agricultural matriarchates. The lack of large domesticates in Native North America may have been why archaic matriarchal traditions on the continent persisted well into the historical period.

The track of Whirlwind Woman endures around the world in the historical record as well as in deep-rooted folk traditions and beliefs. The impressive persistence of the deity speaks to her essential place in human experience. Her “language” (to borrow

Gimbutas' term,) can be detected in iconography, artifacts, and ritual even to this day -- much of which has been incorrectly understood and misinterpreted by most scholars. Several animal familiars appear in company with the female deity across time and cultures and have obvious fundamental connections to human experience in this context.

Separate But Equal

The tornado was conceived as an all-powerful deity separate from other, probably derivative, storm entities such as Thunder and Lightning. The independent and original existence of this religio-cultural construct has escaped (seemingly) the observation of almost every historical scholar. The reasons for this are at least two-fold.

First, over history cultures have deliberately ignored and lumped in whirlwind references with other mythic male storm characteristics. This was a result of both patriarchal mandates to suppress reminders of female divinity and of the change in subsistence patterns. As pastoralism, trading economies, and technological advances in crop agriculture developed, archaic appeal to a storm deity became less immediate.

Second, most western historians operate from the perspective of patriarchal monotheism: primal female power is thus reduced to simplistic questions of fertility. Female deities are always problematic, never taken at face value. In this paradigm, female divinity is an outlier "cult," not a religious system of belief. The shared power construct that appears to have informed most matrilineal societies is anathema in modern historical interpretation. Many Bear's Whirlwind Woman, who bestows leadership on her brother in return for proper ritual, is thus re-rendered by scholars as a demon and her brother is a chief *despite her* – not because of her.

James Mooney's one line dismissal of the Whirlwind deity at the heart of Ghost-dance songs encapsulates the other part of the historical problem; he simply assumes the reference is to Thunderers. While he transcribed Whirlwind songs accurately, he utterly failed to grasp the significance. Modern scholars continue to ignore tornado references both because they have been largely unaware of the intrinsic meteorological link with rain-fed agriculture and because the concept of a single male storm god forms a fundamental, unexamined assumption underlying all theoretical approaches.

In the case of many historians and observers the mere fact of tornadoes has been a huge gap in their personal experience. The bafflement of an otherwise exemplary field worker and researcher, Alice Werner, when faced with odd African references (e.g., the giant's leg in the clouds) was surely due not to patriarchal blinders, but sheer ignorance of what a tornado looked like. Many American ethnologists and researchers must have observed tornadoes while working in the field. Yet their occasional encounters with this weather phenomenon would not have provided a full contextual backdrop for understanding the deep interrelationship with North American agriculture and beliefs.

She Who Must be Obeyed

The tornado deity was not a "Mother" Goddess. There is very little maternal or even particularly nurturing about this goddess. The deity is usually female and represents primal power and nature beyond direct human control. In her role as ultimate matriarch of a clan and legitimator of its male leadership, she was a *de facto* protector of women and women's rights. These aspects were retained after her demotion from a primal being to a subordinate entity.

Corn Mother, Spider Woman, Old Grandmother deities in Native American myths are examples of latter-day avatars with circumscribed powers. But such approachable figures should not be confused with the original female primal deity linked to the tornado. The tornado deity is manifestly not identical with any invented notion of an earth goddess. Sam Gill, after conducting his own “exhaustive search for Mother Earth among tribal traditions,” discovered that claims about such a generalized earthbound goddess construct in pre-contact Native America were baseless and primarily attributable to scholarly imagination and unexamined assumptions.²

The tornado deity was not a “Fertility” Goddess. The term “fertility” serves to diminish the scope of this deity’s range of influence and action. The implication is that the only important aspect of a female goddess is sexuality and reproduction, never power. Males are fertile and sexual beings, essential to reproduction (in most species), yet male gods do not ever carry this label as an attribute. The Young Maiden and the Hag concepts do not share either attribute, yet are clearly part of many whirlwind mythic constructs.

The tornado deity incorporated the full range of supernatural authority. The tornado goddess in most cultures was the source of rain and seeds. But there is no myth that depicts the tornado deity bustling about fertilizing crops or cultivating the seeds. She provides suitable weather conditions and the first domesticated cultivars for successful agriculture. It is up to humans to sow, husband, and harvest their crops. The tornado goddess does not fertilize wombs. On the contrary, male whirlwinds, especially across largely non-agricultural regions of Africa and Australia, are the original fertility sprites, impregnating young women at will. The dismissive and rather Victorian assumption that

any goddess concept must center around a simplistic fertility theme contradicts this mythic material.

The tornado deity was also a respected leader of warriors and armies. She represented untamed nature as much as domesticated agriculture. She was not a warm, maternal spiritual comfort. Like Jehovah, she was a god to be feared. Which, of course, is why followers of Jehovah and other monotheistic movements feared and strove to repress female deity worship. In reviewing female imagery from Neolithic Europe, the archaeologist Ian Hodder found that in early agricultural contexts “women [were] associated with the wild as much as controlling it.”³ As noted earlier, matriarchies are usually territorial and aggressive societies since they bring together large numbers of males along matrilineal lines. These closely allied bands of male fighters protect and expand the territory needed for food production.

Patriliney, on the other hand, results in more fragmented and competitive male loyalty chains where control of portable wealth and stock animals is a primary objective. The Dame of Pohjola brings her own army to take back the stolen Sampo from the men of Kalevala. Baba Yaga’s armies continually battle and overcome those of her male challengers, who only win eventually through wit and trickery and by stealing her daughter. The Hittites’ goddesses are often depicted in the heat of battle, urging on their followers. Inanna and Athena are comparable warrior goddesses in the ancient world.

The female tornado deity is fundamentally linked to early agriculture. This idea accords with findings of women linked to agriculture in the early Neolithic sites in the Near East. As Jacques Cauvin notes, the “two dominant symbolic figures [of the Neolithic Levant] were the Woman and the Bull,” and the numerous female

representations of this time period were all found in the “economic context ...of farming.”⁴ In a 2002 article, Ian Hodder remarks that archaeological finds at Catalhoyuk in Turkey reflect many instances of “symbolic associations between women and plants.”⁵ One of the most famous discoveries from the site, which dates from about 7400 BCE, is that of a woman seated on a throne of lions or panthers. It was discovered in the context of a grain storage area. Another small female figurine was found to have a wild seed inserted into a slot in her back. In contrast, Hodder notes, “there are no unambiguous depictions of women giving birth, or suckling or tending children. In other words, there is little evidence for the ‘Mother.’”⁶

To this extent, Hodder’s findings and analysis accord with the preponderance of tornado myths that feature women as central figures in agricultural contexts with little or no reference to maternal activity. However, Hodder goes on in the same article to persist in considering the question of women linked to real power (automatically presumed to be a male prerogative) as problematic and with a default source in sexuality. He writes: “Women are certainly depicted in powerful positions, such as sitting on felines with their hands resting on the heads, but there is no good evidence that this symbolic power derived from the “Mother” idea, rather than from other attributes of women *such as their sexuality or their productive capacities* [author’s italics].”⁷ In other words, women can only possibly derive power from only two sources: motherhood or sex. It is highly doubtful that scholars viewing a bearded male figure seated on a throne of lions have ever considered this as indicative of power based on his “sexuality or productive capabilities.”

Many Native American researchers continue to place studies of female elements in a similar context. The title of a recent scholarly article demonstrates the uphill battle

to re-site discussion of feminine imagery into an appropriate power and agricultural context. “Serpents, Female Deities, and Fertility Symbolism in the Early Cahokian Countryside” purports to discuss the “Cahokia Fertility Cult” and the title aptly summarizes the sole context female symbols are locked into: fertility.⁸ The authors, while they should be applauded for examining these symbols, are, alas, still looking for the snake in the grass, when the tornado funnel in the sky is the more appropriate object of study. In contrast, a female scholar, Susan Power, remarks that the serpent, “associated with the underworld, occupied both the real and supernatural realms, [and was] symbolic of lightning, thunder, rain and water.”⁹ Note that once again, however, that the key weather aspect, the tornado, is still absent from this list!

Native American scholars would be well advised to look to old world archaeology for hints regarding interpretations of ancient female representations in North American settings. As Ian Hodder has noted, during the early and mid-Neolithic period in the Near East and Southeastern Europe, women and their related artifacts are common in the archaeological record. As Hodder describes it: “The archaeological record is dominated by settlements, houses, pottery, and female representations whereas male-associated artifacts are less easy to see. More precisely, the complex of female-associated traits is particularly associated with the adoption and intensification of agriculture.”¹⁰

Food of the Goddess

While the prime focus of most tornado myths is the supply of rain for agriculture, a key refrain is the deity’s associated gift of the earliest cultivars, such as beans, sunflower, squash, and corn. This theme is explicit in many Native American traditions

and implied in most global legends. The Sampo featured in the *Kalevala* is a physical artifact ritually linking the female goddess to agriculture. The direct connection between the tornado, rain, and early agriculture has been one of the major thrusts of this paper.

Given this context, it is not surprising that cultures around the world have maintained a deep memory of the link until modern times. After more than a century of idealizing ancient hunters, scientists have now begun in earnest to study how plants figured in early human development and cultures. A recent paper reports that ancient humans in Africa spent much time and effort deliberately manufacturing high quality stone tools and used them as much to slice up tuberous roots as often (if not more so) as meat.¹¹ The tradition of keeping a top quality kitchen knife to hand is evidently much more ancient than we thought.

The gifting of domesticated plants is a recurrent theme in Native America. The Pawnees and Arikaras connect the whirlwind's mystic appearance and the gift to humans of corn, beans, and squash. The Pueblo peoples have myths that are detailed instruction manuals for humans on the use and availability of plant food, both wild and domesticated. The instructors are at first wild birds who are then mythically demoted when Turkey takes over and dictates new operational instructions for corn. Busks and Stomp dances in the Southeast featured separate Strawberry, Blackberry, and Mulberry dances, Green Corn rites, Squash, and Bean dances.¹² Whirlwind Woman and other tornado deities in Native America predate the mythic entity called Corn Mother. This chronology agrees with evidence researchers have accumulated about the earliest cultivation and domestication of plant foods in the Americas. Maize became popular only after about 1000 CE while humans were using plant sources such as beans, squash, and

sunflower for food for millennia before that. Although the tornado deity has been plainly in view in well-known traditional myths, however, her existence has been ignored almost completely.

