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The Foundation of Myth:
A Unified Theory on the Link
Between Seasonal/Celestial Cycles,
the Precession, Theology, and the Alphabet/Zodiac

Part One

by
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The Foundation of Myth:
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Part One

by

Brian R. Pellar

Boston, Massachusetts

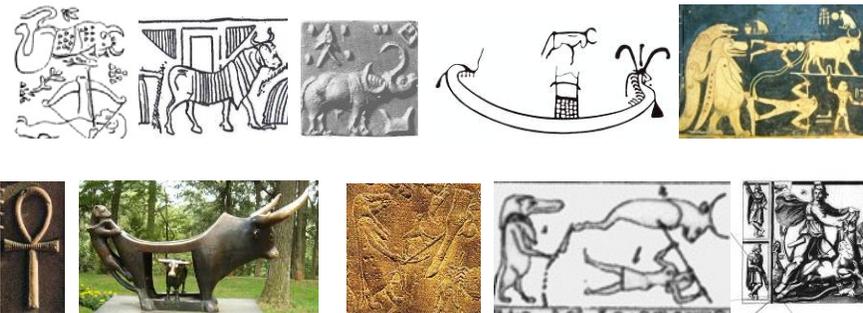
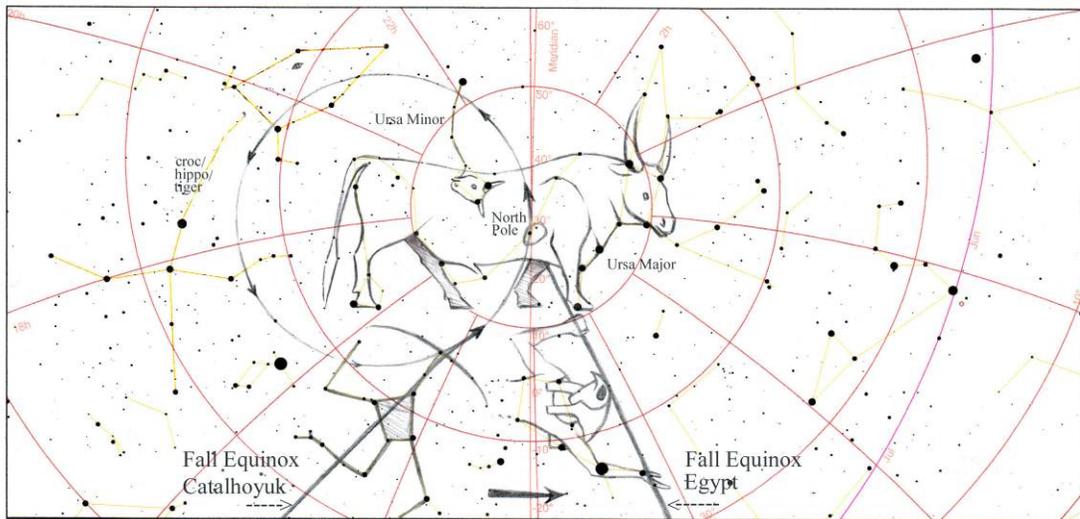


Figure 1. Top: the Great Bull and the calf/sun as made up of the constellations Draco, Ursa Minor, and Ursa Major (illustration by the author). Second row from left to right: Susa cylinder seal (rotated 90 degrees); Akkadian cylinder seal; Indus Valley; Egypt — Hierakonpolis rock engraving; Egypt — Seti (reversed); Third row from left to right: Egypt — Ankh; China; Egypt — Dendera; Egypt — Heter; and Rome.

1. Introduction

There has been much speculation as to the date at which the first constellations were created. It is generally assumed that the constellations adopted by Western civilization were first created and recorded by ancient Mesopotamian observers (Gurshtein 2005; Krupp 2000: 44; Gurshtein 1995; Gurshtein 1994; Gurshtein 1993: 171; Rogers 1998; Roy 1984; Hartner 1965: 2), with some aspects possibly being derived from Egyptian sources (Krupp 2000: 44). Based on surviving cylinder seals, boundary-stone pictographs, cuneiform texts such as MUL.APIN, and astrometric diaries, Rogers determined that the earliest zodiacal constellations were first defined around 3200 BCE, with the zodiac being divided into twelve equal signs around 600 BCE (Rogers 1998: 23). Hartner noted that the early proto-zodiacal artworks depicting the earliest zodiacal constellations might actually have come from Elam and not Sumer (Hartner 1965: 1–16). Hartner also noted that, based on the heliacal risings of the Pleiades, Regulus, and Antares, the constellations Taurus, Leo, and Scorpio might have been first created to align with the cardinal points within them around 4000 BCE (Hartner 1965: 1–16). Hartner further surmised that the winter solstice might have been represented by an ibex, since images of this animal were common in the proto-Elamite art of approximately 4000 BCE (Hartner 1965: 1–16).

These Mesopotamian constellations were copied by the Greeks and were set down in writing by Eudoxus in the fourth century BCE. Though this work, called the *Phaenomena*, was lost, it was copied and placed in a poem by Aratus. Based on this surviving poem, which was also called *Phaenomena*, researchers such as Maunder, Crommelin, and Ovenden looked at the risings and settings of the constellations in the poem and calculated that they were first observed around 2600 to 2700 BCE at a latitude of 35 to 40 degrees north (Gurshtein 1993:171).

However, some researchers have noted that certain constellations are much older than 4000 BCE. Gurshtein claims that the first constellations could go back as far as 16,000 BCE (Gurshtein 1997: 47–50), with the largest constellations, akin to the larger US states, being the more recent. Gingerich proposed that Ursa Major, the Bear, may go back to the Ice Age or earlier, as it was known to both Siberian and North American tribes (Gurshtein 1993: 171). The Soviet philologist Y. A. Karpenko even stated that Ursa Major as a constellation might go back as far as 100,000 BCE (Gurshtein 1993: 171). Edge (1997), Congregado (1994), and Rappengluck (1997)

have all made a strong claim that a bull, #17, with six dots above it, painted on a southern wall in an Upper Paleolithic cave in Lascaux represents the constellations Taurus and the Pleiades (Krupp 2000: 50). Marshak also presented evidence that Paleolithic cave dwellers were more sophisticated stargazers than previously thought, for he found that they used bone markings as a lunar calendar (Marshak 1972). Recently, Chantal Jeques-Wolkiewiez presented evidence that the cave of Lascaux, and the Hall of the Bulls in particular, is aligned to the summer solstice, which was in the constellation of Taurus the Bull at the time (Jeques-Wolkiewiez 2000), and that 130 Paleolithic caves in southern France are all oriented in the direction of important solar points (Jeques-Wolkiewiez 2007).

Though some have advocated the idea that the constellations were first formed in Mesopotamia as a singular act of creation (Krupp 2000:55), others such as Gurshtein advocate an evolutionary progression of the creation of the constellations. Gurshtein proposes a sequential creation of the zodiac in sets of four, or "quartets," as a function of the seasonal points driven by the precession (Gurshtein 1993:175; Gurshtein 2005). Gurshtein speculates that the first zodiac quartet, led by Gemini (Gemini, Virgo, Sagittarius, and Pisces) was first set down by preliterate cultures in the sixth millennium BCE, where the "'domestication' of the immediate living space went hand in hand with the 'domestication' of the heavens" (Gurshtein 2005:104).

Similarly, Rogers notes that the image of a bull, as Taurus, the "bull of heaven," was probably first set down as a quartet (along with Leo, Scorpio, and Aquarius) in either Sumer or Elam as a cardinal point between 4400 and 2200 BCE (Rogers 1998: 24). Furthermore, Rogers states that though there were many individual constellations drawn in the pictograph phase of his six-tier chronology, a complete map of the skies was not made until the Dendera Zodiac (Rogers 1998: 10).

Thus, there is growing evidence supporting the idea that early humans showed an early and sophisticated dependence on the sky for information. In fact, Krupp notes that it was inevitable that humans would look to the stars and constellations, for they provided, "practical services: timekeeping, season marking, calendrics, weather signs, concentrations of supernatural power, and symbolic containment of important cultural data" (Krupp 2000: 58).

As it was inevitable that humans would look to the stars and constellations, it was also inevitable that they would imbue these images with mythological importance, no doubt a function of not only the seasonal and natural life cycles of themselves and the animals and plants in their local environment (birth/death/resurrection), but also the cycle of the sun along the ecliptic and horizon as well as the waxing and waning of the moon in the night sky. However, for anthropologists, comparative mythologists, and archaeoastronomers studying the origins and connections between myth, celestial/seasonal cycles, and star patterns, there has been missing from the record a clear operative link or mechanism between these three that might have been conserved across various cultures around the world and down through the millennia.

One point of focus has been the circumpolar region of the northern sky, as it is here at the zenith of the celestial vault that both the imperishable stars reside (stars that do not dip below the horizon), and the celestial north pole, the perceived power point from which all the stars and heavens revolved. And not surprisingly, it is here that many cultures, from Egypt to India to China, often have placed their high gods. Tantalizing clues abound as to the role that the constellations of the circumpolar region, such as Draco, Ursa Major, and Ursa Minor play in a link between the celestial/seasonal cycles and a conserved structure within myth that might have been passed down through the millennia. For instance, Allen notes, in one such hint, that Ursa Major is referred to almost everywhere as a bear, and usually in the feminine (Allen 1963: 419). Olcott, following Allen and quoting Hagar's *The Celestial Bear*, gives an example of how the Algonquin and Iroquois American Indians referred to this constellation as a bear that is tracked from spring to fall by seven hunters, and how when it is finally killed by an arrow in the fall, its shed blood is what is responsible for the redness of autumn's leaves (Olcott 2004: 354–356). Though the link between the color of autumn and the spilling of the bear's blood seems straightforward, poetic, and symbolic/descriptive of the changing colors of fall, what's particularly interesting and unexplained is: Why a bear (and how was only seven stars of a partial/dipper shape transferred into the full outline of a bear across many cultures)? Why hunters? Why seven? Why an arrow? And why fall? That is, any number of stories could have been created with a different cast and number of characters to explain the changing colors of the leaves of autumn (which are also yellow and orange in color, not just red) or any other number of

seasonal features/changes. So, why the specific combination of bear (or bull), Ursa Major, female, hunter, seven, arrow, and fall? And why, as I will later show, are these same elements, particularly of a bull, to be found across wildly different cultures and times?

With the northern circumpolar region in mind, Giorgio de Santillana (a professor of the history of science at MIT) and Hertha von Dechend (a scholar at Johann Wolfgang Goethe University) published *Hamlet's Mill* in 1969, attempting to draw links between the north celestial pole, comparative mythology, and changing world ages as a function of the precession. That is, they asserted that the myths encoded knowledge of the precession. But instead of drawing their interpretations from contemporary sources, they purposefully drew them from ancient ones, for, as they noted in the introduction, "current anthropology ... has been led by its modern evolutionary and psychological bent to forget about the main source of myth, which was astronomy — the Royal Science ... But the experts now are benighted by the current folk fantasy, which is the belief that they are beyond all this — critics without nonsense and extremely wise" (Santillana 1998: 3–4).

As was to be expected, the majority of scholars dismissed *Hamlet's Mill*, often with severe criticism, without acknowledging and following up on the many nuggets hidden deep within their perceived dirt. Thus, regrettably, for many years some of the more thoughtful and fascinating insights and conclusions from *Hamlet's Mill* have remained largely ignored by most scholarship (it should be noted, however, that more recently, Gurshtein, a "professional astronomer turned historian," though acknowledging some shortcomings in *Hamlet's Mill*, insists that this book is a "great one" and is "glad to count these very courageous authors as my direct forefathers") (Gurshtein 2003: 5).

Needless to say, it has now become a bit risky in an age of intense specialization (and religious sensitivity) to draw comparisons across disciplines when one is not an acknowledged expert in any of them. It is instead rather the norm to turn one's mind's eye inward and specialize in a small, non-threatening, almost solipsistic area of interest. If one chooses to cast his or her eyes far outward in an attempt to generalize and weave together the disparate threads of unrelated or distant pattern/disciplines (such as astronomy and religion), one is indeed tempting the sharp shears of fate.

Thus, it is with a timid and cautious heart, and with nothing but a passionate interest in these matters, that I, a curious amateur, will attempt to step up and resurrect the wide, wandering eyes of Santillana (who in turn stepped on the shoulders of others such as Charles Dupuis and Norman Lockyer), Joseph Campbell (who, as the distinguished anthropologist Clyde Kluckhohn remarked of his *Mask of Gods* series, attempted to build "a natural science of the gods," and who looked to links between mythology and astronomy/celestial cycles — particularly in regard to the sun and moon and, more fascinating still — a topic he explored in his *The Inner Reaches of Outer Space: Metaphor as Myth and as Religion* — the ubiquitous number 432 that is found in the Kali Yuga, the Icelandic Eddas, the Babylonian flood, the Old Testament patriarchs and Noah's flood, the Indian Goddess Mother of the World, Brahma's length of life, and the "Platonic Year" that composes the cycle of the zodiac), those of Michael Rice (who explored the cult of the bull and its links to astronomy in his fascinating book *The Power of the Bull*), Alexander A. Gurshtein (who, as noted above, is looking back to preliterate cultures and myth/unified symbolism in the early formation of the zodiac), David Lewis-Williams and David Pearce (who, in their wonderfully introspective and thought-provoking book *Inside the Neolithic Mind*, looked to neurology, consciousness, mythology, and cosmology and argued that "religion is, ultimately, embedded in neurology, as is pre-scientific cosmology; the two are hardly separable"), and John C. Didier (who recently published a three-part paper entitled "In and Outside the Square" in *Sino-Platonic Papers*, which correlates the northern polar region and the high gods of not only China, his main focus, but also of Eurasia).

Thus, based on research and some key discoveries that I made in late 2003, I will put forth the proposition once more that there appears to exist, in various forms, evidence that a long line of key myths across cultures and millennia refer to astronomical processes and cycles, with the northern polar region as the key locus. And if certain details are found to be in error, then I ask the reader to please forgive these and continue to bear with me, for I believe that it is the overarching thesis of this work as a whole that is worth keeping in mind, and which, I hope, will in the end prove to be correct in whole or in part. At the least, this work may be useful to others who also find these issues to be of some historic value, and thus worth taking a few extra steps into that vast ocean of cosmic myth and demiurgic lore, where the water runs cold, deep, and

mysteriously dark — and which beckons us nevertheless, for reasons unfathomable and yet strangely intuitive.

2. Thesis

Based on evidence that I will present in two parts, it appears that the mechanism that unites seasonal and celestial cycles and star patterns in a long line of seminal and specific myths is, once again, the precession. It turns out that the precession provided the phenomenon, easy to discern, in which the movement of the north celestial pole “cuts” up and through the body of a large, fixed constellation of a bull/bear/goddess in the northern circumpolar region of the sky. That is, in the tombs and underground sanctuaries of Egypt and Rome respectively (with roots possibly going back to the caves of Lascaux and the inner sanctuaries of the Neolithic mound dwellings at Catalhoyuk), there has been a repeated pattern of presenting an image of an androgynous bull (a bear in the northern regions) on a north-facing wall within the earth. It is a depiction of the Great Goddess and consists of Draco, Ursa Major, and Ursa Minor as the calf within it.

Like the crescent moon bull that is cut up and resurrected by the light of the sun, the Great Bull is cut or opened up by a solar deity’s arrow/spear/knife (symbolized in Susa and Egypt by the fall equinox) whose tip is the celestial north celestial pole/*axis mundi* that moves upward through the bull via the precession, eventually cutting it in two (Draco thus severed from Ursa Major), which explains the later Egyptian images that present only a partial image of a bull as Ursa Major.

This cutting or opening of the goddess-as-a-bull to release the son/sun has influenced the bull sacrifice images and celestial diagrams of Susa (Persia), Egypt, China, and Rome (the first named being the source of the later celestial diagrams of Egypt and Rome, and quite possibly the link between the Near East and China), and there is some interesting evidence that the structure of the celestial diagrams appears to have been laid out during the Neolithic, which will be the subject of Part Two of this essay. Ursa Minor will be shown to be symbolic of the sun/calf (and later, seed/*logos*) that is born from the back/gate of the goddess-as-the-horizon, and the early zodiac is a seasonal extension of that birth in the circumpolar region of the sky. Many images of

the sun as a boy/god/calf/sun disc rising from (or riding on) the back (or gate) of a bull from the Neolithic to Rome attest to this. The Phoenician alphabet, based on a more developed Egyptian zodiac (see Pellar, 2009, *Sino-Platonic Papers* no. 196), is a further extension of that birth of the seed/*logos* from the gate of goddess-as-the-horizon as seen in the Great Bull.

Furthermore, this image of the sun/son/seed rising up from the back of the goddess-as-the-horizon not only illuminates the mystery of the gates and squares/fish seen on the backs of bulls in Akkadian seals and Harappan tablets, but it also sheds light on the shape and meaning of the Egyptian ankh sign (which, as will be shown, is also an abstraction of the Egyptian celestial diagrams), as well as Didier's polar quadrilateral (symbolized by the square glyph *ding* □) that symbolized and contained the Chinese high gods Ding/Di/Taiyi.

In Part One, I will begin by discussing and deciphering the celestial diagrams of ancient Egypt. The reason I will start with these is that these diagrams are the most complex and mysterious of all the ancient celestial diagrams, and it is important to understand the key roles that all of the figures play, especially the bull, as well as their exact placement in the northern and southern skies. Thus, an understanding of these extremely complex, and still largely unknown diagrams will then shed light on our understanding and unraveling of the other celestial diagrams and images of the bull that have come down to us through the ages.

In looking at the Egyptian celestial diagrams, I will first correlate the images with their appropriate constellations. I will then show how the spear of the falcon-headed Anu is correlated with the fall equinox, and as a function of time, how the angle of Anu's spear entering the bull changes in sync with the movement of the precession. Next, I will show how the angle between the north celestial pole and the pole of the ecliptic was not only apparent in the Egyptian celestial diagrams, but was carried over into the tauroctonies of Rome, where the sun god Mithras with his knife and bull served the same role in the fall equinox in the northern circumpolar stars as did Anu with his spear.

After a discussion of the tauroctonies of Rome, I will then look at a find from Susa, in Persia, where a remarkable cylinder seal will be shown to mirror and/or to be the common source for subsequent Egyptian celestial diagrams and Roman tauroctonies, and quite possibly, the link between the early cosmologies of the Near East and China. In this section, I will also discuss the

Akkadian seals with their winged gate imagery (and how their tethered cords mirror the tethered snake/*axis mundi* imagery of India), as well as discuss the mysterious fish and squares depicted above the back of bulls in the Harappan civilization. Both of these represent Ursa Minor as the winter solstice (Aquarius, and later Capricorn, are both water/fish symbols) in the gate of the goddess/bull-as-the-horizon. I will then show that the Egyptian ankh sign is simply an iteration of this image of the gate of the goddess/bull-as-the-horizon (as well as an abstraction of the celestial diagrams). I will then conclude Part One with a discussion of China, in which I will discuss the spear of Taiyi, showing that the spear is located in the same place, and serves in the same capacity as, the spear of Anu and the knife of Mithras. Next I will look at the work of Didier and his polar quadrilateral and show the polar quadrilateral to be Ursa Minor within the womb of the Great Bull as the goddess-of-the-horizon, as evidenced by an important image of the Great Bull in the Warring States period, thus showing a common link with the role of the Great Bull in the West.

In Part Two of this paper, I will present evidence that the Great Bull was an image and/or cult in the Neolithic. I will first visit Catalhoyuk, where is to be found the first compelling evidence of the cult of the goddess-as-the-horizon. I will show an amazing image of the sun being born from the goddess-as-the-horizon in Shrine A.VI.6. This image is truly remarkable and holds the key to understanding almost everything that follows in the cult of the bull and the goddess and in the religions in the Near and Far East for the next 6400 years. I will next discuss the goddess figurines found in Neolithic Europe, as these figures will reveal the mystery of its markings as indicators of the movement of the sun on the horizon/goddess. I will then discuss the detachable/broken figurine heads and the skull cult as being symbolic of the head of the goddess as the sun/son on the horizon. I will then move on to a large image of the Great Bull on the north wall in Shrine F.V.1. at Catalhoyuk and show how this image correlates to constellations in the circumpolar region/zodiac, and then discuss the paintings on the south wall of Shrine F.V.1 as constellations as well, such as a large figure in the same shape and position as Orion. Lastly, I will discuss the Catalhoyuk image of a boy as the sun/son riding on the back of a bull as the horizon, and how this image repeated itself from Catalhoyuk to Egypt to Crete.

The last section on my findings will be a bit speculative, as I will then trace the origins of the cult back in time to its possible origins in the Upper Paleolithic. First I will visit the bulls at Marsoulas, then Lascaux, and then finally an even older image found at Chauvet Cave.

I will then conclude my paper with a "Discussion" section in which I will summarize the way in which the plethora of World Trees/mountains (both natural and man-made), serpents, number sevens, and rivers are just iterations of the same astro-theological constructs of the circumpolar region (i.e., Draco, the serpent; Ursa Major/Minor; and the Milky Way), whose center is the *axis mundi*/celestial pole(s), a sacred point within all matter and life as extensions of the body of the goddess-as-the-earth/vessel. I will then discuss the way in which the north celestial pole shifting up towards the male Ursa Minor (the sun/son) in 2160 BCE (with the equinox/solstice leaving the bodies of Taurus/Leo respectively), and then moving out of the body/horizon of the goddess towards the male Ursa Minor in 1050 BCE, might have strongly influenced certain theological and political events in Mesopotamia, Egypt, China, and Rome.

3. Findings

Egyptian Celestial Diagrams:

Tomb of Senemut (1473 BCE), Seti I (1279 BCE), Ramses II (1213 BCE), Tausert (1186 BCE), Ramses VI (1136 BCE), Pedamenope (560 BCE), and the Zodiac of Dendera (50 BCE).

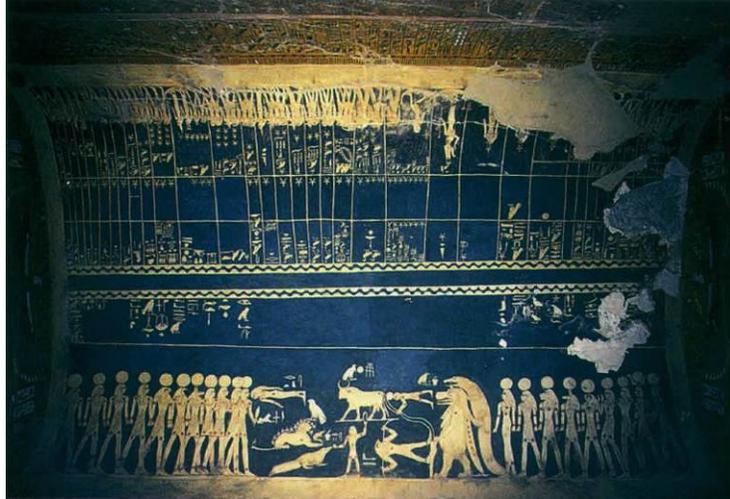


Figure 2. Seti I celestial diagram (1279 BCE). North panel at bottom.

In the 1960s, Neugebauer and Parker published their *Egyptian Astronomical Texts*, which is a basic source for anyone studying Egyptian astronomy (O. Neugebauer and R. A. Parker 1960–69). Others have followed, including Clagett (1995), but for the most part, the correlation between most of the figures in the sky charts, or celestial diagrams as they are now commonly known, with constellations is still largely unknown. Although the identity of a few constellations has been generally agreed upon (such as Meskhetyu as Ursa Major, Sopdet as Sirius, and Sah as, or part of, Orion) (Clagett 1995: 113–115; Lull & Belmonte 2009: 161), the identity of the majority of figures is still very much a matter of debate. For instance, in the case of the constellation named “Anu,” a falcon-headed god that is always shown spearing the figure of a full or partial bull, Wainwright feels that it could represent Cygnus. However, Clagett thinks that is “unlikely because of the considerable distance of Cygnus from the Big Dipper” (Clagett 1995: 119). Beigel asserts that it is in the area of Ursa Major and Coma Berenices, Davies concludes that it is in Ursa Minor, but Locher thinks that it is at the head of Ursa Major (Lull & Belmonte 2009: 163). Relke and Ernest, though they do not try to find an actual location for Anu, following Neugebauer and Parker’s title as the “spearing god,” place Anu “at the center of the universe” (Relke & Ernest 2003: 72). And, yet, Lull and Belmonte feel that Anu is to be found “south of Ursa Major, which includes parts of Canes Venatici, Ursa Major, and Lynx” (Lull & Belmonte 2009: 163).

As Anu is always shown in the central and key/dramatic action of the celestial diagrams — the spearing of the bull, which has been generally agreed upon to be Ursa Major — and is usually shown to be just beneath the bull, I feel that an identification of the exact location of Anu and his role will be key to unlocking the theological structure of all of the various Egyptian celestial diagrams.

It will be helpful to start with the celestial diagram found in the tomb of Seti I (1279 BCE), as it is easier to see the correlation of Anu and the other figures with specific constellations. I will then look at other celestial diagrams such as Senemut, Ramses II, Tausert, Ramses VI, Pedamenope, and the zodiac of Dendera, and demonstrate the common features/roles/indicators that the figures and certain key elements play in the astro-theological structure of the charts.

The celestial diagram found in the tomb of Seti I, dates to 1279 BCE, and is found on a northern wall (See Figure 2). First, note the large bull in the center of the diagram. As previously noted, most scholars agree that this bull, whole or in part, is Meskhetyu, Ursa Major, a key constellation that is found in the circumpolar region of the northern sky. Furthermore, there is a general consensus that the lion, facing the bull, is Leo (Davis, followed by Etz, first identified the Divine Lion with Leo; Lull & Belmonte 2009: 166). Thus, starting with these two basic bull/lion correlations, which face each other, I was able to work out, visually, in late 2003/early 2004, the main figures and their respective positions in the sky that comprise this diagram, and then over the years, consulting the literature and constantly working out their structure and patterns via drawings/diagrams/studies in my journals, I was eventually able to refine not only their shapes and locations in the sky, but their respective roles as well.

In looking at the Seti I celestial diagram, a good place to start would be to identify the summer solstice, for the summer solstice was not only closely linked to the average arrival of the Inundation and the origin of the 365-day civil calendar (Belmonte, Shaltout & Fekri 2009: 229), but it was also close in time to the helical rising of Sirius/Sopdet (located just beneath Osiris/Orion, which symbolized the deceased pharaoh; e.g., see Pyramid Text 882–3, Pyramid Text 820–2).

Thus, a good place to start in an analysis of this diagram is to find some type of indicator of the summer solstice in 1279 BCE, and then correlate this with a figure/constellation near the figure of Leo, which was the summer solstice during the Old Kingdom. That is, at the time of Seti I, in 1279 BCE, the summer solstice was not in Leo, but was rather in Cancer, one house away. Thus, if the lion is indeed Leo, and the summer solstice is a key part of the celestial diagram, then there should be an indicator somewhere in the diagram of the summer solstice and its placement in Cancer. And, indeed, it turns out that there is.

In Figure 2, note the line or rope or spear in the hands of Anu, the falcon-headed god, who is always shown spearing the bull. This spear in his hands goes vertical to a point to the right of the bull, and then suddenly shifts horizontally, making a large loop just beneath the bull, and then extends out towards the lion. This spear of Anu, which rises up vertical and then shifts horizontal, turns out to symbolize both the equinoxes and solstices in Seti I. When one looks to where the north celestial pole was situated in 1279 BCE, it can be clearly shown that the summer solstice, after emanating out from the north celestial pole, passes through Ursa Major, and then continues on in the direction of Leo. In fact, when the hippopotamus is shown to be perpendicular to the horizon (as it is in the zodiac of Dendera, with both the hippopotamus's feet parallel to the horizon) (See Figure 3), and Ursa Major is shown to be in an upright position, then Leo is shown to be sitting on the horizon in front of it. See Figure 6.

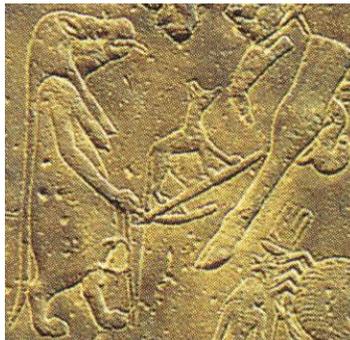


Figure 3. Dendera round zodiac. Correct orientation, with the hippopotamus looking to the right. Ursa Major is seen here as Meskhetiu, the bull's leg.

At this point, it is important to note that the hippopotamus in Figure 3 faces to the right and that the hippopotamus in Seti I faces to the left. The Dendera orientation is actually the correct one, and the reason the Seti I celestial diagram is reversed is not precisely known. I will give a likely explanation of this shortly (in my discussion of the Primal Pattern), but will state now that it could also be the result of a viewer/pharaoh on the ground/horizon/gate looking down into the waters of the underworld and seeing the celestial image coming down from above, reversed. Likewise, when the viewer is on the ground/horizon/gate looking up at the ceiling in the temple of Dendera, the proper view is shown with no reversal. But for now, note that Seti I is in fact reversed from its true orientation in the sky, and that other diagrams, such as those in both the Dendera round and long zodiacs (Figures 3 and 4), Tausert A, and the coffin of Heter (see Figure 5), were made in the correct orientation, with the hippopotamus looking to the viewer's right.



Figure 4. Dendera long zodiac. This zodiac was created in the correct orientation on the ceiling of the temple. Note hippopotamus looking to the right.



Figure 5. Heter Coffin. Hippopotamus looking to the right. Note the absence of the crocodile on hippopotamus's back, and the long crocodile snout on the hippopotamus.

For the purposes of illustration, I will keep to the correct orientation of the celestial diagrams unless otherwise noted. That is, I will orient them with the hippopotamus looking to the viewer's right.

In Figure 6, note that the summer solstice (Right Ascension, 6th hour) is just above the head of Leo, who is sitting on the horizon.

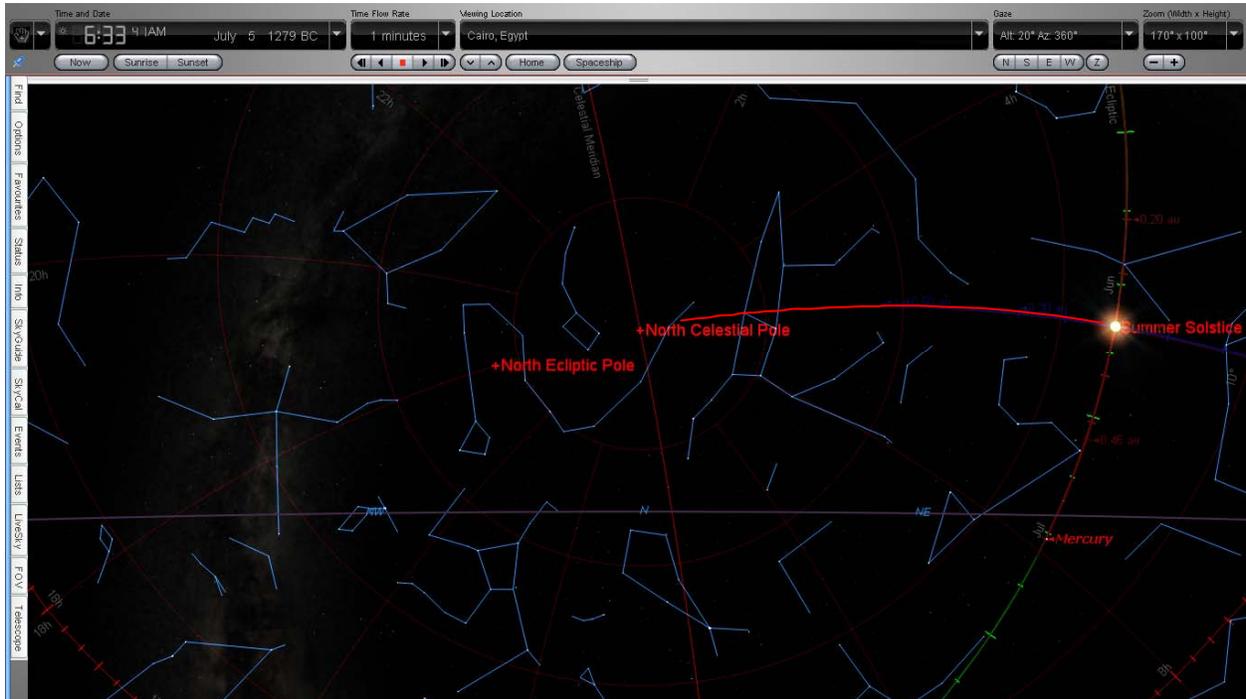


Figure 6. Summer solstice, 1279 BCE. Note Ursa Major as vertical just to the right of the north celestial pole, and Leo sitting on the horizon (the purple line), with the summer solstice in the beginning of Cancer just above its head (Starry Night Pro). By definition, the summer solstice runs from its point on the ecliptic to the north celestial pole, where it becomes the winter solstice. As the winter solstice, it then passes through the pole of the ecliptic and intersects the ecliptic at Capricorn. Finally, like its summer solstice counterpart, it culminates at the south celestial pole.

This depiction of the summer solstice as a line emanating from the north celestial pole and running horizontally to just above the head of Leo is clearly seen in the line beneath the bull in the celestial diagram of Seti I, as this line points to a spot just above the head of the sitting lion. See Figure 7 to see this same relationship in the Seti I diagram.

