Directionality and Geography in Mesopotamian Astral Omens

by

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LIST OF ABREVIATIONS

AfO	Archiv für Orientforschung
AJSLL	American Journal of Semitic Languages and Literature
BH	Babylonian Horoscopes
BM	Tablets in the collections of the British Museum
BWL	Babylonian Wisdom Literature
BPO	Babylonian Planetary Omens
CDA	A Concise Dictionary of Akkadian
EAE	Enūma Anu Enlil
HAMA	A History of Ancient Mathematical Astronomy
MCG	Mesopotamian Cosmic Geography
JAOS	Journal of the American Oriental Society
JCS	Journal of Cuneiform Studies
JNES	Journal of Near Eastern Studies
SAA	State Archives of Assyria
TAPS	Transactions of the American Philosophical Society
ZA	Zeitschrift fur Assyriologie

I. INTRODUCTION

The scholarship on ancient astrology of the last century has tended to emphasize several contrasts to distinguish Mesopotamian astral divination from what had been more characteristically defined as Hellenistic astrology. Among these distinctions, we encounter arguments that Mesopotamian astral divination was contrasted with Greek astrology in several key respects.[1] First, that astral omens collected on clay tablets by the Babylonian and Assyrian cultures were regarded as signs, rather than causes, that might indicate impending mundane events. Second, that Mesopotamian cosmology appears to be dualistic, in that heaven and earth are not separated from each other as in Hellenistic Aristotelian cosmology, but rather form an interdependent relationship in which the cosmos is divided into levels of heavens and earths assigned to different deities. Third, that Hellenistic astrology as set forth in Ptolemy, is mechanistic and the motions of the celestial bodies are considered efficient causes of changes on earth. This is often contrasted with the Mesopotamian model of astrology as divinatory and dependent solely on the will of the deity to provide signs of impending changes. Fourth, that Mesopotamian astral divination relied on observed periodic relationships made over the course of centuries, rather than on a theoretically constructed geometric model, as appears spontaneously in Ptolemaic Egypt in the 3rd and 2nd centuries BCE.[2] Lastly, unlike Hellenistic astrology, Mesopotamian astral divination, it is argued, lacks the use of a system of astrological houses anchored by a Zodiac sign ascending over the horizon which becomes the basis of all subsequent astrological house systems and a defining criteria of nativity horoscopes.[3]

More recent scholarship over the last couple of decades has put into question some of these distinctions as a basis for such a narrow definition of astrology. As the ever-increasing quantity of cuneiform tablets become available in translation, new light is being shed on the presumed discontinuity between the astral science of the late Babylonian period and its influence on Hellenistic astral doctrine. For example, it is now recognized that some of the theoretical schema by which the Zodiac signs are divided in Hellenistic astrology were actually contributed by the Babylonians. Among these: the planetary exaltations (hypsomata); the Micro-Zodiac

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[1] See Francesca Rochberg, "Elements of the Babylonian Contribution to Hellenistic Astrology," *Journal of the American Oriental Society* 108, no. 1 (1988). P.52 for a brief comparison.

[2] Otto Neugebauer, *The Exact Sciences in Antiquity*, 2nd ed. (New York: Dover Publications, 1969). P.170. Tamsyn Barton, *Ancient Astrology* (New York: Routledge, 1994). P. 29.

[3] James Herschel Holden, *A History of Horoscopic Astrology*, 1st edition ed. (Tempe, AZ: American Federation of Astrologers, Inc., 1996). P.13.

(*dodekatemoria*) and the triplicity groupings.[4] Furthermore, a catalog of 28 Babylonian horoscopes (plus four texts containing birth notes) compiled by Francesca Rochberg[5], argues against the once-held position that genethlialogy, or the art of casting nativities for individual births, originated with the Greeks.

One area of astrological overlap and the possibility of transmission between cultures that remains largely unexplored concerns the influence of geography and place. In Hellenistic astrology the notion of place or *topos* appears tied to the doctrine of houses, which by implication necessitates the calculation of a *horoskopus* (an Ascendant) and its derived system of 12 house divisions. Perhaps because of the documented lack of Babylonian nativity texts containing an Ascendant sign[6], the influence of place in the Babylonian omen literature has been presumed to be either absent or completely independent from any notions of place found in the Greek tradition. There is however, sufficient mathematical evidence testifying to the fact that the 'Chaldeans' could calculate the risings times of the Zodiac signs, as well as historical testimony from ancient sources alluding to the fact that they were indeed observing ascending signs at the moment of individual births.[7] Indeed, the calculation of rising signs over the horizon does not require spherical trigonometry and can be calculated quickly using simple arithmetic and a seasonal hour.[8] Notwithstanding the possibility – undocumented in the nativities – that the Babylonians were observing rising signs, we cannot from this alone imply that a system or even concept of houses existed in late Babylonian astrology. However, as has been pointed out by Wilhelm Gundel, one early Hermetic astrological source containing influences of Babylonian origin, attests to the division of the chart into quadrants as a symbolic representation of the whole life of the individual.[9] In Manilius' *Astronomica* (II.788-970), one of the earliest Hellenistic sources, we also find an extensive exposition about the division of the chart into life quadrants.

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[4] See Rochberg, "Elements of the Babylonian Contribution to Hellenistic Astrology."

[5] Francesca Rochberg, *Babylonian Horoscopes*, 1 vols., vol. 88, Part 1 (Philadelphia: Transactions of the American Philological Society, 1998). This is an update to a previous catalogue by A. Sachs, "Babylonian Horoscopes," *Journal of Cuneiform Studies* 6 (1952).

[6] The earliest horoscopes containing an Ascending sign (*horoskopus*) are Hellenistic in origin and do not predate 4 B.C.E. See Sachs. *JCS*. p.51.

[7] For mathematical calculations see note 8. For testimonial evidence see:Jim Tester, *A History of Western Astrology* (Woodbridge, England: The Boydell Press, 1996). pp.15-16; David Pingree, *From Astral Omens to Astrology: From Babylon to Bikaner*, ed. Giuseppe Tucci, vol. LXXVIII, *Serie Orientale Roma* (Roma, Italia: Instituto Italiano Per L'Africa e L'Oriente, 1997). p.24.; and Sachs, *JCS*. p. 50.

[8] Rochberg. *BH*. p. 2. Also in J. D. North, *Horoscopes and History* (London: The Warburg Institute University of London, 1986). p.7.

[9] Wilhelm Gundel, *Neue Astrologische Texte Des Hermes Trismegistos: Funde Und Forschungen Auf Dem Gebiet Der Antiken Astronomie Und Astrologie* (Munchen: Verlag der Bayerischen Akademie der Wissenschaften, 1936).

Manilius argues that "these points are charged with exceptional powers, and the influence they exert on fate is the greatest known to our science, because the celestial circle is totally held in position by them as by eternal supports."[10] Manilius continues by discussing the twelve "temples," which are derived by trisecting the quadrants and their significations.[11] In Babylonian astrology, a four quadrant geographical scheme which indicates the regions affected by the omen prediction is an integral part of the interpretative system.

Similarly, the division of a horizon-defined nativity chart into cardinally aligned "life quadrants" presupposes the assignment of some type of signification to the cardinal directions or to the spatial quadrants that define the circular horizon. Assigning symbolic meaning to the four directions is not unique to Egypt, as it appears in the cosmologies of the earliest civilizations in China, North America, and Mesoamerica. This is understandable when one considers that the patterns associated with the Sun's movements in the sky do not just organize time, they also create spatial order.[12] If one watches the Sun's first and last appearances each day over the horizon, it becomes obvious that the Sun consistently rises in an eastern zone and consistently sets in a western zone. It is also apparent that over the course of the year, the Sun traverses the full span of these zones, reaches its most northern and southern limits, "dies" and is "reborn" to retrace its steps back in the direction whence it came. The Greek word for horizon is *horion*, which means boundary and it was regarded as a transition place between earth and sky. Thus, it is this regular death and rebirth of the Sun at the joining of sky and earth that, not only allows for a distinction between east and west, but also, and more importantly, provides a primordial metaphor whereby celestial events overhead represent those occurring on the terrestrial plane below.[13]

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[10] Manilius, *Astronomica*, trans. G. P. Goold, *Loeb Classical Library* (Cambridge: Harvard University Press, 1977).
[11] The passage ends with a purported quote from the founder of astrology who entitled this section *Octotropos* (8-turning). The editor G.P. Goold (p. *lxi*) has identified this statement as a later interpolation and not indicative of a division of the circle into eight houses (*octotopos*), as is implied by the interpolator and erroneously interpreted in later Hellenistic sources. Gundel also mentions the existence of an *oktotopos*, literally translated as an eight-fold division of places, which he erroneously thought to have been a precursor of the current 12-fold division and which he speculates may be have been the result of bisecting the four cardinal quadrants. However, as Goold notes, and Pingree concurs, the o*ctotopus* refers rather to the eight topics of inquiry traditionally covered in the first eight divisions of the 12 house circle. While some debate remains around the topic of the *oktotopos*, the matter will not be taken up here.
[12] E. C. Krupp, *Beyond the Blue Horizon: Myths and Legends of the Sun, Moon, Stars and Planets* (New York: Oxford University Press, 1991). P.44.
[13] E. C. Krupp, ed., *Archeaoastronomy and the Roots of Science*, *AAAS Selected Symposia Series* (Boulder, CO: Westview Press, 1984). P.3.

In terms of sky/earth parallels, there are some similarities between the cosmology of Shang China and that of the Babylonians.[14] The Chinese mapped the skies and its constellations on the basis of an equatorially based grid. As early as 1500 BCE, they divided the skies into 28 lunar mansions, each segmenting a part of the equator, cataloguing by the 4th century BCE a total of 1464 stars grouped into 284 constellations.[15] Star mapping, as John North notes, has a long tradition in China precisely because "omens in the heavens were thought to have relevance to the region of the stars in which they were sighted, and those regions were associated with regions of the earth – whether foreign territories, provinces, cities or even divisions of the Imperial Palace."[16] Directionality also played an extremely important role in assigning meaning to terrestrial space. The Shang king, says Keightly, "lived at the center of a world in which the directions – of the land; of his travels; of the winds, rains, and clouds; and of the Powers that controlled, or were manifested in, those phenomena – were symbolically significant… The King looked out upon the North China plain, from the core of his enduring lineage, from the center of the settlement, from the center of the *tu* lands and the *fang*-regions, [17] observing, forecasting, and recording the numerous directional phenomena, mundane and spiritual, on the time-space grid of Late Shang cosmology. That grid was built upon the cardinal directions, upon the seasonal changes in weather and in the motions of the Sun, moon and stars."[18] By the Zhou and Han periods, we find the use of directional winds fully developed as a basis for oracles, not unlike what we come across in the Babylonian omen texts. In a Han commentary an outline of the oracular significance of each wind is given:

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[14] Professor Needham has suggested, although without argumentation, a cross-cultural transmission from Mesopotamia both eastward to China and westward to Greece. See Joseph Needham, "The Cosmology of Early China," in *Ancient Cosmologies*, ed. Carmen Blacker and Micheal Loewe (London: George Allen & Unwin Ttd., 1975). p. 89.

[15] John North, *The Norton History of Astronomy and Cosmology*, ed. Roy Porter, *Norton History of Science* (New York: W. W. Norton and Company, 1994). P.133.

[16] Ibid. p.139.

[17] The lands beyond the cult center where the King's palace was located were collectively called the *si tu*, or "four lands", (*tu* meaning lands). These were considered to be Shang lands which were harvestable and cultivable and indeed the oracle bone divinatory inscriptions referring to the *tu* are primarily concerned with the quality of the harvests. When spoken of individually, each of the four lands is designated by the name for one of the cardinal directions, indicating a quadrate organization to the landscape. The word *fang* means "side, border, country, or region," and was used to refer to the non-Shang lands of neighboring or enemy groups. Some of these lands were located within the *tu* regions and some were located outside the Shang borders. Like the *tu*, the *si fang*, or "four countries" were designated by directional names.

[18] David N. Keightley, *The Ancestral Landscape: Time, Space, and Community in Late Shang China*, *The China Research Monograph Series* (Berkeley, CA: Institute of East Asian Studies, 2000). p.121.

> When the wind blows from the south, there will be droughts; when it blows from the north, inundations. Coming from the east, it forebodes epidemics, and coming from the west, war. The Grand Historian is right in saying that water, dryness, war, and diseases are predetermined from the wind, for the good and bad fortune of men and things is controlled by Heaven.[19]

The use of directionality to symbolically organize spatial meaning is also found in the cosmologies of the more tropically located cultures of Mesoamerica, particularly that of the Yucatec Maya. Here, because the north pole does not appear as high in the heavens and because the Sun and stars appear to project almost vertically upon rising, and plunge to their "deaths" into the western horizon, the resulting organization of terrestrial space reflects this emphasis on the horizontal and vertical dimensions. At the horizontal level, the earth is divided into four prime 'world directions' which were associated with colors, birds, trees, animals, numbers and deities, parts of the body, and units of time.

Quartered circles and quadripartite diagrams are a common feature of Mesoamerican iconography and often interpreted to represent the solar year. While the world directions have been generally considered to correspond to the European cardinal directions, Coggins has noted that there is reliable consistency with regard to east/west symbolism, but that, colors and associated directional symbolism for north and south are among the least consistent features."[20] He admits the possibility that the four-pointed mandala may actually be an illustration of a vertically oriented diagram bounded within the ecliptic. Its four quarters would thus, not depict the cardinal directions at all, but the points "where the sun rises, where it reaches the top; where the sun sets; and where it reaches the bottom."[21] This three-dimensional directional model based upon the ecliptic and the Sun's quadripartite annual and diurnal punctuations of terrestrial space, does not preclude geographical or directional influences upon the attributions given to these 'spatial moments'. That is, when "the Sun reaches the top" it is also at its most northern horizontal latitude and thus may nevertheless be associated with northern attributions even though it can never actually be positioned at cardinal north. This correspondence between time and space finds support in a study of Mam language by John Watanabe who noted that the four

[19] Ibid. p.127.
[20] Clemency Coggins, "The Shape of Time: Some Political Implications of a Four-Part Figure," *American Antiquity* 45, no. 4 (1980). p.728.
[21] Ibid. p.731.

names for east, west, north and south are all derived from intransitive verbs of motion.[22] He concludes that the movement of the Sun and stars through the sky defines both space and time for the Maya; that there is no independent evaluation of space independently of these celestial movements.

The evidence from the Mayan and Chinese cosmologies argues for the development of geographical meaning on the basis of cosmological patterns in other cultures as well. It is therefore fair to assume that associations predicated upon geography may similarly appear in Mesopotamia and that they may constitute an organizing variable of the omen apodoses and nativity tablets. Indeed, Ulla Koch-Westenholtz, paraphrasing Weidner, has noted that "traditional Babylonian astrology differs in two important aspects from the other Babylonian divinatory disciplines: it is geographically oriented – many of its apodoses apply to specific countries, cities or nations – and it is almost wholly concerned with the welfare of the state and the King as persona publica."[23] It is this geographical orientation that warrants further study as a possible precursor to the Hellenistic "life as quadrant" symbolism or to the associations assigned to the 12 *topoi*.

This study concerns itself with the question of whether significations are attached to the cardinal directions and to geographical space – in particular with regard to the four quadrant divisions of the known world -- and whether these associations are reflected in the apodoses of Mesopotamian celestial omens from the Old Babylonian period (c. 2000 BCE.) to the nativity omens and horoscopes of the late Babylonian and Achaemenid periods (c. 5th century BCE). Two secondary questions are also posed: If such associations can be detected, do topographical, cultural or calendrical considerations play a part in the assigning of particular meaning to place? Lastly, if there are discernible patterns in the omen apodoses that designate geographical locations, do these bear any resemblance to the meanings assigned to the corresponding houses in the later 12-fold divisions of Hellenistic astrology?

Although the influence of cardinal direction on the architectural constructions of ancient cultures has been well documented, very little research has been conducted on the geographical perceptions of the Mesopotamian civilizations. Notwithstanding the work of Wayne Horowitz focusing on Mesopotamian ideas of the physical structure of the universe and its constituent

[22] John M. Watanabe, "In the World of the Sun: A Cognitive Model of Mayan Cosmology," *Man* 18, no. 4 (1983).
[23] Ulla Koch-Westenholz, *Mesopotamian Astrology: An Introduction to Babylonian and Assyrian Celestial Divination* (Copenhagen: Museum Tusculanum Press, 1995). p.19.

parts,[24] no known examination of place perceptions in the Mesopotamian astral omen literature has been attempted. Aside from the omens themselves, of particular interest for the current study will be Dr. Horowitz' examination of two tablets containing geographical information and representations of the known world : 1) BM 92687, also known as The Map of the World, contains a bird's eye view of the earth's surface according to its 9th century BCE author; and 2) BagM. Beih. 2 no. 98 containing a partial illustration correlating the seasons of the tropical year with winds on the basis of their provenance from particular cardinal directions.

Discerning associations and perceptions that are attached to place in any culture is a tricky proposition. Geographical associations are culturally and historically specific and often only alluded to in more creative forms of media, such as poetry, story, or song, rather than explicitly stated. For example, unless one were asked directly about place perception, it would probably be difficult to find any documentation that would explicitly relate an association of immigration with Ellis Island in the perception of contemporary Americans. Yet those familiar with immigration patterns in the west, would intuitively know what is meant if Angel Island were referred to as the "Ellis Island of the west" in poetry, literature, or in common parlance. This problem of place perception is made all the more difficult when searching for such associations in the highly repetitive and rigid list format of the omen and nativity text literature.

The method employed will begin with a careful reading of the omen literature itself. Omens have been defined as signs (*ittu*) given by the gods to indicate future events.[25] There are several different types of signs, which are conventionally categorized into 1) those signs which can be produced at will (provoked, as in when a question is posed to the gods), and 2) those that occur spontaneously and are not the result of human provocation (unprovoked). Signs or omens come in various forms: 1) those found by "reading" the entrails of sacrificed animals, 2) those found by "reading" the shape of oil spread into water, 3) those found by "reading" phenomena observed in the sky, and 4) those found by "reading" unusual occurrences of every day life.[26] It is the compendia of unprovoked omens derived from astronomical phenomena collected from the 2nd millennium BCE. until circa the 3rd century BCE. that will constitute the primary sources for this study. Celestial or astral omens have been defined as those signs derived from the

[24] Wayne Horowitz, *Mesopotamian Cosmic Geography*, ed. Jerrold S. Cooper, *Mesopotamian Civilizations* (Winona Lake, Indiana: Eisenbrauns, 1998).
[25] Hermann Hunger and David Pingree, *Astral Sciences in Mesopotamia* (Leiden: Brill, 1999). P.5.
[26] Ibid.

positions of the stars, the planets, the Sun or the moon, or from meteorological phenomena such as lightning or halos occurring in the sky.