Scientists now agree (generally) that a sophisticated horticulture based on squash, beans, sunflowers, and other seed crops was established in North America long *before* the rapid expansion of maize-based agriculture after 800-1000 C.E.¹³ Corn in North America did not enjoy the instant and widespread popularity once attributed to it by scholars and still assumed by the vast majority of the lay public. Corn remains minimal alongside other cultigens in sites identified with the Adena and Hopewell cultures (200-700 C.E.). These early mound builders *had* corn but grew it only in relatively small amounts.¹⁴ The explosive dependence on maize in the central valleys of North America took place only after about 800 C.E. At Spiro, corn did not become favored until after 1,000 C.E.¹⁵

In legends such as those discussed in Chapter Two from the Arikaras, Corn Mother “leaves behind” the Big Black Wind (aka Whirlwind Woman), and “forgets” to offer her smoke. In some versions, Dog races forward to warn Corn Mother of Whirlwind’s impending vengeance for this ritual neglect. These renditions thus incorporated a mythic reference that recognizes that there *was* a powerful female deity before Corn Mother, and that she too was concerned with agriculture and required supplication rites. She was not, however, a circumscribed deity of hearth, home, and crop; she was much closer to being a Supreme Being. In this respect, she resembles as much an aspect of untamed nature as much as domestic agricultural goddess. She almost certainly represented the deepest mysteries of life, death, medicine, magic, earth *and* sky.

This same theme of the tornado linked to the earliest stages of human investment in agriculture is repeated across the Native American and global myths surveyed. The Crooked Face of Iroquoian belief is considered second only to Good Mind and dates from the very beginning of human existence, while also tied to rituals focused on the triad of maize, beans, and squash. The Pawnees and other Caddoan speakers explicitly link the whirlwind entity to the introduction of corn, beans, and squash. African tales of the Hausa and Bantu also directly tie the tornado to crop farming. Sumerian Inanna created a garden at the beginning of the world, yet Lilith (a probable earlier storm/tornado goddess) is already embedded in the tree planted at the center. Baba Yaga is one with her mortar and pestle as she sweeps across the landscape. The Australian Aboriginal Peoples were clear about the responsibilities of Birrahgnalooloo, the female counterpart and equal of their male sky god. She was in charge of rain and groundwater and was explicitly *not* saddled with maternal or sexual gender-based duties. In the *Kalevala*, the Dame of Pohjola ruled a land of women and agriculture. This epic was based on long bardic traditions revolving around the fight between the Dame and power-hungry men for a ritual object that represented control of an entire kingdom, including its agriculture.

Whirlwind Woman to Wraith

At the start of this research, there was no idea of finding the Arikaras' Whirlwind Woman castrating men on the Missouri nor finding that Lilith, Baba Yaga, Harpies, and the Dame of Pohjola were all sprung from tornado beliefs. Yet their origins are often quite explicit in the ethnohistorical records, despite being nearly eradicated from memory and vilified, especially during recent centuries.

The change in status is exemplified in the Arikara tales. Originally a primal force, Whirlwind Woman validates her brother's ability to rule while he shows her the proper fear and respect. Over the course of the twentieth century, she is reduced to tent-keeper and dismissed from consideration by scholars as an evil monster even today.¹⁶ As a bad hag dust-devil, she outwits male tricksters – who oddly are then labeled “culture-heroes.”

Other female storm deities suffered the same fate. The Epic of Gilgamesh documents the diminishment of Innana when forced to marry a shepherd. Lilith is now a symbol of malevolent sexuality. Harpies are more raptors than women. Louhi lost the battle for the Sampo and became a northern witch. Baba Yaga is a bizarre witch roaming the Slavic steppes in her mortar and pestle.

Since these narratives doubtless echo archaic historical dynamics, they should be examined more closely. The memory of the female deity has endured despite millennia of theological attack. Insights can be gained by re-examining evidence with fewer assumptions, an open mind, and a better-informed understanding of how important weather and women were to early agriculturalists. The classical world was perhaps more accepting of female deities than assumed. A Harpy tomb relief at the British Museum, for example, depicts a benign creature gently lifting a child skyward (see Figure 20).



FIGURE 20. Relief panel from the Harpy Tomb
Lykian, about 470-460 BCE Xanthos (SW Turkey)

Courtesy @Trustees of the British Museum

The mystery of the disappearing goddess is as much about deliberate suppression by dominant new groups and ideology as it is a result of internal cultural change. The stories and rituals of the tornado-storm deity in Native North America were doomed in the face of a jealous Christian god introduced by Europeans. The idea of women exercising power and the open acceptance of sexual behaviors, especially in sacred ceremonies, was anathema to the newcomers. This resulted in deliberate efforts to stamp out beliefs and to deny her existence in order to assure acceptance of more acceptable religious beliefs.

It now appears that Whirlwind Woman in North America may not have been the only victim of successful historical disappearance. Biologists working in Mexico have discovered archaeo-botanical evidence demonstrating that sunflowers were domesticated and cultivated in Mesoamerica long before the Spanish arrival in the 1500s, perhaps 4,600 years ago.¹⁷ This well antedates dates for sunflower domestication in the Eastern United States of about 3,200 years ago. There had been a long-standing assumption that Mesoamerica did not have sunflowers before the Spanish arrived as there were no mentions of it in the historical records.

But as the researchers point out, this absence from the Spanish historical record was probably a result of deliberate omission and suppression. Sunflowers were at the heart of sacred Aztec religious ceremonies and in sexualized contexts that were considered a direct threat to Christianity. Indigenous linguistic evidence supplied many names for sunflowers that do not derive from Spanish borrowings. Another piece of evidence in favor of deliberate suppression is found in monastery murals painted to show

a familiar form of paradise to attract worshippers. Noticeable for its absence among all the other native plants depicted in these visions of paradise is the sunflower.¹⁸

The Spanish approach was quite successful. Until the past few years, scientists have largely assumed that the sunflower was not an early cultivar in Mesoamerica. In just such a manner, Whirlwind Woman has also been largely written out of the historical record as a threat to Christianity and new hegemonic powers. And in just such a manner were most of the ancient goddesses demoted, denied, and dissolved in the face of new ideological and cultural forces.

Mother of Kings

In extracts of the Anglo-Saxon Chronicles compiled in the ninth century, there is a preface concerning the Picts' arrival from Scythia to Hibernia (Scotland): "The Picts asked for wives from the Scots and this was granted on the condition that their royal ancestry always be traced from the woman's side; they have long since held to this."¹⁹

The tradition of matriarchal descent as a validation of kingship is woven deeply into tornado myths from Native America to Mesopotamia and the rest of the world. Most of the tornado myths surveyed suggest they were deeply concerned with the preservation of legitimate matriarchal lineage. The importance of maintaining the matrilineal line is at the heart of the mythic theme of brother and sister mating to produce children. This motif is well known from ancient times and around the world, if often misunderstood. Age-old traditions of having cousins marry embodies the same cultural directive. Native American whirlwind myths almost invariably have a brother and sister at the core of the story. This is certainly predicated on the same kind of cultural pattern.

Modern science has only recently grasped how DNA operates in male and female humans. Yet an intuitive understanding of how female-linked mitochondrial DNA (mtDNA) works is unmistakably present in the ancient myths. Equally evident is that many traditional scholars were (and many still are) as oblivious to a behavior grounded in maternal bloodlines as they were to the linkage of tornadoes and agriculture.

The Hittites, worshippers of male and female storm gods, adhered to a matrilineal descent pattern for kings until the time of King Telipinu (1525-1500 BCE) who issued a proclamation altering succession rules in favor of patriliney.²⁰ The king had been deemed legitimate by virtue of his “mother blood.” This meant that a king’s heir could *only* be his sister’s (or other close female relative’s) son. For although mitochondrial DNA passes unchanged from mother to children, only the female line transmits the mtDNA from generation to generation. Scholarly blindness to this pattern is exemplified in a recent presentation of this famous decree: Beckman, et al., write that “the preference for the sister-son instead of the own son must at least have been difficult to accept in the patrilinear system of the Hittites.”²¹ These authors illustrate the profoundly patriarchal mindset of modern scholars, unable to appreciate how matrilineal legitimacy operates. The same mindset has resulted in blindness to the important role and real influence of the female storm deity in ancient civilizations.

The Arikaras’ Whirlwind Woman in Many Fox’s version strikes a bargain with her brother that left Dorsey puzzled and that has been carefully ignored by scholars since. Why does the Whirlwind demand to have sex with her brother’s new wife? Her earlier castration-consumption rituals are understood as fertility-sacrifice rites, but this sexual act is nowhere else documented, it seems. The possible answer is that the Whirlwind is

performing what might have once been an accepted way of ritually bestowing her bloodline on the new wife, to ensure her brother's children are legitimate leaders under the whirlwind's protection.

The Huron captains described by Jean de Brebeuf in the early 1600s were known as *atiwarontas* (big stones), *atiwanens* (the elders), and *ondakhienhai* (the sedentary ones.) De Brebeuf noted that "they reach this degree of honor partly through succession and partly through election. Their children do not usually succeed them, but rather their nephews and grandsons. [but they] do not inherit these petty royalties, . . . instead, they are accepted by the whole country only if they possess the proper personal qualifications. . . . Captains are accepted . . . once a year, in the springtime."²² This may have been a widely-used rite for stabilizing matriarchal descent in tribal groups.

The sagas of Baba Yaga revolve around the plot of a young male upstart trying to buy/kidnap/win over her daughter (along with her horses). The daughters of the Dame of Pohjola in the Finnish *Kalevala* are also sought after and kidnapped by various men and gods. The Hausa *Bayajida* epic has the male newcomer convince the former virgin female leader and priestess to marry him.

Outliers

There are two important exceptions to the primal female deity paradigm for whirlwind-storm deities evident in this survey. They are the exceptions that prove the rule, in both cases. The first exception occurs where subsistence patterns were geared more along the lines of sophisticated foraging rather than organized horticulture. These settings are in fringe agricultural regions, with little spring rain. The second exception

occurs where men were farming crops, even as women were still powerful in control of water resources. In the first instance, whirlwinds are male and usually highly sexed entities and most often large dust-devils rather than real tornadoes. In the second instance, the tornado is a powerful male deity. These alignments are intriguing but limited in number. They should, therefore, be investigated further to determine if they hold true against a wider sample of mythic material in similar contexts.

In Australia and the Kalahari, as well as among some western Native American groups, the whirlwind-dust devil entity is not a female spirit, nor even a dust-devil as hag entity. In these low-rainfall areas, the whirlwind is a virile male spirit eager to play and will impregnate women. Among some Apache tribes, he is a messenger for the gods. In some Siouan traditions, he is a younger god of love and gambling.

What appears to link these concepts is the absence of organized agricultural traditions beyond sophisticated foraging. This subsistence pattern appears to be directly reflected in both how a whirlwind (in this context usually a small or large dust devil) is gendered and how it behaves. In groups with deeper traditions of agriculture, both the tornado and the dust-devil are almost always female. The spring twister is a goddess while the dust devil is her demonized historical descendant.

Even more intriguing is the discovery that in the sole mythic tradition viewed here where *men* were depicted as working in the fields – the Hausa – their myths featured a *male* tornado god. Although the Hausa women were represented as controlling the wells and probably irrigation, and the intimations were that matriarchal rule prevailed, the tornado deity assumed the same gender as those actually working the fields: the men.