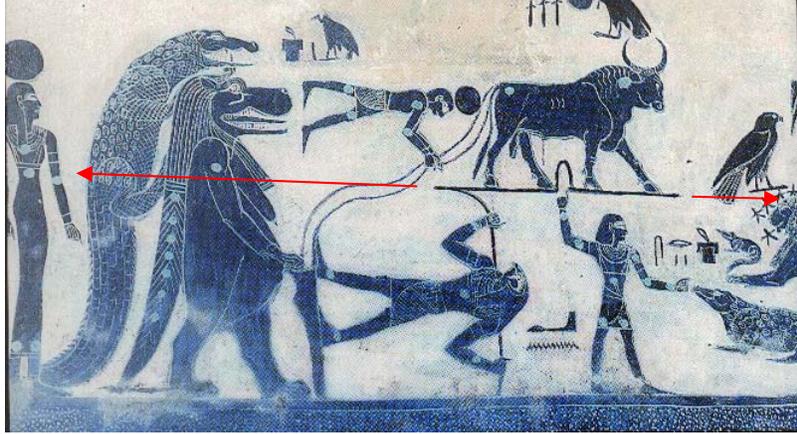


Figure 7. Seti I. Colors inverted. Reverse image. Note Anu's spear lines point toward a position above the head of lion/Leo and toward the hind feet of the large crocodile on the back of the hippopotamus.

Returning to the summer solstice, in Figure 7, note that Anu's spear line, which emanates out from the loop beneath the center of the bull, points to just above the head of the lion, which correlates almost exactly to the summer solstice running just above the head of Leo. Also, and more importantly, note that this same line emanating out in the opposite direction from the loop beneath the bull points to the heart of the hippopotamus, which others have noted might be the pole of the ecliptic in the Dendera Zodiac, and then continues on through the feet of the large crocodile on the hippopotamus's back. This line is the winter solstice, which, by definition, runs opposite the summer solstice, and joins it at the north celestial pole.

This crocodile was one of the first figures that I correlated with a constellation, and it is actually the summation of the two modern constellations, Cepheus, as the crocodile/hippopotamus's head and upper arms, and Cygnus, as the lower legs and tail. In Figure 8 the image becomes perfectly clear, particularly in conjunction with the placement of the winter solstice that runs exactly through the legs of the crocodile on the hippopotamus's back.

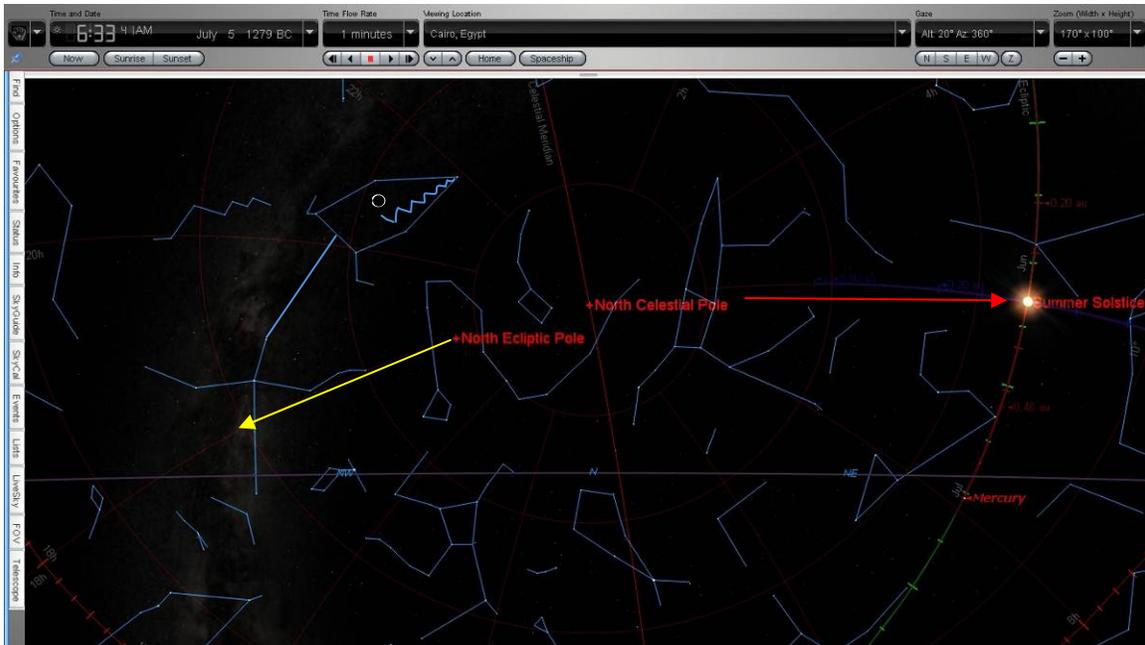
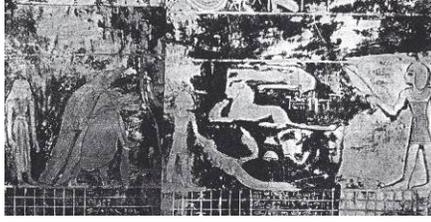


Figure 8. Circumpolar sky. Note that Cygnus and Cepheus comprise the constellation of the Crocodile on the Hippopotamus when a line is added between the two. The yellow line passing through the crocodile's foot is the winter solstice, which passes from the north celestial pole through the pole of the ecliptic, and then continues on into the leg of the crocodile, finally joining the ecliptic at Capricorn. It is 180 degrees opposite the summer solstice in Cancer, with both solstices meeting at the north celestial pole, which is clearly marked in the center of the diagram.

In Figure 8, note that the winter solstice, in yellow, passes through the foot of the crocodile on the back of the hippopotamus. That is, from the point of the north celestial pole, the winter solstice passes towards the back of the bull towards the western horizon, where it passes through the foot of the crocodile, and then continues down into Capricorn on the ecliptic, which was the winter solstice in 1279 BCE. Thus the summer and winter solstice are 180 degrees opposite one another on the ecliptic, with both meeting at the north celestial pole.

Also note how the tail of the crocodile dips below the horizon (the purple line). This small detail can be seen not only in the disappearance of the end of the tail of the crocodile in Seti I, but also in the disappearance of the tails of the crocodile and hippopotamus in the celestial diagrams of Ramses VI (see Figure 9).



A.



B.

Figures 9A and 9B. Celestial diagrams from the tomb of Ramses VI. Reversed. Note that the end of the tail of the crocodile in “A” dips below the ground, and that the end of the tail of the hippopotamus in “B” also disappears below the ground. The male crocodile and female hippopotamus in “A” are androgynous (as the bull itself will be shown to be), and are one and the same, as each shares the constellation of Cygnus as its head (as in “B”).

In Figure 9A, the end of the tail of the crocodile in the Ramses VI celestial diagrams disappears beneath the ground, symbolizing, it appears, the tail of the constellation of the crocodile dipping/disappearing below the horizon. Also note that the tail of the hippopotamus in 9B, which is often shown without the crocodile on her back, also disappears beneath the ground — an attention to detail that appears to be not a coincidence. That is, both the crocodile and the hippopotamus share the same constellation: both their heads are formed by the shape of Cepheus, which explains why the hippopotamus has a snout and teeth like those of a crocodile, as seen in many of the celestial diagrams (the Heter coffin, in particular, shows this rather dramatically. See Figure 5). As will be discussed later, this androgynous feature of the crocodile/hippopotamus is also seen in the bull, which will be shown to be identical with the crocodile/hippopotamus (Allen notes that Ursa Major, as The Bear, was almost always feminine; Allen 1963: 419). But note that the head of the hippopotamus, Cepheus, is a constellation that resides in the Milky Way, which also helps to identify this constellation as being associated with the hippopotamus/crocodile, for Taweret, the hippopotamus goddess, was frequently called, “She of the Pure Water,” and “The One Who Is in the Waters of Nun” (Redford 2002:352). Hippopotamus/crocodiles inhabited the Nile, and the Milky Way in Egypt was referred to as the celestial counterpart of the Nile, a place one would expect to begin a search for a constellation that contains a hippopotamus/crocodile,

which were in wholly (all of the crocodile) or in part (just the head and tail of the hippopotamus) submerged within the "pure water" of the celestial river of Nun.

Thus, the Hippopotamus, which is called Taweret, or *rrt wrt*, the Great Reret, the Great She-Hippopotamus, and who is also referred to as Isis-Djamet (Lull & Belmonte 2006: 380), is correlated with both Cygnus/Cepheus and with Draco, as her body extends outward and away from the body of the crocodile, or her own crocodile tail, and into the stars of Draco. But before I discuss her role in more detail, I would first like to look at the other significant seasonal indicator that is perpendicular to the winter/summer solstice lines that emanate out from the north celestial pole. This other line, as mentioned earlier, passes through the hands of the falcon-head god, Anu. This line clearly corresponds to the fall equinox, which, by definition, is perpendicular to the solstices, and is just beneath the bull/hippopotamus. See Figure 10.

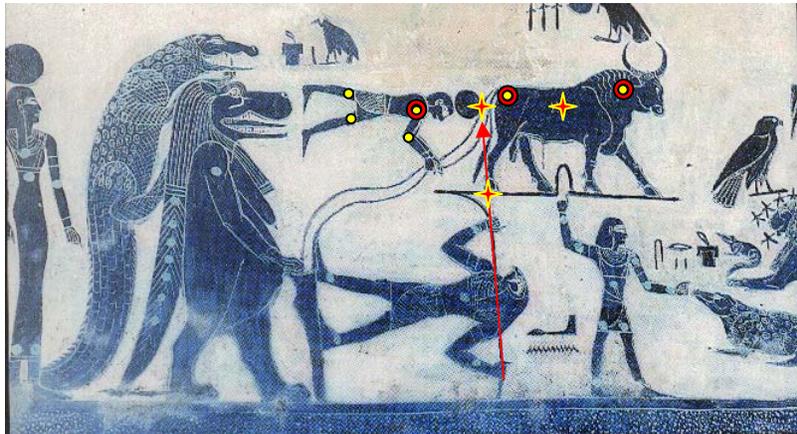


Figure 10. Seti I. Inverse color, reverse direction. Note the falcon-headed god, Anu, who holds the fall equinox, which is the red line. The three circles are, from left to right: the stars Kochab, Kappa Draconis, and Dubhe. The red/yellow stars that I added, are the north celestial pole in three different contexts.

In Figure 10, note that the position of Anu is below that of the bull, and that he has one foot on a bull's foreleg that is attached to the back of the bull by two cords. I will argue that this leg of the bull is just an extension of the bull above and represents the pole of the ecliptic, which will be discussed in more detail later. But for now it is important to demonstrate that the spear of Anu is exactly the fall equinox, the point at which the sun descends below the celestial equator and the start of the season of the sowing of seed in Egypt. The point of his spear is none other

than the north celestial pole, which is why the spear turns to the left and stops at a point beneath the figure of a small boy, who is Ursa Minor. Note the four stars in this small boy that are exactly in the shape of the cup of Ursa Minor, with the top right star at the level of his heart being Kochab. Also, note that the sun on his head sits at the exact placement of the north celestial pole relative to all of the figures. That is, the north celestial pole is just to the right of the dipper/Kochab in Ursa Minor and is exactly at the mid-chest level of Anu. This placement of the sun, as Ursa Minor, and just at the top and back of the bull, will prove to be vital, as it will be shown to be not just a key image in ancient Egypt, but also to exist as a key image across many cultures and millennia, as the sun rising from the goddess-as-the-double-horizon. See Figure 11.

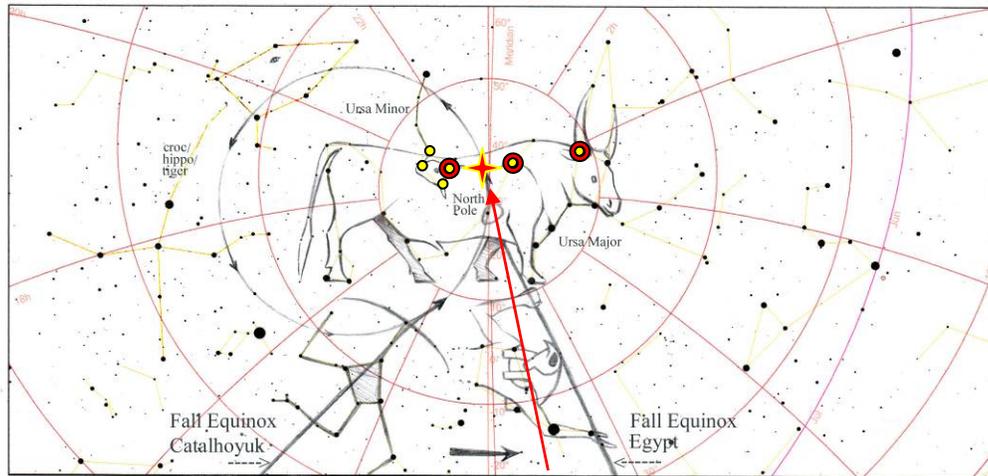


Figure 11. Anu, the falcon-headed god, is just beneath the bull. This figure was adapted from Figure 1 (drawing by author). Red line is the fall equinox in 1279 BCE, with the yellow/red star as the north celestial pole. The red circles are, from the viewer's left to right: the stars Kochab, Kappa Draconis, and Dubhe.

That this is correct can also be seen by the placement of the two red stars in the bull relative to the north celestial pole and Kochab in the child. The star at the back of the bull, which is slightly higher than Kochab in Ursa Minor, is actually Kappa Draconis (part of the tail of Draco), and the star at the bull's shoulder is Dubhe, the upper star in the dipper of Ursa Major. Thus, the front of the bull is formed by the outline of Ursa Major, with its head as the cup and its foreleg sweeping down and back in the form of the handle.

Also note that the spear of Anu, which also forms the horizontal solstice line, forms the loop just beneath the bull, which marks the actual position of the north celestial pole relative to just the small figure of the bull. Thus, the bull is shown in two different aspects: first, as the larger figure composed of Ursa Major, Ursa Minor, and Draco. And second, as a smaller figure composed of the tail of Draco and Ursa Major. That the bull is separated to the right of the north celestial pole, and is almost a thousand years later shown only as a leg (along with Taurus being shown as only half a bull), implies that the bull was seen from early on to be in the process of being cut in two pieces by the upward action of the north celestial pole as a result of the precession, as symbolized by the cutting action of the spear of Anu. That this turns out to be the case will be explained in more detail later. But for now, it is important to look further at the placement of the fall equinox and how this idea of Anu with his spear has survived in remnants to this day in the modern constellations of the West.

First, it is important to note that there is a general tendency for the spear of Anu to move up from his shoulder to a place over his head as the celestial diagrams go from the 1473 BCE (Senemut) to 90 CE (Heter), reflecting the precession of the fall equinox along the ecliptic. See Figure 12.

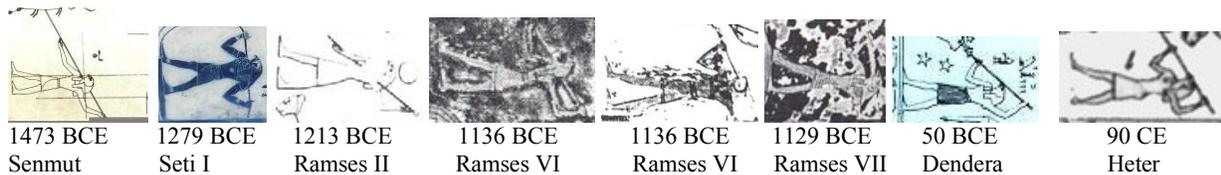


Figure 12. Spear of Anu beneath the Great Bull (Draco/Ursa Major/Ursa Minor).

Note how, on average, there is strong tendency for the spear to move to the viewer's right, away from Anu's right shoulder and towards the top of his head, which parallels the movement of the fall equinox from 1473 BCE to 90 CE.

Notice how the spear moves, on average, from above Anu's right shoulder and up to the top of his head as time progresses. At the older range of the celestial diagrams, at Senemut and Seti I, the spear/fall equinox is at the level of Anu's right shoulder, but by the first century CE, at Dendera or Heter, it is clearly above his shoulders, and at the level of the top of his head. At first glance there seems to be an exception to this in the Anu of Ramses II. But note that he has the spear just a little above his left shoulder, not his right. (Note: The diagram of Pedmenope also

seems to be an exception, as does a second Rameses VII, but in Pedmenope, Anu's spear is clearly high above his shoulder, and in that Rameses VII, Anu is spearing Nut. See Fig. 20 & 27.)

Another way to check to see if I situated Anu correctly in the circumpolar region of the sky just below Ursa Major, is by checking to see if there were to be found any remnants concerning Anu in a modern constellation. And indeed, as the placement of Anu's chest and spear are to be found in the area of modern Bootes (see Figure 13), I found the following information concerning this constellation.



Figure 13. Bootes, the "Ox Driver." Note the spear, which points upward towards Draco (from Aspin, 1825).

1. The word "Bootes" has been derived from the Greek meaning, "ox" and "to drive," (Allen 1963: 92), or, transcribed as "Boetes," to mean "clamorous ... from the shouts of the Driver to his Oxen ... or of the Hunter in pursuit of the Bear" (Allen 1963: 93).
2. Other names for Bootes were "Bear-watcher" and "Bear-guard" (Allen 1963: 93)
3. Heyschios in approximately 370 BCE called it "Orion." The title "may come from some confusion with the Orus, or Horus, of the Egyptians, that was associated with both Orion and Bootes" (Allen 1963: 94).
4. "Landseer, following La Lande, said that the herdsman was the national sign of ancient Egypt, the myth of the dismemberment of Osiris originating in the successive settings of its stars; and that there it was called Osiris, Bacchus, or Sabazius, the ancient name for Bacchus and Noah" (Allen 1963: 96).
5. "Among its Arabian derivatives are Nekkar, often considered as Al Nakkar, the Digger, or

Tearer" (Allen 1963: 97).

6. "Alkalurops, which appeared for Bootes in the Alfonsine Tables as Incalurus, is from Κάλαύροψ, a herdsman's Crook or Staff.... The staff, ultimately figured as a Lance, gave rise to the name Al Ramih, which came into general use among the Arabians, but subsequently degenerated in early European astronomical works into Aramech, Ariamech, and like words for the constellation as well as for its great star" (Allen 1963: 97).
7. "The same figure is seen in Al Hamil Luzz, the Spear-bearer" (Allen 1963: 97).
8. "Similarly, Bayer said that on a Turkish map it was Οἶστοφόρος, the Arrow-bearer" (Allen 1963: 97).
9. Bootes's chief star, Arcturus, in India was the "13th nakshatra, Svati, the Good Goer, or perhaps Sword" (Allen 1963: 100).
10. The Arabs called Arcturus "Al Simak al Ramih, sometimes translated the Leg of the Lance-bearer, and again, perhaps more correctly, the Lofty Lance-bearer" (Allen 1963: 101).
11. "The idea of a weapon again manifested itself in the Κονταράτος, Javelin-bearer, of the Graeco-Persian Tables; while Bayer had Gladius, Kolanza, and Pugio, all applied to Arcturus, which probably marked in some early drawing the Sword, Lance, or Dagger in the Hunter's hand" (Allen 1963: 101).
12. "Al Biruni mentioned Arcturus as the Second Calf of the Lion, the early Asad; Spica being the First Calf" (Allen 1963: 101).
13. The star η in Bootes is called in Ulug Beg's "Al Mufrid al Ramih, the Solitary Star of the Lancer" and called by Al Tizini, with Al Nasr al Din, more definitely, Al Rumh al Ramih, the Lance of the Lance-bearer" (Allen 1963: 104).
14. The star μ in Bootes was called, "Alkalurops" which was an Arabian adaptation of Κάλαύροψ, "used by Hesychios for the Herdsman's Club, Crook, or Staff" (Allen 1963: 105).
15. The star μ has also been called by some Latin writers "Venabulum, a Hunting-spear" (Allen 1963: 105).
16. In the Algonquin and Iroquois American Indian story of the hunting of the Great Bear

(Ursa Major), as mentioned in the introduction to this paper, the Bear is killed in fall by an arrow from seven hunters (which explains the red color of the autumn leaves, which were washed by the blood of the slain bear, an explanation also believed by the Housatonic Indians). Three of the hunters reside in the handle of the dipper, the other four, however, along with a pot and the bear's den reside in the constellation of Bootes (Olcott 2004: 354–356). (Note that many North American tribes refer to Ursa Major as the Bear, which points to a common source thousands of years ago, as mentioned in this paper's introduction. However, if one looks to the fall equinox in Pisces in America around 11,000 years ago, at the helical rising of the sun, the four stars of the bear/dipper were "beneath" the horizon/ground, with the seven hunters just above it. Thus, the bear dipping beneath the ground, like the sun, must have appeared to them to have died and gone to the underworld. If the body of the bear was like the Great Bull, i.e., Draco, then its head was perceived to have gone underground while its body circled above ground, headless.)

As can be seen in the above list, it is clear that the constellation Bootes, which was the upper torso and spear of Anu, has preserved remnants of its original function as being the spear aimed at the constellation of the Great Bull/Bear (thus the "Ox Driver" or "Bear Hunter") in several different cultures in the West (from America to Greece to Egypt to Arabia to India. I will discuss the remnants of Bootes in China in a later section. In addition, the link between Anu/Bootes/Mithras will be shown in the next section). Even the obscure reference to Bootes as being the "digger" or "tearer" calls to mind the function of the spear/arrow/knife as opening, like Utu with his knife at the horizon, the bull as the horizon/earth, and thus, sheds light on why Ursa Major is also referred to as the "plow" (as it is called by the English, and was perhaps called the plow even as far back as pre-historic India [Allen 1963: 431, quoting Hewitt]. Also, and more importantly, as will be seen in Part Two, the apparent contradiction between the constellation's association with an arrow/lance/spear and "staff" will be resolved in that they are all in fact the same symbolic image — the *axis mundi*, whose tip is the north celestial pole). Thus, as a plow, the leg of the bull is symbolic of an instrument that opens/cuts the earth. In ancient Egypt, in fact, ox's hooves were used to thresh the wheat — that is, to release the "seed," which, as will be seen

later, was symbolic of the sun/*logos*. Ursa Major was also referred to as the Plough Ox by the Romans, and the "threshing oxen, walking around the threshing floor of the pole" (Allen 1963: 431). This latter image of the grinding of grain by the action of the Bull at the north celestial pole, calls to mind the thesis of Santillana in *Hamlet's Mill*, where the north celestial pole was seen as a grinding mill that was periodically unhinged, thus setting the stage for a new world age (different house of the zodiac). Furthermore, Santillana quotes the *Bhagavata Purana*, which tells how the prince Dhruva was appointed the pole star, which was the

"exalted seat of Vishnu, round which the starry spheres forever wander, like the upright axle of the corn mill circled without end by the laboring oxen." ... The simile of the oxen driven around is not alien to the West. It has remained in our languages thanks to the Latin *Septemtriones*, the seven threshing oxen of Ursa Major: "that we are used to calling the seven oxen," according to Cicero's translation of Aratus. On a more familiar level there is a remark by Trimalchio in Petronius (*Satyricon* 39): "Thus the orb of heaven turns around like a millstone, and ever does something bad" (Santillana & Von Dechend 1998: 138).

It should also be noted that it might not be the hoof of the bull itself that grinds the corn. It might also be that Ursa Major, as near the pole/mill, was correlated with it, particularly as, as noted in the discussion above of Seti I, it was in fact located within the body of the bull. Thus, the two were treated as one and the same, as the action of the grinding was perceived to have been derived from the power of the bull as the high god of the pole.

It is also worth mentioning that the even older Sumerian god of heaven was also called "Anu." What is interesting about this is that the bronze *lilissu* drum (emblem of the Cosmos and the most powerful device of the shaman) of the Mesopotamian Kalu-priest must have a cover that comes from a black bull, which has been identified in a cuneiform text as "sugugalu, 'the hide of the great bull,' and emblem of Anu" (Santillana & Von Dechend 1998: 124). This link between the heaven god Anu as the "great bull" in Mesopotamia and the heaven god Anu, who, as will be seen shortly, is the older version (Osiris) of Ursa Minor (Horus), the calf/son/sun of the great bull in Egypt, is hard to dismiss.

Furthermore, the location of Bootes, with his spear and allusions to ox and bears, coincides exactly with the placement of the fall equinox at the time of the celestial diagrams of Egypt. The placement of the spear of Anu, who is alluded to as being Osiris by Heyschios and Landseer as mentioned above, is merely an extension of the arrow of the hunter Hercules, which was the fall equinox (Sagittarius, the Archer/Hunter) at the time of Catalhoyuk in 6300 BCE (as will be seen and discussed later in Part Two).

Furthermore, the correlation of Bootes/Anu with Osiris makes sense, in that Osiris was seen by the Egyptians in the southern sky as Orion, "Smati-Osiris, the Barley God" (Allen 1963: 308).

Thus, just as the Egyptians had different names for the sun at different times of the day — Khepri as the beetle at sunrise in the east, Re as the solar disc at noon in the south, and Atum as the setting sun in the west (which is also similar to the double horizon, Aker, with the young lion in the east, the old lion in the west, and the sun at noon in the center), so, too, was Osiris shown in three solar phases in the celestial diagrams — spring, summer, and fall.

This allusion to Bootes as Osiris and/or Horus (Lull and Belmonte also refer to Anu as "an avatar of Horus") (Lull & Belmonte 2006: 383), thus gives a clue as to the identity of the boy behind the bull, and the "standing man" (as Lull and Belmonte refer to him) with his arm pointing up to the loop beneath the bull in the Seti I star chart (and in the other diagrams as well).

Starting with the young boy behind the bull, it should be pointed out that his feet are parallel to Anu's. Thus, if turned 90 degrees, they would both be standing upright. And as already shown, if Anu is the fall equinox, the start of planting in Egypt (Relke & Ernest 2003: 76, table 1), then by being on the opposite side of Anu and the solstice line, the boy appears to symbolize the vernal equinox, which ushered in spring and the end of the harvest of the grain in Egypt (Relke & Ernest 2003: 76, table 1). In fact, his head, like Anu's, is an indicator as it faces the direction that the equinox takes towards the celestial pole. Thus, as the harvest in Egypt is the cutting up of the wheat, barley, and sorghum, the vernal equinox symbolized the birth of seed from the grain, and by extension, the birth of the sun (note that the boy has the sun affixed to his head). It is important to reiterate that Osiris was called the grain god ("barley god"), and thus his death by the cutting up of his body into pieces was seen as symbolic of the cutting up of the

wheat at the spring harvest. Frazer remarks, "The Egyptian harvest ... falls not in autumn but in spring, in the months of March, April, and May. To the husbandman the time of harvest, at least in a good year, must necessarily be a season of joy ... for was he not severing the body of the corn-god with his sickle and trampling it to pieces under the hoofs of his cattle on the threshing floor? Accordingly we are told that it was an ancient custom of the Egyptian corn-reapers to beat their breasts and lament over the first sheaf cut, while at the same time they called upon Isis. The invocation seems to have taken the form of a melancholy chant, to which the Greeks gave the name of Maneros. Similar plaintive strains were chanted by corn-reapers in Phoenicia and other parts of Western Asia. Probably all these doleful ditties were lamentations for the corn-god killed by the sickles of the reapers. In Egypt the slain deity was Osiris" (Frazer 1996: 431).

After being cut up, Osiris was then resurrected through the virgin birth of his son, Horus, who was commonly known as the sun in the sky (symbolized by a hawk). Furthermore, and more importantly, Osiris was also referred to as a bull, the "Bull of the West, the Bull of the Desert" (Rice 1998: 134). In fact, the sacred Apis and Mnevis bulls were dedicated to Osiris, and "it was ordained that they should be worshipped as gods in common by all the Egyptians, since these animals above all others had helped the discoverers of corn in sowing the seed and procuring the universal benefits of agriculture" (Frazer 1996: 424).

Thus, the son, Horus, the sun, was born from the dead body of Osiris as both a bull and wheat, which had been cut up at the harvest (this combination of images, as will be seen later, sheds light on that other bull/sun/grain god, Mithras). Similarly, the pharaoh, who was called "The great bull of his mother" (Rice 1998: 125), was considered an incarnation of Horus, the sun (and, thus, by extension, the son/calf/seed), and became Osiris/Orion at his death in the west, thus resurrecting the father Osiris through Horus as the son/sun/seed.

Now, with this combination of the son/sun/seed/calf being born from the cut-up body of the bull as Osiris, the identity of the boy with the sun on his head immediately behind the rear of the bull, who faces the pole on the opposite side of the fall equinox in Seti I with his hands exactly on the vernal equinox (spring/harvest), and who was shown to be also Ursa Minor (the little bull that is within the larger figure of the bull) is suggested. He appears to represent the birth of the sun as the seed on the horizon of the back of the bull-as-the-earth/Isis at the spring

harvest (which is why the pregnant hippopotamus, Taweret, the "lady of heaven" and the goddess/nurse of childbirth, is present at the rear of the bull with the sun exiting). The upper end of the spear of the falcon-headed god, Anu, in a way becomes the agency of the cutting of that grain/bull — a sickle, which is curved like the upper end of the spear of Anu's (see Figure 14), with the tip culminating in the revolving/cutting north celestial pole.



A.



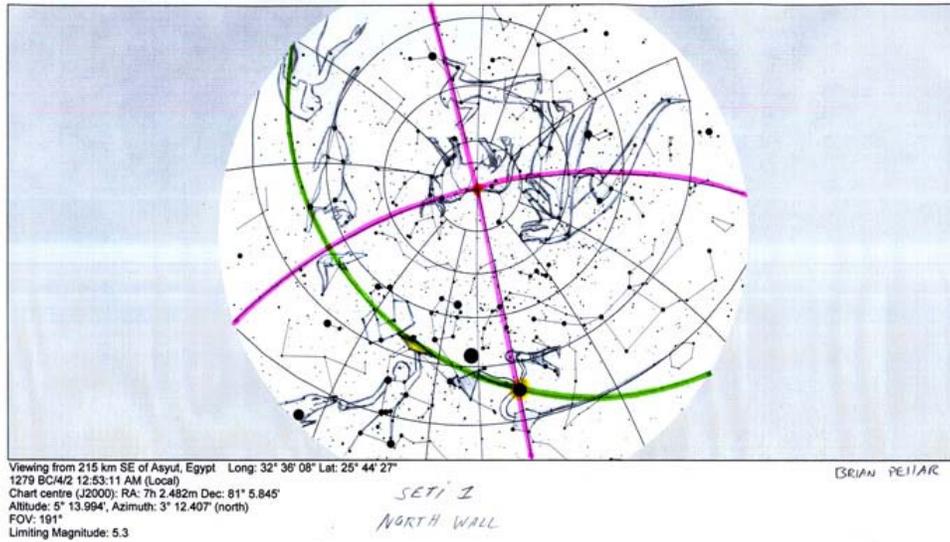
B.

Figure 14. A. Sickle. 18th Dynasty, Egypt, close to the same age as Seti I. B. Note that the shape of Anu's spear resembles that of an Egyptian sickle. Sickle used at spring harvest, the point above the curved tip of the spear is the spring harvest.

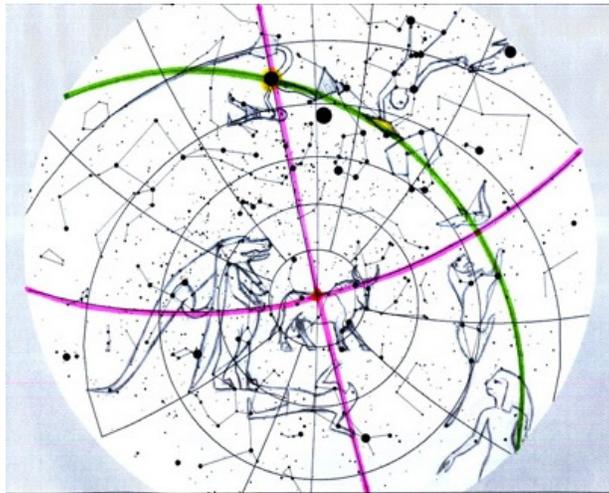
That the boy symbolizes the rising sun/calf/seed in the east at the spring equinox/harvest appears to be the case when one considers the identity of the standing man, with his arm reaching up to the loop beneath the bull. Note that his other hand points down towards a large female crocodile that is slightly angled (in other diagrams, she is shown flat and completely parallel to the horizon). As the figure's feet are parallel with that of the bull's, the hippopotamus's, the lion's, and the summer/winter solstice, and as his body is on the summer side of the north celestial pole and his head faces to the right, it is fairly safe to conclude that he represents an aspect of the summer solstice. In fact, like the eagle/sun directly above him, he, like Atum, symbolizes the mature summer sun. He faces the direction of Leo, the old summer solstice, and more

importantly, the direction of the new summer solstice, Cancer, the small crocodile in front of Leo, and, just in front of the candle, Gemini (see Pellar 2009, for an in-depth look at the candle as symbolizing the exact shape of Gemini).

With these three constellations identified, it is easy to see that the standing man is the constellation Orion, which in the sky is situated exactly beneath the constellation Taurus the bull (an extension of the Great Bull, who, as mentioned, was the earlier Anu of Sumer, whom the Egyptian triad Anu/Osiris/Horus mirror) and Gemini, and which, more importantly, rises as Osiris at dawn just before the summer solstice. His raised hand is within the flame/gate of Gemini, which is the gate of the goddess-as-the-horizon. This gate is the groin of the Egyptian Nut/Milky way, is the entrance/exit of the Duat, and, as Santillana remarked, is the place where the sun was traditionally thought to have been born (see Pellar 2009). (See Figures 15a & 15b.)



A.



B.

Figure 15a & 15b (rotated 180 degrees). Approximation of celestial diagram of Seti I. Green line is the ecliptic. Purple lines are the equinoxes/solstices (Drawing by author. Starry Night Pro 6.0).

Note the shape of the stars in the body and how they resemble Orion almost exactly. Thus, the female crocodile at an angle to the standing man is the star Sirius/Sopdet, whose helical rising, like Orion/Osiris's appearance at dawn on the horizon just before it, not only announced

the Egyptian New Year, but was linked with the summer solstice and the rise of the Nile (as Belmonte, Shaltout, Fekri and other astronomers have pointed out), which was the first phase in the growing of the grain in the agricultural cycle. And it should be noted that the time period from the summer solstice, the rising of the waters that seed the land, to the harvest of the seed at the spring equinox, is about nine months — the period of human gestation.