The following translations of cuneiform tablets will constitute the principal sources for astral omens that will be analyzed and discussed in this study.[27]

1) The *Enuma Anu Enlil*: The *Enuma Anu Enlil* (hereafter *EAE*) comprises a series of 63 tablets dated to the 1st millennium B.C.E. containing celestially derived omens (both meteorological and astronomical in nature). As most of the tablets are in a bad state of preservation, a comprehensive edition does not exist. The earliest edition of the tablets known then to belong to this series was compiled by C. Virolleaud from 1905-1912. Updates to this version appeared in a series of articles by E. F. Weidner (1941, 1954, and 1968). New editions are currently available in Reiner-Pingree (1975, 1981, and 1998), in F. Rochberg-Halton (1988a), in Al-Rawi-George (1991/1992), and in Van Soldt (1995). An up-to-date and detailed summary of the *Enuma Anu Enlil* is provided by U. Koch-Westenholtz (1995).[28] The current study will rely upon the Reiner-Pingree and Van Soldt translations as well as the summaries provided by Koch-Westenholtz.

2) The Diviner's Manual: Named a "Diviner's Manual" by its editor A.L. Openheim in 1974, this text was compiled from a collection of fragments found in Kuyunjik, Ashurpanipal's Library at Nineveh from 668-627 BCE. The text consists of a catalogue of terrestrial and celestial signs as well as a set of instructions for interpreting them. Opeheim's translation will be used here, as there are no published later editions available in English.

3) Letters and Reports: Tablets containing letters and messages (called Reports) sent to the Assyrian kings from their experts in celestial divination have survived from the last century of the Neo-Assyrian Empire from the royal archives. An early edition of 277 of these reports was translated by R.C. Thompson in 1900. More recently, a series published by the Helsinki University Press under the title The State Archives of Assyria has published several volumes of Assyrian correspondence. Three volumes from this series will be examined here: S. Parpola,

[27] Portions of the following annotated bibliography are summarized by Hunger and Pingree in Ibid. p. 12-31.
[28] Koch-Westenholz, *Mesopotamian Astrology*.

Letters from Assyrian and Babylonian Scholars, Vol. X (1993)[29]; H. Hunger's *Astrological Reports to Assyrian Kings, Vol. VIII,* (1992)[30], and F. Reynold's *The Babylonian Correspondence of Esarhaddon, vol. XVIII,* (2003).[31]

4) Babylonian Horoscopes: Although there is some debate as to whether the term "horoscopes" should be applied to a collection of 32 Babylonian nativity tablets that date from the Achaemenid, Seleucid, and Arsacid periods,[32] they will be treated here as horoscopes rather than proto-horoscopes for the simple reason that they concern themselves with the hour of an individual's birth as much as with the planetary positions on that day.[33] A first edition containing eight of the known Babylonian nativity texts was compiled and translated by A. Sachs in 1952.[34] Francesca Rochberg (1998) has compiled a comprehensive edition of the 28 known birth horoscopes and four additional texts containing birth notes. While the majority of these texts contain little predictive information regarding the life of the individual, a few do. The existence in some cases of formatting in the apodoses which reflect an earlier tradition warrants their inclusion in this study.

5) Additional Tablets: Two texts fitting into this category are of special note. One is the tablet TCL 6 13, which was translated by F. Rochberg (1987b)[35], but has been available in published form since 1918. It dates to the late Babylonian period and according to Rochberg reflects a mixture of personal as well as publicly relevant astrology from Seleucid Uruk. It is significant because the obverse of the tablet contains a diagram divided into a four quadrant system. This alone makes this tablet worthy of examination. The second is tablet TCL VI no.14, which

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[29] Simo Parpola, *Letters from Assyrian and Babylonian Scholars*, vol. X, *State Archives of Assyria* (Helsinki: Helsinki University Press, 1993).
[30] Hermann Hunger, *Astrological Reports to Assyrian Kings*, vol. VIII, *State Archives of Assyria* (Helsinki: Helsinki University Press, 1992).
[31] Frances Reynolds and contributions by Simo Parpola, eds., *The Babylonian Correspondence of Esarhaddon and Letters to Assurbanipal and Sin-Sarru-Iskun from Northern and Cantral Babylonia* (Helsinki: Neo-Assyrian Text Corpus Project and the Helsinki University Press, 2003).
[32] The earliest dates to 409 B.C.E. On the nomenclature debate see Pingree, *From Astral Omens to Astrology: From Babylon to Bikaner*. P.20 and for a counterargument see Rochberg, *B.H.*. pp. 1-2 &14.
[33] See Francesca Rochberg 1998, for a detailed discussion on this point.
[34] Sachs, *JCS*, pp.49-74.
[35] F. Rochberg-Halton, "TCL 6 13: Mixed Traditions in Late Babylonian Astrology," *Zeitschrift fur Assyriologie* 77 (1987b).

contains a collection of personal celestial omina assigned to what appears to be 12 divisions of each sign in the Zodiac, creating a micro-Zodiac not unlike the Greek dodekatemoria.[36] Of all the omens contained in these sources, only those with both intact protases and apodoses will be considered. As there is a degree of overlap in the omens contained in the different compendia,[37] omens will be examined and grouped according to the astrological principles they demonstrate rather than by source. Also, only those omens containing apodoses that refer to either the four geographical quadrants (Akkad, Amurru, Subartu/Gutium, or Elam), the four cardinal directions, or their corresponding winds will be examined. Of particular interest are omens that appear intact in groupings (such as the omens pertaining to each of the twelve months or signs) such that patterns in the apodoses may be correlated with repeating variables in the protasis.

Mesopotamian Cosmology

In Mesopotamia, "cosmogony is governed by cosmology".[38] In other words, the gods were imagined in order that they might explain the physical universe that was experienced, and perhaps, reflecting the order in which they prioritized aspects of that physical universe. While some Assyriologists caution against the assumption that the cosmological world-view which emerges from Babylonian mythology and literature can be equally applied to celestial divination,[39] others point to texts containing both astronomical, astrological and religious information, suggesting that the "disciplines of astronomy and astrology were but part of the overall religious system."[40] The position taken here is that any attempt at an examination of indigenous cosmography and its reflection within the omen literature, should consider the gods and the roles they may play in shaping such formulations. As such, the evidence from both the body of mythological creation texts will be considered alongside the cosmographical texts that reflect the Mesopotamian perspective on how the Universe is structured. Both should reflect a coherence of religious belief, the cosmogonic myths attempting to explain the origins of the observable reality that makes up the natural world.

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[36] Sachs *JCS*. pp.65-74.
[37] For example, the Neo-Assyrian reports and letters often quote omens of the *EAE* series, including occasionally those published by Pingree and Reiner in the four volumes of *Babylonian Planetary Omens*.
[38] Jean Bottéro, *Religion in Ancient Mesopotamia*, trans. Teresa Lavender Fagan (Chicago: The University of Chicago Press, 2001). P.77.
[39] Rochberg, "Elements of the Babylonian Contribution to Hellenistic Astrology." *JAOS* 108.1 (1988), P. 52.
[40] Horowitz, *MCG*. P. 7-8.

In an early study, Samuel Kramer formulated a collection of Sumerian myths containing stories having to do with origins into a cosmogonic narrative.[41] First, according to Kramer's formulation, there existed an eternal and primeval sea. This is the goddess Nammu, whose ideogram is the sign for *engur*, a word which is a synonym of the Sumerian *Abzu (or Akkadian Apsu)*, often defined as the "subterranean sweet-water ocean."[42] However, the *Abzu* is a spatial concept in Sumerian cosmology that is not well understood. While some Akkadian texts refer to the *Apsu* as a primordial cosmic region, other earlier texts from southern Mesopotamia often describe it as a sort of subterranean water table or as the fresh ground waters in rivers, marshes, and lakes.[43] We are told also that Enki (Ea) is the "King of the *Apsu*"[44] and that he dwells in a temple in this freshwater "subterranean" ocean. He is almost always depicted on cylinder seals with streams of water flowing from his arms to the ground, often with fish swimming along the flow.[45] It is not difficult to imagine that the Sumerians would have encountered underwater tables while digging for wells or irrigation projects and thus have associated fresh water sources with the underworld. However, Ea is also the lord that is given rulership over a section of the sky containing the southern constellations. Thus, we must reconcile the fact that the deity given rulership over a portion of the southern heavens may also rule over a watery underground *Abzu*.

There is yet the perplexing matter, as W. Horowitz has noted, that the *Apsu* is often connected with the sea or the deep part of the ocean, as in the *Gilgamesh Epic* where the hero dives into the *Apsu* to retrieve the plant of immortality. Furthermore, in passages from two hymns to Šamaš, the Sun god seems capable of moving inside the Apsu: [46]

> The *lahmu* of the sea who are filled with fearsomeness,
> The riches of the sea/locust of the sea (shellfish) which passes through the Apsu,
> the produce of the river which moves, O Šamaš, before you.[47]
> .....
> Ea, the judge who gives judgments sees your face inside the *Apsu*.

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[41] Samuel Noah Kramer, *Sumerian Mythology: A Study of Spiritual and Literary Achievements in the Third Millennium B.C.*, revised ed. (New York: Harper & Brothers, 1961). Chapter II, pp.30-75.
[42] Jeremy Black and Anthony Green, *Gods, Demons and Symbols of Ancient Mesopotamia. An Illustrated Dictionary* (Austin, TX: University of Texas Press, 1992). P.134.
[43] Horowitz, *MCG*. Pp. 334-347.
[44] Dalley, *Myths from Mesopotamia*. ii. 48. p.11.
[45] Black and Green, *Gods, Demons and Symbols of Ancient Mesopotamia*. p. 75.
[46] Both passages in Horowitz, *MCG*. p. 340.
[47] Compare with lines 35-38 in W. G. Lambert, *Babylonian Wisdom Literature* (Oxford, UK: Oxford University Press, 1960). P.129.

Thus, the *Apsu* is also a watery region in the south that has both sweet and sea water, where the lord Enki has his residence. As the Babylonian Map of the World indicates,[48] the terrestrial regions to the south are dominated in the Mesopotamian worldview, by swampland, a freshwater channel, and by the Lower Sea, i.e. the Persian Gulf. Archaeological evidence suggests that between the peak of the last glaciation (14,000 B.C.E.) to the early Uruk period (4000 BCE.), the head of the Gulf slowly rose to its current level such that what is today the bed of the sea was at one point a broad valley crisscrossed by rivers and lakes.[49] A last inundation around 3000 B.C.E. raised the coastline to within miles of the cities of Ur and Eridu,[50] which receded back to its current position with alluvium deposits over time.[51] [Fig. 4]

Myths about the *Abzu* point to particular collective memories of a pre-Sumerian southern culture that extends into the Persian Gulf itself. It is "In Eridu," – according to the Sumerian King Lists an antediluvian city and the first to be established [52]-- where "he [Enki] built the house of the water-bank".[53] Excavations at a ziggurat site at Eridu have revealed several layers of buildings, the earliest of which is a temple dating to the earliest Ubaid period (ca. 5900 BCE).[54] Sites to the south in Eastern Saudi Arabia, Bahrain and Qatar contain Ubaid III pottery of clay similar to those of Ur and Eridu, and suggest a common pre-Sumerian culture stretching across the mouth of the Gulf region. These people lived primarily off of fishing and gathering,[55] while the fish bones discovered in the temple at Eridu suggest that the deity worshipped may have been Enki, or some equivalent water god.[56]

Gwendolyn Leick has identified the *Abzu* as a lagoon that surrounded the city of Eridu itself. She says Eridu was built upon "a hillock within a depression about twenty feet below the level of surrounding land, which allowed the subterranean waters to collect together. This swampy place can still become a sizeable lake in the months of high water. The earliest

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[48] Horowitz, *MCG*. See pp.20-25 for a diagram, transliteration and English translation of the accompanying text.
[49] Jean Bottéro, *Everyday Life in Ancient Mesopotamia*, trans. Antonia Nevill (Edinburgh: Edinburgh University Press, 2001). p.17.
[50] Michael Roaf, *Cultural Atlas of Mesopotamia and the Ancient near East* (New York: Facts on File, Inc., 1990). p.83.
[51] Bottéro, *Everyday Life in Ancient Mesopotamia*. p.17.
[52] See Samuel Noah Kramer, *The Sumerians: Their History, Culture, and Character* (Chicago: The University of Chicago, 1963). Appendix E. p.328.
[53] From *Enki and Eridu*, in Kramer, *Sumerian Mythology*. p.62.
[54] Roaf, *Cultural Atlas of Mesopotamia and the Ancient Near East*. pp.52-55.
[55] Ibid. p.55.
[56] Bottéro, *Everyday Life in Ancient Mesopotamia*. p.12.

Mesopotamian texts, from the early third millennium underline the importance of this lagoon."[57] However, this does not explain why the aforementioned hymns to Šamaš would have referred to Enki's capacity to travel *within* the *Apsu*. A description of the transformation of Enki's watery residence preserved in another myth suggests that the *Apsu* at least in this one text, has some sort of connection with Dilmun. The myth involves *Enki and Ninhursag* and is set in the paradise land of Dilmun, identified as modern Bahrain.[58] Enki and his wife Ninsikil live in this idyllic place that is devoid of fresh water. After Ninsikil pleas to Enki for fresh water, he orders Utu (the Sun) to bring it forth with the outcome that:

> Her city drinks the water of abundance,
> Dilmun drinks the water of abundance,
> Her wells of bitter water, behold they are become wells of good water,
> her fields and farms produced crops and grain,
> Her city, behold it is become the house of the banks and quays of the land,
> Dilmun, behold it is become the house of the banks and quays of the land. [59]

This account of the transformation of Dilmun into a place of fresh waters suggests that the *Abzu* could have been remembered in later times as one of the pre-Sumerian Ubaid lands lying in "the below", containing rivers and freshwater lakes, but which by the time of the early dynastic period may have become the submerged underwater Gulf residence of Enki. However an equation between the Abzu and Dilmun is not strictly possible on the basis of this single text, since Enki is known to have homes on earth as well as in the Abzu below the earth .

The watery *Abzu* is significant in terms of place meaning, because it always figures as the primordial place of creation – both for the Universe and for man himself. The plant and animal life of the earth are the product of a union between Enlil (wind) and his mother Ki (earth) with the help of Enki, the fresh water deity. With respect to man's creation, we find for example in the Sumerian tablets, that it is Enki/Ea, the god of the fresh waters, who, together with Ninmah (the midwife), and at the urgency of Nammu, is responsible for "fashioning" man out of clay in order to free the gods from laboring over the earth. The story is similarly echoed in the *Atrahasis* myth[60] where the "King of the *Apsu*" (Enki) mixes the blood of a slain deity with clay

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[57] Leick, Gwendolyn. *Mesopotamia. Invention of the City*. (London: Penguin Books, 2002). pp.2-3.
[58] In Roaf, *Cultural Atlas of Mesopotamia and the Ancient Near East*. p.84; Kramer, *Sumerian Mythology*. p.54; Horowitz, *MCG*. p. 36.
[59] Kramer, *Sumerian Mythology*.p.55.
[60] Dalley, *Myths from Mesopotamia*. Dalley dates the composition of this myth to the Old Babylonian period (1700 BCE). p. 3.

with the help of the "womb-goddess" Mami. Curiously, in the Babylonian Epic of Creation (*Enuma Elish*, ca. 1000 B.C.E.) the matter of whether Ea or his son Marduk created mankind is left deliberately ambiguous,[61] despite the fact that the blood of a slain enemy (Qingu) is also involved in the creation process.

> The deed is impossible to describe,
> For Nudimmud [Ea/Enki] performed it with the miracles of Marduk.
> [VI, 37-38]

The reasons behind these modifications in the creation stories can probably be explained historically as an attempt to afford Babylon the same religious legitimacy that Nippur and Eridu once had. As the fates of cultures and cities shifted, these stories too needed to change to reflect the historical events leading to those shifts, within of course, the appropriate culturally specific collective framework. This often entailed a change in status for the tutelary gods of each group within the ever-syncretizing pantheons. Nevertheless, the role of Ea in the Babylonian version of man's creation was implicitly retained, suggesting that man's individual and collective emergence from the watery element was a part of the creation story that was a sacrosanct aspect of the collective memory.

Despite the variations in accounts over time, Horowitz points to persistent threads that make Mesopotamian views of the physical universe relatively constant over 3,000 years.[62] According to him, the Universe was conceived of as either a two-part Heaven-Earth entity, or as a tripartite Heaven, Earth, Water (Sea and/or Apsu) system, as is apparent from the names of the leading gods of the traditional Sumero-Akkadian pantheon: Anu, Enlil, Enki/EA . Returning to the Sumerian myths, Nammu, the primeval *Abzu*, is said to be the "mother of heaven and earth." The Sumerian word for "universe" is AN.KI, the union of heaven (the god An) and earth (the goddess Ki). Next, heaven and earth together birth the deity Enlil, who Kramer suggests may be thought of as the air element and who therefore, is responsible for "separating heaven from earth". Rather than conceiving of Enlil as 'air' that separates heaven from earth, we might rather think of him as the *wind* that animates the universe. His name is *en*, Sumerian for the Akkadian *bēlum,* meaning "lord; proprietor (of)", and *lil*, corresponding to the Akkadian *zīqīqu,* meaning

[61] Ibid. p.261, f.35.
[62] Horowitz, in press.

"wind, breeze; nothingness, phantom".[63] Thus, Enlil is semantically, lord or master of the winds and of the empty space lying between the starry Heaven and the Earth. Earlier authors emphasize this dipartite separation of heaven from earth as a defining characteristic of early Sumerian cosmography: "This separation may have been connected with the need to have a place for mankind to inhabit. The earth was viewed as a rectangular field with four corners, an image which persisted, at least as a formulaic expression, until much later times." [64]

Horowitz identifies a similar tradition of primordial elements surviving into the Babylonian period: "...in the *Enûma Eliš*, there are for certain only two primordial elements, i.e. elements that do not ultimately derive from other elements or the corpses of gods. These are water and wind: 1) the waters of Apsu and Tiamat which are present and alive at the start of the epic, and 2) the winds which Anu gives to his grandson Marduk as a gift."[65] It is during the time of Hammurabi (ca. 1750-1650) that we encounter the emergence of a cosmological mythology that reflects the political predominance of the city of Babylon and its tutelary god Marduk. Weaved into the *Enûma Eliš* is a new account of the evolution of the cosmos and how Marduk, with the help of his allies, revolts and kills the older generation of gods and is granted "Enlilship" (divine kingship) over all the earth by the traditional rulers of Heaven and Earth, Anu and Enlil. We will return to the *Enûma Eliš* again below.