The Puzzle of Pastoralism

The earliest tornado deities in solidly agricultural contexts are female and powerful; this appears to hold true from ancient Mesopotamia to ancient Native America. With the advent of large animals and livestock into subsistence patterns, however, the whirlwind-storm goddess is swiftly downgraded to a second class deity and then exiled from polite society as a demon. The introduction of horse culture in Native North America, which previously had no large domesticated animals, can be seen to have effected the same change in Native North America.

New research based on advanced predictive models demonstrates that the introduction of cattle to previously matrilineal, horticultural, and non-pastoral groups results in changeover to patriliney -- almost invariably. The assumption is that the value of male inheritance outweighs the values previously adhering to female descent when livestock enter the picture.²³ The *Epic of Gilgamesh* thus recorded the literal truth. When the storm-goddess Inanna was forced to marry the shepherd king Dumuzi, she suffered an immediate loss of power and influence. Her role was thenceforth subjugated to the male king of a new pastoral-agricultural society.

The introduction of the horse to western cultures and its linkage to the spread of Indo-Europeanism has been a vital topic of discussion for decades. Marija Gimbutas specifically linked the change in matriarchal Old Europe to a rapid invasion of horse cultures from the East. Although this theory was long disparaged by many, new research indicating the oldest horse cultures were in Kazakhstan may result in a re-examination of this type of dynamic.

Baba Yaga myths frequently have her in possession of the first horses. In these myths a male hero is successfully stealing her prize magic horses, with which he then (and only then) is able to defeat her. It should be noted that the male hero *also* is required to 'steal' or otherwise obtain Baba Yaga's daughter – thus gaining legitimacy to rule by virtue of the matrilineal connection.

The myth of Red Horse among the Kiowas demonstrates the rapidity with which a cultural group can make the switch from matriliney to patriliney. With the arrival of the horse in the early 1700s, the value-added factor of male inheritance and the change in cultural-economic dynamics made the switch a done deal. An ancient female Whirlwind deity was promptly replaced – possibly in a single generation -- by a male horse-cyclone in a neatly accomplished mythic swap-out. The Navajos accounted for the advent of the horse by having White Shell Woman (a Whirlwind alter ego) present it as a gift to humans.

This question of pastoralism and its linkage to social structure is important. North American Indians did not experience the changes that accompanied the introduction of domestic animals, and especially the horse, across most other continents thousands of years ago. This fact is very significant when looking at social organization and religious beliefs in Native America. The only domesticated animals of Native North America were the dog and the turkey. This was probably instrumental in the persistence of matriarchal and matrilineal cultures in the Americas until well into the post-contact era.

In addition, many of the tornado myths of Native America endured into historical times with less overlay from other cultural-linguistic groups than in other parts of the world. This is particularly true of the traditional agriculturalists, who remained relatively

intact culturally in the West and on the Northern Plains during the first centuries of European interactions. Some, including the Kiowa, captured both the historical and mythic moment of changeover from a female-centric goddess to a male deity. Insights from looking closely at such myths may be useful for understanding cultural change associated with pastoralism around the world.

Flutes and Flirtation

Many of the Native American whirlwind legends are interwoven with the motif of flutes used by men for either sacred purposes or, more commonly, for seducing young women. This persistent intermingling of themes is not a coincidence. Sexuality is a core element of human society. Whirlwind deity motifs are frequently employed in contexts associated with seduction and sexual behaviors. Many of these contexts involved sacred or ritualistic practices linked to religious ceremonies, such as the sun dance.

Use of flutes is an ancient tradition among almost all of the North American Native tribes, and especially well preserved in ritual contexts among those linked back to Mississippian-era sites. This tradition acquires a more profound significance when considered in light of recent discoveries from Paleolithic Period remains in a cave in Southern Germany. Just in the past year, archaeologists have announced their discovery of the oldest female figurine ever found, reliably dated at more than 35,000 calendar years of age.²⁴ Even more exciting, in the same cave they have now found and identified four flutes, one a superbly crafted artifact carved skillfully from griffon vulture bone. Three others of ivory were also found and all have been dated at well over 35,000 years old, with speculation placing them closer to 40,000 calendar years of age. Intriguingly,

the bird flute was uncovered just a mere 70 cm from the location of the female figurine, whose features include highly sexualized depictions of breasts and sexual organs.²⁵

These were not the only such carvings to be discovered at this location. Found in the cave only a few years earlier were carvings of a water bird – thought to be a diver, cormorant, or duck – in the act of diving or flying, as well as a partial carving of a creature with mixed human and feline characteristics.²⁶ Given the similarity between these Paleolithic artifacts and the identical mythic characters in Native American myth, it seems that cultural traditions in North America have preserved something original to the earliest human societies and fundamental to human experience.

The question of sexuality in Native American cultures and mythology and has been, until quite recently, an area of historical study more or less off-limits to public discussion. Ethnologists had to resort to Latin transcriptions to sexual elements of Native myth. Although Victorian prudishness no longer inhibits publications, there remains a great deal of reticence to openly discuss sexual behaviors, especially in Native North America.

Sacred ceremonies were not the only setting in which sexual behaviors operated with larger significance for the tribe as a whole. Welcome advances have been made recently in re-assessing the economic and political power wielded by Native women. There is every indication that Native women maintained their ability to influence, if not control, intertribal and interethnic trade and political relations long after the Europeans established a presence in the land. At least one of the bases for this hitherto little-discussed influence was sexual freedom, as well as the operation of kinship systems and alliances resulting from matriarchal tribal organizations.

The assumption that Native American women were second-class citizens in their own tribes was a European conceit and has had a lot of traction in twisting historical interpretations. In 1970, however, the anthropologist Alice Kehoe pointed out that women of the Northern Plains tribes used sexual intercourse as a means for exercising and gaining power and status.²⁷ In a 2000 article, a PhD student, Michael Lansing, pointed out that Francis Chardon, a bourgeois at Fort Clark in the early 1800s recorded in his journal occasions on which he was whipped by his Lakota wife for his sexual transgressions.²⁸ Her ability to render such punishment did not appear to be in question. Recently, the historian Juliana Barr has written an exemplary book, *Peace Came in the Form of a Woman*, detailing the critical role women and kinship systems played in dealings between both tribal and European entities across the West since the 1500s.²⁹ The role women have played in all aspects of Native North American history is only now beginning to be studied, appreciated, and accepted by many researchers.

The Mask of the Goddess

One intriguing representation of the whirlwind deity appears to be a recurrent feature across North American cultures. The mask of a crooked or twisted face represents a deity or supernatural from Paleoindians in the Southeastern United States to Mexico. In North America, there is a Crooked Face mask sacred to Iroquoian religious beliefs and explicitly identified with the Whirlwind deity in the oldest ethnographies. Examples of similar twisted-face masks surfaced from other regions during this survey. The Smithsonian has a mask found in Florida in the eighteenth century that has been attributed to PaleoIndians of that region (see Figure 21).

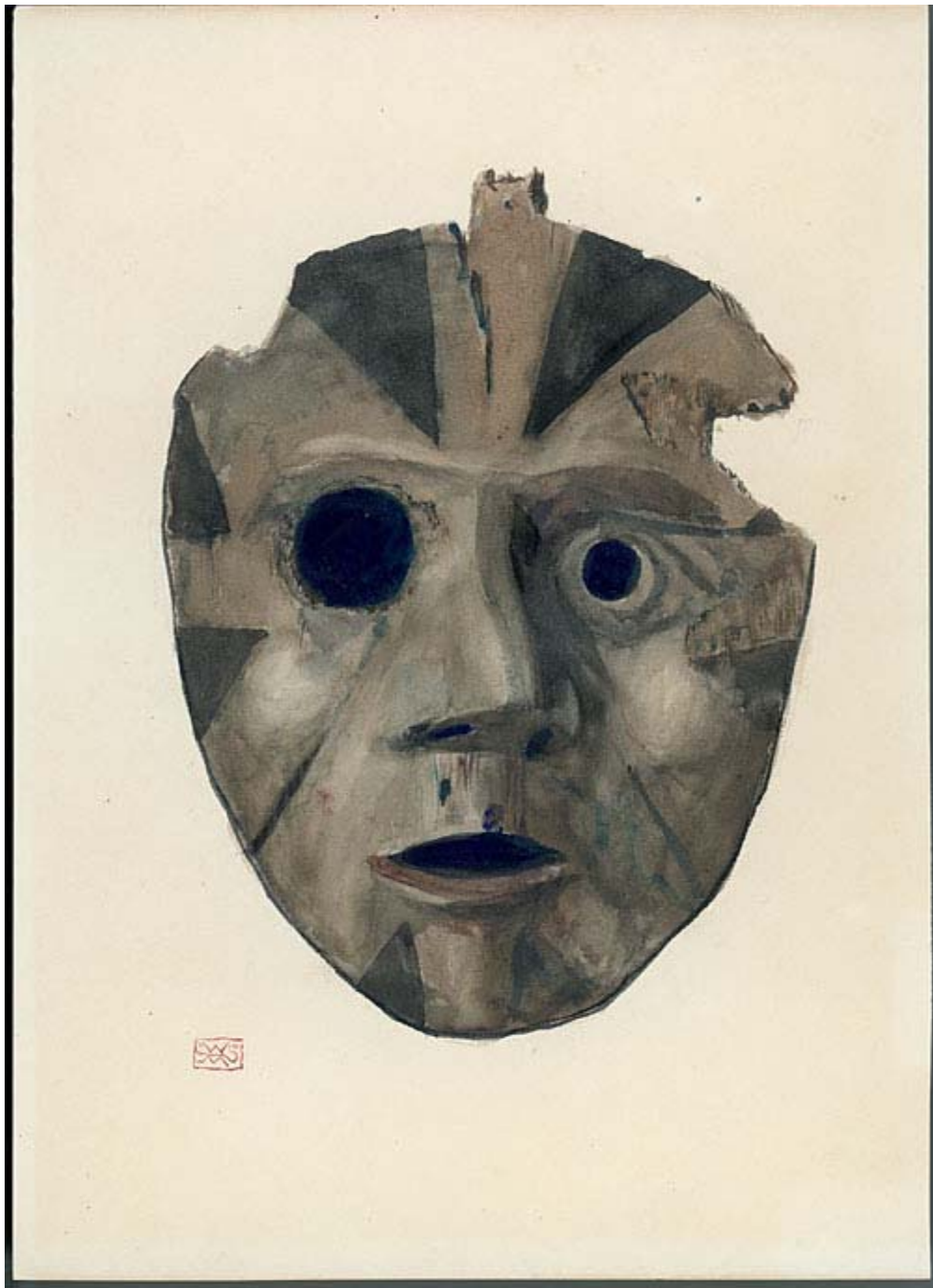


FIGURE 21. Painting of Crooked Face Mask – Wells Moses Sawyer

Original mask of wood - probably PaleoIndian
Excavated at Key Marco, Florida in 1896

Source: Smithsonian Institution National Anthropological Archives
Manuscript 241242

There is a colorful crooked face mask discovered in Mexico and now at the British Museum in a collection dating from the late nineteenth century (see Figure 22).



