In my previous article, I discussed the veneration of astral bodies in ancient Syria-Palestine, surveying textual and archaeological material from the Late Bronze and Iron Ages. There, I articulated the view that, though there was Aramean and Assyrian influence on Israelite astral worship—primarily aesthetic influence—that worship was grounded in the native religious traditions of Syria-Palestine. In this present article, I wish to bring that study to its real purpose, namely, to demonstrate that celestial divination was not a substantial feature of Israelite religious expression before the Babylonian exile, though astral worship was. My evidence will be archaeological, Ugaritic, and pre-exilic biblical material. In addition to this, I will outline both biblical and extrabiblical Jewish astrological material from the Second Temple period.

While post-exilic material might not seem immediately relevant to Iron Age practice, I believe it demonstrates that there are no traces of a native Israelite celestial divination tradition and that the post-exilic practice was, rather, influenced primarily by methods and ideas common in the Hellenistic koine.

Celestial Divination in Ancient Israel: Three Views

If the biblical testimony and archaeological evidence are to be trusted, then we can safely say astral religion was practiced in ancient Israel. However, whether or not there was a native or even an imported tradition of celestial divination in pre-exilic Israel has been the subject of much debate. Within this debate there are three major schools of thought.

To the first way of thinking, Israel had its own native tradition of celestial divination, which was simply an aspect of its Syro-Palestinian religious heritage. To the second, Israel developed celestial divination under the influence of Assyrian/Babylonian celestial divination practices while under occupation and during her

---

* Abbreviations follow Patrick Alexander et al., *The SBL Handbook of Style for Ancient Near Eastern, Biblical, and Early Christian Studies* (Peabody, MA, 1999), as well as *The Assyrian Dictionary of the Oriental Institute of the University of Chicago* (Chicago, 1956-2010). In addition to those whom I thanked in the previous article, I offer my sincere gratitude to Seth Richardson for his outstanding comments and suggestions.


status as a vassal. Scholars who accept either of these options often link celestial divination inextricably to the practice of astral religion. A. Jeffers, for example, describes this inferred relationship quite succinctly: “The ‘star worship’ of the Deuteronomist (i.e., Deuteronomy 4:19) should not be understood as worship of the stars per se, but as evidence that the stars and constellations were studied and that conclusions were drawn from them.” On the surface, the logic seems sound: if you believe the stars to be gods and you worship them, then it is logical to assume that they are sending you interpretable messages. Not only is it a logical (though, as I hope to show, a false) assumption, it is based on the Mesopotamian paradigm in which the two practices are often linked. The third major school of thought regarding the presence of celestial divination in ancient Israel is that Israel had neither an indigenous form of celestial divination, nor did it import the practice before the exile. Cryer, for example, rejects the idea that the Israelites practiced celestial divination at all: “As far as astrology is concerned, there is not much room for doubt that the Israelites neither practiced it, nor, more to the point, did they have the resources to pursue true astrological endeavors in a serious way.” His skepticism is based, in part, on the fact that, in ancient Mesopotamia at least, celestial divination was a rather costly undertaking involving many professional specialists. For him, it seems unlikely that Israel, a relative economic backwater, could ever support such a group.

Celestial Divination at Ugarit

Before investigating the problem with regard to ancient Israel, I would like to explore briefly other celestial divination material from the Levant, specifically from Ugarit. There are only three published astronomical texts known from Ugarit, one in Akkadian (RS 23.038), the other two in Ugaritic (KTU 1.163 and KTU 1.78).

RS 23.038 is a fragment of what appears to have been a large tablet containing solar eclipse omens in Akkadian. What remains of the obverse most closely resembles a solar eclipse text known from Boghazköy, testifying to the international interest in Babylonian scholarship during the Late Bronze Age. If RS 23.038 is in fact a copy of the Boghazköy text, then we can assume that it contained only solar omens, since the latter is labeled the first tablet in a solar eclipse omen series (DUB.1.KÁM.AN.TA.LÚ 4UTU). Solar eclipses, unlike lunar eclipses, are only infrequently visible to observers in any place on earth and so RS 23.038 would have had little practical value. Consequently, in later Mesopotamian texts that demonstrate the actual practice of celestial divination, they are commensurately rare: of the 567 astrological reports recovered by archaeologists that were sent to the Assyrian monarch between the late eighth and mid-seventeenth centuries, only eleven make any reference to solar eclipses. That there would have been a Baby-

---


5 Jeffers, Magic, 155; see also 150–51. Recently, Jeffers also reads Amos 5:26 as a reference to astrology (“Magic and Divination in Ancient Israel,” Religion Compass 1 (2007): 638). The equation of with the Akkadian kayamānū (Saturn) in this verse, however, was based on a nineteenth century misreading of a passage in a Babylonian incantation series (see Rykle Borger, “Amos 5,26, Apostelgeschichte 7,43 und Šurpu II, 180,” ZAW 100 (1988): 75).