An alternate cosmographic interpretation of Sumerian cosmology has been suggested in which the separation of a domed starry heaven from a flat earth below is understood in terms an image of a cosmic mountain. With regard to the idea of a cosmic mountain, Anthony Aveni states:

> According to Mesopotamian beliefs, a central mountain joins heaven and earth; it is the Mount of the Lands, the connection between territories. Not only do ziggurats resemble mountains, but the names of the Babylonian temples and sacred towers also testify to their assimilation to the cosmic mountain: "Mount of the Houses," "House of the Mount of all Lands," "Mount of tempests," "Link Between Heaven and Earth" and perhaps most of all, Enlil's temple in Nippur, which was called the "Mountain House".[66]

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[63] For Akkadian terms: Jeremy Black, Andrew George, and Nicholas Postgate, eds., *A Concise Dictionary of Akkadian*, 2nd (corrected) printing ed. (Wiesbaden, Germany: Harrassowitz Verlag, 2000). For Sumerian logograms: The Pennsylvania Sumerian Dictionary. http://psd.museum.upenn.edu/epsd/nepsd-frame.html

[64] Black and Green, *Gods, Demons and Symbols of Ancient Mesopotamia*. p.52-53.

[65] W. Horowitz, in press.

[66] Anthony Aveni and Yonathan Mizrachi, "The Geometry and Astronomy of Rujm El-Hiri," *Journal of Field Archaeology* 25, no. 4 (1998). Pp.490-491.

Enlil's temple in Nippur was called the *E-kur* and it was situated at the northeastern edge of Sumer and in the northeastern quadrant of the city itself. The *Ekur* is referred to as 'the blue house' and said to be "set apart from secular activities; it was a 'secret house,' its holy of holy, the god's private apartment shrouded in darkness was the 'dark room' (*itima kissum*) which 'knows not daylight,' its ritual vessels 'no eye can see'."[67] In the 3rd millennium, Nippur was the center of religious and administrative life of the Sumerians and Enlil replaced An as the head of the pantheon.[68] The Sumerian sign for the term KUR was originally a pictograph of a mountain[69] and the term is usually used as a determinative in front of Akkadian words referring to other lands and to mountains.[70] To the Sumerians and Babylonians after them, the north, which is almost completely surrounded by the Zagros mountains spanning to the east, and the Taurus mountains in the northwest, would naturally have been envisaged as the location of the lands containing mountains and, in contrast to low-lying Sumer, the location of distant lands.

According to a study of early cartography, ancient cosmologies reveal two basic views of the universe. There are the 'flat earth' cosmologies of the Egyptians and Mesopotamians, in which the universe is perceived to be made up of three separate layers (heaven, earth, underworld) that are either linked by pillars or by a cosmic staircase (in the case of Babylon), and there are the spherical cosmologies of the Greeks and Hindus. In either type, a common motif in the mythologies involve a central or pivotal feature (an *axis mundi*) such as a mountain or a tree of life. [71] However, the cosmic mountain theory continues to be one among many interpretations of Sumerian cosmography, as there are no known extant cosmological maps from this period.

As well as signifying mountain, KUR, is used to designate the underworld in several well-known myths, including its use 60 times in *Inanna's Descent*[72] and was an ordinary sign for

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[67] Thorkild Jacobsen, *The Treasures of Darkness: A History of Mesopotamian Religion* (London: Yale University Press, 1976). p.16.
[68] Roaf, *Cultural Atlas of Mesopotamia and the Ancient near East*. P.81.
[69] Horowitz, *MCG*. p.272.
[70] John Huehnergard, *A Grammar of Akkadian*, ed. Lawrence E. Stager, 2nd ed., *Harvard Semitic Studies* (Winona Lakes, Indiana: Eisenbrauns, 2005). p.537.
[71] Smith, Catherine Delano. "Cartography in the Prehistoric Period in the Old World: Europe, the Middle East, and North Africa". Harley, J. B. and David Woodward eds. *Cartography in Prehistoric, ancient and Medieval Europe and the Mediterranean. The History of Cartography Vol. One.* (Chicago: The University of Chicago Press, 1987) p.87
[72] Horowitz, *MCG*, p.272.

underworld.[73] According to Horowitz, "The sign KUR was originally a pictograph of a mountain, so the use of KUR as a name for the underworld may indicate that the underworld was once conceived to be a mountain, thought to lie in the mountains outside the Mesopotamian plain, or was placed inside a cosmic mountain that the earth's surface rested upon."[74] It is understandable that for cultures that bury their dead, large mounds of earth, such as mountains, might become synonymous with the underworld. Given this, we find in the cosmogony that Enlil finds himself living in the total darkness and therefore unites with his wife Ninlil to beget Nanna – the moon deity – in order to illuminate the night and reveal the forms of unseen matter. The Moon god is thus the offspring of the darkness which envelops the KUR, (the land, mountain, or perhaps the underworld). However, as has been pointed out, in passages of *Ludlul bel Nemeqi* and bilingual incantations "the Ekur is the haunt of demons, but there is no proof that Ekur is a name for an underworld beneath the earth's surface."[75] At one point in *Ludlul III*, the *utukku*-demon leaves the body of Šubši-Mešre-Šakkan and returns to the Ekur:

> [He sent d]own Apsu-ward the evil cough.
> The relentless *utukku*-demon he returned [to] Ekur.

Here, the evil cough is sent from Babylon "down" in the direction of the Apsu, but the demon is returned to the Ekur, which is not said to be below anything. The Ekur is thus, a word that can also be used to refer to a land above the earth which would most likely be located where there are mountainous regions that span the north of Mesopotamia. We see for example *kur* used in just such a way in the *Curse of Agade* where the Amorites are called mar.dú.kur.ra ('Amorites of the Mountains").[76]

In terms of the geographical organization of the earth, several Sumerian and Akkadian literary texts make reference to the 'four quarters' or four regions of the earth, which correspond to the four cardinal directions and their winds. For example, in the myth of *Adapa*, the lead character's boat is sunk by a violent south wind. Also, in the Akkadian period (2334-2004 BCE), we find we find that the conquests of King Naram-Sin (2254-2218 BCE) are celebrated in a list of titles where he proclaims himself 'god of Akkad' and 'King of the four quarters'.[77] However,

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[73] Black and Green, *Gods, Demons and Symbols of Ancient Mesopotamia*. p.180.
[74] Horowitz, *MCG*, p.272.
[75] Horowitz. *MCG*. p. 294-295.
[76] Horowitz. *MCG*. p.91.
[77] Karen Rhea Nemet-Nejat, *Daily Life in Ancient Mesopotamia* (Peabody, MA: Hendrickson Publishers, 2002). p.25.

we have no cartographic evidence of these equal quadrant divisions until the late Babylonian period when we find a tablet containing a diagram of the cardinal directions, their accompanying winds, and the corresponding seasons of the year when they blow (see p. 38 for a full discussion of BagM. Beih. 2. no. 98). Nonetheless, methods for determining the compass point directions by observing the risings of stars are described earlier in the Mul.apin II 68-71 (ca.1000 BCE)[78]:

> 68. In order for you to observe the departure of the winds: Ursa Major lies across the rising of the north wind.
> 69. Piscis Austrinus lies across the rising of the south wind, Scorpio lies across the rising of the west wind.
> 70. Perseus and the Pleiades stand at the rising of the east wind,
> 71. on the day of your observation, the stars will tell you which wind is blowing.

Evidence of more complex cosmological perspective appears during the 1st millennium in tablets whose lists of cosmic regions may date back to the Kassite period (c.1595-1150 BCE). The traditional tripartite heaven/earth/underworld cosmological worldview appears outlined in two tablets [KAR 307 and AO 8196] which consist of the only evidence to specifically sketch out a picture of the three-tiered view of the heavens. At this time, the cosmogonic narrative also evidences a greater degree of complexity, as the origin of the universe is recounted in the 7 tablet epic *Enûma Eliš*, a myth about the cosmic battle that gives birth to the universe and the supremacy of the god Marduk.

We will examine the Neo-Assyrian tablets first. In them, what has been interpreted as a vertically superimposed, flat, three-tiered theory of the Babylonian heavens has been proposed. One tablet contains mythological/religious material (KAR 307, lines 30-38) and the other contains astronomical and astrological content (AO 8196, lines iv 20-22). The relevant passages are:[79]

> KAR 307 30-38:
> 30. The Upper Heavens are *luludānītu*-stone. They belong to Anu. He settled the 300 Igigi inside.
> 31. The Middle Heavens are *saggilmud*-stone. They belong to the Igigi. Bel sat on the high dais inside,
> 32 in the lapis lazuli sanctuary. He made a lamp[?] of electrum shine inside.
> 33. The Lower Heavens are jasper. They belong to the stars. He drew the constellations of the gods on them.
> 34. In the ....of the Upper Earth, he lay down the spirits of mankind.

[78] Horowitz. *MCG.* pp. 198-199.
[79] Horowitz, *MCG.* pp. 3-19.

35. [In the ...]. of the Middle Earth, he settled Ea his father.
36. [...]..He did not let the rebellion be forgotten/ identify rebellion.
37. [In the ...of the Lowe]r earth, he shut inside the 600 Annunaki.
38. [...]...[.in]side jasper

AO819 iv 20-22

iv 20 The Upper Heavens are *luludānītu*-stone. They belong to Anu.
iv 21 The Middle Heavens are *saggilmud*-stone. They belong to the Igigi.
iv 21 The Lower Heavens are jasper. They belong to the stars.

The entirety of Tablet KAR 307 concerns itself with the adventures of Marduk and Ninurta against various enemies also known from other literary texts, including the *Enûma Eliš*. These lines are thought to refer to three superimposed heavens: a lower Heaven which is visible and belongs to the constellations; a Middle heaven above that one, which belongs to the Igigi[80]; and the Upper heavens, which belong to Anu. References to the Heaven of Anu occur in other Akkadian texts and incantations, such as *Gilagmesh, Nergal and Ereškigal*, and *Erra*.[81]

In addition, below the three heavens are three earths: in the *elītu* ('that which is above') Earth, Marduk placed the spirits of mankind; he placed Ea in the *qablītu* ('centre, central part') Erath; and in the *šaplītu* ('lower part, inside') Earth he locked up the Annunaki. In a three-tiered cosmography, the upper earth would logically be the surface of the Earth which would make the spirits of mankind, the living human beings who populate the earth's surface. The Middle Earth as the home of Ea would naturally be the *Apsu*, but the rebellion against Bel identified here is unclear. The most noteworthy rebellion involving Ea, is the one related in *Atrahasis*, where Ea helps humanity rebel against Enlil's decision to destroy it, not Marduk. It would not have been unprecedented to have replaced Enlil in the story by Marduk to reflect the shifting political realities subsequent the Old Babylonian period. The terms *ersetu qablûtu* – Middle Earth – do appear in a late Babylonian account of the flood story, where here it is Sin and Nergal who are assigned to guard the Middle Earth region, while Ea guards the "bolt, Net of the Sea'.[82] Perhaps then the Middle Earth can be thought of as *the Apsu*, the ancient lands inhabited by Ea that may have previously succumbed to flooding and now lay beneath sea level. In a superimposed levels cosmography, the *šaplûtu* – Lower Earth – has been interpreted as the underworld. Here, Bel is said to have imprisoned 600 Anunnaki, who from earlier times were regarded as gods of Heaven

[80] Igigi is a term used from the Middle Babylonian times onward to refer to the gods of heaven collectively. See Black and Green, *Gods, Demons and Symbols of Ancient Mesopotamia*. p.106.
[81] Horowitz, *MCG*. p. 10.
[82] Horowitz, *MCG*. p. 18

and Earth, but who by the late Kassite period, are more consistently identified as underworld gods.[83] Thus, one proposed cosmographical representation of the Universe, as it is presented in KAR 307 and AO819, consists of these six superimposed levels, whose floors have been interpreted to be the ceilings of the level below:

Heaven of Anu

Middle Heaven

Lower Heaven(Sky)

Upper Earth (Surface)

Middle Earth (Apsu)

Lower Earth (Underworld)

While an interpretation of superimposed tiers of heavens and earths is not incompatible with these tablets, a problem arises with regard to the stones out of which the heavens are said to be made. It is unclear from the text, that if the three heavens are stacked upon one another, how one could know what kind of stone makes up the two highest heavens. The *luludānītu*-stone of the *elûti* heavens has been interpreted as a reddish stone and red heavens are also alluded to in other passages which always refer to it in the context of the sunrise and sunset skies.[84] *Saggilmud*-stone is identified as *hašmānu*-stone, which is a blue stone like the blue of *hašmānu*-colored wool or the blue of lapiz-lazuli.[85] Two varieties of jasper are described in another Akkadian text:

> The stone whose appearance is like clear heavens is named jasper.
> The stone whose appearance is like a rain cloud is named [j]asper.[86]

Thus, jasper is a variable stone which could have a clouded appearance or be translucent like a clear sky. A stacked heavens interpretation would require that the floors or roofs of each level be composed of a different type of stone and that each stone floor or roof be somehow visible from the ones below it. This interpretation seems difficult to reconcile with the text.

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[83] Black and Green, *Gods, Demons and Symbols of Ancient Mesopotamia*. p.34.
[84] Horowitz, *MCG*. p.10.
[85] Ibid. p.11.
[86] Ibid.p.14.

A threefold division of the cosmos is later chronicled in the *Enûma Eliš* (c. 1100 BCE). The creation myth states that after Marduk had defeated Tiamat in a great cosmic battle, one of his first acts in organizing the universe out of her dead corpse was to "found cult centers for Anu, Enlil and Ea" in the sky.[87] On earth, the ancient cult centers for Anu, Enlil and Ea would have been mirrored in the temples of Uruk, Nippur and Eridu respectively, and an argument can be made that the creation myth reflects a sacred memory of the political divisions of a by-gone earlier time. But these cosmogonic or political divisions also have a practical cosmographical significance. From *Enuma Eliš* (V, 1-10)[88]:

1. He fashioned the stations for the great gods.
2. The start, their likenesses he set up, the constellations.
3. He fixed the year, drew the boundary-lines.
4. Set up three stars for each of the twelve months.
5. After he drew up the designs of the year.
6. He set fast the station of Neberu to fix their bands.
7. So that none would transgress or be neglected at all,
8. he set the station of Enlil and Ea with it.
9. Then he opened the gate on the two sides,
10. strengthened the bolts on the left and right.

The passage refers to the organization of the visible constellations into three bands or paths: the path of Enlil containing the northern constellations, the path of Anu, containing the middle stars, and the path of Ea containing the southern constellations. The earliest evidence for the Paths of Anu, Enlil and Ea is found in a Middle Babylonian *Prayer to the Gods of the Night* (KUB 4 47) and dates to the second millennium BCE.[89] In this mapping system – devised primarily for calendrical purposes – three stars are assigned for each month of the year in accordance with the "paths" along the eastern horizon in which they are seen to rise. An exact accounting of these constellational divisions appears both in the so-called "astrolabes" (KAR 218, ca. 1150 BCE.),[90] as well as in the later Mul.apin series (687 BCE), which adds more stars

[87] Dalley, *Myths from Mesopotamia*. P.255.
[88] Horowiz, *MCG*. pp.114-115.
[89] Horowitz. *MCG*. p. 158.
[90] Lists of 36 stars connected with the twelve months of the year and used to time the calendar,

and improves on the accuracy of the astrolabes.[91] A commentary (Tablet III 24b) to the omen series *Enuma Anu Enlil,* [92] describes the three paths as follows:

> The road (KASKAL) of the Sun at the end (*šēpīt* = foot) of the cattle-pen (TÙR) is the path of Ea (*šūt Ea*); the road of the Sun at the middle (*mišil*) of the cattle pen is the path of Anu; the road of the Sun at the beginning (SAG = head) of the cattle-pen is the path of Enlil.[93]

Reiner and Pingree interpret the 'cattle-pen' as the equatorially bound region along the eastern horizon – stretching from the northeast at the summer solstice to the southeast at the winter solstice – over which the Sun was seen to rise. Thus, the constellations rising in the path of Enlil would be those lying beyond the 'head of the cattle-pen', while the constellations rising in the path of Ea would be those lying beyond the 'foot of the cattle-pen'. These terms convey the idea that the earth's surface – at least with respect to the eastern horizon – is envisioned as a body with upper and lower regions spanning a north-south axis. The metaphor of the Sun's path as a cattle-pen and the planets as *wild oxen* moving within this region is alluded to in tablets which refer to Utu or Šamaš as "shepherd of the land," and where, says Kramer, "the 'little ones', the stars, are scattered about him like grain while the 'big ones,' perhaps the planets, walk about him like 'wild oxen'."[94] In a hymn to Šamaš, it is said of the Sun that

> Whatever has breath you shepherd without exception,
> You are their keeper in upper and lower regions.
> Regularly and without cease you traverse the heavens,
> ...
> Shepherd of that beneath, keeper of that above,
> You, Šamaš, direct, you are the light of everything."[95]

Astronomically, the three deities Anu, Enlil and Ea, can be thought of as governing over independent stellar regions which, when represented equatorially over the local horizon, may be seen in the diagram in Figure 1. As the 'astrolabes' indicate, the boundaries of the three paths are demarcated by the Sun's path along the ecliptic when calendar-marking stars are observed rising

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[91] B. L. Van der Waerden, "Babylonian Astronomy. Ii: The Thirty-Six Stars," *Journal of Near Eastern Studies* VIII (1949).
[92] The completed series used here dates to the 7th century BCE, however, according to Ulla-Koch-Westenholtz "the compilation of the series can be seen to begin already in Old Babylonian times, and it may well be that the process was more of less completed by the 11th century."Ulla Koch-Westenholz, *Mesopotamian Astrology*. p.78.
[93] Reiner and Pingree, *BPO Part 2*. p.43.
[94] Kramer, *Sumerian Mythology*. The theme of the Sun as shepherd will be returned to in a discussion below.
[95] Lambert, *Babylonian Wisdom Literature*. p.127. lines 25-33.

heliacally each month.[96] Furthermore, as the Mul.apin makes clear, the passages of the Sun at the two extreme declinations (beginning of the paths of Enlil and Ea) and two middle points (center of the path of Anu) attest to a fourfold calendrical division of the year into seasons. The three terrestrial cult centers of Enlil, Anu, and Ea in Nippur (north), Uruk (central), and Eridu (southern) respectively, may be seen to mirror on earth an astronomical division of the heavens, established by Marduk in the *Enuma Eilš*, with its seasonal and calendrical significance.