FIGURE 22. Crooked Face Mask – Mexico

Courtesy @Trustees of the British Museum

There is even a crooked face mask in the American Museum of Natural History from the Yukon Territory collected by Rev. J. W. Chapman between 1905 and 1936. Chapman labeled it “The Checharcos,” Yukon slang for greenhorns, a term comprised of *Chee* (Chinook for *new*) and *Chakko* (Nootka for *to come, to approach*). Intriguingly, however, the wood and fur mask closely resembles similar Iroquoian false face masks from the other side of the continent. The nose on the wooden Yukon mask is set awry and counterbalances an equally askew mouth and fur chin beard. A huge right eye and hollow cheek echoes the Florida PaleoIndian mask. The effect, all told, is less crooked than spiral. There is also a large cleft down the forehead, eerily reminiscent of Olmec cleft-head deities. (See Figure 23.) Like the Mexican mask, the facial expression is quite cheerful. It may be a parody of newcomers to Alaska, but it seems well grounded in more ancient traditions and symbolism.



FIGURE 23. “The Checharcos” mask
(Ingalik?) Northwest Coast, Yukon, Alaska
Courtesy: American Museum of Natural History
North American Ethnographic Collection
Catalog No. 60 / 5100

The repeated use of crooked or twisted faces in the context of the tornado entity is a key element. The swirling of the whirlwind is evoked by twisted faces, crooked noses, or other facial irregularities. The Dame of Pohjola, for instance, is repeatedly described in the Kalevala as having a crooked nose.³⁰ Witches and hags throughout western history are commonly given large beaked noses evoking ties to bird-women and thence back to the storm goddess. In just such a manner, it appears that crooked or twisted face masks link back to physical tornado evocations.

The question of crooked-face masks should be explored much more widely for its implications in interpreting cultural context and traditions. The occurrence of nearly identical masks from different time periods and regions in North America indicates the strong possibility that a common and widespread ancient belief underlies these images.

Animal Familiars

Several animals consistently appear associated symbolically with the tornado deity. Their links to the tornado appear based as much on universally recognized attributes or behaviors as on particularized cultural context. The same animals appear in the same kinds of myths playing the same kinds of roles from Australia to Siberia, Europe to Peru. Looking at some of the intrinsic characteristics of these animals can shed some light on why they are linked to tornadoes, women and/or agriculture. These symbols and animals were not arbitrary choices slotted into abstract categories. They reflected physical experience, traditions, and knowledge operating within an agricultural society.

Animals consistently appearing as close associates with the whirlwind-storm deity includes the dog, owl, bee, serpent, dragonfly/butterfly/moth, large felines like panthers or lions, raccoon, frog, turtle, and spider. Other animals interacting with the whirlwind are linked, in many contexts, to male elements of sexuality, destructive power as well as physical and perhaps even economic power, and conflict. These include the elk, bear, bull, horse, and goat.

Below a few of the key animal familiars will be discussed. Most of these animals are still deeply linked to women, wisdom, weather, and agriculture even today in folklore and legend. Many beliefs carry universal connotations that are too coincidental to be regionally derived; they must spring from shared human experience over millennia. Many of the fundamental ideas and relationships reflected in these symbolic references probably accompanied human migrations out of Africa and around the world, alongside language, culture, and traditions.

Dog

Contradicting older assumptions of multiple global origins, modern research using sophisticated DNA studies indicates that the domestic dog first evolved in East Asia. Researchers theorize that a specific locale, possibly China or Siberia, will soon be identified as an origin region. Humans also had less to do with dog domestication than was thought. The consensus now is that dogs evolved reduced flight behaviors and adapted themselves to human company. Although evidence suggests the domestic dog joined the human pack only about 15,000 years ago, they rapidly moved around the globe, including to the New World.³¹ Recent discoveries in Oregon show dog

remains commingled with human remains from 14,000 BCE.³² As Susan Powers notes, during the woodland period “dogs were given lavish burial treatments” and were used as effigies in many media, thus evincing many similarities to Mesoamerican practices.³³

One traditional assumption still prevails, however. Modern discussion still prioritizes dogs as a *male* hunting companion and ignores the idea of dogs as female or agricultural partners. References to dogs in a domestic context in North American Indian life are generally restricted to their use as food, usually associated with rituals. Yet throughout history the dog is repeatedly associated with women, wisdom, and magic.

There are ritual dog burials with humans around the world dating from the Paleolithic. In Syria, archaeologists have discovered an elite burial west of the Euphrates dating from the Early Bronze Age. It includes alongside numerous adults and children and rich jewelry, several ritual animal sacrifices consisting of puppies and decapitated donkeys.³⁴ In North America, numerous ritual dog burials have been found dating back to the beginning of the Holocene. In a burial on Koster Creek, Illinois, three dogs were buried some 8,500 years ago. Two were male, while the third was female. Possibly deliberately, the female’s head was adjacent to a mano and metate buried at the same time.³⁵

Dog-shaped jewelry and household items linked to women abound in archaeological sites. Quite recently, construction workers in Northern Greece (Thessalonki) unearthed a 2,300 year old grave containing a high-ranking female. Along with numerous gold wreaths, bronze mirrors, and others impressive grave goods, this important woman wore gold earrings in the shape of dogs’ heads inlaid with semiprecious stones.³⁶

Through the Medieval Period in Europe, the dog functioned as a symbol of knowledge, wisdom, and female companion. Depictions of Christina de Pisan, a famous Italian female scholar of the late fifteenth century, show her working at a desk with a small dog by her side.³⁷

It is generally presumed by most people that Islam shuns dogs as being unclean based on Quranic edict. That is not, however, the case. As Richard C. Foltz points out the “only Qur’anic reference to an actual dog is a positive one.” He references Sura 18 known as the Companion of the Cave story, and notes that the dog received a bum rap only in later commentaries. Thus all “negative attitudes towards dogs which claim to be “Islamic” are based on hadith reports.”³⁸ The eagerness of latter day interpreters to decry dogs was based no doubt on a keen interest in stigmatizing religious beliefs that lingered, continuing to respect a female deity, probably with a ritual role for dogs.

The dog in many Native American cultures was a work animal, an alternative food supply, and a sacrificial food in rituals. In this respect, it occupied the place that larger domesticated animals filled in other parts of the world. It is well known that the Pawnees, Arikaras, Mandans and Hidatsas, among others, maintained large numbers of dogs in their villages before the mid-1700s. They bred them for strength and size. With the advent of horses, the work-dog became less necessary and numbers plunged.³⁹ It is very possible that with the decline in matriarchal organization and a shift away from female deities, the ritual importance of the dog also precipitately declined and so too the pack populations.

Dogs were a valuable source of domestic labor, yet there persists an image among many that they were primarily a hunting companion. This is part of a larger romantic

image based on a false assumption that hunting supplied a huge part of the food supply. The dog is a pack animal with territorial instincts, thus excellent guard animals. This is all the more reason to suppose that dogs would be of more value to gatherer-foragers and farmers than to hunting parties. Dogs, especially females, may have been more often found guarding crops and field gardens rather than tracking game in distant forests. Female dogs in estrus or carrying or nursing pups would be kept near human settlement. Female dogs would thus be more likely to be made use of by women carrying out local foraging, agricultural, and other activities.

Owl

Global mythology in general depicts the owl as a symbol of women, witches, wisdom, medicine, prophecy, and warning. In tornado myths from ancient agricultural regions such as Native America and the Near East, the owl usually exhibits all of these same attributes in some kind of weather/wind/storm context. The owl appears to be less linked to agriculture *per se* than with women and issues of power, wisdom, wind, rain, and the underworld or magical supernatural world. The owl is thus very much a symbol of a primal deity; it is not itself either good or evil. It represents the power and knowledge to effect either harm or beneficence on humans.

Native American mythology has a plethora of various owl traditions. An article by Eddie Wilson in 1950 contains a lengthy, and by no means exhaustive, list of owl beliefs from across the continent. He concludes that the “owl is a portentously sacred bird” in much of Native America and that a “kindly, beneficent aspect of the owl is

frequently met with, thus dispelling the idea that the American Indian generally looked upon this creature as a bird of ill omen and evil influence.”⁴⁰

Owl attributes and behaviors go a long way to explaining why they are one of the most feared and respected animals for humans. Known as the “stealth bombers” of the animal kingdom, their silent flight, due to unique feather construction, makes them deadly attackers. Offset ear placement gives them some of the keenest hearing in the animal kingdom, matched only by their acute vision. Contrary to folklore, they are not blind in daylight. As a result of these attributes, owls detect movement long before humans can, making them almost prophetic early warning devices. Owls are universally considered magic beings. Owl body parts are favorite ingredients in innumerable magic and medicinal potions around the world.⁴¹

Owls are also unusually dedicated animal parents. Stories of owls continuing to deposit fresh food nightly at the cage door of captured owlets occur throughout history. Many Native American myths revolve around tales of abandoned children saved and raised up by owls. On the other hand, the Western Apache agriculturalists used to threaten naughty children with owls and “this fear of the owl seems general among the Pueblos, where young children are told that Owl will peck out their eyes or carry them off.”⁴²

The owl’s close association with ancient female deities is well documented. The goddess Athena was commonly portrayed with her owl of wisdom (see Figure 15). Owls occur in the Paleolithic cave paintings of France. One of the earliest depictions of owls with women is that on the “Queen of the Night” relief discussed earlier.



Figure 24. Jason regurgitated by serpent guarding the Golden Fleece. Athena stands at right (with Gorgon-headed aegis and holding her owl).

Red-figured cup by Douris, circa 480-470 BCE Cerveteri, Etruria

Courtesy @ Trustees of the British Museum

The Old Testament explicitly pronounced owls unclean and taboo in Leviticus – an edict reserved usually for the most visible markers of female goddesses the new Yahweh cult sought to suppress. In Australia, James Fraser reported that female aborigines held the owl sacred, believing owls contained the souls of deceased kinswomen, wreaking angry vengeance on any who killed them.⁴³ Many of the Australian tales have a male whirlwind in partnership with a male owl or in conjunction with a female owl who looks after children and who has knowledge of the whirlwind.