11 Hermann Hunger, Astrological Reports to Assyrian Kings, SAA 8 (Helsinki, 1992) nos. 3, 47, 100, 104, 207, 280, 320, 344,
lonian celestial divination text at Late Bronze Age Ugarit is unsurprising, since such texts were widely distributed in many regions participating in the Akkadian koiné of that period.15 It is vital to note, however, that these mantic exports end—together with the widespread international use of Akkadian particularly in the west—in the Late Bronze Age.15

What this text tells us of the reception of Babylonian celestial divination (itself in its adolescence) at Ugarit is difficult to judge, especially since this is the only attestation to the practice among the many hundreds of Akkadian tablets uncovered at the site. Though I reject the theory that KTU 1.78 records a solar eclipse (see below), is it possible that RS 23.038 was brought to Ugarit in response to an eclipse observable from the city in either the fourteenth or thirteenth century?14 In this case, the solar eclipse omen text would have been imported to deal with an ominous celestial phenomenon to which the natives of the city were unable to apply their own mantic traditions. In any case, we can say that RS 23.038 bears no relationship whatsoever to the sole Ugaritic celestial omen text (KTU 1.163, below) and that there are no references to the practice of celestial divination in any of the literature of Ugarit.15

The sole extant celestial omen text in the Ugaritic language is KTU 1.163, an extremely fragmentary tablet that contains the remains of a mere fourteen lines (seven per side):16

KTU 1.163 (RIH 78/14)17

1 bmn. b ḫdl[τ].
y[ ][ ] ḫtn. ykn
2 bmn. ʾṛḥ . b [?][yh. w pbm
3 nmn. ykn [₁][b]
4 [bmn ] ḥtntn. ṣḥ ṭq
5 [ ] ṭḥ . w pbm
6 [ ] ṣḥ. ṣḥ. ṭqnt
7 [ ] ṣḥ. ṭq. [ ]
8’ [ ] ṣḥ .
9’ [ ] ṭḥ. ṣḥ. ṭq. ṭhntn.
10’ [ ] ṭḥ ṭḥ. ṭḥt
11’ [ ] ṭḥ. ṭḥ. ṭḥt
12’ [ ] ṭḥ. ṭḥt
13’ [ ] ṭḥ. ṭḥt
14’ [ ] ṭḥ. ṭḥt
15’ [ ] ṭḥ. ṭḥt

If, on the (day of) the new moon [ ], there will be poverty [ ].18 If, when the moon rises, it is red, there will be happiness in it (the month).

[If], when the moon rises, [ ], cattle will perish.

[If, when the moon rises], it is red, a reunion(?).

[ ], shall perish.

[ ] there will be poverty [ ].

[ ] the new moon, the moon is among “the men” (?).20

[ ], will strike it down.

[ ], YM YH the moon KSLM, kings will spy.

346, 384, 502. In one of these texts (no. 100), the reference to the eclipse is in the apodosis rather than in the protasis (i.e., it was not the ominous phenomenon in this case), and in another text (no. 320), the omen’s reference to coincidental lunar and solar eclipses is interpreted as simply a lunar eclipse.


13 More than half of the cuneiform texts discovered thus far in Canaan date to the Late Bronze Age or earlier and include “academic” material such as liver models, lexical tablets, and even a literary text. In contrast, the material from the Neo-Assyrian and Neo-Babylonian periods reflect an imperial administrative presence, and includes stele fragments, administrative documents, etc. For a complete presentation, see Wayne Horowitz et al., Cuneiform in Canaan: Cuneiform Sources from the Land of Israel in Ancient Times (Jerusalem, 2006), especially 3–25.

A single new moon omen (l. 1) is followed by several omens regarding the appearance of the moon at rising (ll. 2–7); additionally, another new moon is mentioned later in the text (l. 9) . Aside from the new moon and the reference to the thirtieth day of the month, there are no other references to lunar phases. KTU 1.163 lacks the organization and the sophistication of then-contemporary and later Akkadian sources, employing no obvious principle of arrangement. This absence of organization is a characteristic it shares with teratological omens from Ugarit (KTU 1.103 + 1.145.23) . While it is difficult to assess the level of depth of such a fragmentary text in terms of organization, systematization, and completeness, it is hard to imagine that any single tablet could supply the comprehensive lists of omens necessary to be useful for anything more than amateur celestial divination. Furthermore, the fact that among the many hundreds of texts from Ugarit KTU 1.163 is the sole example of a native celestial divination text should indicate the practice’s ancillary place among the city’s mantic conventions.