The Map of the World

Evidence that the Babylonians did not lack an interest in spatial orientation comes from several geographical and topographical sources containing notations of roads, the place name locations between two points, their distances, geographical lists and itineraries, and even topographical maps of Babylon and Nippur.[97] We are most fortunate to have extant a tablet (BM 92687) depicting a copy of a Babylonian map of the then known world and containing a related informational text on the upper part of the obverse and all of the reverse sides.[98] [Fig. 5] The fact that Babylon appears as the central and largest location on the map while Assyria appears as a small circle, indicates that it was probably composed in Babylonia and not in Nineveh or Aššur. On the basis of several places mentioned in the map and their identification in other sources, a dating of the 8th or 7th centuries BCE has been suggested.[99] According to Horowitz the text on the obverse was probably added at a later date while the text on the reverse was probably written to accompany the map. This copy may have come from Borsippa, since the text on the obverse indicates that a scribe by the name of *Ea-bēl-ilī,* who, it is known from another text, may come from Borsippa, was responsible for copying it.[100]

[96] Waerden. *JNES*. p. 24. This scheme of monthly stars along the three paths became the basis for the Zodiac.
[97] H. F. Lutz, "Geographical Studies among Babylonians and Egyptians," *American Anthropologist* 26, no. 2 (1924).
[98] Horowitz, *MCG*. p. 20.
[99] Ibid. p.21.
[100] Ibid. p. 20

The map itself depicts a bird's eye view of one large landmass surrounded by two concentric circles. The term ^{id}*mar-ra-tum* 'ocean' listed in three places in the diagram (interpolated at the bottom) within the region lying between both circles, indicates that the known world was envisioned encircled by a vast ocean. From this outer ocean circle radiate five triangular 'spokes' – although the text on the reverse suggests that the unbroken tablet would have included as many as eight triangles.[101] The three missing triangles would have been equally spaced around the bottom and lower right-hand edges of the circle. The tablet is broken and some of the triangles are missing their tips.

Black et. al. have diagrammed the map with interpolated missing spokes and have suggested that these triangles were likened to solar rays.[102] This interpretation is subjective and speculative, as there is no direct evidence to suggest that the triangles on the world map represent solar spokes or rays. However, cartographical interpretations of circular picture maps rimmed by either 'fringes' or 'rays' or triangular spokes are not unprecedented.[103] From Teleilat Ghassul, in Jordan, an eight-rayed star-shaped fresco dating to the fourth millennium has also been interpreted by some to represent a 'sun-disc'. The main proponent of this idea is Eckhard Unger, who based his interpretation on the Babylonian world map. He said the common elements "have been identified... as sun discs, but which to my mind, are definitely representations of the universe."[104] Although some have adopted Unger's interpretation, others remain skeptical. Nevertheless, all that may be safely said about the triangular regions is, as the text on the reverse itself indicates, that the *nagu* represented equi-distant unspecified far off regions '*where you travel'*. Line 26 refers to the *kibrāt erbetti,* " 'the four quadrants' of the earth's surface" which elsewhere, for example in the Shamash Hymn and *The Tukulti-Ninurta Epic,* refers to the entire world.[105]

We do not know what lands correspond to the triangular regions. They are simply identified as *na-gu-ū,* 'region'. However, the text offers several clues. The text says that there are 7 leagues *ina birīt* 'in between' the *nagû,* which has been interpreted as describing the distance lying between each triangular region. The term is typically used to designate distant unspecified

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[101] Ibid. p.30.
[102] Black and Green, *Gods, Demons and Symbols of Ancient Mesopotamia*. p.53.
[103] See the cave drawing map from Peñalsordo, Badajoz, Spain and the rock painting, the "Great Disk" from Talat N'lisk, Morocco in "Prehistoric Maps and the History of Cartography: An Introduction", Catherine Delano Smith, *The History of Cartography. Vol. 1.*, J. B. Harley and David Woodward eds., The University of Chicago Press. Chicago. 1987. pp.68-73.
[104] Ibid. pp. 88-91.
[105] See the Hymn to Šamaš in Lambert, *BWL*. pp.121-138 and Horowitz, *MCG*. pp.39-40.

areas, but may also have been envisioned as island landmasses.[106] The text describes these eight regions, but much of the descriptions are missing. It appears that one enters the first *nagû* through 'a great sea' (line 3'), which would have been either the Upper Sea (the Mediterranean) or the Lower Sea (the Persian Gulf). If the Lower Sea (the winter solstice location) is what is meant as an entrance point to the first region, then it would make sense to follow the path of the Sun in a northerly counterclockwise direction for a possible correspondence between the subsequent triangular regions referred to in the text. The fifth region appears to have the longest description – eight lines as opposed to the average two for the other regions, which might indicate the importance of this region above others. The text for this region mentions a 'flood', 'rain', 'blood', 'the departed' and something 'which we climb'.

Within the innermost circle of the map, two lines start at the top from the region marked mountain and run in parallel to the bottom of the circle, ending at the *apparu* (swamp). According to Horowitz the parallel lines on cuneiform maps and plans typically indicate rivers; and since Herodotus states that the Euphrates River used to run through Babylon, it is fairly likely that the lines represent the Euphrates.[107] The dual lines are explained by the fact that the course of the ancient Euphrates actually forked into parallel tributaries which joined together south of Nippur. [Fig. 4] The Euphrates does not run due north/south but rather begins in the northwest mountains where the Taurus and Zagros ranges meet, and empties in the southeast, in the Persian Gulf. This then means that the map is actually oriented in a NW/SE axis as labeled in Figure 5. This has been noted to be the usual orientation in Assyrian and Babylonian monuments and thought to be connected to the direction of the prevailing winds in Mesopotamia,[108] although it may also have something to do with the directions of the Sun's solstice risings and settings. In a Sennacherib inscription, the risings and settings of the Sun are linked to the two seas that demarcate this axis: the Mediterranean and the Persian Gulf: 'From the Upper Sea of the setting sun to the Lower Sea of the rising sun I made all the human race submit at my feet'.[109]

If then, the Euphrates is indicated by two parallel lines, the Tigris River should also be indicated by parallel lines. The only other pair of parallel lines form a curved region leading from the central circle (probably Nippur) toward the east in a semi arc that curves back south.

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[106] Ibid. pp.30-33.
[107] Horowitz, *MCG.* p.28.disagrees, arguing that the parallel lines represent the banks of the Euphrates on the basis of the convention of using parallel lines to represent rivers in Ancient Near Eastern cartography
[108] Georges Contenau, *Everyday Life in Babylon and Assyria* (New York: W. W. Norton and Company, 1966). p.225.
[109] Horowitz, *MCG.*p.200.

As Figure 4 shows, just east of Nippur, the Tigris does curve in a semi arc that empties into the swampy marshes just before the ocean. Since the Tigris continued northward east of Nippur in a northerly direction passing just 80 kilometers from Babylon, it would seem that the wavy line that joins up with the parallel lines running north would be the continuation of the Tigris.

Because Aššur and the city of Der lie to the northeast and east of Babylon respectively, we can imagine that Assyria was conceived of as an eastern land. Susa, which is the capital of Elam, is located south of Babylon and to the east of the Tigris. But in this mapped rendition of the known world, Susa is drawn as a circle to the south of the swamplands and channel. In 694 B.C. it is chronicled that Sennacherib led an incursion by sea into the Elamite cities 'on the other side of the Bitter River' by navigating south down the Tigris and Euphrates and crossing the head of the Gulf into Elamite territory.[110] Thus, the Babylonians seemed to have conceived of Elam lying in the southern quadrant, since its lands were known to be accessible by crossing the southern salt waters. Babylon's position as the most northern region just south of the mountains, suggests that Babylon, may be envisioned as the primary state lying in the northern quadrant.

To the west and southwest of Babylon, there are only two identified areas. One is labeled *ha-ab-ban*, the other is *bit-ia-ki-nu*. The latter corresponds to Bit Yakin, the land of tribal nomads that lived in the southern marshes.[111] The other has been identified as a Kassite tribe known as the Bit Hamban or Bit Habban who lived to the northeast of Sippar, off of an eastern tributary of the Tigris called the Turnat River.[112] The cartographic placement of the Bit Yakin in the southern quadrant is accurate, although it would more precisely have been located to the east of the Euphrates. The location of Bit Hamban in the west is a bit more problematic as it is in the completely opposite direction of where it should be. However, the position does approximately correspond with the city of Harran, strategically important during the Middle-Assyrian period, as it was located at a point between where the road from Damascus joins the highway between Carchemish and Nineveh. One wonders if a scribal error might have confused the Akkadian *harrānu* for *ha-ab-ban* or if we are speaking here of an, as yet unknown city .

In summary, I suggest that the Babylonian *Mappa Mundi,* is significant to the study of astral omens for several reasons. First, it depicts the Babylonian view of the known world, creating a picture of what might have been geographically significant to them. Secondly, it visually and textually chronicles the Babylonian conceptualization of local and distant

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[110] Georges Roux, *Ancient Iraq* (London: Penguin Books, 1992). p.321.
[111] Simo Parpola and Michael Porter, "The Helsinki Map of the near East in the Neo-Assyrian Period," ed. Simo Parpola and Michael Porter (Helsinki: The Casco Bay Assyriological Institute
The Neo-Assyrian Text Corpus Project, 2001).
[112] Roux, *Ancient Iraq*. pp.524-525.

topography: swamps, rivers, mountains and oceans. Lastly, it confirms the fact that Elam was envisioned as part of the southern quadrant, Babylon and Akkad as part of the northern quadrant, and Assyria as part of the eastern quadrant, regions used in the omen literature to ascertain location where the omen's impact would be experienced. We do not have any geographical references to Amurru in the map, but the word itself is an Akkadian toponym for Syria and the west, making that territory the easiest of the four to place in terms of geographical quadrants.[113]

[113] Black, George, and Postgate, eds., *A Concise Dictionary of Akkadian*.

II. GEOGRAPHY IN MESOPOTAMIAN CELESTIAL OMINA

Working Omen Principles

A comprehensive summary of the working principles found in Babylonian astrology has been assembled by Ulla Koch-Westenholz.[114] As she points out, the most crucial phenomena in astral divination involves the heliacal and acronychal risings and settings, the stationary points, conjunctions and other positions in relation to other celestial bodies, eclipses, colors and other optical phenomena. These phenomena are derived from direct observation rather than from theoretical speculation. Although practical experience played the prominent role in forming the traditional omina compendia, it has also been noted that astronomically impossible cosmic occurrences are often included with the observed protases in order to complete some expected schematization.[115] These schema, which often organize omens into groupings, contain binary opposites such as left/right; above/below; in front of/behind, or descriptive qualifications such as the color of planetary phenomena, the four geographical directions previously mentioned, the time when a phenomenon is seen (these may involve the watch, the day, the month, or its duration), and the location in the sky where it is seen (these may involve the path of Anu, Enlil and Ea, or some position within a constellation: its head, its middle, its shoulder, its tail etc.). In very general terms, if an auspicious planet is bright, a good omen is indicated for a particular region, while a faint planet indicates a bad omen. For a malignant planet, the situation is reversed, good omens being indicated for a faint planet, and bad if the planet is bright.

The Geographical Quadrants

Frequently, in order to anticipate political and military threats to the king or empire, omens were judged to apply to the four geographical quarters of the known world: Akkad, Amurru, Subartu (sometimes Subartu/Gutium), and Elam. Although the fate of the kings ruling over these regions could be alluded to, the regional names represented geographical quadrants corresponding to the cardinal directions rather than to individual nations. In the omen literature, it is not always easy to consistently identify each cardinal direction with its geographical region since the correspondences made seem to vary and depend upon which culture was making the omen interpretation. Kramer proposed that the Sumerians viewed their own land as the southern border of the known world; Akkad (a.k.a. Uri) marked the northern region; while the Akkadian word *Amurru* – which actually means cardinal 'west' – naturally designated the western lands;

[114] Koch-Westenholz, *Mesopotamian Astrology*. Ch. 5.
[115] Francesca Rochberg, *The Heavenly Writing: Divination, Horoscopy, and Astronomy in Mesopotamian Culture*, 1st ed. (New York: Cambridge University Press, 2004). p.55.

and Elam or Gutium was located to the east.[116] By the Old Babylonian period Sumer and Akkad had been assimilated under one empire and one tradition in the omen literature sometimes indicates that Akkad designates the southern district, Elam or Gutium designate the east, Shubur (Subartu,) located to the north, and Amurru to the west. In one letter, the Assyrian scholar Mār-Ištar explains to the king that the 'Westland means the Hittite country (Syria) or according to another interpretation, Chaldea.'(D.T. 98=ABL 337)[117] The Sumerian word MAR.TU and the Akkadian *Amurru* are well established as the terms used to designate the Amorites, the semitic people of the west who migrated to the southern lands of Akkad from the western steppes. Furthermore, Kramer says: "It has been suggested, and in my opinion, not without reason, that *arad* derives from the word *(m) art (u)*; if this is true, it would indicate that the Sumerians characterized the Martu as of a slavish, servile disposition."[118]

According to Horowitz, Subartu is the land of the nomadic Subareans, which stretches from the Cedar Mountains in modern Lebanon east to Ansan in southeastern Iran.[119] Later, the Assyrians would emerge from this same region and an identification between them and the region of Subartu is attested to in an omen compiled in the *State Archives of Assyria* (*SAA* 8 60:1-4): " 'If the Moon is seen in Nisan on the 30th day, Subartu will devour Ahlamu, a foreign people will rule Amurru.' We are Subartu!"[120]

While the Sumerian oriented perspective where Akkad = South; Elam/Gutium = East, Amurru = West, and Subartu = North appears to correspond closest to the actual geographical orientations of the territories for which they are named, a different Babylonian scheme appears in the interpretations for the lunar eclipse omina cited in the *EAE* series and in other Babylonian texts. The scribe Munnabitu, citing the commentary on the *EAE* known as the *Šumma Sîn ina tāmartīšu,* interprets the region of the eclipsed shadow of the moon as follows: "The South is Elam, the North is Akkad, the East is Subartu, the West is Amurru."[121] [Fig. 6] The location of Elam in the south appears to be consistent with the orientation depicted in the Neo-Babylonian tablet containing a Map of the World (BM 92687) and for the most part is the scheme adopted in many of the Neo-Assyrian and Neo-Babylonian surviving omens.

The geographical regions affected by the astronomical or meteorological events varied according to the schematizations assigned to certain variables. [See Appendix A for summaries

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[116] Kramer, *The Sumerians: Their History, Culture, and Character*. p.285.
[117] Parpola, *LAS*. p.225.
[118] Kramer, *The Sumerians: Their History, Culture, and Character*. p.143.
[119] Horowitz, *MCG*. p.79.
[120] Koch-Westenholz, *Mesopotamian Astrology*. p.103.
[121] Ibid. p.108.

of all the variables schematized by region.] For example, three regions were assigned to the three different watches of the night. Thus, astronomical events observed during the evening watch pertained to Akkad, those to the middle watch to Amurru, and those to the morning watch to Elam. The cardinal direction naming each wind also corresponded to the four regions in the same pattern mentioned with regard to the eclipsed lunar quadrants: the South wind corresponds to Elam, the North wind to Akkad, the west wind to Amurru; and the east wind to Subartu and Gutium. Meteorological phenomena appears to have followed a different tradition wherein weather observed in the south is thought to presage an omen for Akkad, that for the north to Subartu/Gutium, that for the east to Elam, and that for the west to Amurru. When the sky divisions or paths of Anu, Enlil or Ea were involved in the omen protases, Elam, Akkad and Amurru were respectively involved in the apodoses. Elam, Akkad, and Amurru were also each assigned 12 constellations, functioning as the regional indicator for the presaged omen. Lastly, omens involving celestial phenomena were also grouped by region affected according to the month and day in which they appeared. Examples of these various regional assignments will be examined more closely below.

The Paths of Anu, Enlil and Ea

As described above, the Babylonians divided the sky into three celestial regions paralleling the equatorial axis of rotation. The northernmost region contained all of the non-setting stars circling the North pole as well the stars encompassing the sky north of the Sun's most northern latitude. [Fig. 2 and Fig. 3] This band was designated the Way of Enlil. The region of the sky containing the stars south of the Sun's most southern latitude was called the Way of Ea. The band containing the middle stars was called the Way of Anu.[122] While stars are listed in the EAE belonging to each of these paths, the earliest evidence of this tradition goes back to the second millennium. In a Boghazkoi version of the Babylonian "Prayer to the Gods of the Night" references to the stars of Ea, Anu and Enlil are made (KUB 4 47 rev. 43-48). However, the actual term *hārranu*, meaning 'path', appears first in the Middle Babylonian "forerunner" to the "Astrolabes" HS 1897 from Nippur.[123]

According to Koch-Westenholtz, the protases phenomena observed in the path of Enlil stood geographically for events affecting Akkad, those in the path of Anu for events affecting

[122] A listing of these stars is available in Hermann Hunger and David Pingree, *Mul.Apin: An Astronomical Compendium in Cuneiform* (Horn, Austria: Verlag ferdinand Bereger & Sohne Gesellschaft M.B.H., 1989).
[123] Horowitz. *MCG*. p.254.

Elam, and those observed in the path of Ea for events affecting Amurru.[124] For example in BM 36315 we read:[125]

> 1' [If Jupiter rises in (the Path)] of Anu: the ki[ng?]
> 2' [If Jupiter rises in (the Path)] of Enlil: the king of Akkad [will become strong]
> 3' [If Jupiter rises in (the Path)] of Ea: the land of Amurru [

The influence of Jupiter is generally beneficial in omen apodoses. It is designated as the 'heroic one' and is a general harbinger of plenty and peace.[126] Here the missing portion of the first omen would probably indicate that the king of Elam would become strong if Jupiter were seen to rise in the Path of Anu. The omen for Jupiter rising in the path of Enlil is again cited in a letter from an Assyrian scholar named Balasi to the King: ['If] Jupiter [appears] on the way of the Enlil stars], the king of Akkad will become strong [and have no opponents] .'(K.870 = RMA 188) [127] The emphasis of the apodosis on the strength of the king of Akkad derives from the appearance of Jupiter in the region of the sky given to Akkad, but does not give any indication on the logic behind that assignment.

Another scholar by the name of Akkullanu writes to the king the following letter:

> [Good h]ealth to the king, my lord! May [the gods Nabu] and Marduk bless the king, my lord. [The planet M]ars has appeared on the way of the Enlil stars at the feet [of the constellation] Perseus.[128] It was faint and emitted white rays. I kept observing on the 26th of Ajaru[129] till it rose higher, and afterwards sent the relevant interpretation to the king, my lord:
>
> [If] Mars approaches Perseus, there will be rebellion in the Westland, and brother will slay his brother. The palace of a noble will be robbed, the treasure of the land will go to a foreign land, [the emb]lem of the land will be cast down, (and) the king of the world will be delivered to his enemy by his gods. (83-1-18, 61 = ABL 679)[130]

The many names for Mars in other omens indicate that it is sinister and represents all manner of evils, including death, theft, and murder. It is often said to 'constantly portend pestilence' and his apodoses often appear to involve cattle – no doubt because of its standing in the Great Star List as one of the twelve stars of Amurru, the supposed place of the corresponding deity's

[124] Koch-Westenholz, *Mesopotamian Astrology*. p.98.
[125] Reiner and Pingree, *BPO Part 4*. p. 57.
[126] Koch-Westenholz, *Mesopotamian Astrology*. pp.120-121.
[127] Parpola, *L A. S*. p.279.
[128] The constellation name for Perseus is *šîbu*, the Old Man. See constellation glossary in Reiner and Pingree, *BPO Part 2*. p.15.
[129] The second month of the standard Babylonian calendar.
[130] Parpola, *LAS*. p.259.

origin. However, there seem to be varying traditions and we find that in the *EAE* Mars is also associated with Elam (the Eastland), and with Subartu in yet a third tradition.[131] In Akkullanu's letter, the interpretation of rebellion is consistent with one of the portents of Mars, and its effects on the 'Westland' derive not from the path of Enlil – which correlates with Akkad – but rather with its passage through the constellation the Old Man (Perseus), which is listed as one of the twelve stars of Amurru (the Westland). Akkullanu seems to focus here on the location correlated with the constellation rather than with its path in the sky. The references to the treasure of the land being stolen and taken abroad are typical of the deity's thieving and foreign nature.