This standing man is also shown with a large spear/staff that sometimes enters the female crocodile (Sirius), such as within Rameses VI, or the position of his arms sometimes insinuates that an absent spear, such as in Seti I, should enter the mouth or throat of the crocodile and exit in the area of its groin (a pattern that seems to parallel that of Nut swallowing the sun in the west and giving birth to it in the east). This staff entering the female crocodile as the star Sirius, calls to mind Pyramid Text 632 from the old kingdom, which refers to Osiris as Orion placing his seed onto his phallus (staff/spear) and placing it into Isis as the star Sirius, from which the star Horus-Sopd issues forth as "Horus who is in Sothis." This seems to suggest that the standing man is indeed symbolizing the sowing of the seed at the summer solstice for the start of the human birth cycle and the beginning of the wheat cycle. This spear directed at the mouth of a female crocodile (Isis/Sirius) in the guise of the summer solstice also calls to mind the opening of the mouth ceremony, where the mouth, symbolic of the vulva (like the mouth of Nut, who swallows the sun as seed in the west), is ceremonially opened in the spiritual birth of the deceased. It should also be pointed out that the eventual (and/or earlier?) movement of the north celestial pole into the mouth of the crocodile/hippopotamus (see Figure 11), with its departure around its groin/leg, is another aspect of the opening of the mouth ceremony and the seeding of the vessel/goddess/Nut via her mouth. This idea of the spear as phallus as the *axis mundi*, as indeed the tip of the summer solstice culminates at the north celestial pole like the other three colures, will be discussed further in Part Two, in the first part of the Discussion section.

But looking at these figures on a north wall as representing both the constellations of the northern sky and the southern sky seems to be contradictory; that is, the Great Bull and the boy as Ursa Major and Ursa Minor in the northern circumpolar region, and as Taurus and Aries in the southern. But it turns out that this is not a contradiction when one looks to the chart as it was intended to be looked at by the deceased pharaoh. That is, the celestial diagram was not made for

the benefit of a researcher over 3000 years later, but rather, it was made for the deceased pharaoh, who eventually would arrive at a spot high up in the circumpolar region of the sky. And if he eventually arrives at the north celestial pole (as other high gods do), wouldn't he be in a position to look down upon the earth and southern stars?

It is an amazing fact that when this particular orientation of the figures is seen in the northern sky, when one looks south, as if from within or behind the north celestial pole or behind the constellations in the circumpolar region, one would see Taurus the bull, with its tail, the Pleiades, exactly at their zenith in the southern sky with Orion just below and Leo sitting on the horizon to the left. Thus, this helps to explain the reversal of the Seti I diagram. It was meant to be seen from above the area of the celestial pole, looking down, and south. I call this particular orientation with a bull at the zenith in both the northern and southern skies the Primal Pattern (as this pattern, as will be shown later, is quite ancient, and goes back at least as far back as the Neolithic). See Figure 16.



Figure 16. Southern sky. Southern half of the "Primal Pattern," with Taurus at the zenith (red line). Cancer as crocodile, Gemini as candle, Sirius as crocodile, standing man as Orion, boy as Aries. Note the vernal equinox at the hands of the boy, which is one of his cords.

Thus, one would see in Figure 16, starting from the left, Leo down on the horizon (Leo is not visible in the above diagram, as Leo is a bit north of east on the horizon), Cancer as the crocodile (actually lower in the eastern sky, as the perspective in the image is distorted), Gemini as the candle, Orion as the standing man, with the belt in the figure matching the belt (phallus, which is possibly symbolic of the absent spear. See Discussion, Part Two) in Orion that points down at

Sirius, a crocodile. Next you will see Taurus, with the Pleiades, its tail, at its zenith and exactly 180 degrees opposite the Great Bull at its zenith in the northern sky. But more importantly, one would next see Aries as the vernal equinox (spring) floating just above and behind the rear of Taurus the bull, in the exact same position as the boy with the sun on his head in Seti I, sitting in the vernal equinox side of the diagram. Again, this is the reason his hands are just above the point of the spear of Anu, which marks the vernal equinoctial point on the ecliptic, as well as the north celestial pole (both of which are tied to one another).

Thus the reversal of the orientation of the Seti I celestial diagram makes sense when seen from the perspective of the pharaoh looking down and south from the area of the north celestial pole. From the point of view of this center at the top of the heavens, which is akin to the center of the World Tree/*axis mundi* (as will be discussed in Part Two), the home of many mythological gods across cultures, the four colures along with the constellations of the zodiac would then be akin to the branches of that tree "extending" down to the ecliptic/middle level in a mirror image of the same astro-theological processes enacted near the celestial pole.

Further evidence that the diagram is meant to be seen with the hippopotamus looking to the east is given by the presence of the three birds in the diagram. I feel that these birds are not in fact constellations as others have surmised, but are really directional indicators. The hawk in front of the bull seems to perform three functions: (1) As a symbol of Horus as the rising sun in the east, its position opposite the hippopotamus (whose constellation is in the west, with its back to the west and its face to the east) and the fact that the bird faces the same direction as the hippopotamus, show that it is actually a marker for the east. (2) It marks the actual solstice position between the lion and small crocodile (which is Cancer). And (3) it shows the direction that the sky revolves (counterclockwise) around the celestial pole, as the sun (which, again, was symbolized by a hawk in Egypt), rises in the east. This hawk's correlate in the diagram would be the boy, as the new sun rising.

The second bird, a mature eagle, sits above the bull and the standing man below. This bird has a sun next to it, and since it is at the highest point in the diagram, like Atum, it appears to symbolize the mature and powerful sun at its zenith, which is noon. This bird faces west, as its only path is down toward the horizon in the west. This bird, thus, also indicates the direction that

the sun moves across the sky in the south, as it, in conjunction with the hawk, forms an arc that traces a circular path across the sky. Its correlate in the diagram is the standing man, who is directly beneath and pointing up toward it. The third bird is the vulture, symbolic of the older dying sun in the west. Note that it is at the open mouth of the crocodile, which might symbolize the swallowing of the sun in the west by Nut. Its correlate would be the larger Anu, the god who symbolizes the fall equinox. (Note: it is a curious oddity that if you rotated the image of the vulture 90 degrees clockwise, in the same direction as the movement of the sun across the sky in the picture, it will form the image of a head of a calf, with a small beard of a god [or tongue?], which is interesting, in that it sits just above the small boy as the new son/calf/seed. And as the vulture was a bird that symbolized new life rising from death, because it eats dead animals in order to give life to its young, then it is a curious coincidence that a symbol of death and resurrection contains in it the seed/head/calf of new life that will rise again in the east).

Further evidence that the hawk and hippopotamus actually face east is given by the presence of the two candles (one in front of the lion and one in front of the mouth of the crocodile on the hippopotamus) that symbolize Gemini and the double/twin gates (see Pellar 2009). Note that their position, one low in the east with its flame pointing west, and one high in the west, with its flame pointing west, indicates four things: (1) The direction of their flames points the true direction that the sun (a flame) moves across the sky. (2) Their height in the diagram shows the movement of the sun relative to the celestial horizon at the equinoxes. That is, the bottom candle is just below the pole, on the fall equinox side, which indicates that it is moving below the celestial horizon. Whereas the top candle is above the pole, on the vernal equinox side by the feet of Aries/Ursa Minor, which indicates that it is moving above the celestial horizon (these two candles/flames will also prove to be an important point in the link between this celestial diagram and the tauroctony of Rome, which will be discussed in the next section). (3) The gates of the horizon, which appears as one double gate/mound of the groin of the goddess-as-the-vessel. The upper candle next to the vulture, as already mentioned, is the western gate where the sun sets, whereas the candle just below the hawk to the viewer's right is the eastern gate where the sun rises. The upper candle/gate is also situated just above the pole of the ecliptic and is at the winter end of the diagram, thus symbolizing the sun's farthest descent on

the horizon. Likewise, the lower candle/gate is situated exactly next to the summer solstice to the viewer's right, and thus symbolizes the sun's farthest ascent up on the horizon. Thus, point (3) in combination with point (2) shows the ingenuity of the diagram, in that the Gemini Gate shows all four seasons along with the east/west gate as one gate, one point — the entry/exit into and out of the groin of the goddess-as-vessel. This single point is further seen in the overall shape that the spear of Anu forms beneath the bull. That is, the spear forms the outline of a large candle, with the large loop at the top that points to the center of the bull being the Gemini flame/gate itself that harbors the north celestial pole — the opening into and out of the goddess-as-the-bull-of-the-horizon. (4) The two candles allude to the distance that the vernal equinox has moved since the Egyptian "First Time" in 4320 BCE. That is, note that the tip of Anu's spear begins exactly between the bull as Taurus and candle as Gemini (with the crocodile as Cancer and the lion as Leo following to the right), which is the actual position of the Gemini Gate/flame in the center of the Milky Way. The horizontal aspect of the spear is also a marker, and it measures exactly the distance from that point between Taurus and Gemini to the small boy with the sun disc as Aries. It is at the point where the boy's hands grasp the cords (the vernal equinox on the ecliptic at the time of Seti I), that the tip of the spear of Anu ends as a marker. This distance, then, from the center of the Milky Way in the Gemini flame to the bottom of Aries's feet, which marks the boundaries of Aries, is framed by the two Gemini candles/gates, and marks the passage of time as the vernal equinox moved from the center of the Milky Way to Aries via the precession.

Amazingly, this appears to show a clear and accurate knowledge of the precession in 1279 BCE. (On a side note, the distance between the two candles — from the Gemini flame to feet of Aries — is the distance of the small loop in the alphabet [see Pellar, 2009]. In other words, the small alphabet loop begins with the flame of Gemini and ends with the flame of Gemini, which mirrors the placement of the two Gemini candles in Seti I. That is, the small loop starts with Aleph [Hyades] at the Gemini Gate and ends with Zayin [Gemini flame] at the Gemini gate. In between are the letters Beth to Waw, which, as seen in the Seti I sky chart, are all between the two Gemini candles. That is, He and Waw as Pisces, are actually below Aries both on the ecliptic and in the Seti I diagram. Pisces is the cut foot of the bull that contains the pole of ecliptic and does not extend past the Gemini candle above it.)

Thus, when one views the diagram looking south, the figure of Aries is seen holding two cords just above the equinoctial point. This interesting fact would then help to explain the presence of the two cords in his hands that emanate up from the hand of the hippopotamus and the severed leg of the bull, a spot that I feel is the "mooring post" that the pyramid texts refer to (Relke & Ernest 2003: 71), and a spot that I will demonstrate shortly, via simple geometry, is the pole of the ecliptic.

It appears that the two cords correspond to the solstice and ecliptic lines that pull the common image of the bark of the sun god across the sky. And as the boy is shown carrying the sun on his head and at the same time grasping the two cords, it seems logical to assume that these are indeed the two cords that pull the sun as it moves across the sky in its daily journey clockwise in the south, and its counterclockwise journey through the houses of the zodiac on the ecliptic (thus his dual function as both Ursa Minor revolving around the pole in one direction in the northern sky, and as Aries revolving in the opposite direction in the southern sky along the line of the ecliptic).

Because the cut bull's leg in Seti I symbolizes the pole of the ecliptic (to be demonstrated shortly), which symbolizes the actual pole of the ecliptic residing within the leg of the Great Bull), then by definition, the pole of the ecliptic is attached to the north celestial pole via the solstice line. Thus, one could indeed say that the bull is attached to a mooring post. However, in other celestial diagrams, the pole of the ecliptic is not shown as a bull's leg, but instead as the figure of a small crocodile (again, the symbol of the solstice), which, I might add, is a predator. That is, it was first a lion, Leo, which preys on the bull, then the crocodile, Cancer, which also preys on the bull. Note how both of these animals sit in front of the standing man almost as if waiting for the feast — the cutting up of the bull by the action of Anu, whose spear point is the cutting north celestial pole within the bull. But note that even this falcon-headed god, Anu, is also a predator. That is, these are all instruments of cutting, like the spear, and thus symbolize the release, as from the action of the knife of the sun god Utu, of the sun from the goddess/bull-as-the-horizon (later, I will show the almost identical pattern of the predator releasing the calf in the tiger/bull imagery of early China). As these three predators, the lion, crocodile, and falcon all symbolize the sun at the solstice, at its strength, then one might say that, mythologically, the light

of the sun/fire consumes the flesh of the bull as the horned moon/vessel. In fact Joseph Campbell remarks in his *Masks of God: Occidental Mythology* that the horned moon of night was eternally "consumed by the light of the sun" (Campbell 1964: 54). Campbell also stated:

In the early mythologies of the moon-bull, the sun was always conceived as a warlike, blazing, destructive deity; and in the fierce heat of the tropics it is indeed a terrible force, well likened to a lioness or to a pouncing bird of prey; whereas the moon, dispenser of the night dews by which the world of vegetation refreshed, represents the principle of life: the principle of birth and death that is life. Symbolically, the moon — the moon-bull — like all living things, dies and is reborn; and whereas, on the one hand, its death is a function of its own nature, on the other hand, it is brought about by the pounce of the lioness, or of the solar bird of prey. (Campbell 1962: 91)

This idea of the moon as the moon-bull is further reinforced by the dark color of the black Aurochs bulls that were prevalent in early history, even up into the bull cults of Egypt, where the Apis bull, an incarnation of Ptah, and later, Osiris, the "bull of the west" (Rice 1998: 144), were chosen for their blackness (Rice 1998: 145). This blackness of the bull symbolized not only the night sky and the dark earth, but more importantly, the darkness of the womb of the goddess as the cave (this will be discussed in more detail in Part Two; also, for a discussion of caves as the womb of the goddess, see Gimbutus 2001: 151) and earth (see Mircea Eliade's *The Forge and the Crucible*), where many of the bull images, amongst a plethora of goddess vulva images, were painted in the Upper Paleolithic caves of France. This latter aspect will also be discussed in greater detail in Part Two.

Thus, to recap before I move on to demonstrating where the pole of the ecliptic is in relationship to the north celestial pole, there appears to be strong evidence that the boy, the standing man, and Anu are all different aspects/ages of the same god as the sun. The positions of their hands relative to the equinox/solstice markers attest to the season. As a young sun god, Horus, rising in the east and sitting above the celestial horizon, symbolizing the new seed of the harvest, he is Aries in the southern sky on the ecliptic. Aries is in turn an extension of Ursa Minor,

the calf, in the northern sky, rising from the back of the bull as the goddess-as-the-horizon (the two humps of the bull act as the "double" horizon common to Egyptian symbols). As a mature sun god, however, he is Orion in the southern sky in the center of the Milky Way (the celestial Nile/flood). With one hand on the solstice cord at the gate of the goddess, and facing the direction of the summer solstice, he symbolizes the summer solstice itself as his own appearance on the horizon at dawn immediately precedes its arrival. He is often shown with a staff or spear in his hands that extends phallically down and into the female crocodile as Sirius, whose helical rising also heralds the new year, summer solstice (Cancer, which is also a crocodile), and the annual inundation of the Nile. His counterpart in the northern skies appears to be the large male crocodile on the back of the hippopotamus, which faces in the direction of the summer solstice. Perpendicular to the standing man, and the summer solstice, is an older incarnation of the sun god, Anu. Here he is the fall equinox, which was Libra and/or the claws of Scorpio in the southern sky on the ecliptic (note the double bent arms of Anu resembling the double bent claws of Scorpio), and was a symbol of the sun/seed setting in the west and below the celestial horizon (thus the spear/stinger into the bull-as-the-horizon; in terms of the latter, as will be discussed later in Part Two, Marduk cut Tiamat, the dragon/draco, into two using the stinger of Scorpio, which was the fall equinox, exactly as the spear/fall equinox of Anu did).

This is why Anu and the boy are shown perpendicular and opposite each other on either side of the bull-as-the-horizon (which mirrors the position of the two Aker lions opposite each other on either side of the horizon symbol). Both are symbolic of the same sun, but they are at different phases. This could help to explain why Ursa Minor, as the calf and new sun/son, is the smaller version of the adult, mature bull, Ursa Major. Both have seven stars and both are almost exactly the same shape.

Again, as with the alphabet (see Pellar 2009), the zodiac and figures along the ecliptic are merely an extension of the stellar-theological seasonal/cyclical processes of the harvest that are carried out symbolically by the northern circumpolar constellations. This will be discussed in greater detail later in my discussion section.

Now I would like to focus on the position of the pole of the ecliptic and its angle to the north celestial pole. This will not only help to determine the placement of the figures in the

northern circumpolar region of the sky, but also will help determine the age of the celestial diagram as a function of that angle.

In Seti I, let us look at the angle from the pole of the ecliptic, which I discovered is located at the bull's leg in the hippopotamus's hand, to the north celestial pole, as represented by the loop beneath the bull. Looking at Figure 8, one can see that if the head of the hippopotamus is Cepheus, and her tail/crocodile is Cygnus, then the pole of the ecliptic is situated exactly where her hands are seen to be extending downward as shown in all of the celestial diagrams. But first I must add that the bull's leg, or mooring post, is unique to Seti I. In other celestial diagrams it is usually represented by a crocodile (again symbolizing the solstice), which connects to the pole of the ecliptic. But instead of showing a large crocodile, akin to the powerful summer solstice, this crocodile is very small, representing the weaker sun and seed at the winter solstice. By definition, Ursa Minor, as the sun/seed within the bull-as-the-double-horizon, will always be within the area of the winter solstice. That is, as the north celestial pole moves up and around the pole of the ecliptic via the precession, the area carved out by this circle will always be within the winter solstice. This same solstice line emanating out from the north celestial pole, however, will always be the summer solstice. That is, the space outside of the circle is the domain of the summer solstice, and the space within the domain of the circle is the winter solstice. It is within the area of that circle that the calf/Ursa Minor sits. This would be symbolic of the seed within the womb of the earth as the goddess that grows in the winter. This is why the Hippopotamus is at the winter position, behind the bull and in the area of the winter solstice. Note her winter attributes — if a human were inseminated at the summer solstice, or if the grain inseminated in the fall — i.e., that she is pregnant (shown with a large belly and large breasts), and is, as mentioned earlier, commonly referred to as the goddess/nurse of childbirth. It is also widely known that the winter solstice is when the sun is at its weakest and lowest on the horizon. This is generally referred to as the birth of light, for the sun from this point onwards, begins to move north, and the days begin to get longer/brighter. Thus, the small boy symbolizing both the vernal equinox and Ursa Minor, is really doing double duty, as he also represents the winter solstice as Ursa Minor, which lies within the circle of the winter solstice, as defined by the circle generated by the north celestial pole as it moves around the pole of the ecliptic. Diagonally opposite the

boy is the standing man, who also is doing double duty. He is perpendicular to and mirrors the actions of Anu, the fall equinox, and thus he is an extension of the polar region and resides near the ecliptic as a symbol of the summer solstice, for like Anu, he holds a spear and impregnates Sirius as Isis, thus giving the nine-month human birth cycle to spring (whereas Anu gives the six-month agricultural/harvest cycle to spring).

To begin measuring the relation of the pole of the ecliptic to the north celestial pole, one needs a base line to calculate the angle. That is, one needs to find zero degrees, a point at which both poles are exactly in line with each other when the Bull's feet are parallel to the horizon and the Pleiades are at their zenith in the southern sky. This point turns out to be approximately 2500 BCE (the age of the Giza pyramids). See Figure 17.

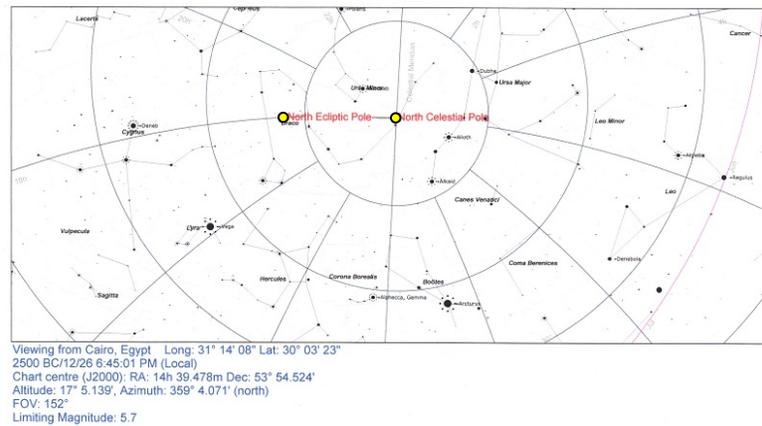


Figure 17. North celestial pole and pole of the ecliptic at approximately zero degrees.

As the north celestial pole moves approximately 1 degree every 72 years, it would be easy to see if my placement of the poles on the celestial diagrams correlates with the correct angle/age at which they were made. Checking the angles from the oldest celestial diagrams to the latest, it appears that there is indeed a strong correlation that is beyond chance. Though the Dendera Zodiac is the easiest to work out, as the elevated plow forms a clear angle to calculate relative to the top of the knife blade and feet of the hippopotamus, I would like to begin with Seti I, as I started with this sky chart. As the age of this chart has been dated to 1279 BCE, then there should be an angle of approximately 17 degrees from the pole of the ecliptic to the north celestial

pole (2500 BCE minus 1279 BCE = 1221 years. $1221/72 = 16.958$). And this angle is approximately what one finds in Seti I. See Figure 18.

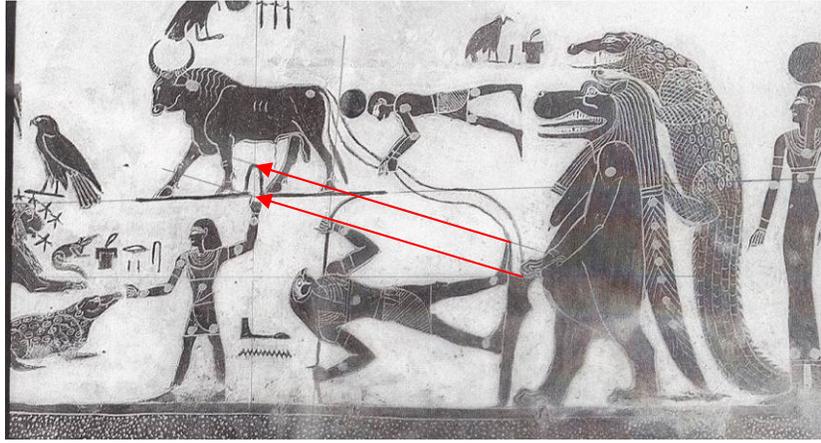


Figure 18. Seti I. Angle from pole of ecliptic at the bull's leg to the north celestial pole beneath bull is approximately 17 degrees.

This angle and its placement appear to confirm that the pole of the ecliptic is indeed at the bull's leg in the hand of the hippopotamus ("the mooring post").

Looking to the sky chart of Senenmut, to which Lull and Belmonte give a date of 1473 BCE, there should be found an angle of approximately 14.26 degrees (though others date it to around 1465, which would give an angle of approximately 14.37). See Figure 19.



Figure 19. Tomb of Senenmut. 1473 BCE = 14.26 degree angle. Angle of bull is approximately 15 degrees. Angle from pole of ecliptic (small crocodile) to north celestial pole (knife) and summer solstice point in lion with crocodile's tail is approximately 15 degrees.

In Figure 19, the angle of the bull at the top of the figure should be an accurate indicator of the angle from the pole of the ecliptic to the north celestial pole, as the pole of the ecliptic is in the back of the bull and the summer solstice passes out in front of it. At the bottom of the figure, note the same approximate angle, as the small crocodile is the pole of the ecliptic, the knife the north celestial pole, and the dot in the middle of the reclining lion with the crocodile's tail appears to symbolize the summer solstice. These angles are a bit harder to gauge, as there are no real indicators here. But in regard to the lion with the crocodile's tail, this seems to suggest that

the Egyptians wanted to conserve parts of their older theology from the time when the solstice was in Leo. Thus, the amalgamation of the body of Leo with the tail of Cancer, the crocodile.

Another celestial diagram to look at is Pedamenope, dated to around 560 BCE. See Figure 20.

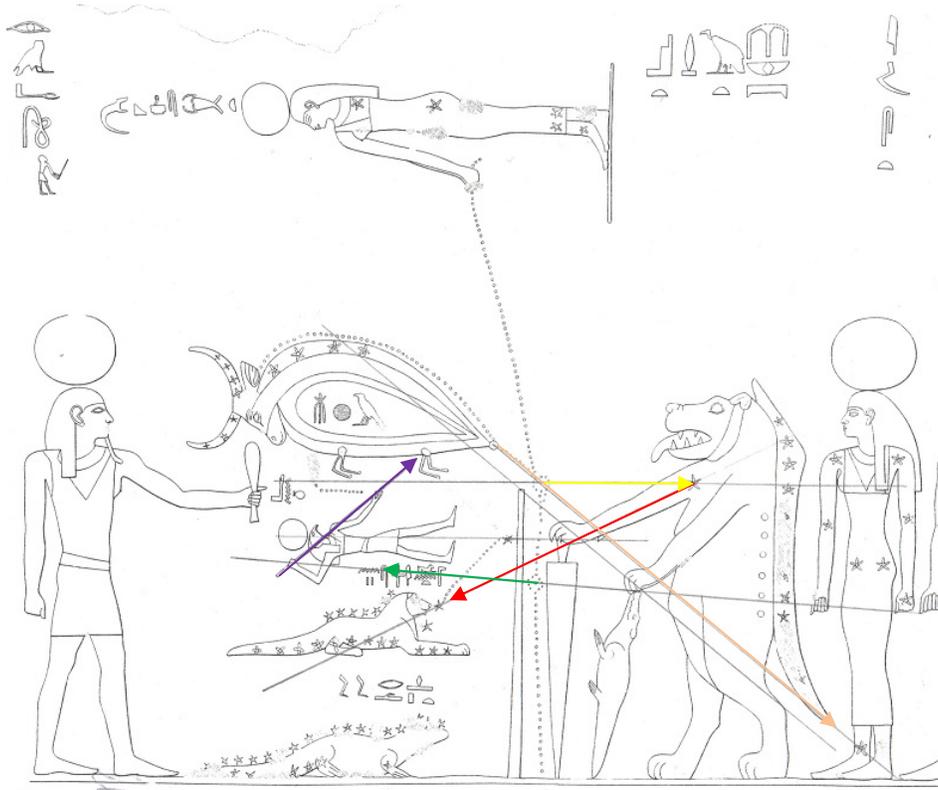


Figure 20. Pedamenope. 560 BCE = 26.94 degree angle. Red line is approximately 27 degrees.

In Figure 20, notice the four mooring posts in the celestial diagram of Pedamenope (the crocodile, the knife, the rope, and the thin triangle/staff). Others have questioned why there appear to be at times one or three or even four mooring posts (Lull & Belmonte 2006: 381; Relke & Ernest 2003: 71). The answer I found is that a third or fourth post (other than the crocodile and knife) is an indicator as to where the solstice or equinox is located at a certain point. In Figure 20, the red line is the solstice line that runs from the pole of the ecliptic in the heart of the Hippopotamus (in the Dendera Zodiac, the pole of the ecliptic is also at the heart of Draco) to the heart of the lion/crocodile, who, again, is Cancer, the summer solstice. See Figure 21.

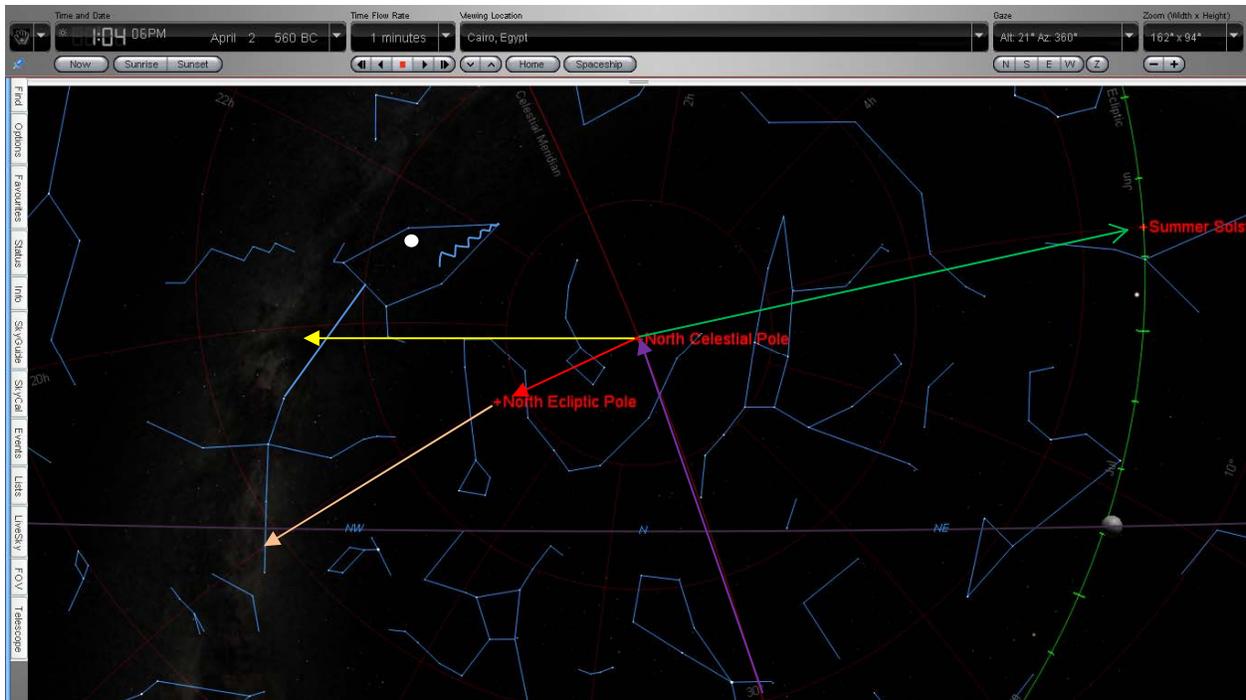


Figure 21. Positions of constellations and north celestial pole at the time of Pendamenope.

In Figure 20, note that a star designates the pole of the ecliptic and that an angle of 27 degrees runs parallel down the hippopotamus's arm. The tan line is the position of the winter solstice as it descends down from the pole of the ecliptic, the crocodile, to below the tail of the hippopotamus (the bottom of Cygnus). This line is just meant to show the position of the solstice relative to the Hippopotamus, and does not indicate the angle. The yellow line is the height of the North Pole relative to the chest/shoulder of the Hippopotamus (it is just below Cepheus, the head of the hippopotamus). The green line is the position of the summer solstice relative to Cancer (just above it). The purple line is the fall equinox, perpendicular to the bull and the red/green solstice line. By comparing the star chart in Figure 20 to the actual constellations in Figure 21, one can see clearly the identity of these four mooring posts.

Another star chart in which the angle can be checked is the celestial diagram of Ramses VI, D, who is dated to around 1136 BCE (Shaw 2002: 481); thus the angle between the two poles should be approximately 18.94 degrees. See Figure 22.

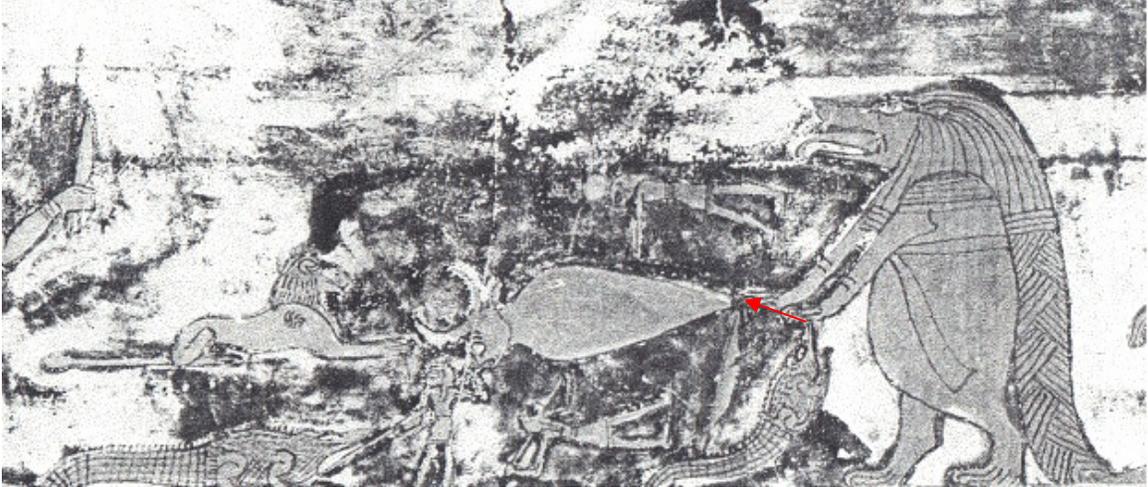


Figure 22. Ramses VI, D. 1136 BCE = 18.94 degrees. Angle is approximately 19 degrees.

Another star in which it is fairly easy to see the angle of the two poles is in the round zodiac of Dendera, which has been dated to around 50 BCE. See Figure 23.

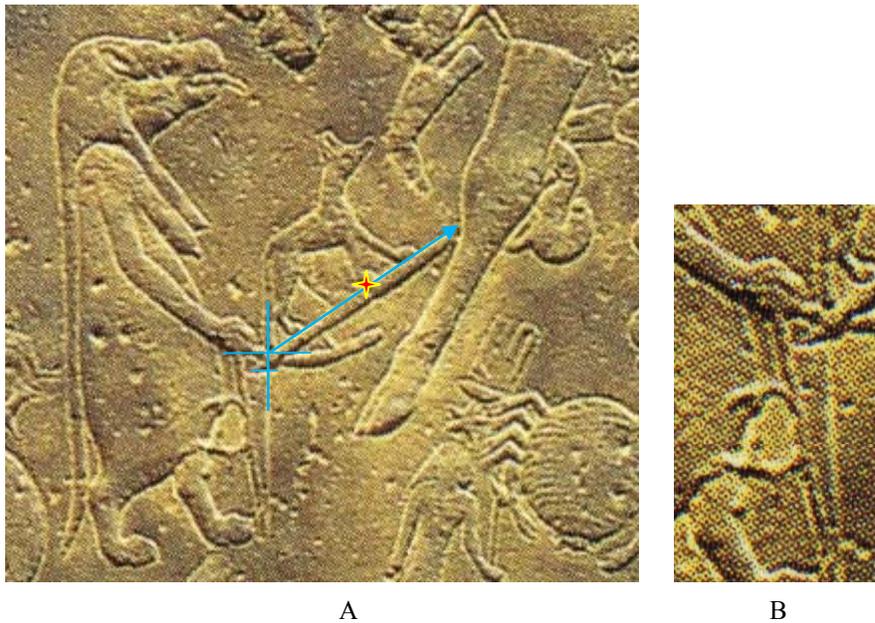


Figure 23. Dendera Zodiac. **A.** 50 BCE = 34.02 degrees between the poles. Angle found is 34 degrees. **B.** Close-up of knife and claws at groin of hippopotamus.