Explicit links between owls and the wind are numerous in Native American traditions. A Pima medicine song collected by Frank Russell references this belief:

... Owl is singing in the distance,
I hear him moving back and forth.
Many harlots came here running;
Here came running and came laughing.
Small Owl resembles Tookot;
The winds rise from Owl's feathers.
With their ashy tips he starts them.
Small Owl is like the Large Owl.⁴⁴

A direct relationship to weather can be found in the European traditions of hanging a dead owl on barn doors to avert severe storms and widespread folklore beliefs that an owl's hooting predicts fair weather arriving.⁴⁵ In China, owls are associated with witches and lightning and are hung at the corners of houses to avert lightning strikes. James Howard and Lena describe how the Seminole in Oklahoma believed a tornado could be dissipated by employing a prayer stick with feathers from the eagle, hawk, crow, and owl.⁴⁶

James Mooney noted that the claim by medicine men to understand the language of birds, especially owls, was nearly ubiquitous among the Cherokees and many others. Commenting on the parallels between Cherokees and Kiowa, he wrote: "A medicine

man who died a few years ago among the Kiowas claimed to derive his powers from that bird [i.e., the owl]. The body of an owl, wrapped in red cloth and decorated with various trinkets, was kept constantly suspended from a tall pole set up in front of his tipi, and whenever at night the warning cry sounded from the thicket, he was accustomed to leave his place at the fire and go out, returning in a short while with a new revelation.”⁴⁷

Both the Fox and the Kiowas saw owls as protectors.⁴⁸ Susan Power notes that during the archaic period of the Mississippian cultural region, decorated beads most commonly depict insects such as the locust, as well as birds. The most frequent bird depictions are, in fact, of the owl.⁴⁹ The Judy Trejo’s Paiute tale has “Grandmother Owl” presiding over a meeting about the whirlwind.⁵⁰ The California Wappos had a tale featuring a Screech-Owl who ate acorn-bread provided by two brothers who then asked for Owl’s two daughters in return.⁵¹

The owl, therefore, appears to have a truly ancient association for humans with the key issues of life and death, as well as women, rain, and wisdom. This association also seems to be valid from the ancient Near East to Australia to North America and Mesoamerica. The owl and the tornado are old companions.

Bee

As a symbol of early spring and a messenger for rain deities, the bee is both an ancient and a universal icon. In Hittite as well as Native American myths, this is the insect that must fetch the tornado back to spring fields to renew the vegetation each year. The bee is depicted in the ancient Egyptian tomb of El Amarnah, dedicated to the sun

god, Aten, dating from between 1368 and 1358 BCE. Intriguingly, it is seen in context with a duck sign and a plant-sign that appear overwritten with the king's titles.⁵²

The bee is also extensively mentioned in the Rig Veda, where it is intimately linked to the *Madhava* (the nectar-born ones) Vishnu, Krishna, and Indra. In Indian tradition, the bee is also linked to another deity, Kama, god of love. Both Kama and Vishnu are shown consistently in symbolic contexts with bees and lions.⁵³

Intriguingly, there is a Vedic hymn concerning the “honey whip” of the Asvins, lords of light. These are the twin horsemen of the Vedic myths who drive a “honey-bearing” chariot and bring long life to the people. The following hymn references this honey-whip, called *Madhukasa*, “which instilled sweetness, food, and strength in the sacrifices and in men.”⁵⁴ The imagery evoked throughout the hymn, as in the following examples, has long puzzled scholars and challenged interpretation:

- (1) From heaven, from earth, from the atmosphere, from the sea,
from the air, from the wing, the honey-lash hath verily sprung.
- (2) When the honey-lash comes bestowing gifts, there life's breath,
and there immortality has settled down.
- (5) The gods begat the lash of honey, from it came an embryo having
all forms.⁵⁵

According to Hilda Swanson, who compiled global bee traditions and myths, various scholars have proposed that the honey-whip references either light breezes, rain, or “the lightning which whips the clouds and produces the rain.”⁵⁶ The most logical interpretation, however, may be the tornado that accompanies seasonal severe storms. The Indus Valley and other regions of South Asia are known to experience numerous tornadoes; Bangladesh, for example, has nearly as many tornadoes as America's own tornado alley. After all, the bee, the rain, and the tornado that accompanies spring storms

are almost certainly prehistoric – and universal -- symbolic companions. Even in the Finnish saga, *The Kalevala*, deities such as Ukko (the thunder god) are entreated “to send rain from heaven, to distil honey from the clouds, so that the corn may sprout, to let honey drizzle down onto the newly sown corn.”⁵⁷ Honey thus appears to be both a widespread and truly archaic symbol for rain in an agricultural context.

Global myths and traditions ascribe beneficial industriousness to the bee, as well as recognizing that it provides a highly desirable food with medicinal applications. A cave painting in Spain dating from about 15,000 years ago depicts a man climbing up a precarious vine ladder to harvest honey out of a cliff hive and surrounded by large bees.⁵⁸

Large scale honeybee apiculture is attested in the Near East from at least 1000 BCE. An industrial level apiary dating from the Iron Age in Northern Israel has recently been excavated alongside abundant evidence of cultic activity. One of the artifacts included a “clay altar with four horns and two applied naked female goddesses flanking an incised tree on its façade.” The excavators of this find note that Leviticus specifically prohibits burning honey on altars. Such an edict, they conclude, indicates that such activities took place at one time and that this altar was probably used to burn honey.⁵⁹ The taboo also indicates that the ritual was anathema to Judaic (patriarchal and monotheistic) belief. It was certainly used in goddess worship.

The tradition of propitiating the whirlwinds with gifts, including honey and mead, is exemplified in Hilda Ransome’s notes about bee traditions from modern Greece. She relates that “in Athens whirlwinds are said to occur most frequently near the old Hill of the Nymphs; and women of the lower class when they see the cloud of dust approach fall to crossing themselves and repeating “Honey and milk be in your path.”⁶⁰ honey-cakes,

Ransome also points out, were used as favorite offerings to snakes, dragons, and other mythic entities such as Cerberus, the dog guardian of Hades.

It is significant, however, to observe that honeybees are not as critical to many kinds of agriculture as *wild bees*. In North America more than 3500 species of solitary bees, also called pollen or native bees, perform nearly all spring pollination activity. According to researchers, “pollen bees have a number of advantages over honeybees as pollinators. Many are active early in the spring, before honeybee colonies reach large size. Pollen bees tend to stay in a crop rather than fly between crops, providing more efficient pollination. Unlike honeybees, the males also pollinate the crop. Pollen bees are usually gentle, with a mild sting.”⁶¹

These bees pollinate, among other plants: fruit trees, clover, alfalfa, mints, blackberries, strawberries, raspberries, tomatoes, peppers, corn, beans, and wild buckwheat. The squash bee (*Peponapis pruinosa*) pollinates *only* cucurbits (squash, pumpkin, gourds) and is found across the United States. The so-called sunflower bee (*Eumegachile pugnata*) prefers to pollinate sunflowers. The bumblebee is the only bee to pollinate potato flowers.⁶²

Either honey or pollinator bees may have been the model for the Native American bee-messenger who summons whirlwind each spring around the world. It is possible that the mythic first bee of spring in the Americas, at least, was the pollinator bee, since its activities were of critical importance to human plant resources. Early foragers and horticulturalists certainly would have valued and looked for the arrival of these bees, in conjunction with spring storms, to ensure the necessary germination and flowering of food plants. In any case, the bee’s universal role as a hard-working producer of honey for

food, medicine, and mead would have ensured it a key place in the symbolic hierarchy of prehistoric agriculturalists.

Dragonfly/Butterfly/Moth

The dragon-fly, butter-fly, and moth are all directly tied to the whirlwind deity. These insects all create cocoons and emerge in relation to two conditions: a minimal time in the cocoon stage *and* a significant drop in barometric pressure.⁶³ A measurable and rapid drop in barometric pressure occurs in advance of powerful storm systems moving into an area. These insects thus emerge into strong wind-generating storms that serve to propel the creatures into new feeding areas and away from genetically-similar populations.

These insects also pollinate flowering plants, much as bees do. In fact, many insects were specific to individual plants. The tobacco moth, in particular, must have held special sacred status as the agent of tobacco pollination. Tobacco was, in turn, an essential aspect of religious worship and a common gift to the whirlwind deity.

The fact that barometric pressure affects insect emergence has only been relatively recently appreciated by scientists, as previously noted. Early historians and ethnographers had no notion of this directly and explicit connection between insects, cocoons, and severe weather. Interpretations of how and why cocoons, butterflies and dragon-flies should be linked to whirlwind deities have thus been misguided and speculatively off base.

The understanding of how and when cocoons hatch and how insects pollinate plants was not lost on ancient humans. Most archaic cultures have given these insects a

prominent part in their mythic inventories, from Africa to Asia. Their glyphs and symbols are attested from Mesoamerica to Canada. Their linkage to the tornado deity, however, has not been as well appreciated.

Elizabeth Warner, writing of Russian traditions, describes the common belief in people (usually women) who were actually magical beings called *the ved'ma*. In the north, they were usually old and crone-like, but in the south they resembled *Rusalki* and were conceived as young, seductive girls. According to Warner, these southern Ved'ma “could leave their bodies behind and fly out looking for mischief in the form of butterflies and moths.”⁶⁴

The Native Americans called some butterflies thunder-parasites, believing the thunder-bird to have shaken them off when it rumbled in the spring. The link between a cocoon and the whirlwind is thus not simply a question of odd imagery, as ethnologists have believed, but of actual biological fact. Since the cocoon bursts and the whirlwind arrives shortly thereafter, it is simply logical to conceive of the cocoon as a “bundle” whose bursting summons or releases Whirlwind Woman. The dragon-fly and the cocoon are thus not mere decorative images or minor symbols. They are quite simply, alternative representations of the tornado deity herself.

The Native American use of dragonfly decorations during Sun Dance rituals has been discussed. A model shield made for James Mooney about 1904 was based on a dragonfly shield that belonged to Rough Bull, an Arikara man living among the Kiowas in the early 1800s. Dragonflies were a relatively common shield decoration, along with jagged streaks of lightning, and bird elements.⁶⁵

Underwater Panther: Serpent, Feline, Bull, Dragon

One of the most unusual features of Native American myth in close context with tornado and thunderstorm deities in general is the widespread mythic appearance of a horned serpent or underwater panther creature. James Howard personally documented this being's existence among the Arikaras, Omahas, Plains-Ojibwas, and Poncas. He also witnessed part of an antique Prairie Potawatomi Underwater Panther Bundle ceremony in 1959.⁶⁶ This mythical creature is usually cast as malevolent, an earth- and water-bound animal in constant opposition to the thunder spirits.