In another letter, the scribe Nabu-ahhe-eriba cites the tradition regarding a dim sunrise in the way of Anu, to the King: '(If)the sun rises in the way of the Anu stars and establishes reduction of its radiance, the fixed period of the Eastland *became evil for the morning time*.'(?) [81-2-4, 120 = ABL 869)[132] The way of Anu pertains to Elam, or the Eastland in the older tradition and the dim sunlight signals evil portents for that land. Similarly, a scribe describing the message of a Jupiter passage through the way of Anu cites and explains:

> 'If Jupiter appears on the way of the Anu stars, a crown prince will rebel his father (and) seize the throne.' The way of the Anu stars is (equal to) the Eastland; (i.e. in this case) the country of Elam has been intended.[133]

The interpretation of this omen brings up another theme that appears connected with Jupiter omens, namely the theme of throne usurpation by the royal heir against his father. The planet Jupiter, like Marduk, represents the overthrow of the old order and the establishment of a new one – an association most likely connected to the rise of Babylon over the ancient city states of Sumer, among the oldest of which was Uruk, stewarded by the father of the older generation of gods, Anu. Since the omen does not specify a particular constellation as the previous omen does, the emphasis of Jupiter's appearance is placed upon the path of Anu itself, rather than the constellation traversed by Jupiter. Thus, Elam or the Eastland is indicated. The content of the apodosis points to an interpretation that could have been conceived of to reflect a historical context closer to the Old Babylonian period, even while the scholar conveying the information was addressing his Neo-Assyrian king. This is supported by the fact that he feels he must explain to the king that the Eastland in his current time-frame implies Elam.

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[131] Koch-Westenholz, *Mesopotamian Astrology*. pp. 128-129.
[132] Parpola, *LAS*. p.43.
[133] Ibid. p. 243.

A curious omen in the Jupiter series indicates that 'If Jupiter becomes visible in the Path of Enlil and [...] Akkad will prosper, its interior will be healthy.'[K.8844] [134] Consistent with the path assignments, we find the effects of Jupiter's passage through Enlil's path attributed to the kingdom of Akkad.

In the Mul.apin the following passage indicates climatological associations with the three paths:

> From XII 1 until II 30 the sun is in the path of those of Anu: wind and storm.
> From III 1 until V 30 the sun is in the path of those of Enlil: harvest and heat.
> From VI 1 until VIII 30 the sun is in the path of those of Anu: wind and storm.
> From IX 1 until XI 30 the sun is in the path of those of Ea: cold.[135]

The regions obviously correspond with the weather patterns common in Mesopotamia for the wet months of spring and fall (the path of Anu from months XII to II and again from VI to VIII), hot, dry, summer (the path of Enlil from months III to V), and cold wet winter (the path of Ea from months IX to XI). However, the astrological omens also contain triplicity groupings with corresponding geographical associations but they do not appear to be derived from geographical correspondences given to the three paths or their solar months as found above. In the triplicity monthly groupings found in the omens, months I, V, IX are given to Akkad, months II, VI, and X to Elam; months III, VII, and IX to Amurru; and IV, VIII and IX to Subartu.[136] These groupings follow a schematization that is independent of the regions correlated with the three paths and follows its own logic.

The three paths are significant because they suggest an early three-fold division of the sky and calendar with mythological, seasonal, and geographical associations. This three-fold division appears to be integrated with the mul.apin's fourfold seasonal division by the 7th century BCE and their corresponding months later associated with geographical groupings. (see the triplicity scheme discussed below). It is yet another example of how sky and earth were intimately related and formed the foundations of mundane geographical astrology.

Eclipses

In Mesopotamian astral divination all phases of the Moon's cycle had interpretative significance, particularly the new and full moons whose timing was watched closely for the purposes of intercalating a month in the lunar calendar and in order to ascertain and interpret

[134] Reiner and Pingree, *BPO Part 4*. p.185.
[135] Hunger and Pingree, *Mul.Apin*.
[136] Koch-Westenholz, *Mesopotamian Astrology*. p.203

abnormalities. Eclipses were such abnormalities, which aside from being omens in themselves, were considered so evil that they themselves were predicted by their own astrological omens, such as the appearance of halos, by the moon being excessively large, or by delays to the appearance of the new moon.[137] Many factors were taken into account in formulating the interpretation of the eclipse omen: 1) the month, day, and divergence from expected occurrence date; 2) the watch of the night when it occurred, its duration and, and whether it was rising or setting on the horizon; 3) its magnitude, the direction of the motion of its shadow, and its color; 4) accompanying meteorological factors such as winds, clouds, rain, thunder and lightening, and earthquakes; and 5) any planets and stars visible during the eclipse.[138] However, the direction of the motion of eclipse shadow played the most significant role in deciphering the meaning of the omen and its astrological geography doctrine survived into the Hellenistic period as a part of Greek astrology, as attested to in Ptolemy's *Tetrabiblos*.

In the lunar eclipse doctrine, the visible Moon, like other heavenly bodies or constellations, was seen as a celestial representation of terrestrial regions. Its face, like the physical earth, was divided into quadrants, each representing a direction and political region. The scholar Munnabitu gives clear instructions of how to interpret an eclipse (SAA 8 316:3ff):

> The evil of an eclipse affects the one indicated by the month (lit. 'the owner of the month'), the one indicated by the day, the one indicated by the watch, and the one indicated by the beginning, where the moon begins the eclipse and where he takes it off and discards it: these take over the evil of the eclipse.

He then continues to give an example of an eclipse that occurred on the evening of the 14th of Simanu, i.e. May 22, 678 BCE:

> The month of Simanu is Amurru, and decision is given to Ur. The evil of the 14th day: as it is said: 'The 14th day is Elam'. We do not know the quadrant where it began. The moon shed the extent of its eclipse toward the South and the West: the evil affects Elam and Amurru. That its disc started to clear from the east and the North, means good luck to Subartu and Akkad. That it was covered completely means that the portent pertains to all countries. [139]

There appear to be two different traditions – both in different tablets of the *EAE* – regarding the judgment of which land will receive the evil affects of the eclipse. One is based upon the quadrant of the Moon where the eclipse first starts, the other is based upon the quadrant of the

[137] Koch-Westenholz, *Mesopotamian Astrology*. p.105.
[138] Francesca Rochberg-Halton, *Aspects of Babylonian Celestial Divination: The Lunar Eclipse Tablets of Enuma Anu Enlil*, vol. 22, *Archiv Fur Orientforschung* (Horn, Austria: VerlagFerdinand Berger & Sohne Gesellschaft M.B.H., 1988). p.36.
[139] Koch-Westenholz, *Mesopotamian Astrology*. p.107

Moon toward which the eclipse moves.[140] Munnabitu appears to be following the latter tradition, which was more popular.

Sometimes the direction of the shadow is given in terms of the shadow's positioning on the Moon itself (i.e. left, right, top, bottom) and sometimes it is given in terms of the cardinal directions given to the Moon's quadrants. The following two schema equate each with their corresponding terrestrial regions:

Direction of Shadow		Lunar Quadrant	
South	= Elam	right side	= Akkad
North	= Akkad	left side	= Elam
East	= Subartu & Gutium	upper part	= Amurru
West	= Amurru	lower part	= Subartu

As figure 6 illustrates, the orientation of the cardinal directions as seen on the face of the Moon is a mirror image of those one would expect on earth. Thus, north and south are in their respective places, but east and west are flipped.

By itself, the lunar area, either where the eclipse begins or toward which the shadow clears, simply indicates the terrestrial region affected by the 'evil'. For example in the *EAE* we find: "If an eclipse begins in the west and clears in the south: Downfall of Amurru; it (the evil of the eclipse) will not approach Elam or Guti." (15 col. iii, 4)[141] When other factors are introduced, the interpretations become more intricate. For example: 'If an eclipse occurs on the 14th of Nissanu in the evening watch and that eclipse [is black; it begins and clears in the south,] the King of Elam will die because (the moon) became dark in the evening watch, pestilen[ce will occur in the land].' (18 col. iv., 29)[142] In this example, it is the southern quadrant that last receives the shadow that indicates where the evil will strike.

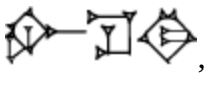
Directionality and the Four Winds

As far as is known, no instruments for determining the cardinal directions were available in Mesopotamia until the invention of the compass in 1000 CE. [143] Instead, the peoples of the region had to rely on various natural indicators such as the stars, Sun, and winds to approximate the four directions of the compass points. The use of the terms for sunrise and sunset in various Sumerian and Akkadian texts indicate that the position of the Sun on the horizon during the

[140] Ibid. p.107.
[141] Rochberg-Halton, *Aspects of Babylonian Celestial Divination: The Lunar Eclipse Tablets of Enuma Anu Enlil*. p.73.
[142] Ibid. p145.
[143] Horowitz, *MCG*. p. 195.

Winter and Summer solstices respectively were used to designate the edge of the 'east' and 'west' quadrants. Professor A.T. Clay, for example, argues that the term MAR.TU (Amurru) used to denote Syria also means 'the land of sunset' = 'setting of the Sun-god'.[144] Additionally, a very intriguing tablet (BagM. Beih 2 no.98) was unearthed from Uruk which contains a diagram showing the geographical locations of sunrise and sunset, the four winds, and their correlates to the seasons of the year. In the restored diagram [Fig. 7] – only half of which is originally preserved – a circle contains a square, inside of which are triangles located at each of the four corners. Each triangle is labeled with the name of a wind and on the left and right sides of the square are indicated sunrise and sunset respectively. In the circle on the outside of the square, each side contains a range of 3 months appearing to correspond to the time of the year when that wind predominates. For example, between the south wind and the west wind triangles the outside circle inscription says: 'From the 14th of Adar to the 5th of Sivan [the spring season], a ...wind'.

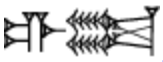
Unfortunately, none of the winds blowing in the seasonal sections of the circle are identifiable by name. Additionally, the identification of sunrise and sunset appear to be placed on the wrong sides of the square. Horowitz has suggested two possible explanations for this. The first is that a scribal error may have reversed the position of the rising and setting sun. The other is that BagM Beih 2 no. 98 may constitute a device, much like a sundial, in which the square, circle, triangles and 'sunrise' and 'sunset' could have been allowed to move independently and in relation to each other. Such a device could have shown that the morning shadow at sunrise fell to the west and the evening shadow at sunset fell to the east.[145] Notwithstanding these difficulties, the tablet is significant because it illustrates three important traditions in Mesopotamian concepts of terrestrial space: 1) the *kibrat arba' i* or four quarters, in which the earth's surface is conceptualized in terms of northern, southern, eastern and western quadrants; 2) the idea that winds blow in a circular region possibly envisioned connected with the four seasons of the year; and 3) the idea spoken of above, that time and space are correlated -- illustrated by the fact that each spatially related wind is seen to correlate with a particular time of the year.

The actual terms used in Sumerian to name the four winds and the cardinal directions which bear the same names, reveal interesting spatial conceptualizations. In Sumerian, the north wind is called  , ^{IM}SI.SÁ$_2$, or  ^{IM}MIR. The first term means 'to make

[144] Prince, *AJSLL.*". p.212.
[145] Horowitz, *MCG.* p.201.

vertical' or 'straight', while the second term means 'angry wind'. The wind that typically blows from the north in Iraq is known in Arabic as the *shamal* and it is a violent wind from the northwest that is known to kick up sand storms in the winter months. This possibly explains its description as an 'angry wind'. The Akkadian equivalent for SI.SÁ is *ešēru,* meaning 'to be/go well; be straight, fair; direct oneself (towards)'.[146] The sign for MIR is also used to denote 'a mythical snake' or 'a snake-like weapon'[147] and is part of the Akkadian word for snake (*mirša*).

The sign for east wind is  , ^{IM}KUR (*šadŭ* in Akkadian) which means 'mountain' and is thought to represent the image of three mountaintops. It also means 'land' 'underworld', 'east' 'east wind' and 'foreigner'. It therefore suggests the idea that mountains and the concept of east are tightly connected, which can be explained by the mountainous topography to the east and northeast of Mesopotamia.

The Sumerian sign for south wind  , ^{IM}ULU (Akkadian *šu-u-tu*) is also the same sign used in the construction signifying a 'demon'. In Iraq there exists a dry desert wind known as the *khamsin* in Arabic that originates in the Arabian peninsula and typically blows in the spring and fall months. It is not unusual to find demons associated with the desert and with heat, since they are thought to cause disease and death. In the story of Adapa, a south wind also comes from the sea and sinks Adapa's boat. This may be a reference to the *Suhaili* (Arabic), a wet, foggy, rainy southeast wind that rolls in from the Persian Gulf. As has been noted, the Sumerian word for the west, as well as for its wind, is  , MAR.TU which has its equivalent in the Akkadian ^{IM}*amurru,* the name for the Amorites, who migrated to Sumer from the west in the 3rd millennium.

In the astrological literature several omens contain references to winds and/or their directions. In the Mul.apin we find:[148]

> If the Raven ....s below the direction of the South wind: sesame will prosper. [iii, 28]
>
> or
>
> If the Raven ...s above to the direction of the North wind: the barley crop will not prosper. [iii, 29]

[146] *CDA*. p. 82.
[147] Åke Sjöberg and Erle Leichty, "The Pennsylvania Electronic Dictionary," (University of Pennsylvania Museum, 1974).
[148] Hunger and Pingree, *Mul.Apin*. p.111.

Two important concepts are illustrated in these two omens. First, since both refer to crops, a common element must be sought as an indicator of the productivity of the land. This would have to be indicated by the constellation of the Raven ($^{mul}UG_5$.GA), which Pingree and Reiner have identified as Corvus.[149] This is confirmed in the *EAE* where it is stated that 'The Raven is for a steady market'. [III, 3] The Raven is also listed as one of the twelve stars of Elam.[150] There are enough omens in the *EAE* involving constellations assigned to Elam to suggest that Elam was somehow associated with matters of wealth, crop yield and the markets in general. For example, an omen involving the Bow, another of Elam's twelve constellations, explicitly relates the concept to Elam: 'If the Bow comes close to UD.AL.TAR (Jupiter), Elam will eat fine food.' [*EAE*, XIII, 8] Relying on the historical and mythological literature, Kramer says of the Sumerian opinion of the Elamites:

> In the case of the Elamites, we find an attempt at succinct characterization of their personality in two sayings (from a Sumerian proverb collection) which Edmund Gordon is preparing for publication. The first reads literally: 'The Elamite – one house for him to live is not good,' that is, presumably the Elamite is not satisfied with one house. If this interpretation is correct, it is clear that rightly or wrongly, the Sumerians looked upon the Elamites as greedy and ambitious. The second proverb reads literally: 'The Elamite is sick: his teeth are chattering.' If the meaning is that the Elamite could not help wincing in pain, then it is clear that the Sumerians thought the Elamites to be "cry-babies" and unmanly.[151]

Aside from Ištar's tutelage of the mythical Elamite city of Aratta, she was also the primary deity of Arbela (a name meaning the 'four winds'), a major Assyrian city, strategically located on the northeastern frontier, that would later be occupied by the Persians and Greeks.

The second concept illustrated in the two previous omens, concerns the winds themselves, since they are the only modifying element in the protases. The South wind seems to promote the prosperity of the crops, while the angry North wind can destroy them. An omen from the Mul.apin appears to confirm this: 'The day of the Rainbow is 'day (?) of abundance'; in the South, rain; in the North, flood; in the East, rain; in the West, devastation.' [iii, 34.].

Three omens pertaining to the West seem to drive home the point that the nature of the devastation from that direction can come in the form of rebellion:

> If a star flares up from the West and enters the Lisi-star: there will be revolution.
> If a star flares up from the West and enters the Yoke: there will be revolution.
> If a star flares up from the West and enters the Moon: there will be revolution;
> If this star comes out (from the Moon) as three stars: unsuccessful attack. [iii, 42-45]

[149] Reiner and Pingree, *BPO Part 2*. p. 15.
[150] Koch-Westenholz, *Mesopotamian Astrology*. p.197.
[151] Kramer, *The Sumerians: Their History, Culture, and Character*. p.287.

Other omens appear to suggest that the associations made in them seem to be derived from empirical observation:

> If the Yoke is turned towards sunrise (?) when it comes out and faces the front of the sky, and no wind blows: there will be famine, the dynasty will disappear; omen of Ibbi-sin, King of Ur, who went in fetters to Ansan; after him his people weep, variant: fall. [iv, 5-8]
>
> If a man is made ruler, and the South wind blows: this man will be good.
> If a man is made ruler and the North wind blows: he will eat thin bread.
> If a man is made ruler and the East wind blows: his days will be short.
> If a man is made ruler and the West wind blows: he will not prosper. [iv, 8-11]

The first omen chronicles what was actually in the sky when King Ibbi-sin was shackled (Yoked?) and taken away to Elam. The lack of wind was noted as an indication that his dynasty would not endure. The last four omens illustrate that a protasis of an omen need not be celestial but can consist of an actual event coupled with a noteworthy wind blowing. Here we find that the South wind again is favorable, the North wind brings scarcity, the East wind is shortening of life, and the west wind again is destructive.

The Months of the Years and the Triplicities

The New Year in the Standard Babylonian calendar began with the new Moon following the Spring equinox. The Babylonian calendar consisted of these twelve months:

1. Nissanu (Mar-April)
2. Ajaru (April-May)
3. Simanu (May-June)
4. Du'uzu (June-July)
5. Abu (July-August)
6. Ulūlu (August-September)
7. Tašritu (September-October)
8. Arahsamna (October-November)
9. Kissilimu (November-December)
10. Tebētu (December-January)
11. Sabātu (January-February)
12. Addaru (February-March)

In order to keep the lunar months coincident with the seasons, an intercalary month was added after Addaru when it was deemed necessary. As the scribe Mannubitu indicated, one of the variables considered in the protasis was the month in which the celestial phenomena were observed. As in the other variables, each month was assigned to one of the four political regions in a repeating sequence that resulted in three groupings or triplicities [see Appendix A]. For example, 'If the Moon appears on the 30th of Simanu, Arameans will consume the richness of the Westland.'(BM 98582 [Ki. 1904-10-9, 59] = ABL 1391).[152] The months Simanu (III),

[152] Parpola, *LAS*. p.73.