Note that in Figure 23A, the angle found between the two poles is almost exactly 34 degrees. The plow is attached to the knife, and with the tail of the dog descending down exactly

over the blade of the knife, which has a top that is horizontal, it is not hard to pinpoint the correct angle. Furthermore, the position of the north celestial pole has been noted as being in the rear front foot of the dog.

It might be interesting to point out something that escaped my notice until just recently — the scorpion claws that come out from the knife towards the Hippopotamus's groin (Figure 23B): these claws, if they are indeed claws, seem to mirror exactly the scorpion claws that grasp the testicles of the bull in the Mithra Tauroctony (as will be discussed later). As the Hippopotamus/Crocodile (female/male) is an aspect/extension of the Great Bull, these claws appear to refer to the older constellation of Scorpio that was the old fall equinox at the time when the vernal equinox was in Taurus the Bull (see Pellar 2009, for a discussion of this, as well as this zodiac showing a clear marker that refers back to the start of the age of Taurus and of the Egyptian First Time). This makes sense in that Scorpio, the fall equinox, with its penetrating/fatal stinger, and the knife, are both an iteration of the spear of Anu, which is the fall equinox.

Another star chart with several mooring posts is the Ramses II celestial diagram. See Figure 24.

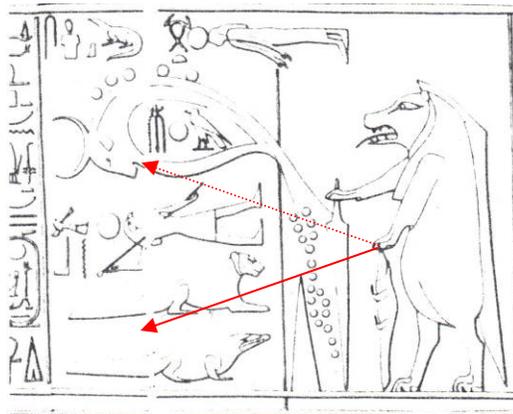


Figure 24. Ramses II sky chart. 1213 BCE = angle of 17.87.

In Figure 24, notice how the third mooring post, the small triangle, seems to give the angle from the pole of the ecliptic, the small crocodile (winter), to the summer solstice in the heart of the lion/crocodile (similar to Pedamenope. Dashed line shows it to the tip of the spear/n. pole). Note how a line passes into the lion/crocodile (as Leo, around the star Regulus) as a

composite of a crocodile (seen in Senenmut) as the new summer solstice in Cancer. The angle turns out to be approximately 18 degrees. The fourth mooring post is the long vertical line that emanates up from the center of the diagram to the hands of the goddess. This line symbolizes the fall equinox, as it runs up and cuts the bull in two and then passes up into the figure of a goddess at her womb level. The role of this goddess is not very clear. Clagett, Relke and Ernest, and others identify her as Serqet/Selkis, the scorpion goddess, as she typically has a scorpion on her head, but there is no scorpion tail/stinger in the figure next to the sun on her head. Interestingly, when she has a sun on her head the figure has no tail (this will be discussed shortly). As the central action of the celestial diagrams appears to be the spearing of the bull by Anu, who is the fall equinox, her role as the scorpion goddess is interesting, considering that the old fall equinox (at the time of the bull/Taurus and lion/Leo, which are still central to the sky charts) was Scorpio, the scorpion. But she also might have a dual role as Virgo/Isis, the grain goddess, with her center star, Spica, as the ear of grain (*spica* means "ear of wheat"). Note that in the above diagram, her feet are just above the knife, the north celestial pole, which seems to be a clue as to her identity. When one looks to the fall equinox, it passes exactly at the feet of Virgo, who is hidden from view below the horizon, and on her back. Furthermore, as *Spica* indicates "seed," and it is located at her center/womb (note the star at her womb in Seti I and in Pedamenope), it seems that the sun on her head just over the back of the bull is symbolic of Ursa Minor (which is in the center of the bull that she symbolizes), which rises as the seed/Spica from the back of the center of the bull as the horizon. That this might be so is seen in the small dots just above the back of the bull on the vernal equinoctial side, which symbolizes the spring harvest, the birth of Horus as the sun/grain. The sun is on her head with the symbol of Capricorn next to it (again, this is not a scorpion as there is no obvious stinger on the tail; see Pellar 2009, for a more detailed identification. Furthermore, when there is no sun on her head, as in the celestial diagram of Rameses VI, KV9, the figure is clearly a scorpion with a tail). Along with the symbolism of the sun on her head as Ursa Minor as the winter seed/calf/sun in her womb/earth (Ursa Minor is forever within the winter solstice circle that the celestial pole makes around the pole of the ecliptic), the position of Capricorn to the rear of the small crocodile as Cancer shows a winter (rear of north celestial pole) to a summer (front of north celestial pole) positioning. (Senenmut

and Pedamenope show her in the same way, but with her feet extending back, parallel to the elongated bull, to the pole of the ecliptic; see Figure 19.)

As this goddess is often shown above the bull, or parallel to it, there seems to be a suggestion that she is a manifestation of it (thus, the spear of Anu as fall and her role as the scorpion goddess as fall). That this might be the case is seen in Seti I, with the tail of Leo with a star over it forming a line that passes up through a directional indicator in the hand of a god and then into the shoulder of the goddess. This line, curiously, marks the old summer solstice point in the head of Virgo at the Egyptian First Time, *zep tepi*, in the year 4320 BCE (when the vernal equinox was in the Gemini Gate; see Pellar 2009). Furthermore, in Senenmut, the spear of Anu passes through the bull and into her head at her mouth, which, again, suggests a connection to both Virgo (as the old solstice point in Virgo from 6480 BCE to 4320 BCE) and Nut, who, as the sky goddess, swallows the sun in the west. Similarly, it suggests a connection to the "Opening of the Mouth Ceremony," which I will discuss in a bit more detail later.

Looking at this spear passing through the goddess a bit more closely in the Senenmut diagram, one can see that when the northern and southern skies are viewed as a whole, the line from the spear of Anu does not stop at the goddess, but rather continues on to an important point on the southern ceiling. This is why the image of the bull is placed so high in the diagram, and why, as Pogo noted, one must look north to actually view the south panel (as the two are meant to read symbolically as being one unit, in the Primal Pattern, i.e., the equinox/solstice points and constellations on the ecliptic being merely an extension of the same astro-stellar processes in the circumpolar region). Fascinatingly, this line, in a mirror image and a continuation of the cutting of the "center" of the bull by the spear in the northern sky, also cuts the exact "center" of a hidden, and until now, completely unknown image of a large bull (just as the triangular mooring posts in both Senenmut and Rameses point to the center). See Figure 25.

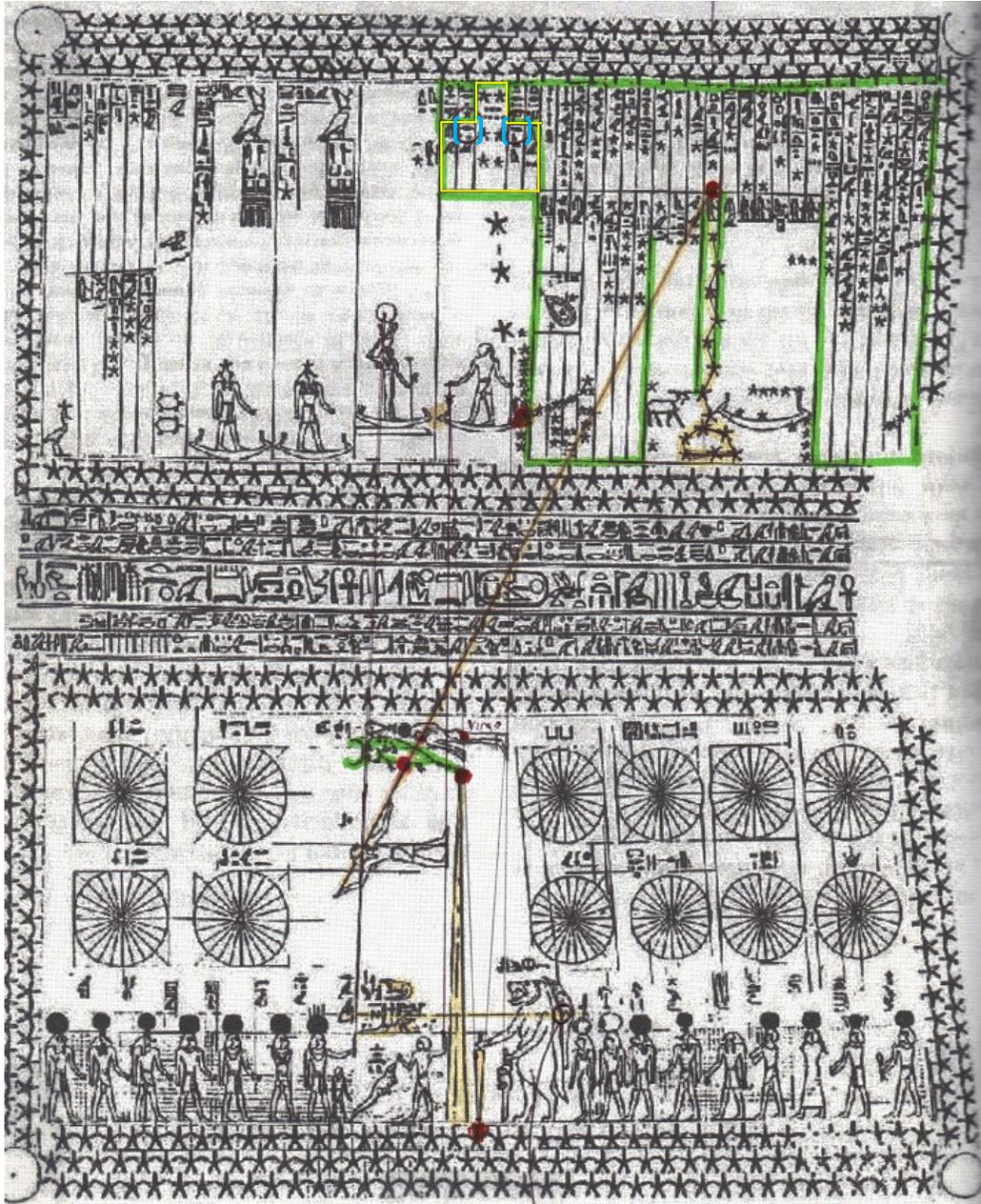


Figure 25. Senenmut celestial diagram. North and south ceiling. Note spear of Anu as it passes up to a point in the south ceiling, hitting the center of a large hidden bull, the eyes of which I circled in blue. The head of the bull is the constellation Gemini, which I highlighted in yellow.

In Figure 25, at the top, I circled the eyes of the bull in blue. These two eyes, though hard to see in the above diagram, are actually there, in the head of the bull, which is made up of the constellation Gemini (highlighted in yellow), in the shape of a candle, its flame emanating down

towards Sa in his boat. This same shape of Gemini is seen in both the Seti I candles, as mentioned previously. This image of the bull reflects the name of Horus seen in the column denoting Saturn just to the right of the two turtles: "Horus bull of the sky," which, once again, is merely the southern extension of Horus as Ursa Minor, the little bull/calf/son/sun in the northern sky.

In Figure 25, note the candle and flame of Gemini arching downwards towards Sah/Orion, who stands in his boat next to Sopdet/Sirius, with the sun on her head. The center of the flame, the three stars above Sah/Orion, is actually the gate to the Duat, where all the points join (see Pellar 2009). Note the same downward candle and flame, whose tip points to the key position of the north celestial pole in the celestial diagram of Ramses II (Figure 24), which again, marks the opening of the goddess as the gate/horizon. Thus, note the key placement of Gemini as the head of the bull/goddess in the southern sky, which parallels the exact orientation and pairing of the bull/goddess on the northern wall. Also, note that the flame emanating down from the head resembles the traditional beard placed on a god in Egypt.

Other constellations of the zodiac are clearly seen sheltered beneath her body as well. As explained in my paper "On the Origins of the Alphabet," these constellations from Senenmut are, starting from the back of the bull (the viewer's right), Aquarius (the boat), then Pisces, which emanates upward, joining the center of the bull, and then Aries, the Ram, which was the vernal equinox at the time. Then comes the back half of Taurus with the seven stars of the Pleiades (this back half of Taurus, as noted in my paper on the astro-alphabet, is in the form of the letter *beth*; see Pellar 2009). Thus, a continuum from Aquarius to Gemini is shown, which mirrors the alphabet loop. Also, note that there are 22 columns that make up the main body of the bull, as the upper neck column has no stars in it (a horizontal line divides/denotes the upper torso of the bull from column 7 on). The number of the nomes in Egypt is 22, the number of letters of the Phoenician alphabet, and a key number in the proportion pi (22/7) (see Pellar 2009 for further details). But more importantly, note that this image in the southern sky together with its counterpart image of the northern sky shows the Primal Pattern. This might explain why Taurus is only half a bull (its back half), as the northern constellation of the bull is shown getting cut into two. Thus, the two images are really meant to be seen together, exactly as the composite

Primal Pattern image of Seti I, in which the viewer is looking south, thus seeing both bulls as one in the northern and southern sky. The star group Pleiades, which is at the tail of Taurus, would be exactly at its zenith on the meridian in the Primal Pattern, and it is interesting to note that the spear of Anu in the celestial diagram of Senenmut passes exactly through the seven stars of the Pleiades as it forms a line that joins the northern sky and the southern sky.

But more important still, the reason the bull is shown being cut in half, with the fall equinox running up to the center of the goddess in the north ceiling, and the spear of Anu (the same fall point/spear) running up to the center of the bull/goddess on the south wall, is that this is a symbol of the north celestial pole moving up and through the Great Bull in the northern sky via the precession, thus cutting it in two (see Part Two, Discussion section, for an extended discussion of the *axis mundi* at the center of divinity as vessel). This is why the later images of Taurus and the Dendera Zodiac show only half a bull or a partial bull. Furthermore, the image of Nut on the ceiling next to the circular zodiac of Dendera has the vernal equinox in line with her center, as depicted at her groin, as well (see Figure 26).

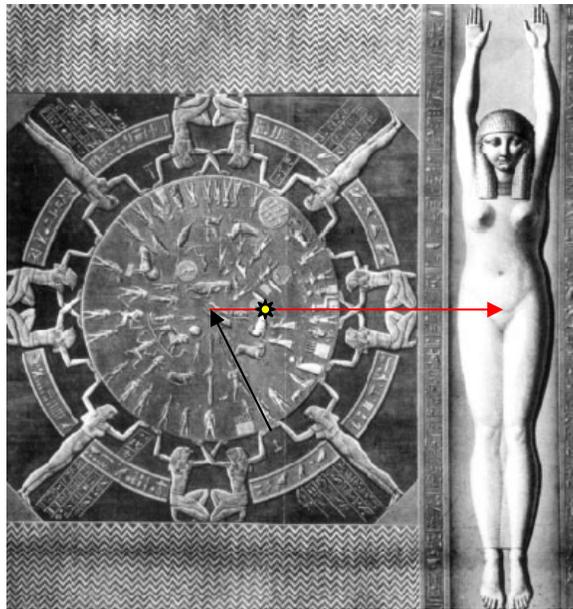


Figure 26. Round zodiac of Dendera. Though not an accurate depiction of the actual placement of the constellations, note how the vernal equinox (yellow sun on red line between Aries and Pisces) is exactly in line with the groin/center of Nut. See Pellar 2009 for an accurate depiction of the vernal equinox, angle markers, and gate of the goddess.

Another image of the fall equinox running up to an image of Nut as the sky, splitting her exactly in half, can be seen in the celestial diagram in Figure 27.

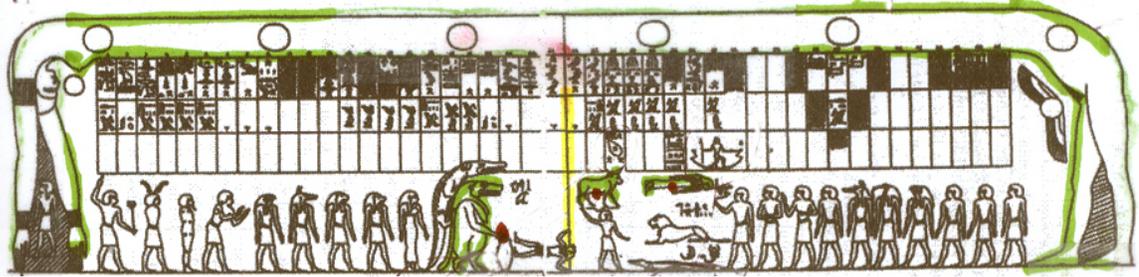


Figure 27. Nut as the sky being divided by the fall equinox at her navel. Note the correct orientation of the northern constellations, as the Hippopotamus looks to the right. Tomb of Ramses VII.

In Figure 27, note that Anu is pointing his spear (fall equinox) up at the center of Nut, instead of at the center of the bull. This implies that the figure of Nut, as the sky, is a manifestation of the bull-as-the-goddess. Why this is so will be discussed in more detail later. But for now we can note that this spear of Anu performs two functions: first, it opens up the goddess-as-the-horizon/vessel to let in the sun as the seed/son at the fall sowing season. And second, as its tip is the north celestial pole, and the exact same point at which both equinoxes meet, it also opens up the goddess-as-the-vessel at the vernal equinox or spring harvest to release the sun as the seed. Thus, the center of the goddess is the back of the bull that releases Ursa Minor from the double horizon. Or to put it another way, even though Nut swallows the sun in the west (again, note the spear of Anu passing through the mouth of the goddess on the north wall in the tomb of Senenmut), and she gives birth to it in the east, there is physically only one opening into and out of the womb of the goddess — her groin. As discussed in my earlier paper on the astro-alphabet (see Pellar 2009), this gate, with its double doors, the double horizon, is located between Taurus and Gemini in the center of the Milky Way on the ecliptic. It is in the flame of Gemini, which Orion's hand reaches up and into. Note the position of Sah/Orion in Figure 21, as he is positioned in the Milky Way between Gemini (the head of the bull) and the body of Taurus. Again, this is the old vernal equinox point from 4320 BCE, the place in the center of the Milky Way (another reference to the center of Nut) from which Santillana said that

the ancients believed the sun was born. As it was the vernal equinoctial point, it was the place where the sun indeed rose above the celestial horizon. It was the birth of the seed at the harvest. As mentioned briefly before, one can look to the celestial diagram of Ramses II in Figure 24 and rotate it 90 degrees clockwise (if reversing it for its true orientation, one rotates it counterclockwise), and you'll see the bull rising up as wheat from the horizon. The dots/stars on its back as the horizon, on the vernal equinox side, are seeds ready for the harvest.

Thus, the vernal equinox was the gateway through which souls were born and where they entered the womb of the goddess-as-the-horizon. The Gemini gateway was the gateway to heaven (Duat), and, thus, it is no surprise to see that the candle glyph in the Egyptian hieroglyphics represents such words as "the great door of heaven," "the great gate," "the door of sunrise, the last door of the Duat," etc. (see Figures 9 and 10 in my paper "On the Origins of the Alphabet," Pellar 2009). In brief, I describe the Gemini flame as the gateway into the womb of the goddess. It is also the gateway into the underworld or Duat. For instance, in the final image of the twelfth hour in the Book of Gates, the entire cosmos is represented with an image of the Gemini candle cleverly concealed as the lower material world (body/vessel of the candle) rising from the waters of Nun, with the gateway into the underworld or Duat as the upper flame. In Figure 28, note the clever concealment of Osiris as the flame/gateway itself, with the sun also shown in front of the barque below the point at which the ecliptic would pass through it and Osiris.

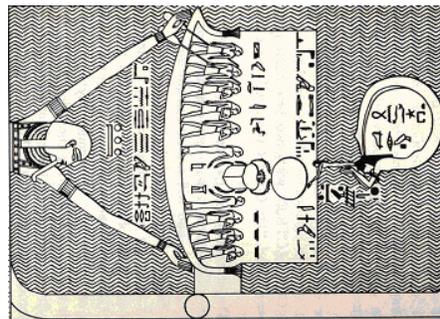


Figure 28. Gemini candle as entrance to Duat (image rotated 90 degrees).

The outline of Gemini as a candle also forms the blueprint for most Egyptian temples (as well as tombs and doorways), as the flame symbolizes the new sun rising up from between the

two pylons/doors as the gateway at the horizon. This is discussed, with images, in my earlier essay (Pellar 2009).

It should also be pointed out that this gate/area is the point at which the two loops of the alphabet meet, and it is the location of pi (22 letters in a circle that are divided and joined at letter seven, *zayin*, at Gemini, equals 3.14, the value of pi. Also, note that seven columns back from the twenty-second column at the neck of the bull in the south ceiling in the tomb of Senenmut marks the vernal equinox, Aries, as designated by the ram. As the vernal equinox divides the circle of the zodiac exactly at its center, this is most likely not a coincidence. This is another link to, and evidence in support of, the idea that the twenty-two-letter Phoenician alphabet is a function of the zodiac. Furthermore, the figure of Pisces has seven stars that rise up from the ram to join the exact center of the bull, which meets the equinoctial point emanating up from the spear of Anu on the northern ceiling).

Relke and Ernest give a detailed explanation of the link between the "opening of the mouth ceremony" when the pharaoh dies, and the bull's foreleg as Ursa Major in the shape of the adze in a specific orientation in the sky — an orientation that places the Gemini Gate exactly in the west where the deceased pharaoh's soul will enter and begin its journey to the east to rise again (Relke & Ernest 2003: 74). That is, when the Great Bull is turned counter clockwise, with both Anu and the small boy being parallel with the horizon, Ursa Minor forms the shape of the highly ritualistic adze, the "sacred position" as it was called, which is used to open the mouth of the deceased pharaoh. It is in this rotated position, with Anu and the boy standing parallel with the horizon, that one will observe that the fall equinox is at the eastern horizon, and the vernal equinox is at the western horizon. When Relke and Ernest link the opening-of-the-mouth ceremony with the deceased pharaoh's *ka*, his "soul" or "spirit," which is also the word for "bull" (Relke & Ernest 2003: 68) (and indeed its shape resembles that of bull's horns), they note that when Ursa Major, the bull's foreleg, Meskhetiu, is parallel with the horizon (with its handle pointing east), then it is the planting season, fall (Relke & Ernest 2003: 73, figures 9, 10, and 11).

Thus, the fall equinox is at the eastern horizon, and the Gemini Gate, the old vernal equinox and gateway to the Duat, the "great door of heaven," is at the western horizon. Here the pharaoh's *ka* will descend into the underworld on the bark of the sun, with the Milky Way

flowing just under the earth, ferrying the *ka* of the deceased pharaoh to the eastern horizon, where he will rise up like the sun and stars and become one with Orion/Osiris and take his place with the imperishable stars in the circumpolar region of the sky.

That Relke and Ernest's "sacred position" matches the same position that I found independently, seems to confirm that the position of the Gemini Gate at the western horizon was important and not just a coincidence. Furthermore, when Gemini is placed at the western horizon, and then compared with the Gemini bull figure on the south ceiling in Senenmut, it becomes apparent that the body of the bull is indeed the Milky Way, Nut, as it flows exactly through the horizon from west to east under the earth/horizon (the underworld), which is really the body/cave/womb of the goddess-as-bull/horizon. Also, when seen in this position, the figure of Virgo is exactly at her zenith in the southern sky, horizontal, which parallels the horizontal position of both the hippopotamus as Draco and the crocodile as Sirius. This suggests a link between Virgo and Nut, particularly as each is distinguished by a key point in their womb/centers.

Relke and Ernest also link the cutting of the bull's leg in the celestial diagrams with a spear to the Neur and Dinka cultures in Sudan, who also have a ritual in which they tie a bull up to a post (the "axis mundi, connecting heaven and earth"; Relke & Ernest 2003: 71; see also Part Two), then "spear" the bull, and cut off its foreleg to immediately consume the "spiritual force" in the still "living flesh" (Relke & Ernest 2003: 70).

Thus, looking back at the star charts discussed above, it becomes clear, based on all the evidence, including some elements of that of the Neur and Dinka cultures, that the spear of Anu is the north celestial pole, the *axis mundi*, cutting up and through the body of the goddess-as-the-horizon, opening her through her one gate of heaven/Duat that leads into her womb, thus allowing for the entry of the sun as seed, symbolized by the west and fall, and the exit of the sun as seed, symbolized by the east and the spring harvest, the ingestion of the "spiritual force" inherent within the flesh/body of the goddess-as-the-vessel-of-light/spirit. But it is really only one gate, one horizon, a difficult concept for the mind to grasp. Thus, the multiple points of the north celestial pole in the Seti celestial diagram, as well as the androgynous and monistic nature of the figures, are ultimately manifestations of a deeper being that is "within" (a key concept of most mystery/mystic cults).

And as the spear of Anu was seen to be cutting into the bull, effectively splitting it in half, as seen in the above images (and in the later Dendera Zodiac), this implies that the ancient Egyptians surely understood the action of the precession and the fact that the north celestial pole would eventually leave the bull. That this is so, particularly the latter aspect, will be expanded upon later in the Discussion section in Part Two. But now I would like to turn to Rome and show how the Roman tauroctony of Mithras and the bull has a structure almost identical to the Egyptian celestial diagrams.

Rome: Second to Third Century CE

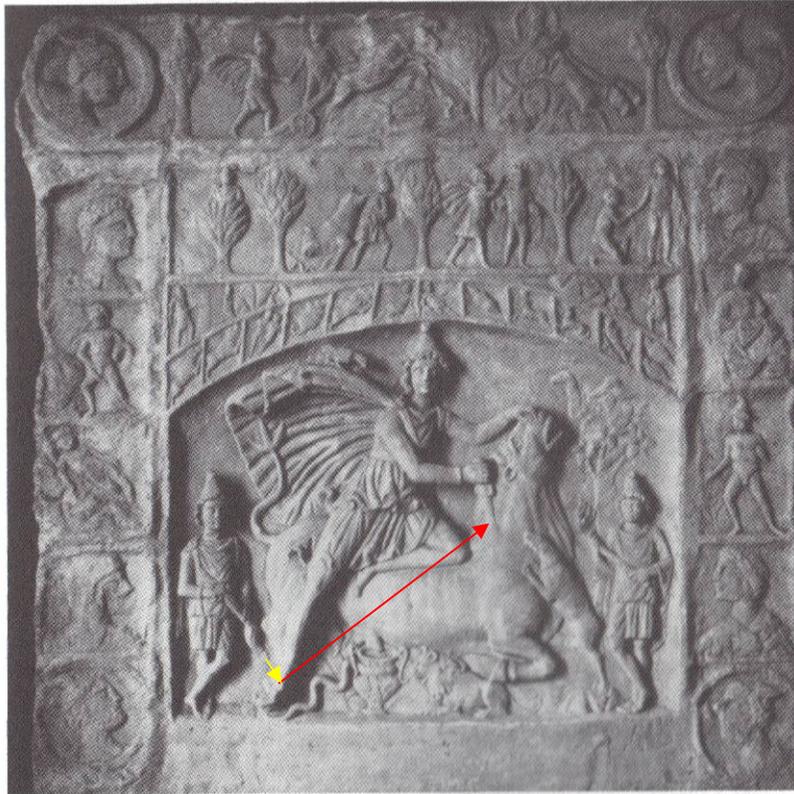


Figure 29. Tauroctony (CIMRM 1083). Angle between foot and knife is approximately 37 degrees, which is the approximate angle between the pole of the ecliptic and the north pole in second–third century CE (Ulansey 1991: 17).

The tauroctony of Mithras is usually found in Mithraic temples below ground, with a slight majority oriented north — that is, “In Rome, this practice of orienting the mithraeum ‘wherever physically convenient’ is particularly striking, as the mithraea seem to be oriented to all points of the compass with a slight majority favoring a northerly facing of the main cult icon” (Jonas Bjornebye 2007: 98).

Furthermore, the mithraeum cave in which Mithras stabs the bull in a scene called the tauroctonus, or “bull-slaying,” is symbolic of the cosmos:

Thus, in addition to being an "earthly," practical, as well as mythological, construction, the mithraeum *qua* cave could be not only a representation of the universe, but it could become the actual cosmos itself, while in a sense still remaining a cave. Porphyry describes this dual referentiality of the cave in allegorical terms, but also describes the "heavenly" geography of this Mithraic cosmos and Mithras's rightful place in it:

This is why Homer has put the cave's entrances neither at east and west nor at the equinoxes, that is at Aries and Libra, but facing the south and north, indeed at the southernmost and northernmost gates, because the cave is consecrated to souls and to water nymphs, and these points are appropriate for creation (genesis) and departure (apogenesis) in relation to souls. They (i.e., Numenius and Kronius) assigned the equinoxes to Mithras as his proper seat. For this reason he carries the dagger which belongs to Ares, whose "house" is in Aries; and rides on a bull — Taurus is the "house" of Venus, [and Libra], like Taurus (is her "house"). Mithras, as maker and lord of creation, is placed on the line of the equinoxes (facing west), with the north on his right and the south on his left (Bjornebye 2007: 17–19).

Consequently, according to Manfred Clauss, "the mithraeum thus became an image of the world through which men pass in order to reach God, visible in the background.... The cosmological orientation aside, no rules of geographical orientation seem to have existed, apart from what sometimes seems to be a preference for having the entrance to the cult room in the west and the main cult icon in its apse in the east. Indeed the efforts that have been made to find any sort of system in the geographical orientation of mithraea, other than the abovementioned east–west orientation, have yielded negative results." (Bjornebye 2007: 17–19)

This slight disposition for the main cult icon to be facing north, along with Homer's north/south orientation for the cave/cosmos' entrances/gates, appears to provide a hint as to how to read the tauroctony's cosmological orientation, which is still very much open to debate. For scholars such as Beck, Insler, and, more recently, Ulansey, look to the southern sky as the proper perspective for reading the main icon of Mithras and the bull. That is, freed from Cumont's strict Persian mythological reading of Mithraism, and following the lead of Stark's more accurate astronomical rendering, they correlated the figure of the bull in the tauroctony with the constellation of Taurus in the southern sky, and the figure of Mithras, according to Ulansey, with the constellation of Perseus that is just above Taurus (see Ulansey 1989).

However, this southern orientation of the tauroctony is problematic. Aside from the fact that the bull, if Taurus, is facing the wrong direction in the tauroctony (if one is looking south to the ecliptic), the fact that the vernal equinox had left Taurus over 2000 years before the tauroctony was carved was never adequately explained.

However, in light of my work on the structure of the earlier celestial diagrams of Egypt, whose primary focus was on the spearing of a bull in the northern circumpolar region of the sky, I will present evidence that Mithras's primary position is not only located in the northern circumpolar region of sky, but that he is also an iteration of the Egyptian sun god, Anu, as seen in Egyptian celestial diagrams over 1500 years earlier.

As discussed previously, in Egypt, the hawk-headed sun god Anu was depicted in Egyptian celestial diagrams with his foot on the pole of the ecliptic (such as in the Seti I celestial diagram, where it is on the foot of the bull) and with his spear symbolizing the fall equinox. The tip of that spear was the north celestial pole within the constellation of the Great Bull. In addition, the direction that the two candle flames point in the celestial diagram of Seti I show the direction that the sun moves across the sky from east to west. This exact same pattern is seen in the tauroctony of the sun god Mithras, who is shown stabbing a bull with a knife (spear of Anu as fall equinox, whose tip is the north celestial pole) and whose foot is on the leg of the bull (foot of Anu on bull's leg as pole of ecliptic; more importantly, the pole of the ecliptic actually resides within the leg of the Great Bull).

That the tauroctony would be in the northern circumpolar region instead of the south as others (among them, Ulansey) speculate, would then explain not only the direction that the bull faces (which is opposite the direction that Taurus faces if one is looking south), but would help to explain the presence of the figure of a scorpion at the bull's testicles, the figure of a snake just below the bull with its tail starting far to the viewer's left, a figure of a lion to the right, and a figure of a dog that is always seen jumping up toward the knife wound on the bull.

These figures correspond respectively to: (1) Scorpio, which would be immediately below the testicles of the Great Bull (and which mirrors the scorpion, symbolic of the fall equinox/Scorpio as it sows/swallows the seed/sun immediately beneath the testicles of the lion/Leo in the Rameses VI celestial diagram). Furthermore, the tauroctony in Figure 34 clearly shows the figure of the scorpion at the bull's testicles in the position of Scorpio, as there is a clear zodiac circling the bull (as mentioned earlier, the scorpion claws as the fall equinox/Scorpio at the groin is also seen in the Dendera Zodiac in the knife/fall equinox of the hippopotamus. See Figure 23B.) (2) Serpens, which is also beneath the Great Bull, and which sometimes starts to the left of the outstretched leg of the Great Bull. (3) Leo, which would be to the right of the bull on the horizon. And (4) Canes Venatici, which is exactly below the bull and just to the right as depicted in tauroctony.