As Howard reported "the concept of the Underwater Panther seems to be very ancient in North America, and unmistakable carvings, pictographs, and other representations of the monster have been found in association with archaeological remains of Middle Woodland date. Several of the effigy mounds of Wisconsin are in the shape of this creature. Both the Underwater Panther and the Horned Serpent seem to be related to the Feathered Serpent of the Southwest, Mexico, and Middle America."⁶⁷ He also goes on to point out that although this creature was often characterized by tribal informants as evil, it was simultaneously respected and revered as a great power. Members of medicine societies among many North American tribes ritually honored it.⁶⁸

This uniquely American mythic animal appears to incorporate all of the major features of the Old World's ancient animal associates of the female goddess: the bull, the serpent, the large felines, the dragon, and the Australian *Bunyip*. Perhaps the fact that the earliest Americans appear to have come from Eastern Asia provides a tantalizing implication that dragons accompanied the migrations alongside the dog. Even the ancient Hittites had an important mythic narrative revolving around an earth serpent that

battles and often conquers the storm god. It is the storm god's daughter, Inara, goddess of the wild beasts that manages to trick and defeat the serpent.⁶⁹

Regardless of origins, the Mesoamerican feathered serpent and its lineage appear to have been important aspects of thunderstorm religious belief and ritual. The fact that the Underwater Panther – Horned Serpent is both reviled and revered and is concerned with thunder and rain points to a strong probability that it was once an important aspect of female storm-deity worship.

NOTES

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³ Ian Hodder, *The Domestication of Europe: Structure and Contingency in Neolithic Societies* (Wiley-Blackwell, 1990): 11.

⁴ Jacques Cauvin, *The Birth of the Gods and the Origins of Agriculture*, trans. Trevor Watkins (2000, repr., Cambridge: Cambridge University Press, 2007), 29.

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¹⁵ Timothy Pauketat, *Chiefdoms and Other Archaeological Delusions* (Lanham, MD: Bowman & Littlefield, 2007), 82, 111.

¹⁶ Dave Aftandalian, “Animals, Agriculture, and Religion Among Native Americans in Precontact Illinois: An Interdisciplinary Analysis of Perception and Representation,” Ph.D. diss., University of Chicago (2007): 471. In discussion of owl symbols as they relate to Mississippian period agriculturalists, Aftandalian summarizes Many Fox’s complex myth “The Girl Who Became a Whirlwind” (see Dorsey, 1904) in this way: “...a boy and a girl get left behind on a buffalo hunt; the girl is caught by a whirlwind and turned into a monster, while the boy is protected and taught hunting and war medicines by owls [sic].” The most generous explanation for this fundamentally erroneous statement is that he never actually read the myth. It is a blatant dismissal of the whirlwind and the girl’s essential role in making her brother a chief and misrepresents the myth.

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²¹ *Ibid.*

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CHAPTER VI

CONCLUSION

Hesiod's account of Hecate shows her to have been the original Triple-goddess, supreme in Heaven, on Earth, and in Tartarus; but the Hellenes emphasized her destructive powers at the expense of her creative ones until, at last, she was invoked only in clandestine rites of black magic.¹

--Robert Graves, *Greek Myths*

One of the surprising discoveries in this research has been the sheer multiplicity of overlapping beliefs reflected in tornado tales from the Yucatan to the Ukraine, Africa to Australia. There are unmistakable similarities in the myths that appear to track across continents alongside human cultures and languages. Just as the dog has accompanied early humans since the Ice Age, so too, it seems, has a concept of Whirlwind Woman.

Given that the myths used in this survey are not traceable to the Neolithic and keeping in mind that patterns discerned may be patterns that deceive, obvious parallels should be neither ignored nor accepted uncritically at face value. Every region has distinct historical, environmental, and cultural forces that have shaped and reshaped tornado myths since the beginning of time. Nevertheless, recent discoveries have shown that it is misguided to underestimate the extent of global mobility, communication, and technological savvy distant ancestors were capable of exercising.

There are, of course, intriguing differences that appear to exist among specific cultures and that relate (it seems) directly to climate and agricultural practices. These are

the exceptions that may prove the rule and that may also provide essential clues as to how early humans began their social and cognitive shift to societies based on organized agriculture some 12,000 years ago. A vigorous multidisciplinary effort has developed in recent decades to investigate how and why humans effected a shift from hunter-gatherer-forager societies to the so-called agricultural revolution of the early Neolithic.² The larger goal of looking at tornado beliefs is to provide a new approach to considerations of how humans constructed societies, especially in terms of weather and plant food resources, since the Ice Age.

Major Research Findings

Some significant patterns emerged from this global survey. The tornado was conceived consistently by ancient agriculturalists around the world as a primal female deity responsible not only for seasonal rain but also an associated range of other social concerns: medicine and disease; life and death; sexuality and fertility; wisdom and magic. Various animals appear repeatedly in a meaningful context with female tornado deities. These include the bee, the owl, the dog, the serpent, the dragon-fly, the butterfly and the moth. Large felines such as the leopard and lion in the Middle East and the panther in North America, are also important symbols linked to the female goddess. Native American myths demonstrate a large number of similarities to other world tornado beliefs. There are equally significant differences, perhaps attributable as much to the absence of pastoralism in North America as to environmental or historical factors.

In most of the world, the tornado goddess was embedded in matrilineal societies where agriculture was a significant activity. This conceptualization of an agricultural

goddess accords with historical beliefs known to have existed among agricultural societies worldwide.³ The key point of departure here is that the goddess was not an earth-bound entity limited to ideas of fertility. She held equal if not superior power and influence over any male storm counterpart in non-pastoral agricultural societies.

The tornado goddess embodies matriarchal concepts. One of the most important concepts is that of female lineage. Across history in the ancient world, it is the mother blood that carries royal legitimacy. The oldest Arikara Whirlwind Woman myth reflects a similar concept. Whirlwind Woman helps her brother become a great chief and then returns into the West (at least until next spring). The demand by Whirlwind Woman to have sex with her brother's wife probably reflects a ritual bestowal of the requisite female bloodline. The Whirlwind thus engenders the Chief's legitimate descendants.

Modern conceptions of how severe weather functions symbolically are at odds with actual ancient perspectives. Contemporary scholars automatically assume that the storm and noise of thunderstorms is intrinsically "male" and that any association with thunderstorms must be related to presumed male activities such as war and battle. These assumptions are fundamentally flawed.

Ancient humans depended on plant food sources for the bulk of their food supply. The assumption that hunting was a major activity and that meat constituted a major part of the human food supply has been consistently rebutted by modern research. Thunderstorms and the tornadoes of spring were understood as bringing essential rains for plants, although they were alternatively capable of destruction. The storms of spring were thus a welcome arrival, a necessary phenomenon which ensured bountiful vegetation and harvests.

The attributes of a violent storm with thunder, lightning, and tornadoes represented an untamed wild world that was identified as being female as much as male. Severe storms were not perceived as de facto symbols of male power and aggression. Storm deities of both sexes characterized the ancient world, as abundantly demonstrated in texts from the Near East, such as the Hittite and Sumerian prayers and sagas. The male-focused interpretations that were a product of later patriarchal norms have overshadowed and obscured the fundamental relationship between rain-fed agriculture, matriarchal societies, and tornadoes.

The proof for the mystery of the disappearing goddess is in her very absence. While patriarchal societies from Mesopotamia to Mesoamerica adopted thunder and lightning as tools of their male god's power, the tornado *per se* was curiously ignored. Perun and Thor do not hurl tornadoes; neither do the Thunderers of North America. Yet this obvious avoidance of mentioning tornadoes, much less allowing it into the male gods' toolboxes, is telling. The tornado is manifestly "other." It is a separate entity. The Shawnee prayed separately to Cyclone and the Thunderers. The tornado deity remained immovably connected to ancient traditions of women's power, magic, and agriculture

Persisting among women's traditions, the tornado as a symbol retained an ability to evoke concepts of female power well after western monotheistic beliefs had spread across parts of the world. Religious change and patriarchal systems demanded demonization of those pagan elements that could not be absorbed. Thus we still today view Lilith and Baba Yaga and Louhi as malevolent bird-like witches. And the Arikara Whirlwind Woman became a tent-keeper instead of power-broker.

The linkage endured, however, in many different human cultures even across millennia of historical change. In North America, lacking pastoral cultures and monotheistic influences, Native peoples maintained female storm deity beliefs that were still very much in evidence well into the post-Contact period. This is perhaps indicative of how the advent of domesticated stock and horses in various regions altered an archaic set of beliefs that were centered on rain-fed agriculture. In myths such as the Kiowas' "Mankayyia" legend, one can observe how, in perhaps a single generation, a symbol of female power (probably known as Red Wind) elegantly morphed into a male horse deity known as Red Horse once horse culture arrived on the plains.

Many tornado myths revolve around the seasonal cycle. Many Native American myths bear unmistakable resemblances to the Greek myth of Demeter who mourned her daughter Kores two-thirds of the year, regulated agriculture, and inspired the ancient Eleusinian mysteries.⁴ Whirlwind's regular absence and return is marked in a similar manner in Athapascan and Pueblo myth. When the tornado leaves, the earth suffers drought and deprivation. This same pattern is repeated worldwide and clearly reflects the symbolic importance of the tornado as a deity. These myths do not focus (usually) on a rain or thunder or lightning entity stomping off in anger for a third of the year. The tornado deity is thus the key player and must be supplicated and summoned to return.

Drought meant that the severe storm deity had to be brought back. The Hittite tale has Tilipinu tearing the world apart in anger but not bringing rain until Bee found him and the goddess of magic calmed him down. Archaeologists have found evidence of how the Mayans desperately supplicated their rain deity during extreme drought periods by leaving hundreds of water pots in underground caves.⁵

Depictions of the physical appearance of the female tornado deity around the world are very similar. Common attributes include long, flowing hair, wings, and raptor feet. The Harpy that is traditionally considered an evil demon is also the model for cherubs and angels. Tornado behavior is imaginatively reflected in Baba Yaga's headlong flights across Russia and Ukraine with her mortar and pestle, sweeping the landscape clear with her long broom. White Buffalo Calf Woman in Native America comes in from the West with long hair off to one side, turning in circles, bestowing the pipe on leaders, and striking disrespectful men dead with lightning. In a similar manner, the Eastern European Rusalki move from lakes into treetops in spring, swinging their long hair, dancing, and tickling men to death.

There are male tornado entities. Their existence, in fact, demonstrates the key link between women and agriculture. Among the African Hausa, where men were once the crop farmers, the tornado is a male god, although women still controlled water resources. Among the Australians of the interior and the Kalahari Bushmen, where agriculture was a borderline activity, the whirlwind is a playful boy or a highly sexed young male. Here too, women are depicted as responsible for weather rites and very powerful, yet the whirlwind is not the key deity it becomes in major agricultural areas.

Implications

Native American tornado concepts are abundant in the ethnographic record. Detailed accounts exist in the records of pre-twentieth century scholars and others. However, this entire sector of environmental and religious belief and practice has been overlooked in twentieth-century scholarship. The existence of such beliefs has entirely

disappeared from modern discussions of the ethnohistorical record, and, consequently, interpretative approaches to art, artifacts, and culture.

The absence is striking. The implications are enormous. Environment is a key factor impacting human survival. Successful foraging, horticulture, and organized agriculture depends on seasonal precipitation. Almost all ancient civilizations based on agriculture had sky and storm entities of both sexes. The tornado is a phenomenon intrinsic to the severe spring storm systems that convey essential precipitation. Evidence demonstrates that ideas of a tornado deity maintained a conceptual presence, clearly linked to women, in Native America well into the nineteenth century.