Tasritu (VII), and Sabātu (XII) are all assigned to Amurru. Thus, the richness of the land[153] indicated by the Moon pertains to the Westland.

When an omen is observed, the complete scheme is noted and interpreted even if only one instance of it is actually observed. Thus we have the following sequence of a Jupiter omen interpreted for all twelve months plus the intercalation month [K.2341]:

8. If Jupiter is dim in month I: there will be defeat (of all the lands)
9. If Jupiter is dim in month II: [the west wind will rise and....the land]
10. If Jupiter is dim in month III: [epidemic among cattle]
11. If Jupiter is dim in month IV: [there will be epidemic in the land] pestilence in the land
12. If Jupiter is dim in month V:[there will be wailing in all the lands
13. If Jupiter is dim in month VI: [ ]
14. [If Jupiter is dim in month VII: the resting place of the warriors will be enlarged]
15. If Jupiter is dim in month VIII: the reign of the king of Akkad [...]
16. If Jupiter is dim in month [IX: all lands all together will experience massacre]
17. If Jupiter is dim in month X: [the king of Elam will fall by a strong weapon]
18. If Jupiter is dim in month XI: [the laid down weapons of the king of Amurru will arise]
19. If Jupiter is dim in month XII: [the Seven gods will destroy? the land] ...bring evil to the land.
20. If Jupiter is dim in month XII_2: [king will send messages of hostility to king]

The dating for this tablet is not given. However, there is a curious pattern in the apodoses that suggests the Neo-Assyrian period. Only two lands are mentioned, Elam in the 10th month omen and Amurru in the 11th month omen. The omens for months I, V, and IX are said to apply to 'all the lands', which suggests that what is referred to are several lands under one political rule, such as an empire. The omens where the singular 'land' is used may refer to the scribe's own land. The pattern followed in other tablets for omens involving the calendar months ascribes months I,V and IX to Akkad; II, VI, and X to Elam; III, VII, and XI to Amurru; and IV, VIII, and XII to Subartu. This would present a problem for a scholar living under the Neo-Assyrian empire where Akkad and Subartu were under the same political jurisdiction. Thus, an Assyrian scholar might refer, as he does here, to 'all the lands' when he wanted to include Akkad and to 'the land' when he wanted to refer to his own land, Subartu. The omen for month VIII mentions something challenging happening to the king of Akkad, when the expectation would be for it to befall the King of Subartu. Under the Sargonids and the reign of Sennacherib in particular, since Babylon had no king during this period, the king of Subartu was essentially the king of Akkad.

This tablet is particularly curious because the omens do not appear to be a compilation of the various apodoses seen in the individual months cited in earlier works in the letters to the kings. For example, previously noted associations between Elam and the markets are not seen

[153] Reiner and Pingree, *BPO Part 4*. p.155.

here suggesting that the grouping is following a different interpretative tradition. Although merely a working hypothesis at this point, the omens might make sense if seen as an integral unit reflecting a larger historical context. On the assumption that the omens were not based upon observations in real time, but schematized – as we saw with the Ibbi-sin omen above – *postriori*, over time to chronicle pivotal political events, an interesting pattern emerges. If each three month grouping is assigned to a regional quadrant and to a different king of the Sargonid dynasty, each omen then relates to a pivotal historical event that occurred during that reign involving the expected assigned territories as follows:

King	Month	Expected Territory	Apodosis	Historical event
	XII	Subartu	the 7 gods will destroy and bring evil to the lands	Insurrection by Sargon and end of the old order.
Sargon II	I	Akkad	defeat of all the lands	Sargon defeats Babylon and establishes empire
	II	Elam	west wind will rise and ...the land	Elam and Babylon join to rebel against Subartu
	III	Amurru	epidemic among cattle	Incited by Egypt, Phoenicia & Palestine rebel. Sidon is leveled.
Sennacherib	IV	Subartu	epidemic and pestilence in the land	Sennacherib is murdered by 2 sons; dynastic crisis
	V	Akkad	wailing in all the lands	Sennacherib levels Babylon
	VI	Elam	?	Elamite King dies in Assyria after a failed invasion of Babylon
Esarhaddon	VII	Amurru	the resting place of the warriors will be enlarged	Esarhaddon conquers Egypt & Ethiopia & dies en route there
	VIII	Subartu	the reign of the king of Akkad. [...]	Esarhaddon rebuilds Babylon & is welcomed as ruler.
	IX	Akkad	all lands all together will experience massacre	Civil War in Akkad, and uprisings in Elam, Egypt, and Arabia
Assurbanipal	X	Elam	the king of Elam will fall by a strong weapon	Assurbanipal erases Susa from the map
	XI	Amurru	the laid down weapons of the king of Amurru will arise	Egyptian king breaks treaty with Assyria

As Francesca Rochberg has noted, the triplicity pattern used to schematize the calendrical months appears in a late Babylonian tablet (ca. 5th century BCE) in which the standard Babylonian months are replaced with the Zodiac signs but which preserves the same regional schematization.[154] It is, as she notes, a connecting link between the omens of the *EAE* and later

[154] Francesca Rochberg-Halton, "New Evidence for the History of Astrology," *Journal of Near Eastern Studies* 43 (1984).

Greek astrology. The structure of the omens consists of: a lunar eclipse occurring in a zodiacal sign; when the night watch comes to an end; and one of the four winds is blowing; while Jupiter or Venus is, or is not present; and Saturn and Mars stand in one of the other two triplicity signs. The predictions apply to one of the four terrestrial regions according to the traditional scheme seen in the *EAE*. Thus the monthly numbering has given way to the following arrangement of Zodiacal signs with winds and lands [BM36746]:

Aries; Leo; Sagittarius	North wind	Akkad
Taurus; Virgo; Capricorn	South Wind	Elam
Gemini; Libra; Aquarius	West Wind	Amurru
Cancer; Scorpio; Pisces	East Wind	Subartu

The regional assignments are the same seen previously in eclipse omens.

According to Rochberg the earliest Greek source associating the winds with the triplicities is in the *Isagoge* of Geminus (written ca. 50 CE), wherein he states that the doctrine comes from the Chaldeans. His wind assignments correspond with that of BM36746, indicating that the Hellenistic triplicity scheme is in fact Babylonian in origin and based upon a schematization logic that most likely predates the use of the Zodiac. Ptolemy states that "the angles are the four cardinal points of the horizon whence are derived the general names of the winds."[155] He further discusses a Chaldean method of term divisions based upon a triplicity scheme where they assign a planet to each three signs as follows:[156]

Aries; Leo; Sagittarius	Jupiter
Taurus; Virgo; Capricorn	Venus
Gemini; Libra; Aquarius	Saturn (and Mercury)
Cancer; Scorpio; Pisces	Mars

In later Hellenistic and Medieval literature, these become one of three rulers assigned to the triplicities of the signs. Geographically, Jupiter and Venus are each listed as stars of Akkad and Elam respectively in the *Great Star List*.[157] The relationship between Marduk (Jupiter) and Akkad (Babylon) is apparent since this city became the political center of the Old Babylonian Empire and was preserved and respected as such by subsequent occupying empires. Marduk and his city's connection to insurrection within the king's own family can be seen implied above in the Neo-Assyrian prediction for the month of Nissanu, as well as adapted to a nativity in the apodosis of a lunar omen for the month of Aries: 'The place of Aries: death of his family' or

[155] Claudius Ptolemy, *Ptolemy's Tetrabiblos or Quadripartite: Being Four Books of the Influence of the Stars.*, trans. J. M. Ashmand (London: W. Foulsham & Co. Ltd., 1917). p.32.
[156] Ibid. p.50.
[157] Koch-Westenholz, *Mesopotamian Astrology*. p.187.

more properly as in the translation footnote 'Death (at the hands of his family).'[158] According to Jacobsen, we find the theme of parricide to be significant in the creation paradigm,[159] particularly in the *Enuma Elish*. The name Marduk (AMAR.UD) means "calf; young, youngster, chick; son, descendant" of the Sun, [160] and it in itself, evokes the idea of the preeminence of the son at the expense of the father. Jacobsen relates this to the political emergence of Babylon: "More importantly, however, is the insight we gain into the parricide theme. In warring with the Sealand, Babylon warred with the territory of ancient Sumer and all its renowned and venerable ancient cities and their gods. It waged an upstart's war with its parent civilization."[161]

The relationship between Saturn/Amurru or between Mars/Subartu is less clear and more inconsistent. Mars is listed as one of the twelve stars of Amurru in the *EAE 50*, as a star of Elam in *BPO II* (p.40:11a) and in *SAA 8 383* and as a star of Subartu according to the scribe Šapiku from Borsippa in *SAA 8 491*.[162] In *SAA 8 383*, one scribe states that Saturn is the star of Akkad, while Šapiku says it is the star of Amurru (*SAA 8 491*).[163] It appears then, that the tradition that Ptolemy was quoting was the same one followed by the scribe Šapiku, since the planetary rulers for the triplicity signs are the same ones that were assigned to the four regions. In a document known as the Sargon geography, the Amurru are identified as "people of the south" which is explained by the fact that large numbers of Amorite nomads migrated to the south at that time. However, when the Amorite population became the ruling empire, establishing a capital in Babylon, the Amurru became a designation for the then populations of the generic west (Arameans, Syrians, Judeans, Egyptians, Phoenicians). It does not make much geographical sense then, that a deity linked with early cult centers of eastern cities, such as Lagash and Girsu, and with the storms of the mountains, would be assigned to a region whose name means west.

Šapiku must be relying on a different rationale for these assignments that might have some calendrical or astronomical significance. All that can be said is that there is some evidence to identify the deity Ninurta with the planet Saturn. This identification is given by Nabu –mušesi who says: 'If the Sun (i.e. Saturn) stands in the halo of the moon...If Ninurta stands in the halo of the moon: my army will set foot in enemy land' (*SAA 8 154*) . We also find in seasonal customs dating back to before the destruction of Nippur, a connection between Ninurta and the months given to Saturn in Ptolemy's Chaldean list. In the Nippur calendar, month III

[158] Sachs, *JCS*. p.68.
[159] Jacobsen, *The Treasures of Darkness: A History of Mesopotamian Religion*. pp.186-191.
[160] Sjöberg and Leichty, "The Pennsylvania Electronic Dictionary."
[161] Jacobsen, *The Treasures of Darkness: A History of Mesopotamian Religion*. p.190.
[162] Koch-Westenholz, *Mesopotamian Astrology*. p. 129.
[163] Ibid. p.124.

(corresponding to the Neo-Babylonian sign Gemini) was called *sig-u-šub-ba-gá-gar,* which means 'the month the brick is placed in the brick mold'.[164] Under the dry, hot weather of the start of summer, clay and mud were dried to produce bricks for building. A tablet contains the entry: 'an offering at the place the brick is set in the brick mold' and Cohen states that "the most noted example of the symbolic placing of the brick in the brick mold at the onset of building activities is Gudea's building of Ningirsu's (a.k.a. Ninurta) Eninnu temple."[165] The custom was important enough to be mentioned in Astrolabe B under the Babylonian month Simanu: 'the month of the brick mold of the king'.[166] The eleventh month (*Sabatu,* corresponding to the Neo-Babylonian sign Aquarius) was the month of hailstorms, a motif well-established in the myth LUGAL UD ME.LAM.BI NIR.GAL. (a.k.a. *lugal.e*) 'king storm whose splendor is overwhelming,' as is Ninurta's association with stones. The correspondence is explicitly established in an omen: '[If] Adad [thunders] in Shebat (XI): attack of locu[sts against the land]. [If] Adad [thunders] in Shebat (XI), it hails [...].'(no.222)[167] The storm theme is similarly seen in the eleventh tablet of the *Epic of Gilgamesh,* which contains the story of the deluge. Thus, two of the months assigned to Amurru, which was given to Saturn by Šapiku and Ptolemy, have strong calendrical cultic connections to the deity Ninurta. Still it is unclear why the assignment of Saturn to Amurru would follow a calendrical rationale rather than the geo-mythological one apparent for Jupiter and Venus.

The alternate Mercury designation for the Amurru months can only be understood in terms of the younger god Nabu's assumption of Ninurta's roles in the pantheon. A recent paper presented at the Helsinki Conference on Assyriology argues that "The relationship between Marduk and Nabu was modeled on the relationship between Enlil and Ninurta and Nabu's role as the scribe among the gods was the inheritance of Ninurta."[168] The relationship between Mars and Subartu could arguably be made through the east's conceptualization as the place of the *kur,* the mountain/underworld, the realm of the lord Nergal (Mars). The clearest support for this comes from references to the underworld found in the ritual festivals of the fourth calendar month, which is named after the dead shepherd *Du'muzi* – a name still used in Iraq today for the month of July. The Nippur Compendium lists it as a time for 'offering of water', 'descent to the

[164] Mark E. Cohen, *The Cultic Calendars of the Ancient near East* (Bethesda, MD: CDL Press, 1993). p. 92.
[165] Ibid. p.95
[166] Ibid. p.314.
[167] Hunger, *Astrological Reports to Assyrian Kings, Volume VIII*. p.123.
[168] Amar Annus, "Ninurta as the God of Wisdom," in *47 Recontre Assyriologique Internationale* (Helsinki: Gateways to Babylon, 2001).

grave', 'captivity of the shepherd', 'opening of the grave'.[169] Mars may thus have been assigned to month IV through a similar calendrical logic. Not enough is known about the cultic rituals for the 8th or 12th months to ascertain similar connections with Nergal. But if the monthly connections to the deities are also involved in the rationale underpinning the triplicity omen assignments, it implies that both the deity relationship to time and place are at play in the triplicity interpretations, as they are in the paradigm for the winds.

The planet Saturn's conceptualization in the omen literature is complex. It is frequently identified with the Sun, and in the early literature retains the positive nature of the Sun. But in the late Babylonian literature, it begins to be identified with anti-solar qualities: 'the dark sun', the 'sun at sunset', or 'the black star'. Interpretatively, it later communicates the negative aspects of what the Sun may signify: if the Sun signifies truth, Saturn signifies lying; if the Sun signifies treaties and loyalties, Saturn signifies the breaking of oaths and rebellions; if the Sun signals plenty, Saturn signals famine, etc.

The complexity apparent in Late Babylonian omens is apparent in tablet BM36746, which Rochberg has translated. The geographically relevant parts of the apodoses for the triplicity omens read as follows:[170]

1. Eclipse of the Moon in Leo, Saturn and Mars in Aries or Sagittarius or the Field =
   'For this sign: [the king] of Akkad will experience severe hardship/*šibbut*-disease; variant: it will seize him, and a revolt they will oust him from his throne.'
2. Eclipse of the Moon in Virgo, Saturn and Mars in Taurus or in Capricorn =
   'Elam in ...[will be de]stroyed; his possessions....together will be plundered; the king of Elam together with [his k]in will be slaughtered ; ...'
3. Eclipse of the Moon in Libra, Saturn and Mars in Aquarius or Gemini =
   'Amurru will be destroyed; there will be great famine in Amurru the countryside of Amurru [will fall into ruins; the people will be dispersed;...]
4. Eclipse of the Moon [in Scorpius]...Sirius with/in the region of the Pleiades...Cancer stand; ditto Mar[s...]=
   A rebel king will rise up and conquer the land of ....in an attack; Subar[tu...the king of Subartu together with] his kin will be cast into a fire(?) will fall in battle(?); fire will consume his palace; his countryside will be scattered; the rivers [will become devoid of fish....]

The association of the new moon with kings, may be seen in the installation ritual of the Akitu festival. Cohen says: "By celebrating the á-ki-ti at the new moon, the waxing moon represented the arrival of Nanna into his city (as the moon became larger and larger, Nanna seemed to be coming closer and closer) – an arrival which was reenacted by a triumphal entry of

[169] Cohen, *The cultic Calendars of the Ancient Near East*. p.316.
[170] Rochberg-Halton, *JNES*. p.137.

the statue of Nanna back into Ur from the á-ki-ti building."[171] Thus, it is common to find eclipse omens of the Moon pertaining to kings. The predictions from the first group relate to the king's expulsion from the throne (Jupiter). The disease is signified by the presence of Mars in a region of Akkad, and the 'ousting from his throne' perhaps by that of Saturn. The second omen emphasizes the plundering of the king's possessions, together with the slaughter of his kin (Mars and Saturn's influence over a Venusian region). In the third omen, where regions are assigned to Saturn, it is its structures that suffer and its people that are dispersed (deportation was a common practice by Assyria). The fourth omen emphasizes the martial aspects of the region when it predicts war, fire and pestilence for the kingdom of Subartu. The interpretative logic in this group appears to be consistent with the planetary correlates assumed in the regional schemata referred to by Ptolemy. Whereas in earlier omens, we find the regions simply standing in for the place affected, here the prediction includes a planetary aspect of the region itself.

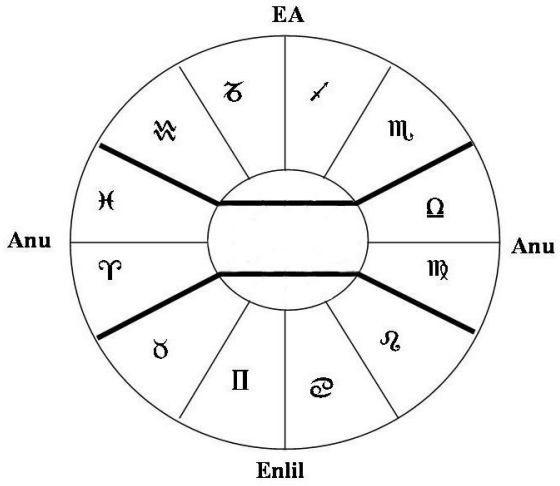
There is evidence that the same geographical model may have found its way into Hellenistic Egypt. The earliest evidence for the transmission of Babylonian geographical astrology into Egypt comes from the Demotic Papyrus of Vienna, a fragmentary demotic text dating in composition to the 6th century B.C..[172] The text contains lunar and solar omina following the Babylonian models wherein the geographical regions have been adapted to reflect the geo-political reality of Egypt. Thus, Akkad, Elam, Amurru and Subartu have become Egypt, Crete, Syria and Amor, with the monthly triplicity scheme being identically followed, as well as Egyptian equivalents for the Paths of Enlil, Anu and Ea being adopted. There are as yet, no planetary assignments to the monthly groupings as we find in later Hellenistic sources.