Furthermore, Canes Venatici are the hunting dogs of Bootes, who, as explained earlier, is the sun god/hunter Anu after whom Mithras is modeled. Thus, the dog shown at the wound is the hunting dog of Mithras. A cup is also sometimes shown, which would be the Crater, also beneath the Great Bull. (See Figure 30.)

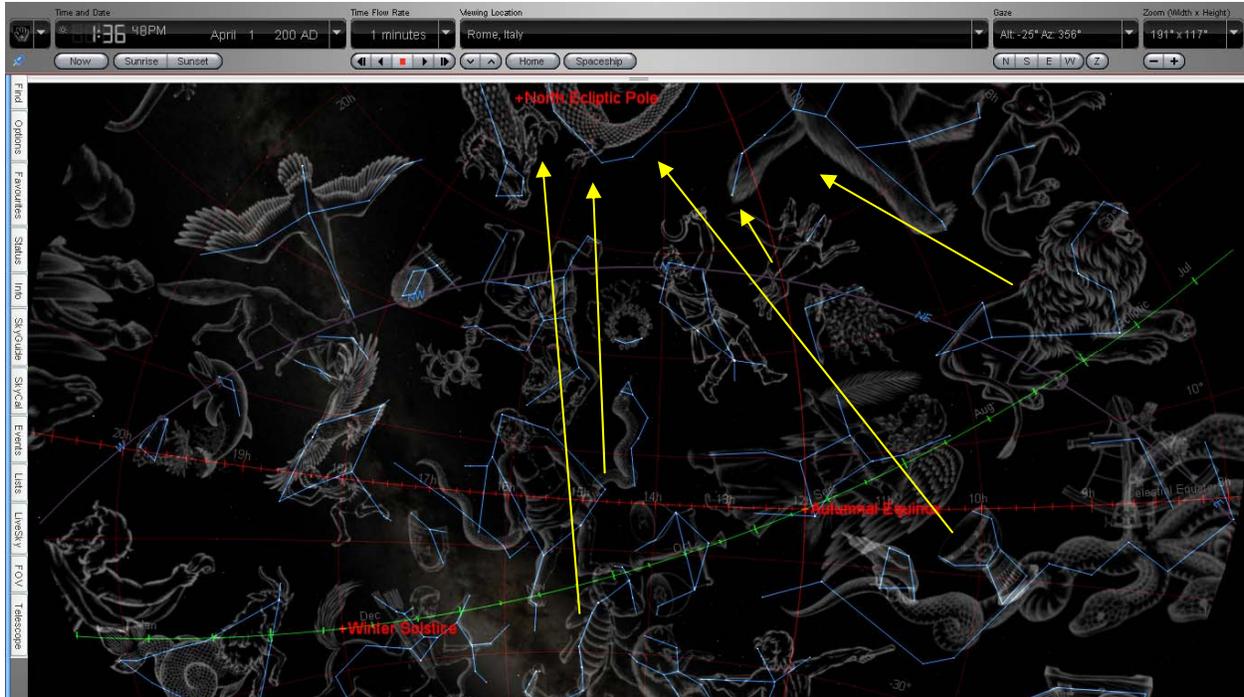


Figure 30. Constellations beneath the figure of the Great Bull (Draco/Ursa Major). Yellow lines mark the constellations found in the tauroctony (from left to right): Scorpio, Serpens, Crater, Canes Venatici, and Leo (image from Starry Night Pro, 200 CE).

In Figure 30, note that Scorpio, on the green ecliptic at the bottom of the picture (first yellow line to the left), is exactly beneath the rear of the Great Bull (beneath the pole of the ecliptic). Just above Scorpio is Serpens Caput, the snake. Note Bootes in the center of the picture with his spear and hunting dogs, which are shown leaping up beneath the head of the Great Bull (Ursa Major). Note Crater beneath Virgo. And lastly, note Leo to the right on the ecliptic.

Going back to Figure 29, we observe that the foot of Mithras rests on the back leg of the bull and that his knife is stabbing the shoulder of the bull — not the neck (where one would expect to stab if attempting a fatal wound; this will be discussed in more detail later). The knife wound to the shoulder is done literally, not symbolically, as that is where the north celestial pole resides relative to the body of the Great Bull at that point in time. Furthermore, the placement of the rear leg of Mithras on the bull's leg, his body on the bull's back, and the knife at the bull's shoulder all point to Mithras symbolizing Ursa Minor just above the constellation of the Great Bull in the circumpolar sky.

Note that in the celestial diagram of Seti I, the foot of Anu rests on the bull's leg, which, as stated earlier, is the location of the pole of the ecliptic. Thus, if Mithras's foot is an extension of Anu's, and symbolizes the pole of the ecliptic, then it would be easy to measure the angle between Mithras/bull's foot and the knife. This angle should approximate the angle between the pole of the ecliptic and the north celestial pole around the same time that the tauroctony was made (note: though there might be some tauroctonies that were not made with this angle in mind, many appear to be quite deliberate in using it. As will be seen shortly, the Walbrook tauroctony in Figure 35, with its clear circular/zodiac layout and conspicuous point at Scorpio that leads to the knife of Mithra, is akin to the deliberate angle of the raised plow in the Dendera Zodiac). And as can be seen in following figures, the angles do indeed match. For instance, the tauroctony seen in Figure 29 (CIMRM 1083) has an angle of approximately 37 degrees, and when one looks to the angle between the two poles in approximately the second half of the first century CE/first half of the second century CE, the angle is approximately 37–38 degrees as well. Figure 31 shows a 37.5 degree angle from the pole of the ecliptic to the north celestial pole, with a base line of 2500 BCE, as seen earlier in the Egyptian section. This gives a date of approximately 200 CE.

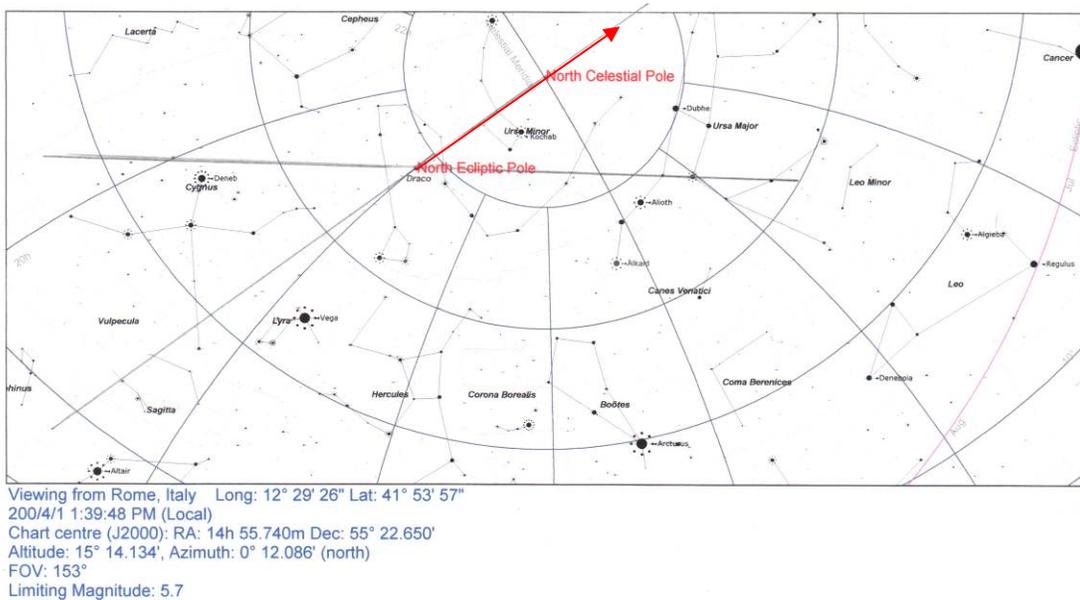


Figure 31. With the Great Bull parallel to the horizon, the angle between the pole of the ecliptic and the north celestial pole was approximately 37.5 degrees in 200 CE (graph by author; Starry Night Pro).

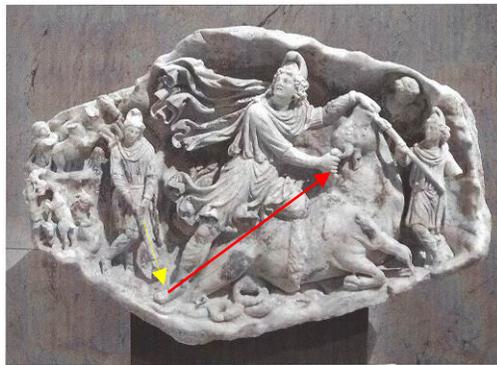


Figure 32. Tauroctony (Aquileia). Late second century CE. Angle from foot to knife is roughly 37 degrees.

In Figure 32, in the Aquileia tauroctony, note that the angle from foot to knife is roughly 37 degrees (hard to gauge in a relief displayed at a slight angle). This matches the angle of the north celestial pole, which was approximately 37 degrees from the pole of the ecliptic.

Given the high position of the celestial north pole relative to the body of the Great Bull, the cult of Mithras needed to account for the north celestial pole being so high up from the

shoulder of the bull. It appears that the makers solved this by doing two things. First, they either ignored the fact that the pole had moved so high above the shoulder of the bull, thus keeping the angle between the foot and the blade of the knife, but allowing the image to be purely symbolic. Or two, they made the angle between the foot and the hand of Mithras (like the hippopotamus's hand in the Egyptian celestial diagrams), not the blade, thereby symbolizing the hand as the cutting/turning power, and then used a long knife/sword that ran down to the shoulder blade of the constellation of the Great Bull. See Figures 33 and 34.



Figure 33. Tauroctony CIMRM 641. 36.5 degree angle from the foot to Mithras's hand.



Figure 34. Tauroctony from the second to third century, which implies an angle of approximately 36 to 37 degrees.

In Figure 33, note the approximately 36.5 degree angle from the foot to Mithras's hand, which would place this tauroctony approximately in the late second century CE. This angle could also run from between the two feet, as opposed to just the foot of Mithras. But more importantly, note that the long sword, as a function of the high placement of the north celestial pole, keeps the Great Bull in its normal position.

The angle in Figure 34, however, is a bit difficult to gauge, as the figure is a carving. But the angle of 36 to 37 degrees is still a good approximation of the angle between the two poles and places the figure in the second to third century CE. However, in Figure 34, note the direction that the bull faces (to the viewer's right), which is the correct orientation if one is looking north, and then note that Taurus is at its zenith and its direction is facing the opposite way. This, once again, shows the Primal Pattern.

Though the tauroctony certainly derives many of its features from the older Egyptian celestial diagrams, there is one key aspect that deals with the seasons that is not so much a structural difference as it is merely a choice of focus. Whereas spring was the harvest in Egypt and a main focus of the celestial diagrams, fall was the harvest in Europe and, thus, the main

focus of the tauroctony. In the Egyptian celestial diagrams, Anu was seen under the bull and was secondary to the figure of Aries, who was the spring zodiacal counterpart, or rather extension, of Ursa Minor, the calf/son/sun/seed of the spring harvest, rising from within the Great Bull as the horizon. However, with the focus on fall, Mithras, as the counterpart to Anu, is made the primary focus and shown as Ursa Minor, the sun, on the back of the constellation of the Great Bull as the horizon, cutting up the bull with a knife just as Anu does with his spear at the fall harvest of the seed (the linking of grain to the bull is seen in many tauroctonies, with grain either flowing out of the wound (tauroctony CIMRM 593) or tail of the bull, as seen in Figures 29, 33, and 37).

Thus, Mithras, with his sword of Aries — like Anu with his spear, and Utu with his knife — is the mature sun god that cuts open the goddess/bull as the celestial/terrestrial horizon at the equinox (the halfway point along the horizon and the point at which the sun descends below the celestial equator if it is the fall equinox, or ascends above it if it is the spring equinox). If Mithras appears with a half circle above him that contains the zodiac (a primary perspective on several tauroctonies, such as the one seen in Figure 29), his head is usually in the center just beneath the fall equinox (that is, between Virgo and Libra, which was the fall equinox at that time). The placement of Mithras's head at the fall equinox at the zenith of the arc is a further indicator of the significance of fall as the harvest and another strong link to Anu. However, Mithras can also be seen at the center of a circular zodiac and as the sun at the center of the horizon (See Figure 35).

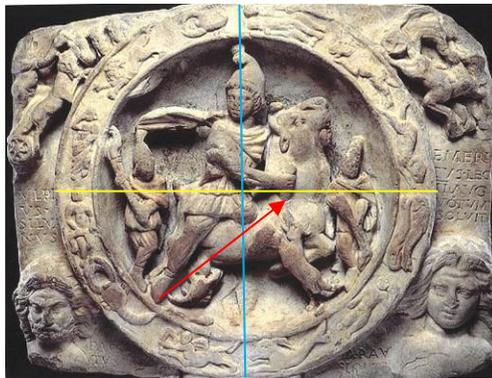


Figure 35. Tauroctony. CIMRM 810 (Walbrook Mithraeum) 250 CE. Foot to knife is approximately at a 38-degree angle. Note conspicuous marker of two feet and two scorpion tails/stings on the circle of the zodiac at Scorpio, the old fall equinox.

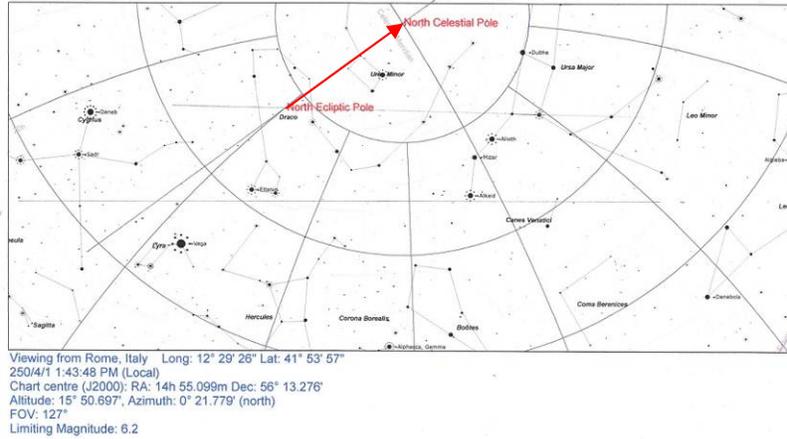


Figure 36. The angle of the north celestial pole to the pole of the ecliptic in 250 CE, with the constellation of the Great Bull horizontal to the horizon, is approximately 38.19 degrees.

In Figure 35, note that the two human feet and two scorpion tails/stingers mark a key point on the zodiac. Thus, a foot and two tails/stingers clearly point to the foot of Mithras on the circle of the zodiac at Scorpio (the old fall equinox). This clearly labeled point leads the eye up to the central action of the knife at the bull's neck (the action of the scorpion sting into the circle/vessel of the zodiac at the foot of Mithra parallels the knife of Mithra cutting into the bull, which in turn parallels the fall equinox/spear of Anu cutting/entering into the bull, as well as the knife of the hippopotamus in the Dendera Zodiac with its scorpion claws, also symbolizing the old fall equinox), bringing to light a clear angle of approximately 38 degrees (the approximate angle of the two poles at the time).

Also note that the back of the bull is equivalent to the celestial horizon, which is the yellow line. That is, on the viewer's left is the fall equinox (between Virgo and Libra), and on the viewer's right is the spring equinox (between Aries and Pisces). This horizontal halfway point on the horizon coincides with the dagger of Mithras entering the bull. It also marks the back of the bull-as-the-horizon (both celestial and terrestrial; see Figure 37, the *Zeni tauroctony*, for an example of the back of the bull mirroring exactly the double hills of the horizon behind him). That is, the sun descends below the celestial horizon at the fall equinox and goes to its lowest point, the winter solstice (between Capricorn and Sagittarius), which is exactly beneath the bull

at the circle's nadir. Just opposite this is the summer solstice, the highest point, the zenith (between Cancer and Gemini). The blue line in Figure 35 marks the solstices.

As the terrestrial horizon, the bull is none other than the earth, the goddess-as-the-vessel, that releases the sun, Mithras (who is on the bull's back in the position of Ursa Minor) (note this same image of a young god on top of the back of a bull is an old image that, as will be discussed later in Part Two, goes back to the Neolithic at Catalhoyuk). The knife opens the bull to release the sun/seed-as-Ursa Minor in the same fashion as the knife of the sun god Utu cuts opens the horizon to release himself, and the spear of Anu opens the bull-as-horizon to release Ursa Minor-as-the-sun. It is, in a sense, the sun god releasing himself from within the womb/vessel of the goddess in an act, like many creation myths of self-creation/self-sacrifice such as Odin, Attis, and Christ on the tree-as-World Axis (this will be discussed in more detail in Part Two). This is an old theme, going back to Catalhoyuk and the arrow released by the hunter that opens the womb of the goddess-as-the-bull/horizon.

Mithras is, exactly as Ulansey states, the *kosmokrater* (ruler of the cosmos) (Ulansey 1991:95), the god with the power to control and turn the heavens, which implies, as Ulansey argues, the power to precess the equinoctial and solstitial points and lift the north celestial pole (which I argue is actually his knife). However, his chief position, rather than being situated as Perseus along the zodiac in the southern sky as Ulansey contends, is rather, like the high gods of the Egyptians and Chinese, at the north celestial pole.

Another bit of evidence that Mithras is really centered at the north celestial pole can be seen in his pulling the bull's head and neck backwards with his left hand, counterclockwise, which is exactly the way the heavens turn when one faces north. His right hand with the knife moves in the opposite direction, clockwise, which mirrors the direction that the sun moves through the constellations.

This movement of the sun and the sky can differ in some tauroctonies. However, I noticed that the variance in direction is really a function of the position of the torches of the two torch bearers, Cautes and Cautopates. If the torchbearer, Cautes, is on the viewer's left (see Figure 34), with the torch up, then the sky turns clockwise and the sun moves through the zodiac counterclockwise, with Taurus the bull, if shown, always facing the rising torch. If Cautes is on

the viewer's right, then the opposite holds true (see Figures 29, 32, and 37). For instance, in Figure 29, note how Caute's raised torch is on the right, implying that the sun is rising on the right (east), counterclockwise. That this is so can be checked by the zodiac above the head of Mithras, which shows the direction of the sun moving through the houses of the zodiac clockwise, an opposite movement, with Taurus facing the raised torch. Figure 35 shows just the opposite, giving support to the underlying structure of the tauroctony.

As the direction of the torches and the direction of the figures of the zodiac clearly indicate that the viewer is looking north at the Great Bull, one rather peculiar anomaly is the presence at the top corners of the rising and setting sun that shows a southern position. This detail is clearly why the true nature of the tauroctony has not been discovered till now, as it indicates the bull is also to be viewed in the southern sky. As pointed out earlier, the bull faces the wrong direction to be Taurus. However, like the earlier Egyptian celestial diagrams, the tauroctony is meant to include both the northern and southern skies. Thus, the southern view of the sun rising and setting is always on the top of the tauroctony and usually above and outside of the cave with the bull, which indicates that the cave/underworld is symbolic, as in Egyptian mythology, of the northern circumpolar region.

Another interesting feature concerning the double torches in the tauroctonies, which shows that they are tied to the older Egyptian celestial diagrams (or an even older common source), is seen in the tauroctony of Zeni. See Figure 37.

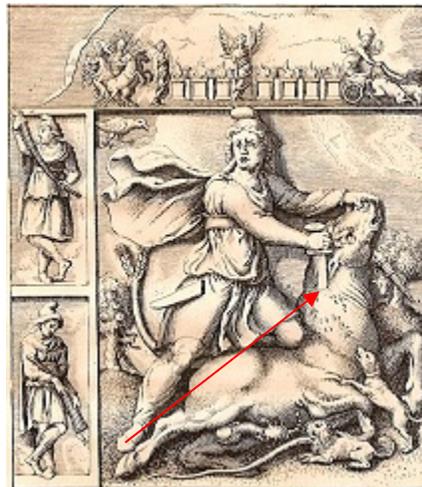


Figure 37. Tauroctony of Zeni.

First, note that the angle from the foot to the knife wound is approximately 38 degrees, which would place this tauroctony in the late third century CE. However, the snake, *Serpens*, is not quite level, so the angle could be less; this might be deliberate, as the pole was quite high at this point (note the high extended neck and long knife). Second, note that there is an apple tree on a low hill to the viewer's left. Others have pointed out that, since a scorpion is in the tree and there are also apples in the tree, this must represent the fall equinox (Ulansey 1991: 64). Ulansey mentions that since the sun descends below the celestial horizon at the fall equinox, then this is what the downturned torch represents. Similarly, on the opposite hill, which is considerably higher, the upturned torch with a bull's head on the tree must represent the old spring equinox, thus the sun rises above the celestial equator (Ulansey 1991: 64–65).

However, the problem with this approach, other than the obvious one presented by the opposite direction of the sun's rotation as it rises each day and as it moves through the zodiac, as pointed out above (that is, confusing the direction that the torches point — the sun's movement from east to west — with the vertical placement of those torches on a high hill or low hill, which is the movement either above or below the celestial equator at spring or fall), is this: why would the Mithraists show Scorpio and Taurus as the spring and fall equinox when Pisces and Virgo had just become the spring and fall equinoxes at the time this tauroctony was made? That is, why would the makers choose to show a seasonal position dating from a couple of thousand years earlier? Ulansey answers that the reason was Hipparchus's discovery of the precession and the idea of the "death of the bull" (the Age of Taurus) as spring moved into Aries (Ulansey 1991: 83).

I feel that there is more to it than this. As I discussed in my paper "On the Origins of the Alphabet" (Pellar 2009), Taurus and Scorpio also have a significant position on the ecliptic. They are positioned at the center of the Milky Way, the gates through which the souls ascend and descend to heaven (circumpolar regions) as related by several ancient authors, such as Porphyry; (Ulansey 1991: 61). The spot at which the Milky Way crosses the ecliptic between Taurus and Gemini is particularly symbolic, as explained in the first section of this paper, as this is the spot where not only does the hand of Orion (Osiris) touch the flame of Gemini (gate of heaven), but it is also the place where the two loops of the alphabet join at the letter *zayin* (see Pellar 2009).

That the Mithraists implied that these hills with the trees and torches were unique heavenly gates to the Milky Way (such as the celestial diagrams in Egypt showed), is seen by the framing of the scene by Cautes and Cautopates with dual torches, the twins of Gemini, which as seen earlier, was depicted as a candle/flame. Thus, it is the old equinoctial point that is being focused on, and this point on the horizon is the halfway point of the sun's motion through the year at both the terrestrial and celestial horizons. The fall and spring equinox meet at the same point on the horizon, and this point is the entry/exit of the sun above and below the celestial horizon. It is also the entry/exit point for the souls ascending to heaven and those descending to be born, as Porphyry remarks. Thus, in the same way that the celestial diagram of Seti I (Figure 2) has a Gemini candle/flame/gate at a low point on the fall equinox side (Libra/claws of Scorpio) and a Gemini candle/flame/gate at a high point on the spring equinox side (Aries), the Mithras tauroctony also uses the Gemini twins/flames to symbolize not only the direction that the sun moves from east to west, as discussed earlier and as seen in the Seti I celestial diagram, but more importantly, and also like the Egyptian skycharts, to indicate the gateway into and out of the goddess-as-the-horizon at the north celestial pole as symbolized by the tip of the knife/spear of the fall equinox.

Again, just as there is only one opening into and out of the womb of the goddess-as-horizon, there is really only one gate at one point (both equinoxes meet at this single point), and thus the double imagery along with the unique directions that the sun/souls move along the horizon (either up or down) at that specific point/gateway. That is, if the sun is moving up the horizon from winter, it is spring. Likewise, if the sun is moving down the horizon from summer, it is fall.

With this in mind, note how the tauroctony of Zeni (Figure 37) mirrors the Walbrook tauroctony (Figure 35), with the back of the bull as the celestial horizon. Fall is on the viewer's left, and spring on the viewer's right in both.

However, the sun moves through the constellations of the zodiac counterclockwise in the Walbrook tauroctony, which is opposite of the direction of the sun moving through the constellations in the Zeni tauroctony. In the Walbrook tauroctony, the torches only indicate the east to west movement of the sun. But in the Zeni tauroctony, the torches represent both the

east/west direction of the sun and the movement of the sun either above or below the celestial equator. The hill to the right of Mithras's head in the Zeni tauroctony mirrors the upper torso of the bull as the sun moves north and above the terrestrial/celestial horizon at the vernal equinox, with the lower hill to the left mirroring the lower leg of the bull and the direction that the sun moves south and below the terrestrial/celestial horizon at the fall equinox. Again, these double hills mirror the double flames of the Gemini twins/gate and echo the double horizon/double doors from ancient Egypt, simply an iteration of the goddess as the bull-as-the-horizon (as discussed earlier).

It should also be pointed out that the two trees also echo the two poles. The lower one on the left, which is close to the bull/Mithras's feet, symbolizes the pole of the ecliptic. The other tree, the higher one, by the knife of Mithras, symbolizes the north celestial pole. The torch pointing upward also gives the direction of the north celestial pole due to the precession (Mithras pulls the bull-as-the-horizon/vessel in this counterclockwise direction).

And, as mentioned previously, note that above the bull-slaying scene, and separate from it, is the rising sun on the viewer's left and the setting sun on the viewer's right (with seven fires that appear to symbolize the seven stars of Ursa Minor, the sun). Again, this is clearly opposite the direction that the sun rises below in the bull-slaying scene (usually within the cave/womb of the earth, which again, symbolizes the circumpolar region of the northern sky). Thus, as in the earlier Egyptian celestial diagrams, both a northern and a southern perspective is shown.

More specifically, in the same way that the bull in the Egyptian celestial diagrams is both the Great Bull and Taurus, with the small boy just above it being both Ursa Minor and Aries, the bull in the tauroctony is also Taurus, and Mithras is also Aries (in fact, his sword is called the "sword of Aries"). But as the celestial diagrams of Egypt are mostly looking south from behind the north celestial pole, the tauroctony is mostly a perspective looking north at the Great Bull and Mithras as Ursa Minor from behind the south pole, and/or looking north at Mithras as Aries floating over Taurus from a position *behind* them (note, there are exceptions like the Walbrook tauroctony, which has a perspective from the north looking south due to the sun rising on the viewer's left with the upturned torch and the sun moving counterclockwise through the zodiac). Thus, this tauroctony, though reversed, still shows Mithras in the northern sky (as the angle from

the pole of the ecliptic/foot to north celestial pole/knife demonstrates). Again, like the Egyptian celestial diagrams, the tauroctony shows the Primal Pattern — that is, seeing the northern constellations and southern constellations are seen at the same time, with the feet of the Great Bull parallel to the horizon and Taurus at its zenith.

Ulansey in a recent article also noted this unique perspective of Mithras as being both Helios, the regular sun, and the “hypercosmic sun” at an area above the fixed stars in the north (Ulansey 1991: vi). He said it was as if the initiate transcended the highest level and thus looked down from heaven to view this scene. Though he does not locate this perspective from the north celestial pole, it is very similar to what I found with both the celestial diagrams of Egypt and Rome: the Primal Pattern, a perspective in which the pharaoh and gods sit at the pole and look back with Taurus at its zenith in the southern sky (the two bulls of the northern and southern sky, in effect, merging into “one” bull, as in fact, they are. For, as mentioned, Taurus on the ecliptic is merely an extension, a branch, of the polar region as World Tree/*axis mundi*; see Part Two).

Another peculiar aspect of the Mithras cult is the figure of the lion-headed god (Figure 38).



Figure 38. Lion-headed god associated with Mithras (Ulansey 1991: 49).

In Figure 38, first note that the seven coils not only refer to the seven planets/spheres/grades that the initiates have to ascend to, but also to the seven stars of Ursa Minor/Major. More importantly, however, I believe that they also symbolize the body of Draco that coils around the pole of the

ecliptic (symbolized by the lion's body). The staff in the lion's hand is the moving pole of the heavens, the *axis mundi*, with the north celestial pole at the top of the staff and the south pole at the bottom of the staff (his body is the pole of the ecliptic, the immovable axis, which is also by definition the center of the sun, thus, the lion-image). Note how the bottom coil of the snake comes out and is actually in front of the feet of the god and his hand with the staff at his chest; thus in effect, the tail coils out around the staff in his hand. This implies that the tail symbolizes the tail of Draco, the snake, as it coils out and around the north celestial pole in its actual location at the north celestial pole.

Also, note how the body is divided into an upper and lower half, with the key in his hand at the throat level (*logos*), with his mouth open (like the open mouths of both the hippopotamus and crocodile as predators/hunters). The lion head is symbolic of the sun, which is born from the "double" horizon of the shoulders of the body. This idea of the head as the sun goes back, as will be discussed later, to Catalhoyuk. That this is so is seen by the staff that points upwards, north. Thus the viewer is looking west. The god has the north celestial pole in his hand, and, thus, he symbolizes the power to both move it via the precession and turn it, thus moving the sun, stars, and celestial vault. He stands on the earth, with its "x" symbol, the symbol of the conjunction of the circle of the celestial horizon (north celestial pole) and the circle of the ecliptic (pole of the ecliptic).

Further evidence of the placement of Mithras in the north comes from a Roman clay cup that was found at Lanuvium, Italy. See Figure 39.



Figure 39. Tauroctonus (bull-slaying) Mithras, Lion, and Taurophorous (bull-bearing) Mithras found on Roman clay cup found at Lanuvium (from Ulansey 2010: vi).

Note that in Figure 39, the Tauroctonus Mithras (bull-slaying) is 180 degrees opposite the Taurophorous Mithras (bull-bearing). Oriented correctly, the Tauroctonus Mithras would symbolize the Great Bull constellation in the northern circumpolar region of the sky, and the Taurophorous Mithras would symbolize Taurus at its zenith 180 degrees opposite in the southern sky. But more importantly, note the opposite directions that the northern and southern bulls face. That is, the top bull, which mirrors the direction of the Tauroctonus Mithras in the northern sky, faces towards the viewer's right, towards the east and the rising sun. The lower bull, however, faces towards the viewer's left, towards the east and the rising sun, exactly like Taurus in the southern sky. That this orientation is correct is supported by the presence of the lion at ninety degrees to the right. This, then, surprisingly, shows the Primal Pattern. The lion corresponds exactly to Leo on the horizon in the east when the Great Bull's feet are parallel to the horizon in the north and Taurus is at its zenith in the south. Ulansey notes that this animal between the two representations of Mithras is a dog (Ulansey 2010: vi). This is incorrect, as the animal clearly has

a mane, a large head/snout, and more telling, a large tuft on the end of its tail. (I showed this image to a veterinarian, and he confirmed that it is indeed a lion and not a dog.)

Furthermore, note that the Tauroctonous Mithras is not stabbing the bull in the throat or in any vital area. Instead, the knife of Mithras is entering the bull clearly in the muscle of the shoulder, a spot that would only anger the bull. Many other tauroctonies also show the knife of Mithras entering into the shoulder of the bull and not its neck. Again, this spot is clearly intended to portray the location of the north pole in the constellation of the Great Bull (moved up to match the rise in the pole).

Furthermore, as the knife is cutting into the shoulder above the foreleg of the bull, this would also seem to connect this scene with the earlier Egyptian celestial diagrams, as they both indicate the north celestial pole cutting the front leg off the bull (the final result being either the half bull of Taurus symbolizing the Great Bull or the bull's leg as Ursa Major, carried over to be seen in the Zodiac of Dendera).

I discovered later that others also have noticed the peculiar placement of the knife in the bull's shoulder. In fact, I just recently came upon an article entitled, "Why the Shoulder?: A Study of the Placement of the Wound in the Mithraic Tauroctony," by Glenn Palmer (2009). Palmer found that only three percent of the knife wounds to the bull were in the bull's throat, a site that was "one of the most common methods of sacrifice depicted in ancient art" (Palmer 2009: 314). Instead, he found that seventy percent of the wounds were "inflicted at the shoulder," an area that is, "not an optimal location at which to administer a fatal stab wound to a bull" (Palmer 2009: 315).

Palmer also posited that the cutting of the shoulder by Mithras might have its origin in Egypt (Palmer 2009: 317), and in fact, citing the leg of the bull in the Dendera Zodiac, he links the cut leg of the bull with Ursa Major at the north celestial pole (Palmer 2009: 319). But more importantly, Palmer cites the *Mithrasliturgie*, a magical spell that was found in the Great Magical Papyrus of Paris (dated to Roman Egypt). Amazingly, this spell equates Mithras with the sun god, Helios, who, after greeting the soul of the initiate at the gates of heaven, goes to the "celestial pole," where seven pole lords, who have the faces of black bulls, "turn at one command the revolving axis of the vault of heaven" (Palmer 2009: 317–318). The sun god then descends,

"holding in his right hand a golden shoulder of a calf: this is the Bear which moves and turns heaven around, moving upward and downward in accordance with the hour" (Palmer 2009: 318).

Palmer equates this "calf" with Ursa Major. However, I feel that since it is described as a calf, it might be Ursa Minor, the little bear/dipper, who, as seen earlier, is the calf/sun/son of the Great Bull (Draco/Ursa Major).

Palmer concludes by saying that Mithras is indeed the *kosmokrator*, whose cutting of the bull's foreleg "may represent the beginning of Mithras' ascent to the status of supreme solar deity" (Palmer 2009: 322–323).

Thus, in the Roman/Egypt text, Mithras is associated with the pole of the ecliptic and the north celestial pole, seven pole lords (which might be the seven stars of Ursa Major or Ursa Minor), and the Bear, which places him in the northern sky, which again, gives more support to the correct orientation for viewing the tauroctony as north. But more importantly, it establishes that the gate to heaven leads to the north celestial pole, the seat of the sun god himself, which reinforces my earlier findings that the Gemini gate, the Egyptian Gate of Heaven, is an extension/portal to the circumpolar region of the sky that houses the gods who turn the heavens and change the seasons. This turning of the heavens from an upper central point that is the locus of the sun, or fire god, that descends, will be shown in Part Two of this paper to have deep origins in the Paleolithic with the creation of fire via the action of a turning fire stick within a lower wooden matrix. Furthermore, this locus of the gods at the north further reinforces the link between the high gods of the West and those of China, who are also located at the north celestial pole, and who also make reference to a bull and a spear that is correlated with the fall equinox (this will be discussed in more detail in a later section).