Modern-day historians, however, persist in addressing only rain, thunder, and lightning in their interpretations of ancient texts, myths, and rituals. They fail (or refuse?) to recognize even the most unmistakable tornado references in the records. This dynamic is apparent in academic treatment of other world traditions. Tornado references are absent in modern studies of ancient civilizations from the Hittites to the Slavs.

The reason for this slight is twofold. Rooted in western perspectives which simply assume a primary male god, scholars ignore or demote the presence of equivalent female aspects of the deities. Latter-day demonization of female deities is always accepted at face value. Questions of female power are always problematic and thus not intuitively acceptable to scholars. And then tornadoes themselves are considered a minor event, unconnected with larger environmental systems. The link between the tornado and the life-giving rains is lost on modern historians.

Early agriculture is fundamentally linked to women. Repeatedly, the tornado is portrayed as a primal power, very often as the female counterpart of another primal

aspect. It is explicitly a powerful female, as in the Arikara myths, or as a non-gendered whirlwind that serves as a creative principle in creation myths. The confirmation of the tornado's association with women is found in its diminishment and re-embodiment as the bad hag, witch, or evil mother-in-law in tales crossing all linguistic and cultural boundaries. The dynamic of demonizing the religious "other" illuminates the fact that the whirlwind is the defined "enemy deity."

Women, agriculture, and the environment are treated as distinct and separate factors, inadequately (or not at all) linked with each other, in most interpretive scenarios advanced by anthropologists, archaeologists, and historians over the past century and more. It is to be hoped that studies focusing more on the realities of ancient subsistence patterns and the environment will balance out this picture.

This research has striven to illuminate the extent to which the presence of a female agricultural deity permeated early Native American cultures. This presence influenced later traditions and systems of gender, power, and sexuality belief systems well into the historical period.

The implications of a new "tornado awareness" in Native history should lead to new interpretative possibilities for material culture, artifacts, and traditions. Findings from the research will inform – and, one hopes, transform -- questions of female divinity and matriarchal elements in Native culture. This research also highlights the problem of dated ethnological interpretations and the widespread de-contextualization (and de-gendering) of the art and symbols of Whirlwind Woman.

Suggestions for Future Research

Art & Iconography

A vast array of artistic design, patterns, rock art, and other symbolic cultural creations and artifacts incorporates referents to the tornado. Yet this is a singularly unrealized fact. Symbolic representations are an area of research and study that desperately needs revisiting in terms of ancient agriculture, tornado deities, and female power paradigms. Reexamination must be informed and aware of the environmental and physical factors.

The spiral and the wedge are well known and the most obvious tornado icons, yet they are usually misinterpreted to indicate existential abstracts or male arrowheads. These and other iconographic symbols, such as cocoons, butterflies, monkeys with a curling tail, should all be reevaluated in the context of tornado deity concepts. Tent and apparel decorations and tent circle protocols were all part of a ritualized architectural and artistic landscape that framed understanding of a larger landscape, including the domain at one time of an all-powerful Whirlwind Woman.

Decline of Female Power and Health

Discussion of women's roles and influence in Native American societies has been anchored (mired?) in the myth of the post-Mississippian era Corn Mother. It would be interesting to explore the extent to which the advent of "maize mania" around 800 CE heralded *the decline* of women's influence. Corn Mother as generally conceived is a

maternal, nurturing archetype; she is not an empowering, primal deity representing women's equal or dominant role in society.

The switch from predominantly matrilineal to patrilineal societies in Native America accompanies the diminishment of the tornado goddess. On the other hand, matrilineal agricultural societies in America endured much longer into the historical period than in other regions of the world. A decline in women's influence may be connected to the fact that the overall health of many Native groups was already in serious decline just prior to contact. The introduction of new diseases and other health stressors had a deleterious effect on an already weakened population in many cases. It is quite possible that the period when Whirlwind Woman and stable matriarchies were in place was a much healthier, more creative and productive period. This may be one of the secrets of the accomplishments of early Mississippian and Mesoamerican civilizations.

In-depth Regional Studies

The purpose of this paper was to explore in a very broad manner the wealth of mythic lore relating to the tornado across Native America and the world. Such a survey has not been undertaken before. The intent was not a detailed exploration of any one groups' mythic and religious traditions. Such detailed regional-cultural studies should, however, be performed as a next step in gaining a more nuanced and informed understanding of how specific groups have incorporated beliefs about agriculture, women, and weather from the earliest time periods.

With a new understanding of the female storm deity's original functions, imagery, and associations, historical and cultural interpretations will benefit. As meteorological

research and analysis advances around the globe, more attention is being paid on environmental systems that impact human life. Tornadoes and severe weather are a major economic concern. So too is the study of past severe storm systems, as the modern world attempts to assess how the world's environment may change in the future. Clues from ancient cultures about the occurrence and experience of severe storms may be helpful in forming a complete picture of past environments.

Convergence of Other Fields of Historical Inquiry

The “taboo topic” (as Kehoe labeled it) of transoceanic contact must be openly embraced in this discussion along with the numerous recent scientific discoveries affecting ancient agriculture and human movements over the landscape of the Americas.⁶ After all, humans brought mythic concepts along with them on their global walk-about along with dogs, language, and culture. But as we have discovered in the case of Africa, the routes traveled by early humans went both ways. Tornado myths exhibit remarkable points of congruency across continents and cultures, a fact not simply attributable to just environmental similarities.

Graeme Barker has noted in his book, *The Agricultural Revolution in Prehistory, Why did Foragers Become Farmers*, that DNA has “brought entirely new perspectives to theories of past population histories and patterns of dispersal.”⁷ Just as importantly, modern theories of language origins and dispersals have also been closely linked to questions of how and when agriculture spread from assumed hearths of innovation and invention to the rest of the world's regions.⁸ Tornado myths, as ancient artifacts

reflecting ancient considerations, may hold clues that contribute to unlocking some of these mysteries as well.

The convergence of historical linguistics, statistical models and analysis, cultural anthropology, and archaeological inquiry are leading to entirely new perspectives on the late Paleolithic to the dawn of the Neolithic and the beginnings of sedentary and farming behaviors. Researchers now are beginning to appreciate that plant foods were being exploited and processed in very sophisticated ways long before settled communities begin to emerge from the landscape of pre-history. These new approaches need to be examined for their applicability to questions of ancient Native America and re-connect the Americas to the rest of the world in terms of culture and society.

It is striking how much Native American historical inquiry is still treated as a cultural isolate. There is also a marked failure of many traditional historians to give Native Americans their due as creators of impressive civilizations in their own right. The tendency to underestimate the extent and degree of human movement over the landscape, as well as human ingenuity, sophistication, and imagination, needs to be corrected. Ancient humanity grasped the operations of the natural world far better than they are often given credit for. Integrating Native American civilizations into the larger mosaic of human civilizations around the globe can lead to fascinating new insights and appreciation for America's ancient past.

Arguments centered on the ideological changes that accompanied and stimulated pre-historical changes in subsistence techniques and technology have taken provocative new approaches.⁹ Similar innovative approaches to Native American subsistence patterns might yield intriguing results. Above all, there needs to be a deeper appreciation

for the ancient links between women, agriculture, weather, and power. Tornado myths provide an entryway, however limited, to an archaic agricultural past. Re-discovering Whirlwind Woman in all her appearances worldwide can reveal much about the past and a keener awareness of the inherited present.

NOTES

¹ Robert Graves, *The Greek Myths* (1955, repr., New York: Penguin Books, 1982), 1:124.

² Colin Renfrew, *Pre-History: The Making of the Human Mind* (New York: Random House, Inc. , 2007). Renfrew is one of the leaders in this effort, as was the late Jacques Cauvin, whose seminal work, first published in 1994, was translated into English as *The Birth of the Gods* in 2000. Cauvin proposed that a major transformation in symbolic thought preceded a fundamental shift to agricultural societies. Ian Hodder's *The Domestication of Europe*, has also brought new critical thinking to the question of how humans negotiated a shift to pastoralism and agriculture.

³ Joseph Campbell, *The Way of the Seeded Earth*, 1988.

⁴ Helene P. Foley, ed., *The Homeric Hymn to Demeter* (Princeton: Princeton University Press, 1994): 71-72.

⁵ Heather Pringle, "A New Look at the Mayas' End," *Science* 324, no. 5926 (2009): 454-56. <http://www.sciencemag.org/cgi/content/summary/324/5926/454> (accessed July 27, 2009).

⁶ Alice Beck Kehoe, "The Taboo Topic" in *The Land of Prehistory* (New York: Routledge, 1998): 190-207.

⁷ Graeme Barker, *The Agricultural Revolution in Prehistory, Why did Foragers Become Farmers?* (New York : Oxford University Press, 2006):

⁸ Colin Renfrew, *Prehistory: The Making of the Human Mind* (New York: Random House, 2008), 30-34.

⁹ Ian Hodder, *The Domestication of Europe* (1990); Jacques Cauvin, *The Birth of the Gods* (2000, Cambridge: Cambridge University Press, 2007).

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APPENDICES

APPENDIX A

OSAGE RITUAL: THE PENALTY WI-GI-E

The following Osage ritual was collected by Francis LaFlesche circa 1900. It formed the core of a formal ceremony for accepting a candidate for the clan priesthood. This song lays out the penalties for failing to adhere to vows the candidate was obliged to follow during the several years of preparation for final initiation.