Five centuries later, the Hellenistic sources explain the triplicity arrangement in terms of an assignment of three planetary rulers for each grouping. Thus, each three month grouping is given a ruler by day, by night, and a co-mingling ruler of both day and night such that:

Triplicity	Day, Night, Co-mingling
Aries, Leo, Sagittarius	Sun, Jupiter, Saturn
Taurus, Virgo, Capricorn	Venus, Moon, Mars
Gemini, Libra, Aquarius	Saturn, Mercury, Jupiter
Cancer, Scorpio, Pisces	Venus, Mars, Moon

[171] Cohen. *The Cultic Calendars of the Ancient Near East.* p.402.
[172] Parker, Richard A. *A Vienna Demotic Papyrus on Eclipse and Lunar Omina*. Providence, R.I. Brown University Press, 1959.

However, Ptolemy is clear that the divisions into three are made in accordance with "three circles: that of the equinox, and those of the two tropics."[173] Thus, the threefold division of the signs is that of the Babylonian months into the Paths of Enlil, Anu and Ea. The circle was divided not in terms of a daily cycle – as was later incorrectly interpreted – but in terms of an *annual* one.



In the following diagram, the triplicity scheme of the signs is arranged according to the paths of Enlil, Anu and Ea. Ptolemy says that Aries is in the equinoctial circle – i.e., in the path of Anu – Leo is in the summer circle (Path of Enlil), and Sagittarius in the winter circle (Path of Ea). If we accept what Ptolemy says, the "ruler by day" would not refer to the planet that has rulership over the so-called "first part of the life", as is commonly found in the literature,[174] but would refer instead to the ruler of the month in the *first part of the year*, when the days are longer than the nights. That logic would follow, since the months are components of the year and not the day. Conversely, the ruler by night refers to the planet that has rulership over the month in the *second part of the year*, when the night predominates. The confusing third rulers, that Ptolemy prefers to reject altogether, or that other authors mistake for 'co-operating' rulers, are simply the planets ruling the months of the year where night and day are equal in light or "co-mingled".

Ptolemy explains these planetary assignments in terms of the winds that each planet controls and the climatological conditions they therefore create. Thus, Jupiter is said to be 'expressly connected with winds proceeding from the north'; 'Venus...produces south winds'; 'eastern, by the influence of Saturn'; and 'western, in consequence of the government of the Moon and Mars'. [175] By contrast, in Vettius Valens' work, a contemporary of Ptolemy's, the triplicity groupings are described not as winds, but as Aristotelian elements. 'The Sun, being truly fiery, was associated with Aries, Leo and Sagittarius, which was named its diurnal trigon and is also fiery by nature'; 'the Moon, as she is near the earth, took as her lot the rulership of

[173] Ptolemy, *Ptolemy's Tetrabiblos*. p.43.
[174] See for example, Dorothei Sidonii, *Dorotheus of Sidon: Carmen Astrologicum*, trans. David Pingree (Leipzig: Astrology Classics Publishers, 2005).
[175] Ptolemy, *Ptolemy's Tetrabiblos*. pp.43-45.

the following trigon – Taurus, Virgo, Capricorn – which is truly earthy'; 'next, Kronos will be the master of the airy trigon, Gemini, Libra Aquarius...'; and 'the star of Ares will maintain the rulership of the watery trigon Cancer, Scorpio, Pisces...'[176] This reliance on the elements instead of the winds and their cardinal directions continue to explain the triplicities into the Medieval ages.

Thus, the regional and directional correlates per triplicity grouping present in the Babylonian system is replaced simply by identical directions in Geminus, and then by the addition of planetary correspondences in Ptolemy. It is worthy of note that Ptolemy also reverses the directions of the 3rd and 4th Babylonian triplicities, assigning eastern winds to the 3rd triplicity and western winds to the 4th triplicity. It is unclear why three rulers were given per Zodiacal triplicity since Ptolemy clearly focuses on one major diurnal or nocturnal ruler per group. The Babylonian annual scheme would suggest that each ruler would govern over one sign depending upon its position in the paths of Anu, Enlil and Ea, rather than over the triplicity by day, night or some confusing 'co-mingling'. The Hellenistic tradition may have been a misunderstanding of an earlier Babylonian one rooted in geographically relevant correspondences.

III. CONCLUSIONS

In 1900, R. C. Thompson wrote: "The so-called astrological forecasts contain elements which it will be impossible for the modern student to explain until the complete history of the political (and we would add social and religious) relationship of Babylonia with her neighbors is fully known."[177] We've come a long way since this statement was made, yet in many respects our knowledge remains compartmentalized. Our understanding of the cultic and religious life of the deities for example, has evolved independently from our understanding of them in a political or cosmographical context. The same process of compartmentalization seems to be occurring with Mesopotamian notions of place – both terrestrial and astronomical. As Weidner noted, Babylonian omen astrology is primarily geographical. The four terrestrial regions named in a large percentage of the celestial omens were not mere labels given to arbitrarily derived astronomical divisions, they were real places whose names represented historical, political and

[176] Valens, Vettius. *The Anthology Book II, Part I.* trans. Robert Schmidt. (Cumberland, MD: Project Hindsight, 1994). p. 1-2.
[177] Thompson, *The Reports of the Magicians and Astrologers of Nineveh and Babylon*. p. xv.

socio-religious relationships with Babylonia. These relationships and the impressions they leave behind in the collective memory become the basis from which many of the omen apodoses are constructed.

We have seen that the Babylonians thought of time as being intrinsically bound up with space. The three Mesopotamian seasons (hot/dry, mild/moist, and cold/wet) were, for example, bound up with the travels of Šamaš not only along the horizon but along the four corners of the horizon plane, which made up the totality of the known world. The same logic translated into the heavens where a finger's width of space between stars translated into a year of time on earth.[178] But time was not a mathematical abstraction, it was the vehicle that carried change both on earth and above it. The nature of the change corresponded with the nature of the moving or altered celestial body. The region affected was the place that received the change. For example, Jupiter, representing victory in battle, when traversing the 'head', 'shoulder', 'right', or 'left' of Venus indicated some victory over one of the four political regions (Venus itself divided into four). In a counter-communicative logic, the changes occurring to the terrestrial places themselves, if historically significant, could become the prototype for some time-based correlates. For example, in the omen series, *Shumma Alu Ina Mele Shakin*, some omens are seen to derive from the locations of cities themselves.[179] This omen-as-terrestrial-history rationale can be seen in the Neo-Assyrian omens cited above. If the Assyrians conceived of the Sargonid dynasty as a four-fold unfolding of the apex of Neo-Assyrian culture, each king's historical relationship with the places assigned to the monthly scheme would be seen as an expression of that scheme. The passage is significant in that if its interpretation is correct, it exhibits the idea of a repeated smaller sequence within a larger one – as we find for example in the micro-Zodiacal divisions of a sign, [180]except in this case applied to the monthly quadrants.

Underpinning all of the geographical conceptualizations of the Babylonians seems to be a larger cosmological framework constructed in terms of the early religious relationships with place. Retrospectively, a division into three major cultural centers is noted in the importance given to three tutelary gods and the major Sumerian religious centers they inhabited: Eridu, Ea's home and the original seat of kingship; Anu's cult center Uruk, Sumer's most important cultural and economic center; and Nippur, the sacred 'mountain' city of Enlil. This division into three

[178] In BM 35045, tablet 63 of the EAE, omens 7-9 establish this pattern: 7. If Jupiter approaches Venus less than one 'finger': in one year the enemy will conquer the head of Akkad. 8. If Jupiter approaches Venus less than two 'fingers': in two years (or in the second year?) the enemy will conquer the middle of Akkad.
9. If Jupiter approaches Venus less than four 'fingers': in four years (or in the second year?) the enemy will conquer the base of Akkad. See Erica Reiner. *Babylonian Planetary Omens Part 4*.
[179] Only a German translation is available. See Sachs, *JCS*. p.51, ff.14.
[180] Ibid. pp.68-71.

deities and regions is carried forward into the Babylonian period and into the cosmological division of sky/earth into three paths. As was related by Ptolemy, on the basis of a Babylonian tradition, the paths of this threefold division – organized in terms of seasonal daylight rather than cosmographical path -- is combined with a fourfold seasonal lunar passage of sky/earth in which the winds have replaced geographical region as representatives of place and cardinal direction. Yet by the 1st century, the Babylonian tutelary deities associated with the three paths, have been replaced by astrological deities which best represent these seasonal divisions: the winter months and their location represented by the Moon, as ruler of the night, and the summer months and their location represented by the Sun, as ruler of the day. Ptolemy does not know how to categorize the third "co-mingling ruler" into the existing scheme and for the most part ignores it altogether. But if the equinoctial months and middle circle follow the same association with a deity, we might expect that the path of Anu and its marriage between day and night in the spring and fall months might have been best represented mythologically by Inana, the Lady of Heaven herself, participator in the 'sacred marriage', and daughter of Anu.

Although later Hellenistic authors explain the triplicity place relationships in geometrical terms (e.g. triangles) they do not appear to have been geometrical in their original conceptualizations. It appears that individual months, and the terrestrial regions and winds connected with them when mapped onto a horizontal plane, may have been conceived of in terms of the cultural and historical significance that were given to them. Thus, the 1st month and the north wind, in which Babylon celebrated the *akitu* festival and the installation of the king, was generally associated with Akkad and matters of kingship. These appear to be implicated in omens for not just the 1st months, but also the 5th and 9th in accordance with the repeating threefold division of the year. The 2nd month and its south wind, which brings a time for cultivating and fertilizing the land, was often associated with Elam and Venus and matters relating to yield, fertility and production, in the omen literature. The same pattern was seen in omens for months 6, and 10th. However, the associations connected to place fluctuated over time and the omens appear to keep in step with the changing political and cultural realties of those doing the interpreting. Thus, even though Mars and Amurru, its western region, appear connected to the 3, 7, and 11th months in the Babylonian texts, by the time the "Chaldean" system appears in the work of Ptolemy, Mars has been given to the months associated with the east wind and months 4, 8, and 12 in the Babylonian records.

The evidence from the omen literature by itself does not allow for us to draw any definite conclusions with regard to the possible influence of place meaning on the concept of

topos in Hellenistic astrology. However, enough suggested overlap between some of the attributions given to the Hellenistic places (*topoi*) and specific time/place connected cultural peculiarities from Mesopotamia, have been found to warrant a future study with a wider focus on the literary and historical evidence. For example, Kramer's argument that the Sumerian word for the Amurru people of Syria characterizes them as slavish or servile people is consistent with Vettius Valens and all later astrologers through to the Renaissance that list 'slaves' as a 6th house attribution. [181] This relationship argues for a Mesopotamian origin when a geographical mapping of the 12 *topos*, is placed over Mesopotamia and its neighbors with its center on Babylon, as this places the 6th month region to the northwest over Syria and its surrounds. In another example, a connection between the Sumerian etymology for the terms 'Scorpion-man' and 'foreigners' is consistent with a mapping onto the southwest, the region corresponding to the 9th house, among which Paulus Alexandrinus and Valens both list 'living abroad' and 'benefits from foreigners' as significations. Other correlates involving the 4th *topos*' entries: 'after death', 'parents', 'constraints', 'death', 'subterranean', 'lands' or 'foundations' may all relate to two cultural peculiarities of Sumerian culture. The first is time-based and relates to the month of the summer solstice, *Du'muzu*, named after the shepherd that was bound, killed, and taken to the underworld. The second relates to place, and the fact that it was customary for the dead to be buried by their relatives in tombs below the family residence.[182] Since it was considered an act of invocation to refer to death by name, two common euphemisms used were "to come to land on or take refuge in one's mountain', or 'to take the road of one's forefathers'. [183] Other such relationships have been noted, but will need to await a more extensive future examination.

[181] There is much consistency in the Hellenistic and Medieval astrological texts relating to *topos* attributions, particularly with regard to those cited here. Here we cite specifically from Valens, *The Anthology: Book Ii*. p.32 and Paulus Alexandrinus, *Late Classical Astrology: Paulus Alexandrinus and Olympiodorus with the Scholia from Later Commentators*, ed. Robert Hand, trans. M.A. Dorian Gieseler Greenbaum (Reston, VA: ARHAT, 2001). pp. 111-118.
[182] Nemet-Nejat, *Daily Life in Ancient Mesopotamia*. p.142.
[183] Ibid. p.141.

Figure 1

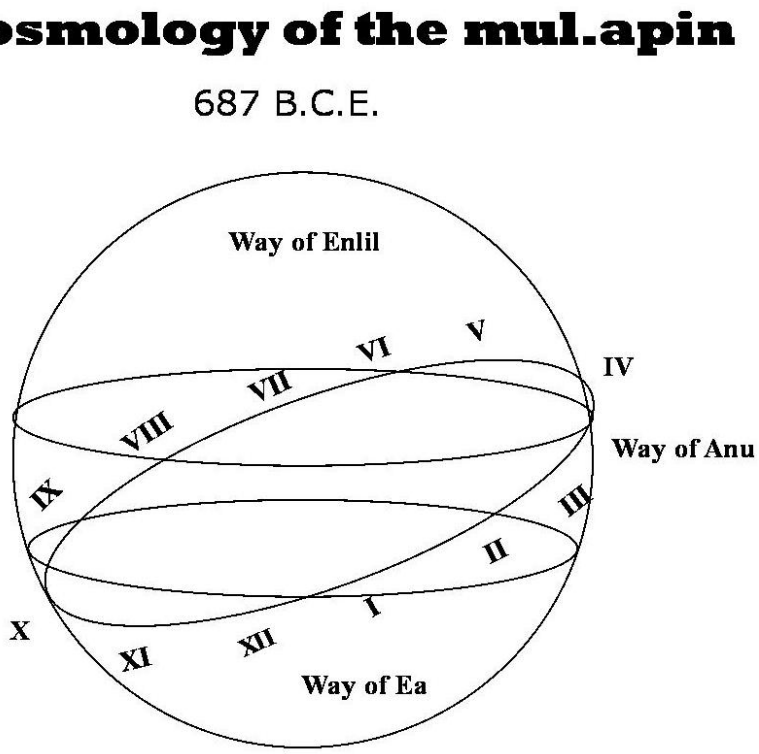
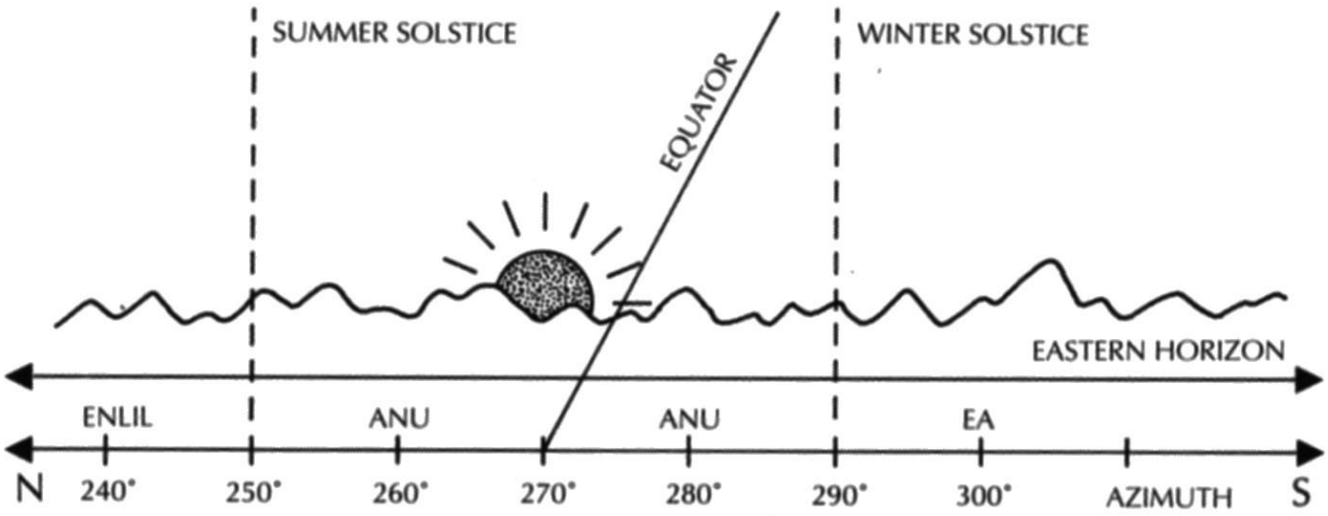


Figure 1 : Passage of the Sun through the 3 Paths over the course of the year as described in the Mul.apin. Diagram source: Van der Waerden. *JNES*. p. 24.

Figure 2



The Paths of Anu, Enlil and Ea

Figure 2: The Way of Anu, Enlil, and Ea as seen from the local horizon.

Source: *Mesopotamian Astrology*, p. 25.