The question that needs to be asked now, considering that the two are almost identical, is, did the Roman tauroctony borrow its structure and astro-theology from Egypt, or did the two systems have a common source?

The answer lies in a cylinder seal from Susa that shows an almost identical pattern. This seal has been dated to approximately 2900 BCE.

Susa Cylinder Seal: Persia, 2900 BCE

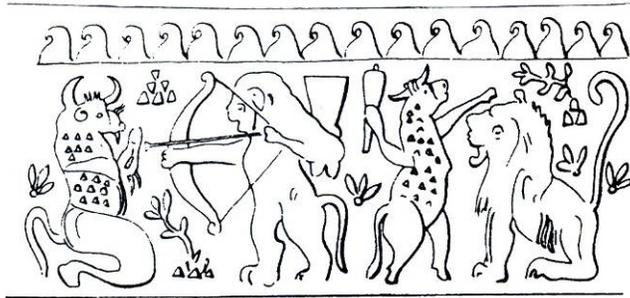


Figure 40. Susa cylinder seal. Persia. Proto-Elamite clay tablet, c. 2900 BCE
(Rice 1998: 108).

The cylinder seal from Persia in Figure 40 is remarkable in that it shows not only the movement of the sun on the horizon at the four seasons (with spring as Taurus and summer as Leo, thus the bull/lion pairing), but more importantly, it also shows almost exactly the same astro-theological processes and northern/southern constellations that are seen 1600 years later in the celestial diagram of Seti I of Egypt.

In Figure 41, in a comparison between this Susa seal and the Seti I celestial diagram, note the similar correlation of figures. The red arrows show the constellations of the northern sky, and the blue arrows show the constellations of the southern sky.

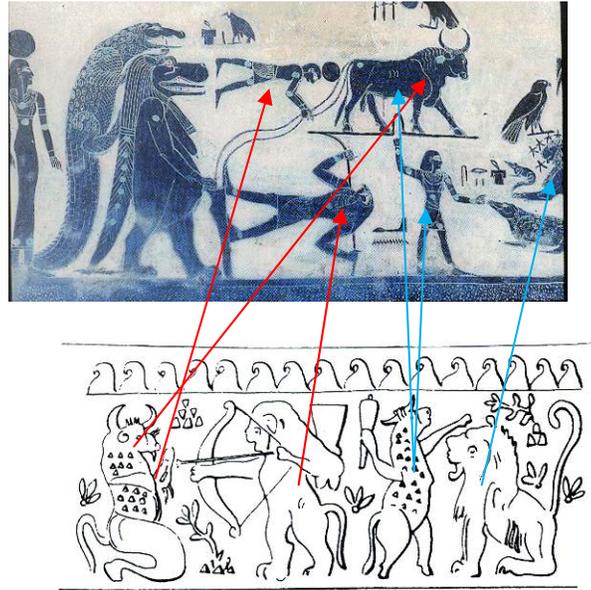


Fig. 41. Correlation of figures in the Susa seal of 2900 BCE to the later figures in Seti I, Egypt, 1279 BCE. Red lines are northern constellations in circumpolar region, and blue lines are southern constellations on the ecliptic.

In terms of the northern constellations (red lines), the Great Bull of Seti I correlates to the far left bull on the Susa seal. Note the seven stars in the upper half of this bull. These are clearly the seven stars of Ursa Major. In the belly region of the bull is a young calf that is upside down. This calf correlates to Ursa Minor, which, as noted earlier, is not only oriented upside down, but is the young boy behind the bull in the Seti I star chart. But more importantly, note that the falcon-headed god Anu, who is shown spearing the bull in Seti I, correlates to the young lion shooting the bull with an arrow (the bow/arrow appears to be an older version of the spear, and as will be seen later, it has its origin in Chatalhoyuk, when Sagittarius the Archer was the fall equinox). See Figure 42 for the general placement of the young lion and its arrow correlating with the fall equinox. As the arrow (and later, spear of Anu) is the instrument of sowing the seed/sun into the bull as the goddess of the horizon (as the sun-as-seed descends below the celestial equator/horizon at the fall equinox), note that the recoiled arm, with its odd descending sacks and thin, stumped hand, is phallic. This will be explored a bit more in Part Two, as the arrow/spear/penis/pen/plow as the instruments of the opening of the gate of the goddess serve a

double role of bringing souls into and out of the double gate of the horizon that leads into the underworld (circumpolar region).

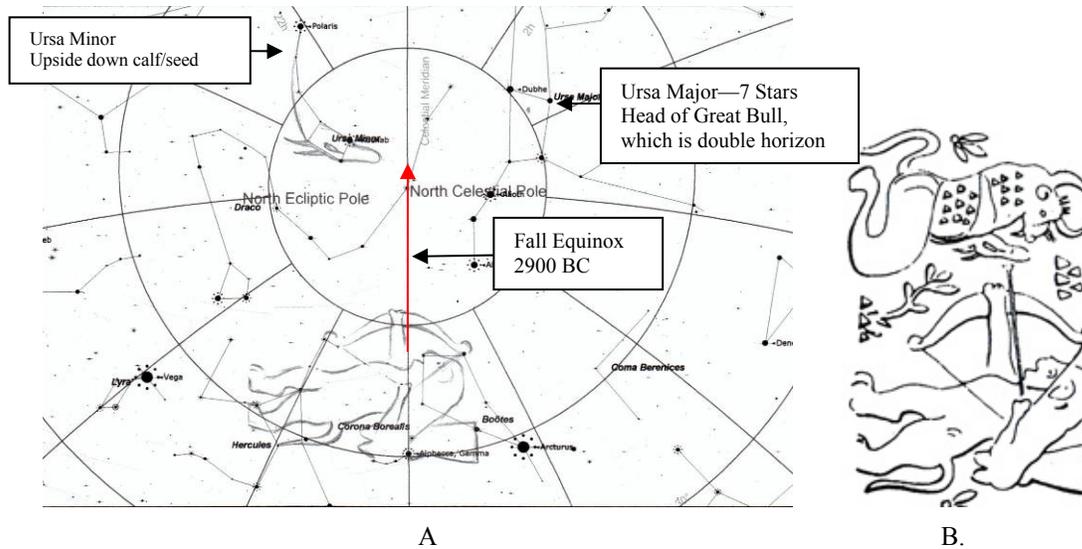


Fig 42A. Great Bull celestial diagram that shows a general approximation of the young lion with its arrow shaft as the fall equinox at approximately 2900 BCE (drawing by author. Starry Night Pro 6.0) **Fig. 42B.** First half of Susa cylinder seal rotated 90 degrees. Note bull and calf as the Great Bull that comprises Draco, Ursa Minor, and Ursa Major. Also note the young lion with arrow in the same position as Anu, the falcon-headed god that spears a bull of later Egypt. Note that the loop in Draco not only forms the womb for Ursa Minor, but is also the double horizon of the sun/seed/son.

As an extension of this phallic symbolism of the arm/hand, in Figure 42A & B, note that the head and body of the calf (Ursa Minor) appear to form the pointed arrowhead itself that extends out from the phallic arm/arrow shaft and that cuts up and through the body of the Great Bull (thus, in a sense, as modern research has shown, the child initiates its own release from the womb). This opening and cutting of the Great Bull into two pieces by the action of the north celestial pole (at the tip of the fall equinox as spear/arrow/knife) moving upwards was touched on briefly earlier, and will be discussed in more detail later. Likewise, the head as symbolizing the seed/sun being released from the body of the goddess-as-the-horizon/earth will be seen later in the section on China and in more detail in Part Two in the Neolithic section (it also helps to

explain the head of an animal as the arrow/letter half [Resh] of the alphabet couplet of the bow and arrow of Sagittarius [Qoph/Resh]) (see Pellar 2009).

As the Great Bull is shown to be carrying the calf as the sun/seed within it, note the loop aspect to Draco, which matches the loop aspect to the leg of the bull in the Susa seal (and of the belly in the larger aspect of the Great Bull). Also, and more importantly, note that this loop/belly/womb aspect of Draco that contains Ursa Minor as the calf/seed/sun when connected to Ursa Major forms the double horizon/gate of the sun that was the vital component of the earlier Neolithic goddess figurines/images (which will also be discussed in detail in Part Two), and which was later seen in Mesopotamia (double horizon of Utu/Shamash, the sun god), Egypt (ahket, ankh, and aker symbols), and Rome.

As this structural element to the constellation of Draco and the body of the Great Bull is so vital to its overall astro-theological symbolism, I feel that some time should be devoted to looking at comparable Mesopotamian, Egyptian, and later renderings of this horizon element in greater detail before returning to the Susa cylinder seal. See Figure 43.

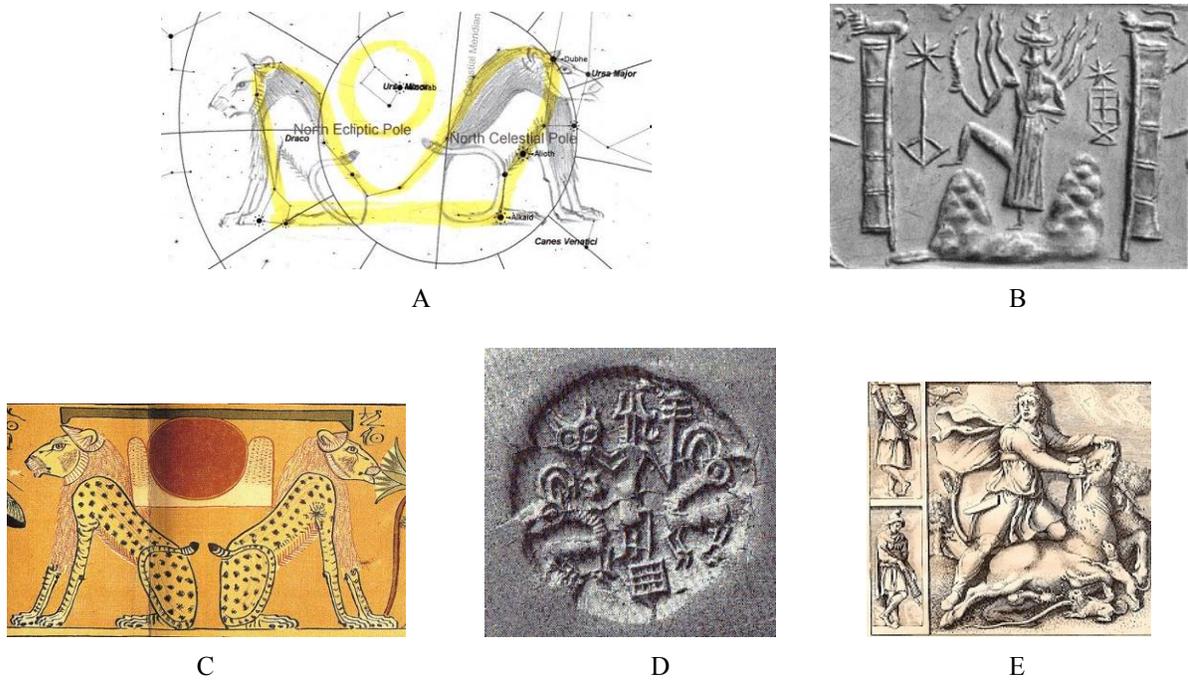


Figure 43 A. Draco/Ursa Minor/Ursa Major as double horizon with east/young/large lion/large hill on the right (drawing by author). B. Akkadian cylinder seal (reversed to show east on right) with sun god Shamash/Utu rising from the double horizon/gates with larger hill on the right. Note lions on top of gate (Frankfort 1939, Plate XVIII, a). C. Egyptian Aker lions (reversed to show east on right) as double horizon with larger hill, younger lion, and longer sky symbol (pet) on the right (from papyrus Book of the Dead of Ani). D. Bull man with bull's head as sun in his hands rising from the east. Two antelope, symbolizing the horizon, flank him. Island of Failaka in Bay of Kuwait (Rice 1998: 177). E. Tauroctony showing asymmetrical double horizon, with larger hill and sunrise/raised torch to the east (right) and the smaller hill and sunset/lowered torch to the west (left), with the sun god Mithras, like the other suns, to the left of center (Tauroctony Ottavio Zeno).

In Figure 43, note that east is to the viewer's right. Thus, the Mesopotamian cylinder seal and the aker lions have been reversed to show this. The tauroctony, however, has not been reversed, as east is indicated by the raised torch on the large hill to the right as discussed earlier, which mirrors the larger/higher aspect of the bull's body as the horizon. As the east side of the double horizon akhet symbol is larger (both the akhet sign and the thin brown sign for the sky

above it are clearly asymmetrical), as it is in the Akkadian seal and the tauroctony, this interesting detail can be explained as resulting in the larger eastern side of the double horizon formed by the combination of Draco/Ursa Minor/Ursa Major. This peculiar anomaly resulted in many of the aker lions in Egypt and the bulls/animals in Susa shown with the younger and sometimes larger of two on the east side, with the older and sometimes smaller on the west side. (See Figure 44 for an example of an older Susa asymmetry.)

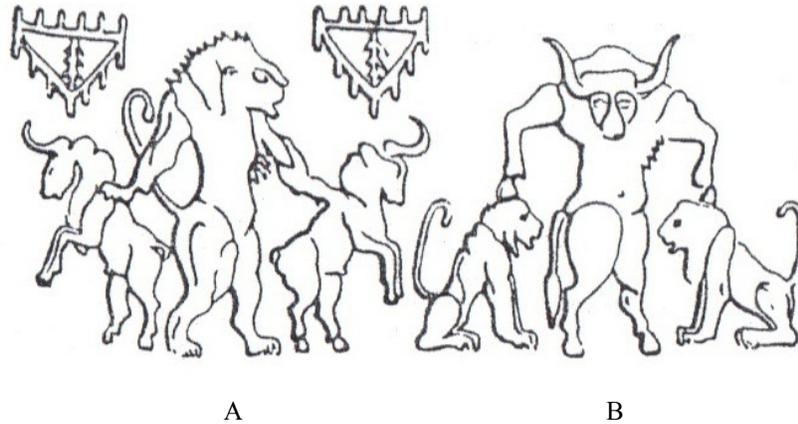


Figure 44. Susa seals (reversed to show east on right) (Rice 1998: 109). **A.** Note the thicker neck of the goat or ram (?) on the east/right side. In contrast, note the thin neck of the animal on the left/west side. **B.** Note the larger and younger lion on the eastern/right side and the smaller and older lion on the western/left.

In Figure 44A, this Susa seal shows two goats (or rams) with a clear parallel distinction/asymmetry between the two animals. The animal on the right/east has a larger neck and appears stronger/younger than the one with the very thin neck on the left/west. Likewise, the lion on the east/right side of the bull is clearly larger and younger than the small, almost frail lion on the west. These differences are no doubt symbolic of the stages of the sun as it is born on the eastern horizon (thus younger) and dies on the western horizon (older/weaker). As noted earlier, this idea of the stages of the age/strength of the sun is later personified later in Egypt (i.e., Khepri as the young sun in the east, Re as the Noon sun, and Atum as the older sun in the west), which, as mentioned earlier, is seen in the celestial diagram of Seti I, which in turn appears to have been influenced in its earlier development by Susa/Mesopotamia.

With this in mind, note that in Figure 43B the right/eastern hill is larger than the left/western one. Also, there are two lions just above the double gates, with the younger one on the eastern side (here the western one is larger). In Figure 43C, the eastern side to the double horizon can be seen to have a larger hill. Here the eastern lion is shown to be younger. It should also be pointed out that both lions are shown to have what appears to be wheat running up the

side of their stomachs, thus showing the agricultural symbolism to the horizon (a detail that, as seen earlier, has been coupled with the Mithras bull, because of the wheat coming from the tail of the bull as the body of the goddess-as-the-earth in the above Figure 43E, and as seen in CIMRM 593, where wheat pours from the knife wound of the bull). In Figure 43D, which is a very old stamp seal from Failaka Island in the Bay of Kuwait in the Persian Gulf region, note the asymmetrical double antelopes that form the double horizon. Between this double horizon can be seen the sun rising in the form of a radiating bull's head in the hands of a crescent-headed bull man (the square on which he is standing will be discussed later in the China section). In Figure 43E, the eastern side is again the larger of the two, and it clearly echoes the higher/raised aspect of the bull's body as symbolic of the horizon. Mithras, the sun god, clearly is situated, not in the center of the two hills and the bull's body, but, like the others, to the left of center, an asymmetrical detail that is quite telling.

Another interesting aspect of the Great Bull (and one that might be far more important) that calls to mind the double horizon/gate symbol, as well as the horns of the moon, is the hidden front view of the Great Bull. That is, a viewer standing in front of the Great Bull would see Ursa Minor rising up from between the double horns of the bull like the sun rising up from between the double horizon (see Figure 45A for a comparable example of this view with Hathor, the cow goddess).

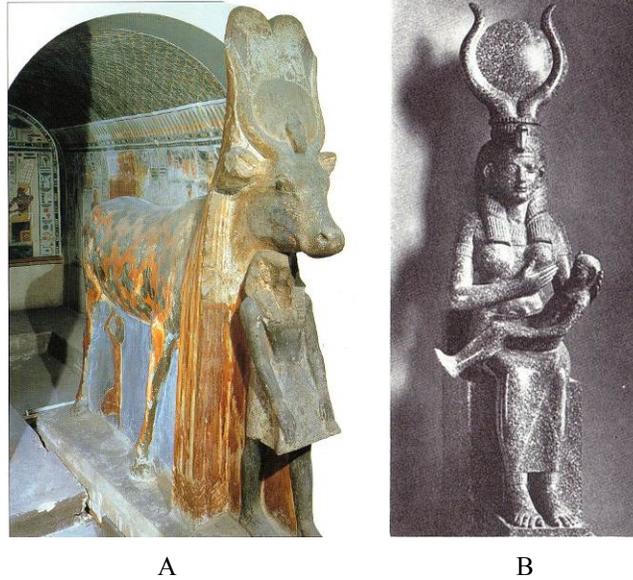


Figure 45. **A.** Hathor as cow with sun disc between horns in the chapel in Temple of Tuthmosis III (Oakes & Gahlin 2003: 182). **B.** Isis with sun disc between horns (Witt 1997: 73)

This link between the sun rising from a double horizon/double gate and the sun rising from the double horns of a bull (and ram, particularly during the age of Aries) is clearly seen in many Egyptian images of the sun sitting between the two horns of such gods as Hathor, Isis, Selket, Thoth, Re, Renenutet, etc. (Figure 45B). The many horned headdresses of Mesopotamia also allude to this, with the idea that the mind gives birth to the *logos*/seed/light/wisdom like the sun rising from the body/earth/goddess (this, and its links to the later Tantric tradition, will be discussed in more detail in Part Two). It is from this latter idea that the symmetrical form of the double horizon of the goddess/bull was realized in the ankh sign, “life,” and that forms the word “mirror.” Ankh is an anthropomorphic symbol pregnant with multiple readings of the astro-theological processes of the gods/heavens as reflected within the body of the beholder (as above, so[w] below). This symbol, pervasive in Egyptian art and life, is simply an iteration of the akhet symbol and the Egyptian celestial diagram. For example, see Figure 46 (and for an example of the ankh in an older and more anthropomorphic form, see Figure 60).

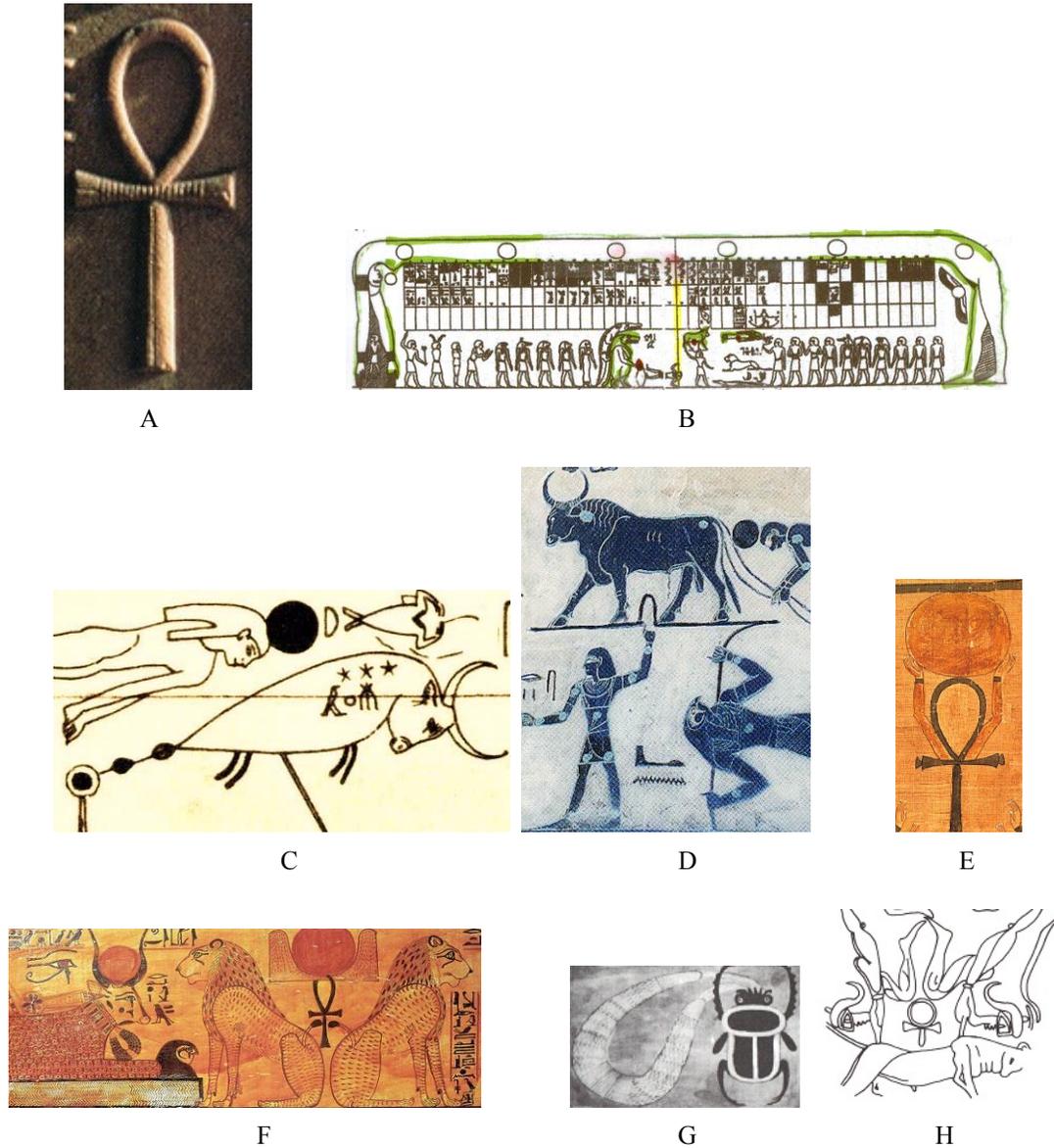


Figure 46. A. Egyptian ankh sign, which means “life” (McDermott 2001: 150).
B. Ramses VII celestial diagram with the Nut above it. **C.** Senemut celestial diagram. **D.** Seti I celestial diagram. **E.** Anthropomorphic ankh from Book of Dead of Ani (Oakes & Gahlin 2003: 289) **F.** Ankh symbol associated with Akhet and Aker lions of east (right) and west (left, with Hathor of the west). Sarcophagus of Khonsu (Hornung & Bryan, ed. 2002: 152). **G.** Menit Necklace with Khepri, the scarab beetle, symbolizing the rising sun (Roberts 1997: 46). **H.** Ankh symbol from Syria over the back of bull. 1700 BCE (Rice 1998: 159).

In Figure 46A, note how the ankh symbol is composed of an eye/seed/sun/head element that mirrors in shape the right eye of Horus, which symbolized the sun (this shape/loop is the face of the viewer in the ankh as a mirror), a horizontal horizon element that is wrapped with a cord (in the same manner as the cartouche of the Pharaoh's name), and most importantly, a spear/chisel/obelisk element that rises up to cut that cord to release/let rise the eye/seed/sun from the body of the Goddess as the horizon. In Figure 46B, the figure of Nut as a symbol of the sky/celestial horizon can be seen to have the same elements as the ankh symbol. That is, the spear of Anu (fall equinox) rises up like the spear element in the ankh symbol and symbolically cuts open the body of Nut to release the sun that is in her body. This same idea can be seen in 46C in a close-up of the Senemut celestial diagram. Here, the elements are more pronounced, as the figure of the goddess parallels/mirrors the horizontally abstracted bull as the horizon, and the sun can be seen being released above the back of the bull from the spear of Anu below.

Furthermore, and more importantly, the spear continues on through the mouth of the goddess (a link to the opening-of-the-mouth ceremony, which might also be a reflection of the movement of the north celestial pole through the mouth of the crocodile/hippopotamus), which reflects symbolically the spear opening the mouth of Nut to release the sun on the eastern horizon in 46B, and, as shown earlier, ends at a point in the middle of a hidden bull on the south part of the ceiling that also has a vertical Pisces rising up to meet it (again, echoing the vertical element in the ankh symbol cutting/opening the bull/horizon to release the sun/son/seed). These elements are further seen in the Seti I image (Fig. 46D), as the spear forms an abstracted ankh symbol (note how the loop below the bull reflects the loop element above the horizon symbol of the ankh sign). In Figure 46E, note the anthropomorphic symbolism of the ankh, with the horizontal earth element mirroring the arms and the sun disc mirroring the loop rising from its neck as the double horizon. And in Figure 46F, note how the ankh symbol is clearly correlated graphically/structurally to the Ahket symbol above it and to the Aker lions of the horizon (the younger/larger lion to the right/east, with the older lion to the left/west). All three of these elements actually compose one complete symbolic image of the release of the sun from the horizon. Also note the image of Hathor to the left/west, as indeed she is the cow of the mountain of the west. But more importantly, note the menit necklace at her neck. The repeated crescent

shape motif of the horizon of the hanging necklace below her head and the crescent horns and sun disc appear to symbolize the neck as the gate of the horizon that releases the sun from the lower element of her body (again, this idea of the lower body as the horizon/earth/vessel releasing/giving birth to the head as the sun/seed/*logos*/consciousness will be seen in more detail in Part Two). Note the Gemini gate/shape with circular disc within it of the upper part of the menit necklace that is on the horizon of her back. The critical point that it alludes to, like the loop of the anthropomorphic ankh sign, is the double horizon formed by the double shoulders of the neck (if human. Also, see Figure 49 for an Indus Valley example of the horizon symbol just below the neck of a bull, and see Figure 58A for an example from China of the neck being the double horizon from which the head as the seed/sun is harvested). Similarly, in Figure 46G, note the loop element of the menit necklace that forms the crescent horizon from which the sun will rise as the Khepri, the scarab beetle, who symbolizes the rising sun from the eastern horizon. This image of Khepri symbolizing the rising sun is quite telling, as the point that it marks with the necklace is the neck — the double horizon from which the head as the sun/seed/light/consciousness rises from the lower body of the goddess-as-the-earth/vessel. This latter point is beyond the scope of Part One, but there are many element/symbols in Egypt that allude to this, including the falcon wings pointing down at the back of the neck of the statue of Khafre, with the symbolism of the bird itself as Horus, the sun/son, rising from this point and being clearly associated with the head/sun of Khafre that brings eternal light/wisdom to the land. Lastly, in Figure 46H, note the ankh symbol from an Aleppo workshop in Syria (1700 BCE) above the back of the bull. Instead of the eye-shaped sun loop that rises from the neck/horizon (the right eye of Horus-as-the-sun), here is the more familiar circular sun disc that rises from the body of the horizon, as symbolized by its placement over the back of the bull as the horizon/goddess.

These many, repeated crescent elements are not coincidental. They all correlate smoothly, in both form and concept, with the genesis and model of such conceptual structure, being ultimately derived from the astro-theological structure of Ursa Minor rising as the calf/sun/seed/head from the body of the Great Bull via the arrow/spear of the hunter as seen in the earlier Neolithic (see Part Two of this paper) and in the Susa cylinder seal. Likewise, this idea

of the ankh, ahket, and aker signs as symbolizing the goddess/bull of the horizon, along with their association to the Egyptian *ka* sign and the notched/crescent façade of an Egyptian temple that frames the rising sun, will be explored in more detail in Part Two, in both the Neolithic section (its rudiments), and the Discussion section (its ties to the *axis mundi*/alphabet/*logos*, etc.).

A further link between the double horizon symbolism and the bull itself (and in the tauroctony) can be seen in a cylinder seal from Mesopotamia that shows Shamash/Utu rising up from two bulls that symbolize the double horizon, and in a stamp seal from Bahrain. See Figure 47.

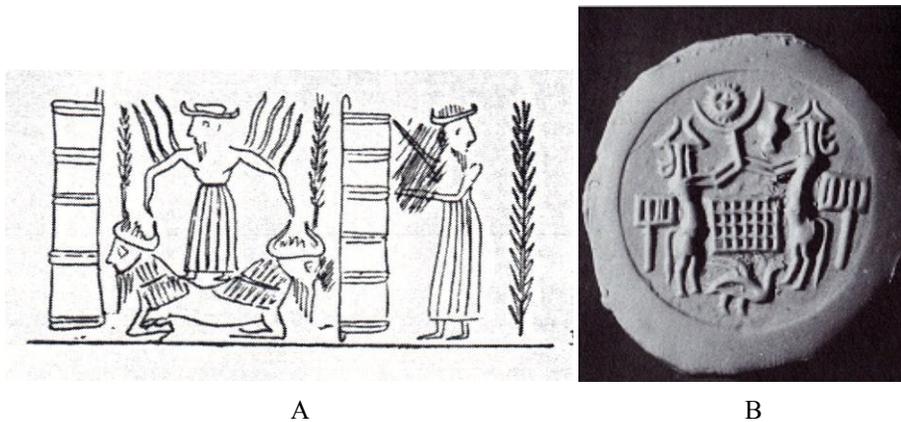


Figure 47. A. Akkadian cylinder seal. Sun god Shamash rising from double asymmetrical bulls/gates as horizon with seven rays of light. Note larger horns/neck/beard/torso of bull on the right/east (Boehmer 1965: No. 397). B. Bahrain stamp seal that shows two bull-men with the sun rising between them (Rice 1998: 269).

In Figure 47A, it can be seen clearly that the sun god Shamash/Utu is rising from the double gates in the east; but instead of rising from the double horizon on which he is typically shown standing, here he is seen rising from the back of a double bull (with the eastern one clearly larger and longer) that forms the double horizon/crescent, which echoes Ursa Minor/Mithras as the sun rising from the back of the Great Bull-as-the-horizon. It should be noted that Utu/Shamash was also personified as a bull:

4th *kirugu*:

“Gaze upon him, gaze upon him! O Utu, gaze upon him, gaze upon him!
O wild bull of the E-babbar, gaze upon him, gaze upon him!”
(<http://www.wetcs1.orient.ox.ac.uk/section4/tr432e.htm>).

In Figure 47B, in a stamp seal from Bahrain in the Persian Gulf region (third or second millennium BCE), the double-bull from which the sun rises is also asymmetrical. The smaller and younger bull is on the left/eastern side, and the larger/older bull is on the right. Also note the bird between them, indicating, as do the birds in Seti I, the direction that the sun moves, and note the larger gate on the western side (which parallels the western mountain of which Hathor takes the form, and where the pyramids were built). (The square/box between them will be discussed in the China section, in Part Two.)

Furthermore, and more importantly, as seen in this early cylinder seal from Susa, the idea of the sun rising from the back of a bull (whose genesis lies in the loop of Draco as the belly of the androgynous Great Bull who gives birth to Ursa Minor as the sun), helps to identify and explain the many puzzling winged gates above the back of a bull on cylinder seals from Mesopotamia, as well as the mysterious squares found above figures of bulls from the Indus Valley. See Figure 48 for an example of the “winged gates.”

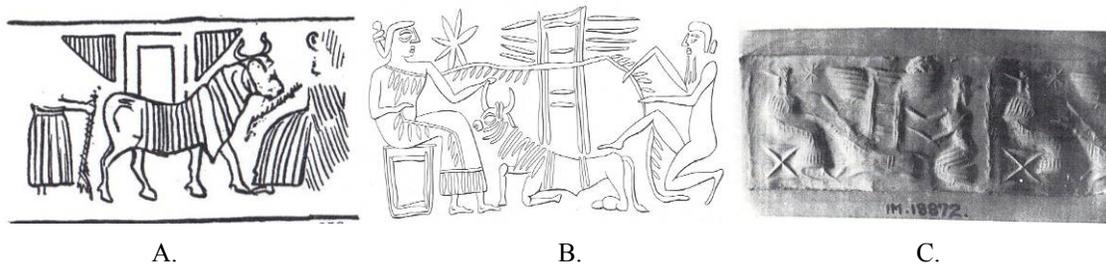


Figure 48. A. Goddess, winged gate, and bull (Ward 1910: 125). B. Goddess, winged gate, and bull (Black & Green 2003: 47). C. Goddess, winged gate, and bull (Boehmer 1965: No. 604).

The Akkadian cylinder seals in Figure 48 show a winged gate just above the back of a bull. The bull is usually shown in front of the goddess, who holds onto a winged rope or streams of water that are attached to the gate.

It has been generally remarked that the projections from the gate are either wings, or rays of light, or even flashes of lightning, with the deity being Ishtar (Inana) and the bull of heaven (Black & Green 2003: 48). Black and Green note that the scene probably "represents an episode from some myth of the Akkadian Period which is now lost to us" (Black & Green 2003: 48).