The Penalty Wi-gi-e

1. Verily, at that time and place, it has been said, in this house,
2. In the midst of the Winds that precede the approaching storm,
3. Move the Wa-ca-ki-the of the little ones.
4. My grandfather (referring to the great butterfly, one of the Wa'-ca-ki-the)
5. Is verily, a being from whom nothing is hidden.
6. He is the Great Butterfly (Dsin-tha'ton-ga),
7. Who moves amidst the winds that precede the storm,
8. My grandfather, it is said,
9. Ever moves amidst those advancing winds,
10. From him nothing can be hidden, as he moves onward amidst the winds,
11. Guarding the acts over which hang the penalties.
12. In the very depths of secret places these acts may be performed,
13. Yet he watches over them as he moves in the midst of the winds.
14. The guilty ones travel along life's pathway,
15. My grandfather
16. Overtakes them and makes them to become languid, to seek solitude and to sit in wretchedness,
17. Verily, he makes their skin to become sallow and of sickly hue;
18. He makes them to become restless and to lie there and there in distress.
19. My grandfather
20. Causes them to fail to reach the four divisions of the days (four stages of life),
21. My grandfather
22. Even causes them to lose consciousness and never to recover,
23. Verily, at that time and place, it has been said, in this house,
24. He even takes from the guilt their spirit (sanity) when bidden to do so.
25. The Great Butterfly stands as a Wa-ca-ki-the of the little ones, it has been said, in this house.
26. And the Swallow (Ki-gthu'-ni-ka),
27. amidst the winds that precede the storm.
28. Moves always, it is said,
29. Verily, nothing is hidden from him as he moves in the winds,
30. Guarding the acts over which hang the penalties.
31. My grandfather (the Swallow)
32. Overtakes the guilty persons,
33. And verily makes them to become languid,
34. He makes them to lose flesh which they never regain,
35. Verily, he makes their faces to become sallow and of sickly hue,

36. Makes them to lay their heads here and there in distress,
37. My grandfather
38. Takes from the guilty even their spirit(sanity) when asked to do so,
39. Verily, at that time and place, it has been said, in this house,
40. The Swallow stands as a Wa'-ca-ki-the of the little ones.
41. The mottled eagle also (A-hiu-ta-ta),
42. Moves amidst the winds that precede the storm.
43. Guarding the acts over which hang the penalties,
44. My grandfather (the Eagle)
45. Overtakes the guilty persons,
46. And verily makes them to become languid,
47. Makes their skin to become sallow and of sickly hue,
48. And to lay their heads here and there in restlessness, in distress,
49. My grandfather
50. Takes from the guilty even their spirit when asked to do so,
51. The mottled eagle stands as a Wa'-ca-ki-the of the little ones.
52. And there is a little pipe (Non-ni'on-ba zhin-ga).
53. That moves amidst the advance winds of the storm,
54. Guarding the acts over which hang the penalties.
55. My grandfather
56. Overtakes the guilty and verily makes their skin to become sallow, and of sickly hue,
57. makes them to become languid,
58. To lie here and there in restlessness, in distress,
59. My grandfather
60. Takes from the guilty even their spirit when asked to do so.
61. Verily, at that time and place, it has been said, in this house,
61. The nighthawk that lies outstretched (Tse-shin'-shin-e),
63. Moves amidst the winds that precede the storm,
64. Verily there is nothing hidden to my grandfather,
65. He overtakes the guilty persons,
66. And verily makes them to become languid,
67. Verily, at that time and place, it has been said, in this house,
68. He makes their skin to become sallow and of sickly hue,
69. To lie here and there in restlessness, in distress,
70. Verily at that time and place, it has been said, in this house,
71. My grandfather
72. Takes from the guilty even their spirit when asked to do so.
73. Amidst the winds that precede the storm,
74. The great dragonfly (Tse'-pi-tha ton-ga),
75. Moves always.
76. To my grandfather nothing is hidden as he moves forth in the winds,
77. Guarding the acts over which hang the penalties.
78. My grandfather overtakes the guilty,
79. And verily makes them to become languid,
80. Makes their skin to become sallow and of sickly hue,
81. He makes them to lie here and there in restlessness, in distress,

82. My grandfather
83. Takes from the guilty even their spirit when asked to do so.
84. What is the Wa-ca-ki-the of the little ones, they said to one another,
85. My grandfather,
86. The swallow that lies outstretched (Ni-shku'-shku),
87. Amidst the winds that precede the storm,
88. Moves always,
89. Guarding the acts over which hang the penalties.
90. My grandfather
91. Overtakes the guilty persons,
92. And verily makes them to become languid,
93. Verily, he makes their flesh to wither,
94. He makes them to lie here and there in restlessness, in distress,
95. My grandfather
96. Takes from the guilty en their spirit when asked to do so.

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APPENDIX B

HAUSA LEGEND: "THE GIANT AND THE THUNDER"

The Giant and the Thunder

This story is about a forest giant, about him and a man called, A-Man-among-Men. A story, a story. Let it go, let it come. There was a certain man by name, A-Man-among-Men, always when he came from the bush he used to lift up a tree (and) come, (and) throw (it down), and say, 'I am A-Man-among-Men.' His wife said, 'Come now, leave off saying you are a-man-among-men; if you saw a-man-among-men you would run.' But he said, 'It is a lie.'

Now it was always so, if he has brought in wood, then he would throw it down with force, (and) say, 'I am A-Man-among-Men.' The wife said, 'Come now, leave off saying so; if you have seen a man-among-men, you would run.' But he said, it is a lie.' Now one day his wife went to the stream. She came to a certain well; the well bucket, ten men were (necessary to) draw it up. She came, (but) had to do without the water, so she turned back.

She was going home, when she met another woman (who) said, 'Where are you going with a calabash, with no water?' She said, 'I have come and seen a bucket there. I could not draw it; that is what caused me to turn back home.' And this (second) woman, who had this (a) son, said, 'Let us return that you may find (water).' She said, 'All right.'

So they returned together to the well. This woman, who had the son, told the boy to lift the bucket and draw water. Now the boy was small, not past the age when he was carried on his mother's back. Then he lifted the bucket then and there, and put it in the well, (and) drew up the water. They filled their large water-pots, they bathed, they washed their clothes, they lifted up the water to go home. This one was astonished.

Then she saw that one who had the boy has turned off the path and was entering the bush. Then the wife of (him called) A-Man-among-Men said, 'Where are you going?' She said to her, 'I am going home, where else?' She said, 'Is that the way to your home?' She said, 'Yes.' She said, 'Whose home is it?' She said, 'The home of A-Man-among-Men.'

[She goes home, tells her husband and he returns next day with her to the well. She tells him to bring up water.]

So he went and lifted the bucket in a rage and let it down the well; but the bucket pulled him, (and) he would have fallen into the well, when the little boy seized him, both him

and the bucket, and drew (out) and threw them on one side. Then the boy lifted up the bucket, put it in the well, drew water, and filled their water-pots.

[The man goes to the other woman's house. She warns him to hide]

The master of the house came. He keeps saying, 'I smell the Smell of a man.' His wife said, 'Is there another person here? Is it not I? Thus, if he said he smelled the smell of a man, then she would say, 'Is there another person here. Is it not I? If you want to eat me up, well and good, for there is no one else but I.'

Now he was a huge man, his words like a tornado; ten elephants he would eat. When dawn came, he made his morning meal of one; then he went to the bush, and if he should see a person there he would kill him.

[The man hides and at dawn runs away. The tornado giant gives chase.]

He was running. He also, the other one, was running till he met some people who were clearing the ground for a farm, (and) they asked what had happened. And he said, 'Some one chased (is chasing) me.' They said, 'Stand here till he comes.'

A short time passed, and the wind caused by him came; it lifted them (and) cast them down. And he said, 'Yes, that is it, the wind he makes (running); he himself has not yet come. If you are able (to withstand him) tell me. If you are not able, say so.' And they said, 'Pass on.' So he ran off, and came and met some people hoeing. They said, 'What chased (is chasing) you?' He replied, 'Some one pursued (is pursuing) me.' They said, 'What kind of a man chased (is chasing) (one) such as you.' He said, 'Some one who says he is A-Man-among-Men. They said, 'Not a man-among-men, a man-among-women. Stand till he comes.'

He stood. Here he was when the wind of him came, it was pushing about the men who were hoeing. So he said, 'You have seen, that is the wind he makes; he has not yet come himself. If you are a match for him tell me; if not say so.' And they said, 'Pass on'; and off he ran. He was running.

He came across some people sowing; they said, 'What are you running for?' He said, 'Some one chased (is chasing)

me.' And they said, 'What kind of a man is it who chased (is chasing) the like of you?' He said, 'His name is A-Man-among-Men.' They said, 'Sit here till he comes.' He sat down.

In a short time the wind he made came (and) it lifted them and cast them down. And they said, 'What kind of wind is that?' He, the man who was being pursued, said, 'It is his wind.' And they said, 'Pass on.' They threw away the sowing implements, (and) went into the bush (and) hid, but that one was running on.

He came (and) met a certain huge man; he was sitting alone at the foot of a baobab tree. He had killed elephants and was roasting them, as for him, twenty elephants he could eat; in the morning he broke his fast with five. His name was 'The Giant of the Forest.'

Then he questioned him and said, 'Where are you going in all this haste?' And he said, 'A-Man-among-Men chased (is chasing) me.' And the Giant of the Forest said, 'Come here, sit down till he comes.' He sat down. They waited a little while.

Then a wind made by A-Man-among-Men came, and lifted him, (and) was about to carry him off, when the Giant of the Forest shouted to him to come back. And he said, 'It is not I myself who am going off, the wind caused by the man is taking me away.' At that the Giant of the Forest got in a rage, he got up and caught his hand, and placed it under his thigh.

He was sitting until A-Man-among-Men came up and said, 'You sitting there, are you of the living, or of the dead?' And the Giant of the Forest said, 'You are interfering.' And A-Man-among-Men said, 'If you want to find health give up to me what you are keeping there.' And the Giant of the Forest said, 'Come and take (him).'

And at that he flew into a rage and sprang and seized him. They were struggling together.

When they had twisted their legs round one another they leaped up into the heavens. Till this day they are wrestling there; when they are tired out they sit down and rest; and if they rise up to struggle that is the thunder you are wont to hear in the sky; it is they struggling.

He also, that other one, found himself (escaped), and went home, and told the tale. And his wife said, "That is why I was always telling you whatever you do, make little of it. Whether it be you excel in strength, or in power, or riches, or poverty, and are puffed up with pride, it is all the same; some one is better than you. You said, it was a lie. Behold, your own eyes have seen."

Maalam Shaihua, *Hausa Folk-Tales*, translated by R. Rutherford Rattray, 1913, <http://www.sacred-texts.com> (accessed November 22, 2008).

VITA

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Candidate for the Degree of

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MYTHOLOGY AND GLOBAL PARALLELS

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Scope and Method of Study: This research encompasses Native North American tornado-related ethnohistorical material from the seventeenth century through the twentieth century. It explores and analyzes the relationships among ancient agriculture, women, weather, the environment, animals, and the cultural traditions related to tornadoes. Because the same meteorological conditions that produce seasonal severe storms are essential to rain-fed agriculture, tornado beliefs from other agricultural regions in the world are examined for comparison. Global sources include archaeological and ethnohistorical material from ancient Mesopotamia, China, Africa, Europe, Asia, Australia, and Mesoamerica.

Findings and Conclusions: Extensive ethnohistorical material was found relating to ancient tornado beliefs, both in Native America and around the world. A powerful female deity linked to agriculture was associated globally with spring thunderstorms and, specifically, tornadoes. Mythological material treats tornadoes consistently as a separate entity, distinct from thunder and lightning, and directly linked to matriarchal systems. Thunderstorms were not necessarily linked to aggression and male imagery. Identical and repeated animal symbols accompany concepts of women and tornadoes in globally attested material. Previous research has failed to incorporate the fact that tornadoes, lightning, and thunder were intrinsically linked to the rain needed for vegetation. Female storm goddesses originated in this linkage and the creative-destructive duality that accompanied such phenomena. The consistent suppression and demonization of female-storm goddesses in favor of male storm-gods parallels cultural shifts probably linked to a significant change in food subsistence strategies, including the introduction of pastoralism and the domestication of the horse.

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