Figure 3

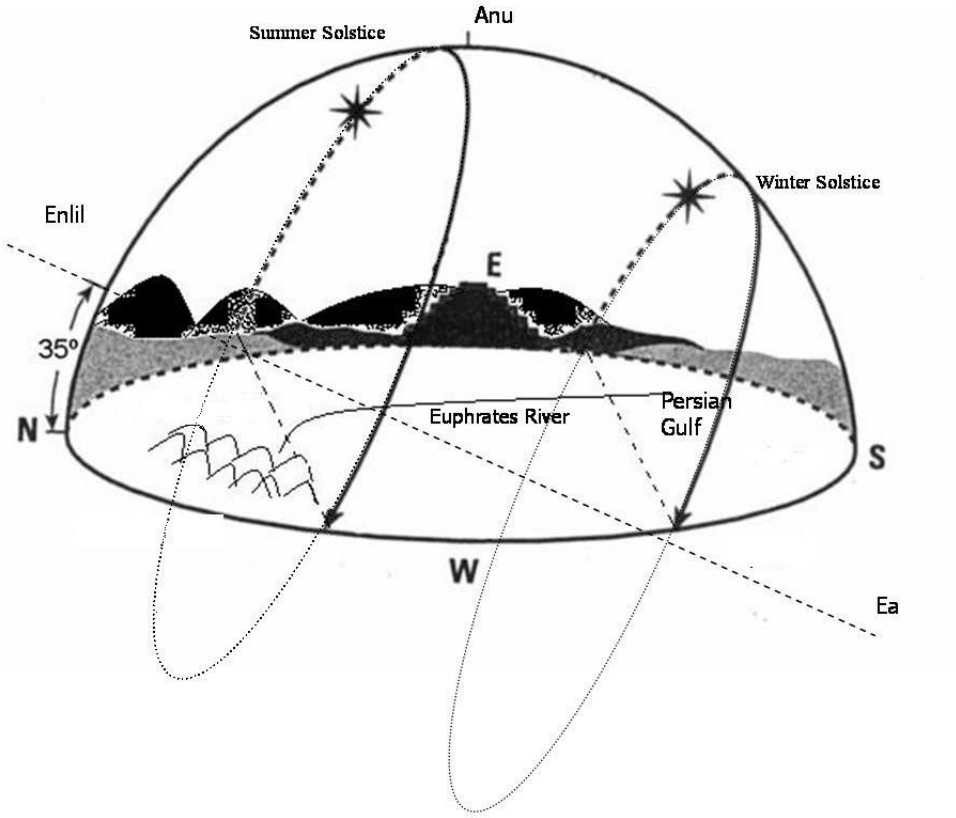


Figure 3: Three – Dimensional representation of the horizon showing the Ways of Anu, Enlil and Ea

Figure 4

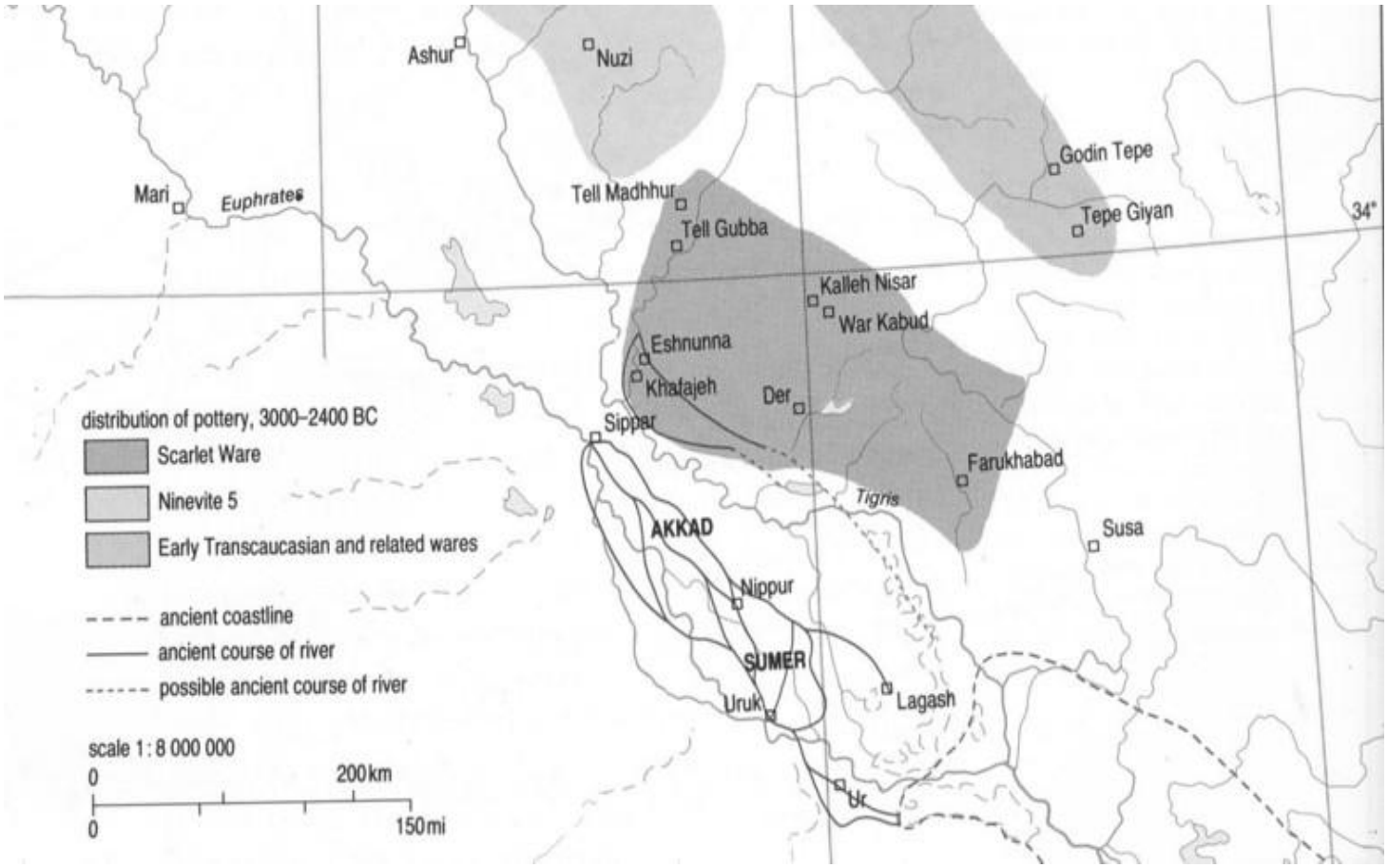
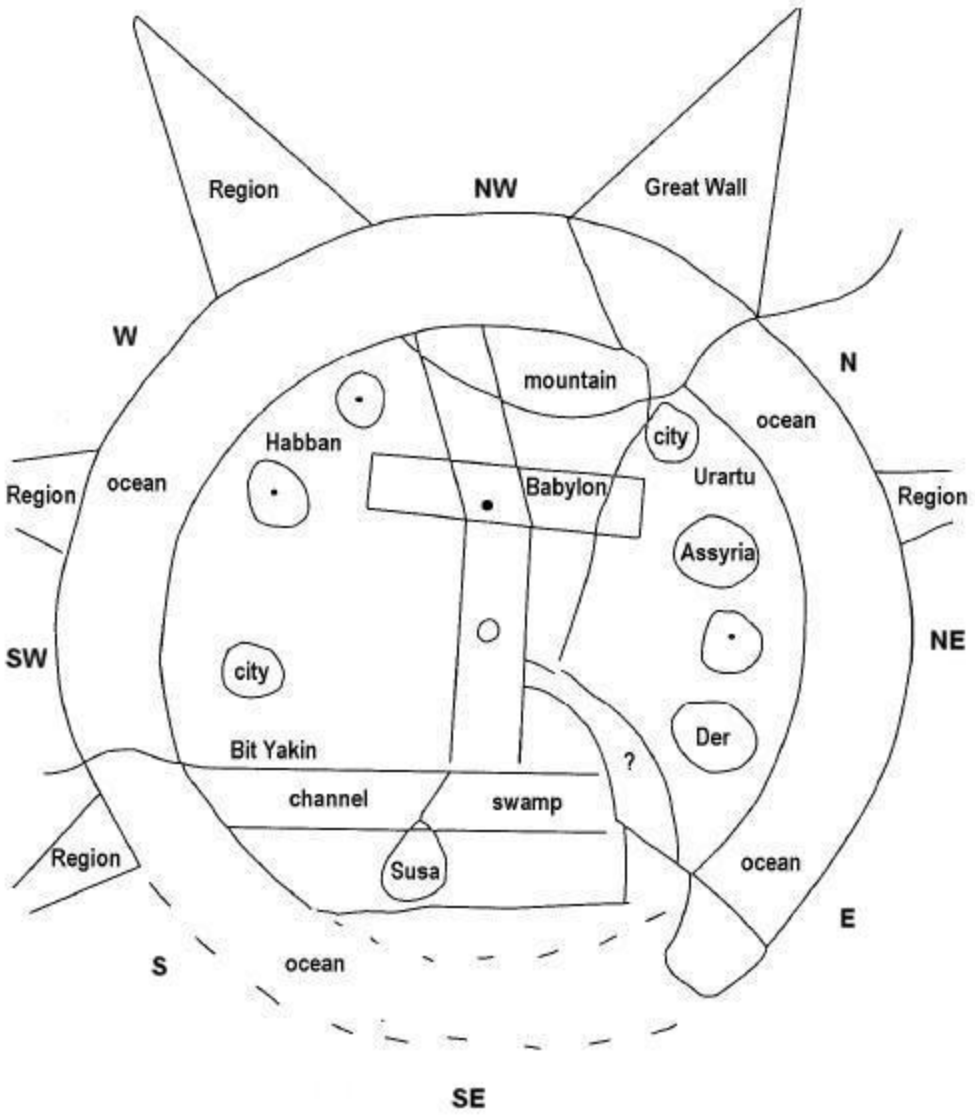


Figure 4: Map of the Ancient Coastline

Source: Micheal Roaf. *Cultural Atlas of Mesopotamia and the Ancient near East*. 1990. p.80.

Figure 5



"The Babylonian Map of the World"

This copy of tablet BM 92687 has been adapted from Wayne Horowitz, *Mesopotamian Cosmic Geography* (Winona Lake, Indiana: Eisenbrauns: 1998), 20-22. A photo of this tablet is found in Wayne Horowitz, "The Babylonian Map of the World," *Iraq* 50 (1988): 147-165.

Babylonian Map of the World

Translated Text on Obverse of Tablet BM 92687

1'[.....] .....[.....

2'.....] . the rui[ned] cities [.....]

3'[...the vas]t [Sea] which Marduk sees. The bridge in[side] her?]

4'[...] . and the ruined[d] gods which he set[tled] inside the Sea.

5'[...]..are present; the viper, great sea-serpent inside. The Anzu-bird, and scorpi[on-man]

6'[..moun]tain goat, gazelle, zebu, [p]anther, bull-m[an]

7' [..l]ion, wolf, red-deer, and hye[na],

8' [monk]ey, female-moneky, ibex, ostrich, cat, chameleon,

9'[...] beasts which Marduk created on top of the res[tl]ess Sea,

10'[..U]tnapishtim, Sargon, and Nur-[D]agan the King of Buršaha[nda],

11'[..w]ings like a bird, which/whom no one can com[prehend.]

Text on the Reverse

1' .....] x [.....

2' .....wo]nde[rs?.....

3' .....]great s[ea?.....

4' [The first? region?, when one ent]ers it you tra[vel....leagues.....

5' To the second region] where you travel 7 lea[gues....

6' [.....] ....be[low.....

7' To the third region, where you travel 7 leagues.....

8' A winged [bi]rd cannot safely comp[lete its journey]

9' [To the fourth region, where you travel 7 leagues.....

10'[...] .are thick as a *parsiktum*- measure/vessel, 20 finger(s) [....

11' [To the fifth region, where you travel 7 leagues [....

12' [...is] its height/flood; 840 cubits is its. [....

13 [.... its frond/rain; as much as 120 cubits is [its....

14'[...]. its blood he does not see[....

15'[...which we climb?, where you trave[l...

16' [.....you/] I will travel 7 le[agues.....

17' [.....]. the departure which? is in..[.....

18' [.....]its [....] he crossed [.....

19’ [To the sixth] region, where you travel [7 leagues.....

20’ [.....on?] top, I .....[.....

21’ [To the seven]th region, where you travel [7 leagues.....

22’ where cattle equipped with horns [....]

23’ they run fast and reach [.....

24’[To the eighth region, where you travel 7 leagu[es.....

25’[.....the p]lace where....dawns at its entrance?.....

26’ [.....] of the Four Quadrants of the entire . [....]

27’ [.....].: which no one can compre[hend]

28’ [.....]. copied from its old exemplar and colla[ted]

29’[....] the son of Issuru [the descend]ant of Ea-bēl-il[īl]

Figure 6

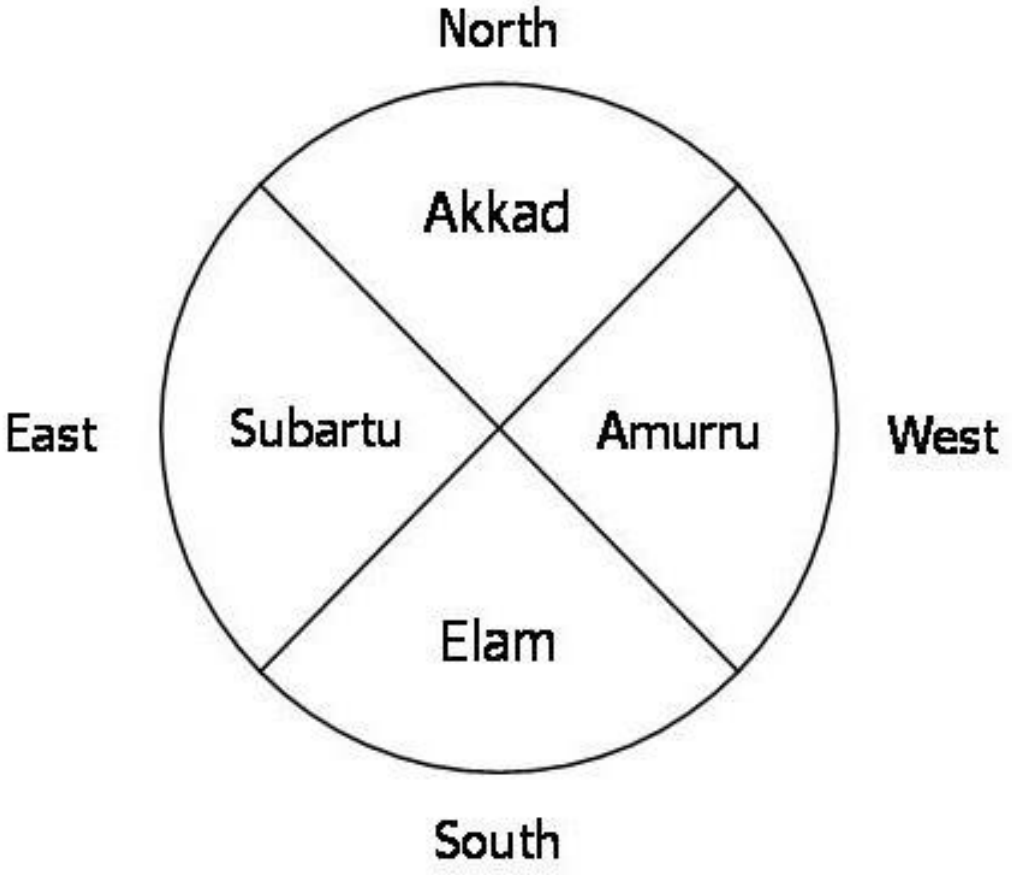


Figure 6 : Moon's Eclipsed Shadow according to the *Šumma Sîn ina tāmartīšu.*

Source: *Mesopotamian Astrology:*

***An Introduction to Babylonian and Assyrian Celestial Divination*. p. 109.**

Figure 7

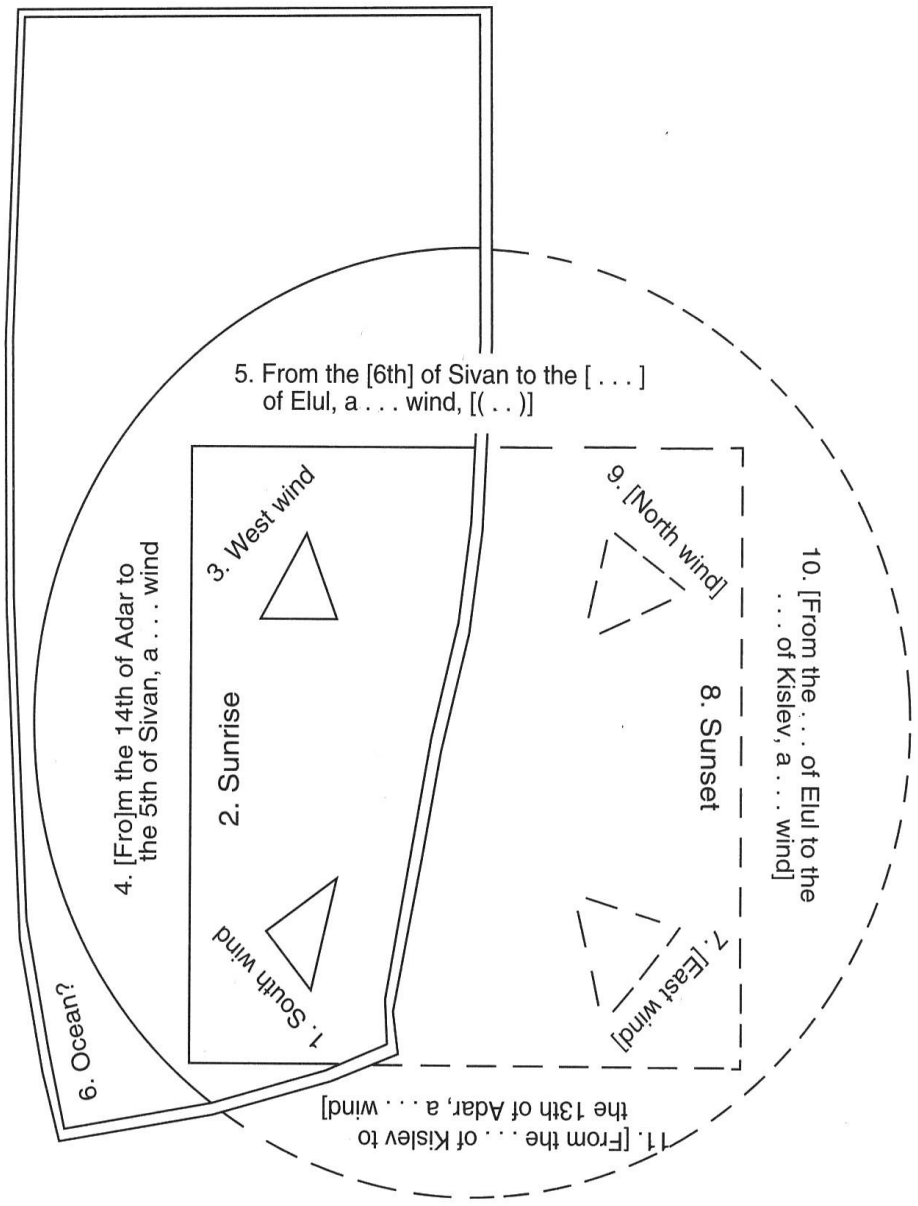


Figure 7: BagM. Beih. 2 No. 98

The Four Winds and Seasons of the Year

Source: Mesopotamian Cosmic Geography. p.193-194.

Appendix A: Geographical Correspondences

Source: ***Mesopotamian Astrology***

Nightly Watches

Evening watch	Akkad
Middle Watch	Amurru
Morning Watch	Elam

Winds

South Wind	Elam
North Wind	Akkad
East Wind	Subartu or Gutium
West Wind	Amurru

Three Paths

Anu	Elam
Ea	Amurru
Enlil	Akkad

Metereological Phenomena

In the South	Akkad
In the North	Subartu or Gutium
In the East	Elam
In the West	Amurru

12 Stars of Elam	12 Stars of Akkad	12 Stars of Amurru
Venus	The Plow	The Field
The Lion	The True Shepherd of Anu	The Serpent
The Bow	The Wagon	The Great Twins
Entenabarhum	The Scales	Belet-ili
The Panther	The Goat	Mars
Numušda	Damu	The Swallow
The Stars	Annunitum	The Old Man
The Twins	Jupiter	The Arrow
The Raven	ŠU.PA	The Kidney
The Scorpion	The Mad Dog	The King
The Great	The Eagle	The Crab
The Fish	The Ford	The Fox

Calendar Months

I – Nisan	V – Abu	IX – Kislmu	=	Akkad
II – Ajjaru	VI – Elulu	X – Tebetu	=	Elam
III – Simanu	VII – Tašritu	XI – Šabatu	=	Amurru
IV – Dumuzu	VIII – Arahšamnu	XII – Addaru	=	Subartu

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