However, in light of the above evidence of the sun rising between double gates from the back of a bull, it seems entirely plausible to infer that the winged gates on the back of the bull merely symbolize the sun rising from the horizon. Note that the back of bull (Figure 48A) forms a natural double horizon shape, and, with the gate rising from this natural crescent notch, it appears that it is to be taken symbolically that the sun rises from this gate from the crescent back of that bull (like Ursa Minor rising from the back of the Great Bull, which rises just to the left of the notch in the bull's back, exactly like the placement of the gate in Figure 48A. Also, see Figure 1 for a better example of Ursa Minor's placement on the back of the Great Bull).

That this might indeed be the case is further strengthened by the presence of the cords attached to the gate. These cords are pulled from both sides by the action of the goddess and her attendant. As the sun rising from the horizon, the movement of the gate from the back of the bull-as-the-earth/vessel/goddess makes perfect sense in that the sun/gate moves north and south along the horizon during the course of the year, and thus the simple action of the sun/gate moving along the horizon is being symbolized by the pulling of the ropes by the hands of the goddess herself and her attendant.

Furthermore, and more interestingly, these cords are really an iteration of the double serpent coiled around the *axis mundi* that is seen in so many myths/images as depicted in the lion-headed god Mithras and Phanes, as previously mentioned, and in the churning of the cosmic Sea of Milk by the serpent as cord around the *axis mundi* in the Indian *Mahabharata* and *Ramayana*, The World Tree/*axis mundi* with serpent, the winged serpent Caduceus, the kundalini serpent coiled around the spinal column/tree as the *axis mundi* in the Tantric tradition, the sun gliding along the double serpent rope in the Mayan Codex Tro-Cortesianus, and the winged, double serpent tree gate in the sacred architecture of Java (see Discussion section in Part Two, and Figure 72 in Part Two).

That is, this movement of the gate north and south along the horizon is merely a reflection of the inherent divine power that moves the north celestial pole via the action of the Great Bull/goddess (whose body is composed of Draco, the serpent). Thus, the winged serpent gate of the terrestrial horizon and Ursa Minor as the sun/son/seed/*logos* rising from the back of the Great Bull/Draco/Serpent as the gate of the goddess-as-the-celestial-horizon via the action of the north celestial pole in the circumpolar region are really the same image, the same point, from which is derived the *axis mundi* that is the sacred center of all life and matter (discussed in more detail in Part Two).

John Didier has noted a correlation between the winged gate and the northern polar quadrangle of China that contains its high gods (along with high gods of other cultures) in or near the north celestial pole (Didier 2009, Vol. 1), with the bull symbolized by just Ursa Major, the bull of heaven. This keen observation turns out to be mostly correct, mirrors my own independent findings, and, upon my reading his analysis, immediately allowed me to correlate the winged-gate motif to the movement of the sun on the horizon. (Didier instead ties the bull and its ropes to the story of Gilgamesh, where the Bull of Heaven is passed from An [Anu] to the goddess Inana [Ishtar], so that the bull can destroy the city of Uruk) (Didier 2009, Vol.1: 221). But it is a remarkable correlation none the less, and his conclusion about the Heavenly Bull and the gate being centered in the circumpolar region is, I feel, correct. Didier's insights will be discussed in more detail in the next, and last, section of Part One of this paper.

Furthermore, echoing the Great Bull in the northern sky, the two ropes attached to the winged gate are also shown as two streams of water. This water aspect of the cords/double serpent might also symbolize the two arms of the Milky Way that flowed down from the north celestial pole, and which were also symbolized by the two streams of Aquarius-Hapi/Ea (Enki) (the former as depicted in the Dendera Zodiac, and the latter as depicted in various images from Mesopotamia). As mentioned earlier, Ursa Minor is located within the Great Bull to the west of the north celestial pole on the winter solstice side that runs down to the winter solstice point on the ecliptic (and Ursa Minor would always be on this side as the north celestial pole moves up through and around it). Thus, Ursa Minor, as the sun/son, is correlated with the winter solstice, the birth of light, when the sun is at its lowest point on the horizon. Thus, there is a natural

parallel between the birth of the sun at the winter solstice and a fetus/child/calf. As the winter solstice at the time of the Akkadian cylinder seals was Aquarius, with its two streams of water that symbolized the Milky Way/Nile (Aquarius-Hapi, who was the Egyptian god of the Nile, which in turn was seen as the earthly counterpart to the Milky Way), the winged gate is merely another symbol of the double Gemini gate (which it resembles in form; see Figure 54), the "great door of heaven" that releases Ursa Minor, as the sun/seed/*logos* from the back of the bull as-the-horizon/goddess.

Similar to the door/gate of heaven on the back of a bull is the bull-lyre image from Susa, the calf-in-vessel image of Egypt, and the Harappan images from the Indus Valley of a square just above the back of a bull. See Figure 49.

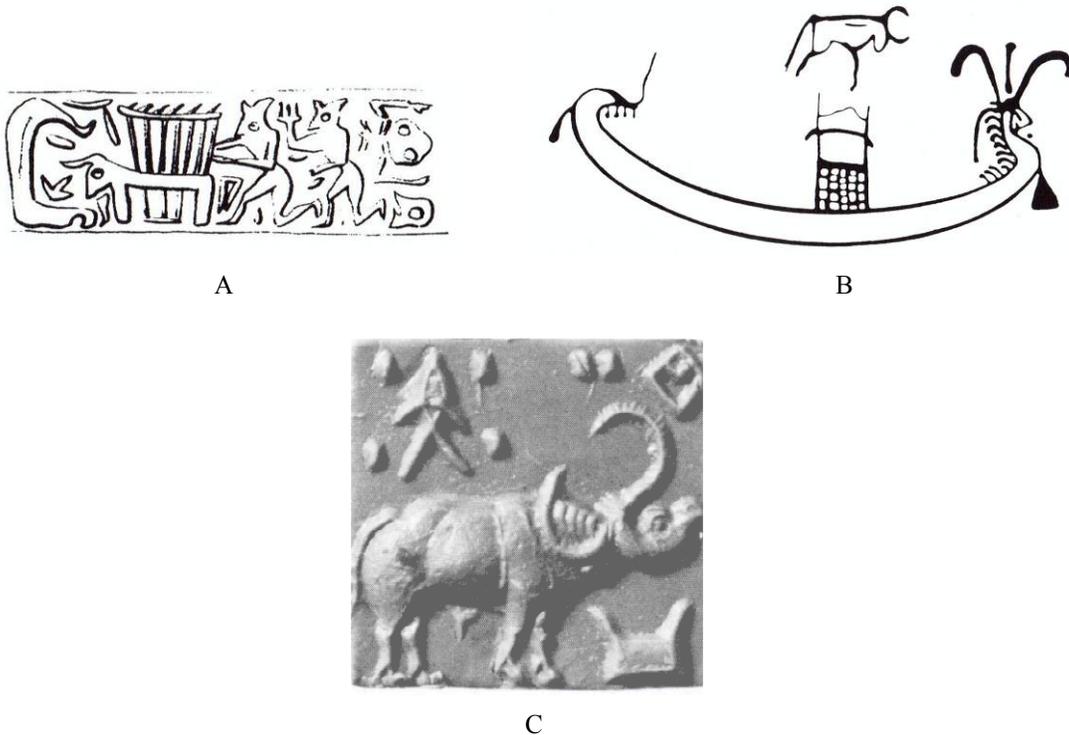


Figure 49. A. Susa seal. 2700 BCE. Horned figure plays a bull-lyre, with seven strings emanating up from the back of the bull, the source of the music. Note the "square" aspect to it (Rice 1998: 95). B. Rock engraving near Hierakonpolis, Egypt (Rice 1998: 140) C. Harappan stamp with image of bull and square above it. Also note the double horizon symbol just beneath it (Didier 2009, Vol 1: 223).

In Figure 49A, note the seven strings that rise up from the back of the bull. Seven is significant, as mentioned, because it represents not only the seven celestial spheres, hence the their music here, but also the seven stars of Ursa Minor, the son/sun that rises from the back of the Great Bull-as-the-horizon. It is interesting that the vertical crescent/moon ship (?) might be Draco/Great Bull, the vessel of the sun/son, as Ursa Minor is perpendicular to it. Also note the "square" gate attributes of the bull, a feature that will be discussed in more detail later in relationship to Didier's polar quadrangle.

This ship/vessel/crescent/horizon image that contains the calf as sun/son/seed is clearly seen in 49B, one of my favorite images. This image sums it all up nicely, particularly since it imparts a definite solar/celestial element as the calf/with umbilical cord (see Discussion section, Part Two, for link between the umbilical cord, *axis mundi*, and north celestial pole). This image is clearly related to the many images of the sun within the solar barge (symbolic of the womb/throne/vessel of Isis). That is, Horus as son/sun of Osiris, who was known as the "Royal Bull," "Bull of the West," "Bull of the Underworld," the pharaoh who became the "Great Bull" after death — e.g., Unas, the last king of the Fifth Dynasty became "The Bull of Heaven who takes unto himself the power of the gods themselves" (Rice 1998: 135–145). As a celestial image, where "the power of the gods" resides, the calf in 49B resembles Ursa Minor within Draco/Great Bull (again, the goddess). Note the horns of the prow of the vessel that appear to symbolize Ursa Major. Also note the square cabin beneath it that mirrors the square gate and polar quadrangle of Didier, as well as the remnants of an umbilical cord trailing from the rear of the vessel/horizon.

In 49C, Didier also links this image with the north celestial pole and Chinese polar quadrangle, but, as noted previously, without tying it to the larger image of the Great Bull, nor to the horizon symbol just below its neck (which matches in form/concept the bull-lyre facing the crescent form of the vessel before it). But again, he is remarkably close. Didier, citing Parpola, writes that the fish symbol above the back of the bull

came to mean both "star" and "god," and, ultimately, the sign was combined with numerical symbols to denote certain constellations consisting of varying numbers of stars. Parpola also identified the fish fertility god with the RV IA high night-

sky god Varuna, invoking textual sources that show a link between Varuna and fish or sea creatures, as well as the Mesopotamian god Enki who, like Varuna, was god of both the waters and, through the fertility that water engenders, creation. We know from Chapter 2 that Varuna was identified closely with the northern celestial pole. Parpola further connected the fish symbol with the RV IA Seven Sages, i.e., the Saptarsis, which, again we know already from Chapter 2 above, were identified with the Dipper at the northern celestial pole. Therefore, evidence developed both within the current manuscript and independently in Indus scriptal and iconographic studies supports the likelihood that the fish sign may be read to represent a, or the, high stellar divinity of the Harappan civilization and that this divinity resided at the celestial pole. Augmenting this position's supportive evidence further is the four-dot square mentioned above that encompasses the fish character on several seals that also portray a bull and a censer, which square may represent the polar quadrangle (Didier 2009, Vol. 1: 226–227)

Didier's intuition is, again, remarkable. The correlation of the fish symbol with the high god, the polar region, the bull, and the seven stars of Ursa Major is quite close. However, as my own research evidences, those seven stars of the dipper are not from Ursa Major, but rather Ursa Minor.

Looking at Figure 49C again, the fish within a square just above the back of the bull is in the same location as Ursa Minor (see Figure 1). Note the prominent horizon marker of the double horns of the bull just beneath its head, which, like the bull-lyre facing the crescent ship, seems to indicate that the image should be read symbolically — that is, the bull as symbolizing the horizon. In addition, note how the horns are carefully and strategically arched backwards so that if the bull is viewed from the front, the fish, like Ursa Minor, would be seen to be centered within the crescent horns like the horizon symbol just below. But here, instead of being a calf, it is a fish. This makes sense in that Aquarius as the winter solstice is the sign of water, and Ea (Enki) is the Sumerian god of water who holds two streams in his hand (as mentioned, Hapi, the

god of the Nile with his two streams pouring out of his hand, is the Egyptian counterpart, and in fact, the Dendera Zodiac clearly shows him as Aquarius). But more importantly, and as Didier also points out, he is shown with fish swimming within those two streams. An example of this is seen in Figure 50, and is explored in more detail in my paper "On the Origins of the Alphabet" (Pellar 2009).



Figure 50. "Seal of Adda." 2300 BCE cylinder seal that shows the Gemini gate between Leo and Taurus (Note: this is a correction of my paper on the alphabet [Pellar 2009]), in which I identify this animal at the foot of Enki as a ram/Aries. But the difference is slight, and the corrected reading even strengthens my original thesis, if it is indeed a bull/Taurus.) Note the water god Enki (Aquarius), shown with a stream of water meeting the Gemini/Taurus gate where Utu cuts open the horizon/gate to release the sun (British Museum, no. WA 89115; Kramer 1971).

The two streams are symbolic of the Milky Way that flows down from the gate of the goddess/Great Bull. The Mesopotamian cylinder seal clearly shows the double horizon/gate of the sun with a stream flowing down into it, with fish. The sun god Utu, with knife in hand (like Anu/Mithras), is cutting open the horizon-as-vessel to release the sun. More importantly, this idea of Aquarius and fish/water as the winter solstice during the earlier age of Aquarius then extended over into Capricorn when it became the winter solstice around 2160 BCE. (Again, it is important to note again that Ursa Minor was on the winter solstice side of the north celestial pole, and in fact, as mentioned earlier, would always remain in the winter solstice side as the north celestial pole moved up and circled it.) Thus, the fish tail as the water element was added to the goat. In fact, this fish symbol, as mentioned earlier, was used in Egypt to symbolize Capricorn. See Figure 51.

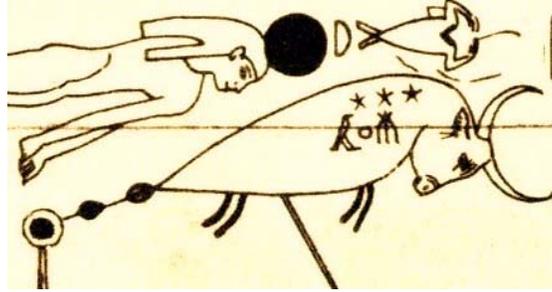


Figure 51. Great Bull from the celestial diagram of Senemut, 1458 BCE. Note the figure of Capricorn just above the back of the bull.

In Figure 51, in the Senemut image, note not only the symbol of Capricorn just above the back of the bull (which is associated with the sun on the head of Serqet/Selkis); it mirrors almost exactly the Harappan tablet. But also notice the sun disc just above the back of the bull. The association of these two images is not a coincidence; they both symbolize the rising of Ursa Minor, which is forever within the winter solstice (within the womb/belly of the Great Bull) that runs down to the winter solstice point on the ecliptic. Thus, the water/Milky Way/fish tail element. Furthermore, the same goat/fish shape is also seen in the alphabet as Capricorn, the winter solstice (see Pellar 2009). Thus, the fish symbol within the square above the back of the bull on the Harappan tablet appears to represent Ursa Minor within the double gate/horizon that is also seen above the back of the bulls on the Akkadian “winged gate” seals. This later tablet is merely an eastern iteration of an idea that had its roots in the Susa cylinder seal, which in turn, influenced both Egypt and India, which in turn, as will be shown, influenced China.

Thus, there is a clear correlation between the double horizon as symbolizing the double gates of the goddess-as-the-horizon/earth and the bull as being another aspect of the goddess-as-the-earth/horizon/vessel. As discussed earlier in the Egypt section, this special aspect of the goddess-as-the-horizon was seen in the figure of Nut, who was shown in her human and bull/cow aspect. This aspect was also discussed earlier in the cult of Mithras, where the bull symbolized the earth and/or wheat that was harvested to give birth to and nourish other life. In Figure 47, note the twin wheat stalks above both bulls-as-the-horizon, which again, is an agricultural indicator that the image was not meant to be read in a strictly literal sense.

Returning once again to Figure 41, in terms of the southern constellations (blue lines), note the unique shape of the standing young bull holding a club, and that faces a lion. This bull

mirrors almost exactly the same shape and position of the standing man in Seti I who faces the lion (Leo). The standing man (Orion) is usually shown with a raised weapon (spear), and thus, the young bull appears to be a precursor to the Egyptian figure. At the time that this particular cylinder seal was made, the vernal equinox was in Taurus. Thus the standing man, instead of taking on the human attributes of Aries as Ursa Minor in Seti I (as the vernal equinox was in Aries at the time of Seti I), takes on the attributes of Taurus the bull as the Ursa Minor in the Susa cylinder seal. This is why there are two blue arrows emanating from the bull with a raised club, one pointing to the Great Bull/Taurus in Seti I and the other pointing to the standing man in Seti I. It should also be pointed out that the far left candle in Seti I that denotes the end of Aries would not exist in this earlier cylinder seal from Susa. Since this was the age of Taurus, its boundary would be the edge of the rear of the bull. Thus, the spear of Anu, if shown during the age of Taurus, would point directly up at the Great Bull-as-Taurus instead of up at the hands of Ursa Minor-as-Aries as it does in Seti I. Again, Ursa Minor in this Susa cylinder seal symbolizes in 2900 BCE a younger version (calf) of the constellation Taurus, the bull, whose counterpart is the Great Bull in the northern sky. It should be noted, however, in other cylinder seals from Mesopotamia from the third early Dynastic, Ursa Minor is shown to represent a lamb or ram instead of a bull (see Frankfort 1939, plate XV, j).

Other similarities can be seen in Figure 52.

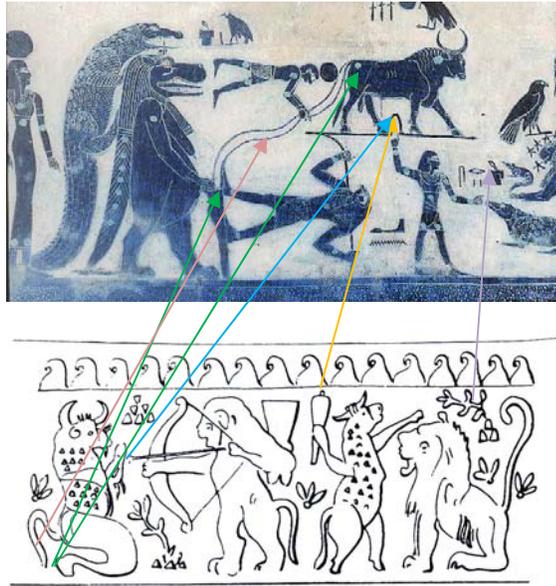


Figure 52. Seti I celestial diagram and Susa seal.

In Figure 52, first note the two green arrows on the far left, which show indicators of the position of the pole of the ecliptic in both the Susa seal and Seti I. The tail of the bull in the Susa seal loops around like a cord and points to a spot at the bottom of the looped foot of the same bull. That spot is the pole of the ecliptic (in the Seti I diagram, the pole of the ecliptic, as recalled earlier, is at the top of the cut bull's leg, to which the foot of Anu is affixed, and is pointed to by the downcast arm of the Hippopotamus and the two cords coming from the rear of the bull). The parallel of the curved tail and curved foot in the Susa seal to Seti I are the two cords (tan arrow) that loop down from the tail/back of the bull in Seti I to the cut bull's leg and the foot of the standing man. It should also be noted that this same doubling of the bull's foot/archer or spearer's foot indicates that the pole of the ecliptic was later carried into the tauroctonies of Rome, as noted earlier. Similarly, note that in both diagrams' corresponding celestial diagrams (Figures 15 & 42A), the feet of the spearer/archer (Anu/lion) are lined up with the leg of the bull (the pole of the ecliptic).

The blue line in Figure 52 indicates a pointer to the north celestial pole in both diagrams. This point is at the tip of the arrow/spear, which, as already discussed, is the fall equinox. Note

that this point is aimed at the center of both bulls, a reference to both the north celestial pole within the Great Bull and the vernal equinox extending out from the pole into Taurus.

The yellow line indicates the same spot within the Gemini flame in both the Seti I and the Susa seal. That is, the top of the club of the bull as Orion/Taurus is situated in the flame of the Gemini gate in the center of the Milky Way. This parallels the arm of the Standing Man/Orion in Seti I reaching up into the flame of the Gemini gate. As noted earlier, the Standing Man is also shown in Egypt with a spear, which closely parallels the raised club/weapon of the bull in the Susa seal.

The purple line in Figure 52 appears to indicate in both diagrams the direction that the sun moves. As pointed out earlier, in both Seti I and in the Roman tauroctonies, the direction of the flames mark the direction that the sun moves across the sky during the day.

It is also interesting to note that the lower mound at the left with the new sprung wheat in the Susa seal points up at the north celestial pole, which, as discussed earlier, is the northern counterpart to the Gemini gate/doors of heaven. The other mound with the harvested wheat to the right of the Susa seal points to a similar spot of cutting/opening — the impact point of the club on the lion's head, which is symbolic of the cutting of the mature wheat in the spring/early summer in Susa (? Not sure if they harvested at the same time as Sumer/Egypt). That is, the mounds appear to indicate the time of season.

The specific season might also be indicated by the four figures in the Susa seal themselves. There is a clear order to them and the respective directions that they face might indicate the movement of the sun on the horizon and the season. First, note that the two bulls face the same direction, and the two lions face the same direction. Also, note that the two end positions face each other and the two middle figures face away from each other. These positions/directions are critical in that they indicate the direction of the sun as it moves north and south on the horizon as the viewer faces west (see Figure 53).

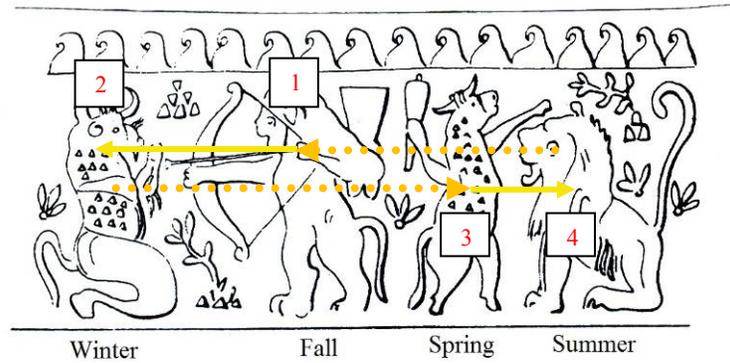


Figure 53. Movement of the sun on the western horizon, starting from the sowing of the seed in autumn (1) to the harvest in spring (3).

Thus, box number 1 at the viewer's left in Figure 53 would symbolize the fall and the young lion as the seed. Since the fall equinox is where the sun/seed dips below the celestial horizon, note the young lion with the arrow pointing south, which indicates the direction of the movement of the sun on the horizon. As already discussed, the arrow of the young lion symbolizes the fall equinox and the sowing of the seed into the horizon as the bull/goddess/vessel, exactly like the spear of Anu later seen in Egypt. This might explain the waiting triangle/mound of earth just above the arrow of the lion, which, as Campbell notes, is the goddess as the "cosmic holy mountain" (Campbell 1964: 54) (see also Part Two for a discussion of the symbolism of the mountain and *axis mundi*).

The second box/figure symbolizes winter. Note that this would be the southernmost position of the sun on the horizon, and thus, it is the farthest figure on the left/south if the viewer is looking west. As the sun does not go any further south, its only movement would be north, which is why the bull and its calf face north. The figure of the bull giving birth to the calf is symbolic of the winter solstice. Thus, the birth of the calf is the birth of light and the birth of the new wheat. Again, it is important to remember that the calf, as symbolic of Ursa Minor, is always within winter (as the north celestial pole carves out its circle around the pole of the ecliptic, Ursa Minor will always fall inside the circle, and hence, fall within the winter solstice, as seen in the Harappan stamp seal). This fact further reinforces the bull and calf as the being symbolic of winter. This might also be the case in the above scene, in which the young calf is seen to be released from the opening of the bull-as-the-horizon in winter. The mound with the vegetation

next to the bull and calf might also symbolize the seedlings leaving the body of the earth/bull/goddess as the cosmic holy mountain in the winter (just as the wheat grows in winter in Egypt), thus the next step would be the rise of a young and growing bull as the vessel/earth/moon/body of the new seed/sun/light.

The next season, box 3, would be spring, which is indeed symbolized by the young bull with the club. This is Taurus, the vernal equinox at the time. This is where the sun climbs above the celestial horizon, which symbolizes the birth of the light/seed/sun/lion from the body of the bull as the vessel/earth/moon. By assuming the figure of Orion (his bull's head would be the Hyades in Taurus), his raised club/torch would be within the Gemini flame in the middle of the Milky Way, where the sun was thought to have been born (this image of the body/vessel being separated from the head/sun was mentioned earlier, and it will be discussed in detail in Part Two, and touched on again in the China section later in Part One). Note that he is facing north and that he is aiming his club at the adult lion, box 4, which is Leo, the summer solstice. Just as the adult bull dies in the winter as the sun reverses direction on the horizon, the adult lion, Leo, dies as the sun stops at its most northern point and then moves south as the new seed/young lion. Thus, the two lions face south, indicating the direction of the sun as it moves south on the horizon, and they appear to represent the seed/sun of the harvest that is eternal (that is, though the body of the plant/moon/vessel/Osiris is cut up and dies, the seed/head/sun/Horus is gathered and lives eternally via new plantings/births). Interesting, Rice remarks that the slaying of the bull in the Tarsian bull cult symbolizes the death of winter (Rice 1998: 114), which is the start of spring and the harvest. The two bulls, in contrast, face north, and indicate the direction of the sun as it moves north on the horizon and within the celestial horizon as the vessel/goddess/bull, and they appear to represent the earth/moon as the vessel of that light/sun/seed that rises from the celestial horizon in the spring.

This conflict between the lion and bull is discussed by Hartner, who sees it as the rise and fall of Leo and Taurus (Hartner 1965: 1–16). But, as pointed out by Campbell, they also symbolize the actions of the moon as the vessel/prey of the sun as predator. To take Campbell's analogy a bit further, the bull at the winter position (box 2) could correlate to the new or dark moon, which parallels the darkness of winter. The birth of the calf would be the birth of the new

crescent (or new horn, which is symbolized by the bull). Likewise, the adult lion could symbolize the bright full moon, which parallels the strength of the sun in summer before it declines or dies). The two smaller figures of the bull/lion could be the half-moon stages between waxing and waning.

Thus, going back to Figure 53, the two figures on the left/south symbolize not only the sun moving south from fall to winter, but they also symbolize, like the Seti I celestial diagram, two constellations in the northern circumpolar region of the sky. The figures on the right, by contrast, symbolize not only spring and summer, but also, like Seti I, two constellations of the southern ecliptic. That is, the two bulls face north, and the two lions face south, both indicating the direction that the sun moves along the horizon.

[Note: It is also interesting to point out that since the animal figures are anthropomorphic, they might also symbolize the birth of a human. That is, there are three mounds — the empty one above the fall arrow, the seedling one at winter at the foot of the bull, and the harvest mound above the head of the lion. These three seasons amount to nine months and allude to a human connection as well as an agricultural one].

Thus a clear correlation between the two regions of the sky is seen along with a conceptual continuity among the seasons. This same display of both the northern constellations and the southern in one image, along with the movement of the sun with respect to the horizon, is seen clearly in the later Egyptian celestial diagrams.

That there is a strong similarity between the Susa cylinder seal and Seti I appears to be the result of contact between Susa and pre-dynastic Egypt. In fact, Shaw remarks, "Other typically Mesopotamian motifs, such as the niched palace façade and high-prowed boats, are also found on Naqada II and III artefacts and also in the rock art. The styles of these motifs are more characteristic of the glyptic art of Susa in south-west Iran than of the Uruk culture, and the fact that such artefacts are not found in Lower Egypt has raised the possibility of some southern route of contact between Susa and Upper Egypt, the nature of which is unknown at present" (Shaw 2002: 67). Another interesting link between a Susa cylinder seal and Egypt is an image of a Susa temple; see Figure 54.

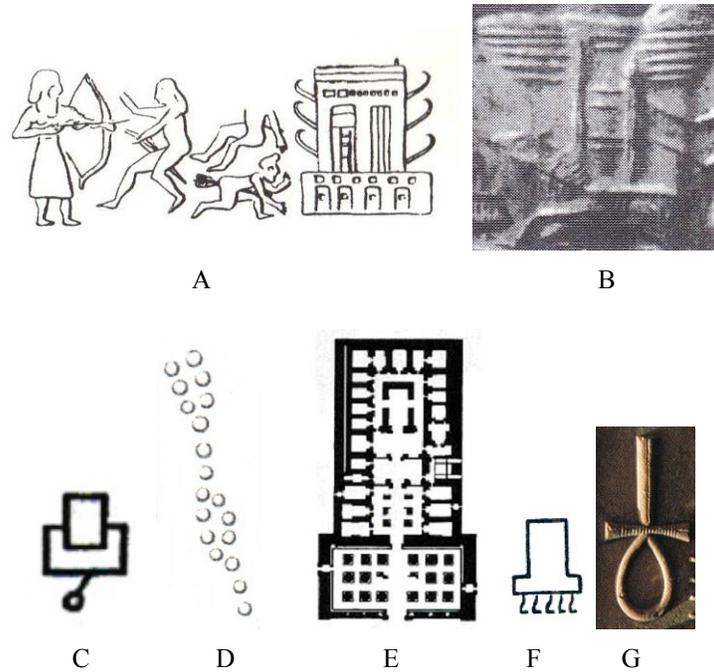


Figure 54. A. Susa cylinder seal with temple (Rice 1998: 107). B. “Winged gate” on top of bull as horizon/earth (Boehmer 1965: No. 604). C. Gemini candle (inverted) as the hieroglyphic *sa* (Gardiner 1957: 542). D. Gemini constellation in celestial diagram of Rameses II. E. Temple of Hathor at Dendera (Shaw 2002: 288). F. Hieroglyph (inverted) for “Great Gate” (Budge 1979: 658). G. Ankh (inverted) — “life” (McDermott 2001: 150).

In Figure 54A, note the shape of the Susa temple and that it resembles the shape of the Gemini candle in Seti I (54C). Though inverted with the flame/gate going into the earth, it is interesting that it matches the concept of the arrow as the fall seed/sun going into the earth as celestial horizon/body as depicted in the arrows being fired into the bodies of men next to it. Thus, the scene might symbolize a seasonal event as opposed to a purely historical one. It might also be important to point out that the union of the constellation of Gemini with the Hyades (the bull’s head/horns), which both form the Gemini gate/flame of the door into the *Duat*/underworld (as the flame is actually within the horns of the bull, which helps to explain the sun/fire within the bull’s horn seen in Egypt), might explain the bull’s horns emanating out from the temple/Gemini structure. Figure 54B shows the “winged gate” in the shape of the Gemini candle just over the back of the bull as the horizon/earth. Here the candle is pointed up, as the sun is

shown rising above the celestial horizon/earth instead of into it as the Susa example shows. But note the similarity in shape and concept.

This older version/shape of the Gemini candle from Susa can be seen later in the Gemini candle in Rameses II (Figure 54D), and the outline of many Egyptian temples (Figure 54E). This candle-like shape is also the shape of the candle-like hieroglyphs (Figure 54F) for "the great door of Heaven," "the great gate," "the door of sunrise, the last door of the *Duat*," etc. (see Pellar 2009). Even the Egyptian ankh sign (Figure 54G), which, as shown earlier, is an abstracted form of the goddess-of-the-horizon/celestial diagrams, also symbolizes the Gemini gate in both shape and concept (the gate is the doorway to the horizon, as seen in Seti I and with the "winged gates" in the Akkadian cylinder seals).

Thus, in addition to the architectural motifs that influenced early Egypt, it seems clear that other cultural borrowings from Susa took place as well — some that appear to have not only influenced Egyptian astro-theological celestial diagrams, but some that might have deeply ingrained themselves in the very structure of Egypt's religion, art, architecture, and writing. In terms of the latter, the Egyptian writing system had a huge impact on the origin and development of the alphabet. The connection between the alphabet and the Egyptian writing system and constellations was explored in an earlier paper (Pellar 2009) but will be looked at again in the Discussion section of Part Two of this paper. But before I venture into Part Two, it is important to look at another direction toward which the images from Mesopotamia, particularly Susa, traveled: Eastern Asia.

China: Fifth to Third Century BCE (Warring States Period)

Bronze Ox

Little is known of the celestial diagrams, constellations, and asterisms of China before the Han period (202 BCE to 220 CE), which was marked by the abandonment of the previous celestial system/configurations and a reshaping of the sky. As Gurshtein remarks, "For present-day historians of archaic astronomy, the reshaping of the Chinese sky was a stroke of bad luck. The misfortune happened because of the zealousness of the Chinese court reformers, who eradicated the legacy of the ancient epochs in the sky" (Gurshtein 2003: 4).

More specifically, in discussing a Han period chronicler, Sima Qian, Didier remarks,

However, we must recall that Sima wrote c. 100 BCE, after most of the records of previous periods had been lost due to the Qin's (221–208 BCE) proscriptions and destruction in 213 BCE of most texts not in its own possession. Sima seemed to be unsure of his identification of the abode of Taiyi, his description vague and scattered.... Furthermore, from reading *Shiji* 28, the "Treatise on the Feng and Shan Sacrifices," one becomes aware of just how little Sima or any other intellectual or court official of his time understood of ancient or even fairly recent traditions of stellar divinity that had, with unification, filtered into the Han court.... Seemingly none of these courtiers really had a firm grasp on many of the diverse pre-Qin or even pre-Han traditions floating in from the old states, and they relied on what amounted to hearsay to gradually develop a coherent regime.... Soon after Sima wrote there occurred what was perhaps the most momentous change ever to have transpired in Chinese astronomical history, and it thus would be careless to treat the later-adjusted traditions ascribed to the schools of Shi, Gan, and Wu to be identical with those from which Sima drew. Furthermore, the traditions ascribed to the three schools were lost in the wars of the late-Han period (c. 180–220 CE), and their reconstructions date to a period stretching from the early-4th through early-8th centuries CE.... But indecision and imprecision occurring in both Sima and thus also his modern readers derives further from the

fact that early-Han courtiers were grasping randomly for information about traditions regarding which they appear to have had only sketchy knowledge. The disturbance wrought by the Qin's social and military revolutions, particularly among the old elites, had created a cultural chasm between the Warring States and Han, and under Liu Che's direction to locate and embrace spiritual means to aggrandize himself and the Liu family's dynasty the courtiers very apparently cobbled together pieces absorbed from diverse ancient and more recent traditions and were uncertain of the resulting synthesis.... Sima noted the authoritative traditions that existed in and before his time, including those of Shi Shen, Gan De, and Wu Xian, and he is said to have followed mostly the Shi Shen tradition, but we do not possess a contemporary catalog of any of these three main cartographic traditions" (Didier 2009, Vol. 1: 176–182).

Fortunately, as Didier and other scholars such as Gershtein have discussed, there was enough pre-Han evidence to make some generalizations about pre-Han astronomy. Though most of that work is outside the scope of this paper, I would like to present evidence in pre-Han China of the astro-cult of the bull as seen in Susa and Egypt; its appearance in the European Neolithic and Upper Paleolithic will be explored in Part Two.

I begin with a personal anecdote and observation: while attending, as a participant, Kunming's First International Sculpture Symposium in 2005, in China, I had the chance to visit a large park on the outskirts of the city. Quite unexpectedly, I chanced upon a group of modern copies of Warring States Period bronzes that had been found in Jiang chuan County, China. This particular county and period, it turns out, was replete with many bronzes of bulls (oxen) and tigers. As I was engaged on the current astro-bull cult project at the time and had already worked out the position and composition of the Great Bull and the hippopotamus/crocodile in the Seti I star chart of Egypt, I couldn't help noticing a fascinating resemblance between the two, particularly in the placement of the tiger that corresponds to the predator of the crocodile in Egypt. Figure 55 is the photograph I made of it at the time.



Figure 55. Modern bronze copy of Warring States Period Bronze of bull (ox), calf, and tiger. Kunming, China (photo by author, 2005).

Later, at a Kunming foundry, while waiting to check on my bronze work, I glanced at a book I found on a table and was surprised to find a picture of the original of the bronze copy that I had discovered in the park a few days previously. I also took a picture of that bronze in the book (and I present both of the photos that I took, as I was not able to find them when I got back to the West); see Figure 56.



Figure 56. Warring States Period Bronze of bull (ox), calf, and tiger (author's photo taken from book in Kunming, China, 2005).

Figure 57 is a sketch that I made when I got back to the United States that correlated the two images.

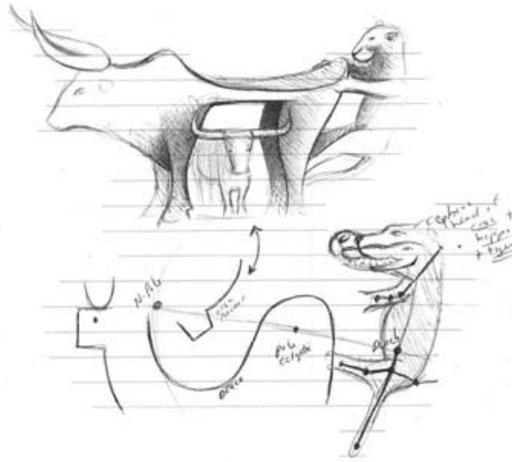


Figure 57. Bronze of bull and tiger (notebook sketch by author based on original bronze, not copy).

Looking at Figure 57, note the placement of the feet of the tiger on the bull, and how this matches almost exactly the placement of the feet of the crocodile (Cepheus/Cygnus) as seen earlier in this paper. Furthermore, the strange, unnatural placement of the calf between the legs of the bull in the center of its body also seemed to reflect the symbolic placement of Ursa Minor in the center of the Great Bull. However, the unnatural large concave depression in the back of the bull was a mystery to me. But in light of later research, it struck me that this concave depression is none other than the double horizon from which the calf as Ursa Minor rises upon being released by the action of the teeth of the tiger. This in essence is the exact same predator/prey mechanism seen in both Mesopotamia and Egypt, where the spear of the hawk or arrow of the lion or the knife of Utu/Shamash or Mithras must cut open the bull-as-the-horizon to release the sun/son/seed.

Note that the tiger is the eastern counterpart to the western lion (Leo) and crocodile (Cancer) as predator. It is also interesting to note that the tiger is also the constellation Gemini in the old Chinese zodiac, and when it is coupled with the Hyades/Taurus in the center of the Milky Way on the ecliptic, it shows once again the predator/prey pairing (this idea of the coupling of

predator and prey, particularly in relation to Gemini/fire as a consuming and enlightening agent, will be discussed in more detail in Part Two).

Furthermore, as seen from between the horns of the ox, the calf as son/sun is just below the crescent horizon, ready to rise up from the double horizon of the back of the body, which would correlate to an image of the sun rising up from between the horns of the ox/bull. What is also interesting is that the head of the tiger is visible between the horns of the bull, and it may have a solar symbolism similar to that of the lion in the west (tigers were sometimes seen as figures in the higher world, "the world of life and growing light"; and in China, as a symbol of protective strength, the "Five Tigers" were the "guardians of the four cardinal points, and of the centre") (Chevalier & Gheerbrant 1996: 1007). Thus, there is a sun/moon coupling as well, for this correlates to the crescent horns of the moon bull that contain and give birth to the light of the sun.

Also note how the double hump (horizon) matches the shape of the large horns of the calf (which is symbolic, as no calf would have such large horns). These large calf horns thus emphasize not only the double horizon of the bull's back that is an unnatural concave depression (all life forms are convex, as biological matter expands outwards. Only bite marks or weapon strikes into flesh leave concave marks. Thus, this concave surface on the bull's back is another symbol that it is meant to be read as the bull being cut up, opened up, by the action of the predator), but the precise placement of those horns also emphasizes the exact location (the ox's back) where the sun/light will rise up from between those horns. It thus marks the gate of the goddess-as-the-double-horizon.

Furthermore, the position of the north celestial pole during the Warring States period was rather high up in the body of the bull; see Figure 57. This high spot, which symbolizes the cutting aspect of the north celestial pole (the tip of the arrow/spear/knife/teeth of the tiger), also matches the area that is missing/cut from the back of the Great Bull, which is similar to the opening in the horizon made by the cut of the knife of Utu/Shamash. Thus, again, there appears to be a close correlation between the cutting action of the tiger on the bull and the position of the symbolic cutting action of the north celestial pole at the time of the bronze. It should be noted also that during the Shang dynasty, the north celestial pole was centered a bit lower in the

shoulder of the bull, which might also help to explain the countless divinatory writings/markings on bull scapula (shoulder blades). The flat surfaces of the bone might have been a practical factor in their use for writing, but that doesn't explain their symbolic use, as many other surfaces could easily have been used. A bull's scapula is an odd choice to use in a highly ritualistic and sacred divinatory practice that was carefully orchestrated for high officials and the emperor and was steeped in symbolism. This link between writing and the action of the earlier Egyptian scribe (later the Greek writer/poetic tradition) as the father using his pen as the spear/plow/penis of Anu that sows the seed/*logos* within the earth/papyrus/paper as the feminine vessel to initiate the later reading/harvest/eternal resurrection of the *logos*/author/god as the son/seed/light/wisdom that rises like the sun from the horizon will be discussed in more detail in the discussion section on the alphabet in Part Two.

After discovering that this bull and tiger might be a representation of the Great Bull in the northern sky, I then decided to see if there might also have been some modern/post-Han constellations that, like the ones with the Egyptian Anu, were remnants of an older pre-Han age that dealt with the fall equinox, a hunter, and a bull.

For instance, in Didier's work, I noticed a reference to the high god of the north celestial pole, Taiyi, and his spear ("meridian of heaven") (Didier 2009, Vol.1: 185), and I immediately realized that this points to the north celestial pole in a manner similar to the spear/fall equinox of Anu. This could not be a coincidence. Didier states,

Following its identification of Taiyi, which passage was translated in the preceding chapter, the text in *Shiji* 27 describes first the main asterisms of the Zigong and then the stars of Yinde, or Tianyi. Beginning with the conclusion of the passage on Zigong, we read, "皆曰紫宮。前列直斗口三星隨北端兌，若見若不，曰陰德，或曰天一". These phrases can be translated thusly:

Together they are called the Azure Palace (Zigong). The three stars arrayed directly before the mouth of the Dipper sharpen [to a point] in a northerly direction. As if visible but also not (i.e., very faint), they are called the Power of Yin (Yinde). Some call them Tianyi.

In interpreting this text, one problem we encounter is that we cannot be certain to which direction along the length of the Dipper the writer intended to indicate with “northerly,” since the Dipper, a circumpolar constellation, revolves its position relative to the earth constantly — diurnally “northerly” becomes “southerly,” and “southerly” becomes “northerly.” We must also note that the text itself is unstable. An appended commentarial note tells us that the character for the Dipper, *dou* 斗, in some editions reads “*bei*” 北, or “north.” The characters, similar in linear construction, likely were confused at some point by a copyist. Indeed the parallel text in the “Treatise on Heavenly Patterns” of the later *Han Shu* (1st c. CE or later) here reads *bei*. Consequently we have lost our anchoring relative to the Dipper and now must consider what “north of the Zigong” would mean. Impossible to determine, we can only guess, and, therefore, we cannot pin down the position of Sima’s three stars of Yinde, or Tianyi. At the same time, however, the text of *Shiji* 12 / 28 (*SJ* 12 simply repeats *SJ* 28, the original *SJ* 12 apparently having been lost) that describes “Taiyi’s three stars” as representing the spear of Taiyi suggests that they form a line parallel to the Dipper’s handle. In this case, then these stars could be only (1) HIP 52425, (2) Giasar, and (3) the star cluster comprised by the stars 4 Draconis, 6 Draconis, and Kappa Draconis. Significantly, this line of stars points directly toward Thuban / 11 Draconis if we take the phrase in *Shiji* 27 to read “north of the Dipper” and the handle of the Dipper to be, as it was conceived during the Han, the Dipper’s pointer (as we saw in the recounting of the creation and use of the Numinous Banner). When the handle of the Dipper points northward, indeed the south-to-north line consisting of HIP 52425, Giasar, 4 Draconis, 6 Draconis, and Kappa Draconis points northward as well as directly toward Thuban / 11 Draconis — and the illusion of their together creating a line caused them in the West to be viewed to form in tandem the tail of Draconis. If we take this to be the most likely solution to the conundrum, then the *Jin shu* authors’ locating of Taiyi “south of Tianyi” is patently incorrect, for in the only likely reconstruction of Sima’s intended identifications, Tianyi lies “south of

Taiyi," just as we find has always been the case in mid-Tang and later celestial diagrams. (Didier 2009, Vol. 1: 198–199)

If one considers the position of the fall equinox as the spear pointing to the north celestial pole within the Great Bull, which paralleled the horizon as discussed/shown earlier, then it appears that the "spear of Taiyi" ("Taiyi's three stars") that forms "a line parallel to the Dipper's handle" is clearly correlated to the spear of Anu as the fall equinox, which was parallel to the Dipper's handle around 2800 BCE (Didier notes that, following the scholarship established on the Dunhuang celestial diagrams, Taiyi/Tianyi as stellar identities were established around 3000 BCE). Furthermore, as the Great Bull was parallel to the horizon, and Anu's /Taiyi's spear was just beneath the Great Bull, then these three stars that comprised their spear indeed pointed in a "northerly direction" towards the north celestial pole in the body of the Great Bull. Indeed, Tianyi would then also lie "south of Taiyi" (in the north celestial pole) as Didier notes it should.

Furthermore, while checking Allen for references to spears in the constellation Bootes in my earlier section on Egypt's Anu, I was surprised to find the following:

The star γ in the constellation of Bootes, which was where Egypt's falcon-headed Anu resided with his spear, was called by the Chinese, "Heuen Ko," which means, "The Heavenly Spear" (Allen 1963: 103).

The three stars θ , ι , χ in Bootes that were called by the Chinese "Tseen Tsang, the Heavenly Lance" (Allen 1963: 105).

The constellation of Bootes itself was called by the Chinese, "Ta Kio, the Great Horn" (Allen 1963: 100). This image of "horn" is interesting, in that it is linked to a bull and to a pointed instrument/weapon,

Thus, the spear of Taiyi/Heuen Ko/Tseen Tsang/Ta Kio mirrored exactly the spear of Anu, which, as the fall equinox, pointed in a "northerly direction" to the north celestial pole and to a bull (the object of those spears by hunters) in particular. That these all duplicate both the exact placement and concept of a hunter/spear/horn that points to the north celestial pole (meridian of heaven) within the Great Bull seems beyond coincidence and alludes to an older pre-Han astrology that appears derived from the West.

Furthermore, and more interestingly, the area that the calf is situated in is in the form of a square, an important northern polar symbol that Didier wrote extensively about in his three volumes. The Polar Quadrilateral, as he called it,

seems to have represented for ancient people not an *earthly* construct of sacred space representing an *abstract* cosmological principle delineated according to the vaguely observed cardinal directions or solstitial/equinoctial points on earth, but rather a simple physical rectangular/square entity that *itself* was thought to possess thaumaturgical powers. That is, the square appears to have not only *symbolized* the crux of the high god's/gods' power, it *was* the crux of the god's/gods' power and thus also was the high god or gods it or themselves.... The source of the rectangular/square design on earth seems to have been the perceived source of the superhuman and supreme potency of the heavens, and this itself was a rectangle formed from five very bright, obvious, and noticeable stars that appeared very near or at the northern celestial pole from the 5th through the end of the 2nd millennia BCE. The rectangle's constituent stars include

- Mizar (Zeta Ursae Majoris), on the Dipper's handle
- Alioth (Epsilon Ursae Majoris), on the Dipper's handle
- Pherkad (Gamma Ursae Minoris), across the rectangle's length from Mizar
- Kochab (Beta Ursae Minoris), across the rectangle's length from Alioth
- Thuban (11 Draconis), in the center of the length between Mizar & Pherkad

(Didier 2009, Vol. 1: 216)

Didier then gives a wealth of information and evidence concerning the polar quadrilateral and the symbols, images, coins (the square hole in the round center), written graphs (such as *ding* □), and the polar placement of the high gods of not only China, but Eurasia as well. He further states that with the Han (which, as noted above, abandoned the ancient astronomical systems),

and with the movement of the north celestial pole away from Thuban and/or a pole star, the quadrilateral was abandoned as a heavenly symbol and was transformed to represent the earth.

Though I feel that many aspects of his thesis are correct and are quite fascinating, as they complement my own findings (many of these points of agreement and disagreement are too large in scope for this paper), I must, however, disagree as to the exact identity/nature and placement of the Chinese polar quadrilateral. That is, based on all of the evidence presented thus far, I feel that Didier's Chinese polar quadrilateral is an iteration of the earlier Eurasian symbol for the gate/door of the double horizon of the goddess-as-the-vessel. More specifically, though it is indeed in the northern polar heavens and is seen in two dimensions, the polar quadrilateral is symbolic of the physical space of the belly/womb of the androgynous bull around Ursa Minor that merely mirrors the shape of the four stars that comprise its head as the physical vessel of the sun/son/seed: Kochab, Pherkad, Eta Ursae Minoris, and Zeta Ursae Minoris. That is, the polar quadrilateral is the square part or dipper of Ursa Minor, the little dipper. Thus, two of Didier's stars were correct, as was his general instinct (it is also worth noting that though the emperor and his court/palace were located at/near the polar quadrilateral in the northern sky, the later emperor's city was located in the southern sky in Pegasus. This might be the southern counterpart to the northern, as there is the "square" of Pegasus).

Note that the polar quadrilateral is seen as the "head" of Ursa Minor (which in turn mirrors the head of the bull, Ursa Major) as the calf/son/high god "Di/Ding" of the Shang, translated into the Zhou's high god Tian in 1045 BCE (Didier 2009, Vol. 3: 3), which explains the square as being the "head" of an anthropomorphic "heaven" glyph. See Figure 58.

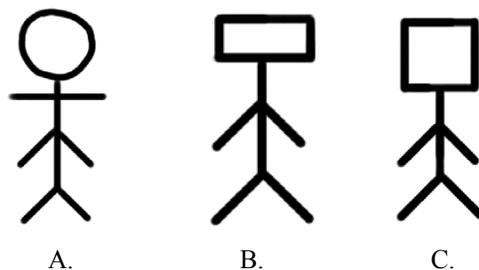


Figure 58. Forms of the glyph Tian. **A.** Period 1, early. **B.** All periods. **C.** All periods (Didier 2009, Vol. 3, table 1).

In Figure 58A, note the horizontal line at the neck of the anthropomorphic figure of Tian. This horizontal line at the neck, as discussed earlier, mirrors the double horizon/gate at the neck of the earlier Egyptian figures/ankh and the Syrian ankh. It symbolizes and reflects the horizontal horizon element in the anthropomorphic ankh symbol as seen in Figure 46 and alludes to the harvest — as the seed as the sun/head is cut from the body of the plant (Osiris)/Goddess at the neck as the double horizon. The other two Tian figures, Figure 58B & C, clearly identify the head as a square/rectangle, which, again, reflects the head as the locus or gate of the sun/son/seed/consciousness/wisdom that rises from the body-as-the-horizon (which, along with the Neolithic skull cult at Catalhoyuk/Jericho, will be discussed in greater detail in Part Two). Furthermore, the link between the Shang's use of Tian as "the name of a place where the Shang king hunted" (Didier 2009, Vol. 3: 2) and the Zhou's use of Tian, are not mutually exclusive when one considers that Ursa Minor, as the calf within the bull/ox, is released by the action of the predator (tiger in China, Anu/falcon in later Egypt, lion in Susa). Thus, the Shang king, as the tiger, hunts (harvests) the Great Bull, thereby releasing the calf/sun/seed from within the bull-as-the-horizon to nourish his empire.

The link between Ursa Minor and the north celestial pole, as previously discussed, is an intimate one, as the north celestial pole is the ultimate center/gate of the goddess that Ursa Minor, as the calf/seed/sun, resides in and moves through. That is why the high gods are centered there, because it is the gateway of the gods and heaven (the Egyptian *Duat*/underworld) itself. Thus, looking to the image of the bull and calf in Figure 56, the square space that surrounds the calf in the center of the bull is clearly connected conceptually to the concave depression above it. That is, as Ursa Minor resides within the womb of the bull as the high god/goddess, its release could only be through the doorway/gate/double horizon created by the cutting action of the hunter/harvester's teeth/spear/pole/sickle. Thus, the pole/*axis mundi* is the location of the high god, and this is the window/door to it, so that it is the center of the cosmos from which everything revolves. The quadrilateral's ultimate demise as a symbol of heaven and the bull lies in the eventual movement of the pole outside the body of the bull as the earth/moon/feminine vessel (a point that will be discussed in detail in Part Two).

Furthermore, and more importantly, Didier correlates the Chinese glyph *ding* 𠄎 and high god Ding with the polar quadrilateral, and I argued/presented evidence that the glyph *ding* correlates to the letter *daleth*, which was part of Aries (Chinese Rat), the vernal equinox, which was the gate/door (depicted as a rectangle/square, i.e., such as the Gemini gate and the "House of Horus" —



— which is Hathor, the cow, with Horus, the sun/son/calf within her) that leads into/out of the *Duat*/heaven/underworld during that time period. The other half of Aries is the letter Gimmel, which correlates to the Chinese glyph *zi* 子 (a "child, son" [of Taurus/Great Bull] and possibly a "grain, seed"), which, when rotated, looks like a calf/Ursa Minor 𠄎 (see Pellar 2009). I also argued that *daleth/ding* and *gimmel/zi* as Aries were symbolic of, and a southern extension of, Ursa Minor, which, as just discussed, matches quite well with the identity of Didier's polar quadrilateral being Ursa Minor, particularly when correlated with the anthropomorphic Tian symbol in Figure 58A being Ursa Minor, the child/son/grain/seed, which is cut/released at the neck from the body of the bull-as-the-horizon at the harvest.

Thus, Ursa Minor as the sun/son/seed within the Great Bull as the goddess-of-the-horizon, exits her body via the action of the turning and cutting of the pole as an instrument of the predator. That exit space formed by the cutting action of the pole symbolizes the birth canal of the goddess herself, who as Nut in Egypt, gives birth to the sun. This birth canal is also symbolized on the ecliptic by the Gemini gate/door, which is symbolically the same gate from which Ursa Minor is born. This connection between the actions of the polar region and their extension to the birth of the sun as the *logos* on the ecliptic/astro-alphabet will be explored in greater detail in Part Two. Thus, Didier's instinct that the polar quadrilateral was connected to both the "winged gates" on Akkadian cylinder seals and the squares seen above the bulls depicted on Harappan tablets was a correct and brilliant one. When one sees those bulls as being centered at the north celestial pole, it makes even more sense.

The mystery that the polar quadrilateral also represents the earth can be seen as complementary rather than contradictory. That is, the polar square, the gate/door from which Ursa

Minor as the sun/son rises from the womb/back of the bull as the goddess of the horizon is also found in all matter, merely an extension of the goddess-as-a-vessel-of-the-earth/cosmos (an idea manifest as early as Catalhoyuk), but with, ultimately, one gate/groin. So, just as the gate is seen in the figure of the bull in the 2D sky above, which is the celestial template to the lower figures made from earth, it is also seen as a function of earth. They are ultimately, like yin and yang, one, with a common center. This explains why the polar quadrilateral was found both in the sky (the upper template) and in the earth, and then later after the destruction of many of the older texts by the Qin, was made to represent solely earth. But it is clear that the square is really a gate, a sole entrance/exit from the body of the goddess-as-the- bull/vessel, with all gates being merely symbolic of that one ultimate point (the groin/birth canal of the goddess). As above, so(w) below. It is merely a symbol of the release of the three-dimensional counterpart to the two-dimensional figures/alphabet written above in the blackboard of the night sky. In light of the discovery of DNA as a type of "text" or *logos* that is found "within," and that ultimately is made flesh via the double gate/horizon of the feminine body-as-vessel, the ancient idea of the Egyptian creator god Ptah, who created all things from the word/*logos*, is not so far-fetched after all (see Part Two).

It is also interesting to note that the idea of a "square" being inside a bull is an old idea going back to Egypt, Kuwait/Bahrain, and the caves of France. See Figure 59 for an example of the former.



Figure 59. The letter *aleph*. A bull's head in the shape of a goddess. Wadi El-hol, Egypt.

Figure 59 shows the letter *aleph* that was found carved in a rock at Wadi El-hol, dating from around 1800 BCE. Together with an "L" next to it, it spells the name of the semitic god El, (who was closely associated with the bull). It is a bull's head, but notice the shape of the eye within it. It is in the deliberate form of a square. There was no attempt to make the normal curves of the eye. Nor was there an attempt to match the proper size/ratio of the eye to head. The square is large and bold, demanding our attention. It is as though the eye were a door or gateway to something "within" the center of the bull. Furthermore, this bull's head is in a different shape from the other *aleph* found close by. This shape (Figure 59) seems to resemble the shape of the semitic goddess herself, Asherah — the mother goddess (there appears to be also a tail affixed to her, which shows her cow aspect). Her arms are raised over her head (which is insinuated by the small crescent arc within the circle of her arms), and the square is centered in her womb, which is the gateway and center of the goddess-as-the-vessel. What makes this probable is the large ankh symbol just above her that is also in the shape of a human figure; see Figure 60.



Figure 60. Ankh sign in anthropomorphic form above the letters, including *aleph*. Wadi El-hol, Egypt.

As discussed earlier, the ankh symbol is really an anthropomorphic symbol of the goddess-as-the-horizon (the arms as the horizontal earth/crescent moon, the head as the rising sun/seed/*logos*, and the lower body as the chisel/spout/spear/reed/plow that enters the horizon to cut the cord to release the sun/head in the endless cycle of birth/sunrise/harvest/reading, then death/sunset/sowing/writing, then resurrection). Note its resemblance in concept/structure to the Chinese Tian in Figure 58A. See Figure 46E for another comparison. Note the tip of the vertical chisel/spear/fall equinox element that is above the horizontal (double horizon element). That

raised tip is not an accident, but is rather carefully placed as a symbol of the vertical movement of the sowing/opening predator/hunter element that ultimately releases the sun/son/seed/head. Thus, to find this anthropomorphic ankh symbol situated just above the anthropomorphic *aleph*, each shaped as a goddess, seems more than a mere coincidence.

In Figure 43D, in the stamp seals from Kuwait (Failaka Island), which was first settled around 2000 BCE, there is a square box on which the bull man stands. This square box in the center, between the two antelopes as the double horizon and beneath the feet of the bull man with his head in his hands as the rising sun appears to symbolize the gate of the goddess-as-the-horizon (both terrestrial and celestial, with its ultimate origin in the northern circumpolar region of the sky in the body of the Great Bull-as-the-goddess/horizon). Note that there are twelve small boxes inside the larger box. This could represent the twelve lunar months of the year.

In an older stamp seal from Bahrain (Figure 47B), again note the large square/box between the two bulls that hold up the sun as it rises from the double horizon (terrestrial/celestial). Rice refers to this box as a "podium" (Rice 1998: 269), which I feel, given the context of the evidence presented thus far, is not accurate. This box is composed of twenty-four smaller boxes, that is, two times twelve, a "double" lunar year, which mirror the two bulls (the double or twin aspects allude, once again, to Gemini, the gate from which the sun is born, and the Age of Gemini/twins, about which Gurshtein wrote extensively).

Another, much older, example of an abstracted square found within a bull comes from the Upper Paleolithic cave of Marsoulas; see Figure 61.



Figure 61. Three views of same abstracted "rectangle" found within a painted bull at Marsoulas (image from the Emile Cartailhac Prehistoric Art Research and Study Center website: www.creap.fr/marsoulas.htm).

Note that at the top of this "rectangle," that is, in the center image of the bull in Figure 61 there are three lines that radiate up from the center line and exit the hump or back of the bull. See Figure 62 for a closer view. These three short lines emanating out from a single point resemble the rays of light or a sunrise. Also note that there are eleven smaller rectangles or squares, and if the upper horizontal line within the larger rectangle extends to the side, this rectangle is then properly divided into twelve smaller boxes or squares, which would indicate twelve lunar months of the year (exactly like the later box shown on the stamp seal from Failaka Island). Thus, the middle line with the radiating three lines is correlated to the equinox in the center of the horizon. But more importantly, note that there is a calf within this large rectangle and thus within the belly/womb of the bull. See Figure 62.



Figure 62. Note the white calf within the "square" and within the belly of the bull (image from the Emile Cartailhac Prehistoric Art Research and Study Center website: www.creap.fr/marsoulas.htm).

This calf within a box that is itself within a bull that is rectangular in shape (as is the outline of the Great Bull of Draco/Ursa Major), and that projects three rays of light at the top/back of the bull, looks remarkably similar to the Chinese bronze of the bull/ox with the calf within a box element that is just below a horizon element.

Also, note the angle of the white lines emanating up from the back of the bull — they match the direction that the sun would take as it rises up from the horizon. But more importantly, note that these lines form the outline of the back of the bull, as the back leg and front horns are clearly visible. Thus, the artist showed a spiritual calf rising up to match the angle at which the sun rises, to give birth to the calf as the sun.

Once again, if this interpretation is correct, the back of the androgynous bull is seen as a double horizon where the sun, like Ursa Minor, would rise up from a notch/gate in the middle of the back. This concept was carried down from the Upper Paleolithic into the Neolithic (as seen at Catalhoyuk) and into Mesopotamia/Egypt/China. The radiating lines and the notches at the top of the back of the bull that symbolize the birth of a calf/son as the sun from the goddess-as-a-bull/horizon will be seen again in more detail in the Neolithic and Upper Paleolithic sections of Part Two of this paper.

Frazer's *Golden Bough* provides an insight into the function of the cutting up of the bull/ox in China as a symbol of the regenerative and life-sustaining principles of the earth/bull-as-the-nourishing goddess. Frazer discusses an interesting ceremony involving a bull that appears to pre-date the Han period in China and that directly alludes to not only the seasons, specifically spring, as well as to the eastern horizon, but also, and more importantly, the cutting up of the bull as seen in the Warring States Period bronze and in the bull sacrifice images in Mesopotamia and Egypt. Frazer states:

Still more clearly does the ox appear as a personification of the corn spirit in a ceremony which is observed in all the provinces and districts of China to welcome the approach of spring. On the first day of spring, usually on the third or fourth of February, which is also the beginning of the Chinese New Year, the governor or prefect of the city goes in procession to the east gate of the city, and sacrifices to the Divine Husbandman, who is represented with a bull's head on the body of a man. A large effigy of an ox, cow, or buffalo has been prepared for the occasion, and stands outside the east gate, with agricultural implements beside it. The figure is made of differently-coloured pieces of paper pasted on a framework

either by a blind man or according to the directions of a necromancer. The colours of the paper prognosticate the character of the coming year; if red prevails, there will be many fires; if white, there will be floods and rain; and with the other colors. Then mandarins walk slowly round the ox, beating it severely at each step with rods of various hues. It is filled with five kinds of grain, which pour forth when the effigy is broken by the blows of the rods. The paper fragments are then set on fire, and a scramble takes place for the burning fragments, because the people believe that whoever gets one of them is sure to be fortunate throughout the year. A live buffalo is next killed, and its flesh is divided among the mandarins. According to one account, the effigy of the ox is made of clay, and, after being beaten by the governor, is stoned by the people till they break it in pieces, "from which they expect an abundant year." Here the corn-spirit appears to be plainly represented by the corn-filled ox, whose fragments may therefore be supposed to bring fertility with them.... The Chinese and European customs which I have cited may perhaps shed light on the custom of rending a live bull or goat at the rites of Dionysus. The animal was torn in fragments, as the Khond victim was cut in pieces, in order that the worshippers might each secure a portion of the life-giving and fertilizing influence of the god. The flesh was eaten raw as a sacrament, and we may conjecture that some of it was taken home to be buried in the fields, or otherwise employed so as to convey to the fruits of the earth the quickening influence of the god of vegetation. The resurrection of Dionysus, related in his myth, may have been enacted in his rites by stuffing and setting up the slain ox, as was done at the Athenian bouphonia. (Frazer 1996: 542)

The placement of an ox effigy at the eastern gate at spring, filled with wheat, and then split up with rods, is reminiscent of Taurus (ox) at the vernal equinox that is cut into two pieces as an extension of the north celestial pole at the tip of Anu's spear cutting the Great Bull in two in the circumpolar sky (which mirrors the seed being released from the bull as seen in the discussion of the Tian glyph in Figure 58A). This in turn clearly parallels the myths and images

of Osiris (from whom the classical authors attest that Dionysus was borrowed), the bull and grain god who was cut up and resurrected like the moon (in one image of Osiris, he is shown with grain rising up from his body, thus showing a parallel with the cutting up of his lower body as the goddess/moon/bull/earth to the cutting up of the wheat that grows from it). The celestial diagram of Rameses II shows the spring seed that will be harvested/cut from the back of the bull, which mirrors the bull of Mithras clearly spilling out the seed of wheat from its wounds at the harvest/cutting. See Figure 63 (and Figure 47A).

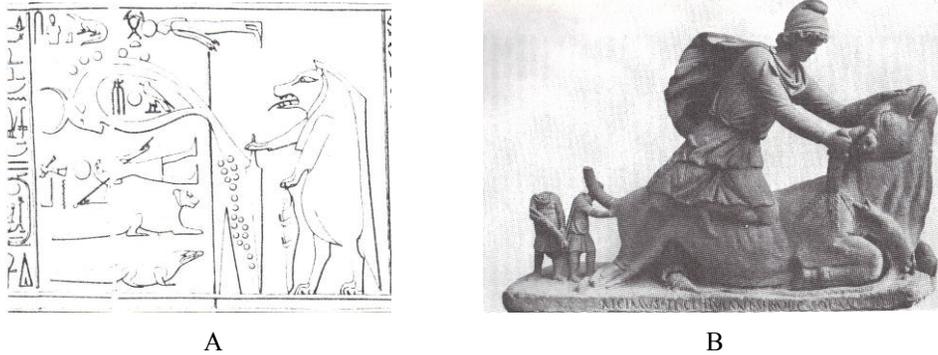


Figure 63. **A.** Celestial diagram of Rameses II, with dots above back of bull as the spring wheat/rising sun/seed. **B.** Tauroctony showing wheat pouring out from wound of bull at harvest (Ulansey 1991: 56).

As the black bull is the moon bull, it is also the earth/horizon (the ancient name for Egypt was Kemet, which means the black earth, and forms the words for black books/literature/black bull, which are all related as vessels of the seed/sun/*logos*). Furthermore, the Egyptians called themselves Kemmau, as the ancients saw both the moon and the earth as being composed of the same matter. Thus, the “clay” effigy of the bull that the Chinese used symbolized the earth that released the seed, as clay is literally from the earth and must have symbolized it along with the bull that was formed from it. This again, mirrors the sun/seed/Horus being born from the body of goddess/bull as the horizon/earth.

Furthermore, just as Ursa Minor as the seed within the Great Bull-as-the-goddess/horizon is released by the spear of Anu, the seed in the Chinese ceremony is released with rods that cut it open, which in turn parallels the tiger as the predator/hunter/harvester that must cut up the bull to release the calf/son/seed within, as seen in the Warring States bronze. Another link, as discussed

earlier (and see Pellar 2009), was the connection between Virgo as the vessel/bull that carried the seed, Spica, in her womb, and the harvest of that seed in spring in the form of Taurus. Again, these processes are carried out in the northern circumpolar region by the movement of the pole through the Great Bull and then played out in the figures of the seasonal zodiac.

Like the bear ceremony of the Ainu in Japan, this Chinese ceremony appears to have deep roots. Part Two of this paper will explore these deeper predator/prey roots, notably the origin of the idea of the cutting up of, or the opening up of, the body of the bull as-the-goddess-of-the-horizon in the Upper Paleolithic, its maturity in Neolithic Anatolia/Europe, its complex renderings in the origins of the alphabet in Egypt, and, as evidenced by the work of Victor Mair and others, its eastern dissemination and direct influence on, via Persia and their Magi (**myag*), the development of the calendar signs, writing, and astro-theology of Shang China.

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