Although KTU 1.163 is fragmentary, we can nonetheless draw some conclusions, though they are admittedly very tentative. Though some very loose parallels between KTU 1.163 and canonical Mesopotamian celestial omens can be made, our present text is profoundly different from Mesopotamian sources in ways that suggest a lack of practical applicability. It is a disorganized, solitary attempt. Professional celestial divination, as known from Late Bronze and Iron Age Mesopotamia, is fairly comprehensive in the scope of celestial phenomena treated, and this required dozens of thematically organized tablets covering a robust variety of possible (and impossible) celestial phenomena. The impression one takes from KTU 1.163 is that it is simply a short list of common celestial mantic lore. There is little reason to believe that it is representative of a lost textual or oral tradition.

The second and last Ugaritic text, the highly controversial KTU 1.78, is only six lines long. This tiny monster has generated an enormous amount of secondary literature and has been interpreted as either a record of the heliacal setting of Mars or of the sighting of Mars during a solar eclipse. Neither of these interpretations is certain by any means.

21 Though id normally occurs as a temporal adverb, in this context it is a separate word; in KTU 1.18 IV 23 it occurs as zid . b . udn , ‘three times on the ear’ (Pardee, Textes Rituels 2 , 869; Dietrich and Loretz , Mantik , 180) . The precise meaning of the root pły is not entirely clear in this context. If it indicates the first appearance of the moon in a month, then it is an impossible protasis, which is a well-attested feature of Mesopotamian omens, of course.

22 Pardee, Textes Rituels 2 , 863.

23 Ibid.

24 Pardee, Ritual and Cult at Ugarit , SBLWAW 10 (Atlanta, 2002), 135.


26 Text and translation based on Pardee’s handcopy (Textes Rituels 1 , 271).

27 Since štf is the ordinal for the number six in Ugaritic, b štf . ūm cannot be read as “on the sixth day.”

28 Many interpret ybrh as “gatekeeper” (e.g., Pardee, Textes Rituels 1 , 419; Dietrich and Loretz, Mantik , 49) primarily because they understand ūm as an astral body. Given the lack of certainty regarding this identification as well as the meaning of the preceding verb ‘rbr, it makes the most sense to translate the word as either ‘her/its gate’ (ybrh with the 3.f.sg. poss. suffix) or “into the gate” (ybrh with the directive -b).
Jeffers cites this text (though, surprisingly, not KTU 1.163; RS 23.038 was not yet published) as evidence of “astrology” at Ras Shamara.30 Though KTU 1.78 does seem to point to some sort of celestial observation, this alone does not equal astrology or celestial divination. Indeed, several readings of the tablet conclude that, whatever the observed celestial phenomenon was, that phenomenon was not interpretable in and of itself. Rather, it needed to be interpreted via hepatoscopy.31

In judging the significance of celestial divination at Ugarit, it is important to compare the few astrological texts discussed above with testimony and evidence from other divinatory methods at the site. It is significant that these other methods, even if not well-represented textually, nevertheless show a level of textual sophistication or practical application well beyond that found in KTU 1.163. They included teratology, and, above all, hepatoscopy—for which there is significant textual and archaeological evidence. Twenty-two models of exta are known from Canaan, neither as Babylonian imports in Akkadian, nor in cuneiform alphabetic texts.

In regard to the mantic environment at Ugarit, though the data are meager, a few observations can be made. There seems to have been a very modest attempt at celestial divination at Ugarit. Nonetheless, I assume that the many hundreds of Ugaritic and Akkadian texts uncovered at the site are a representative sample and are indicative of the overall mantic situation. Thus, based on the number of texts and their lack of practicality and sophistication, I must conclude that celestial divination was barely relevant at Ugarit.

Archaeological Evidence for Celestial Divination in Syria-Palestine

Some scholars have suggested that a series of bone plaques discovered at various Iron Age sites in the southern Levant could have been used for celestial divination. Twenty-two models of exta are known from Ugarit from the so-called “diviner’s house,” (including the inscribed liver models KTU 1.141, 1.142, 1.143, 1.144, 1.155, and an inscribed lung model, 1.127).32 This preference for hepatoscopy in the Late Bronze Levant is borne out in the few cuneiform texts discovered thus far in Canaan. Three inscribed and three uninscribed fragmentary liver models dating to roughly the Old Babylonian/Middle Babylonian periods have been discovered at Hazor.33 Taken together, this would indicate that here as well, hepatoscopy was practiced and taught. Though we are extremely limited by the lack of archival discoveries, no celestial divination texts have been discovered in Bronze Age Canaan, neither as Babylonian imports in Akkadian, nor in cuneiform alphabetic texts.


30 Benno Landsberger and Hayim Tadmor, “Fragment of Clay Liver Models from Hazor,” Israel Exploration Journal 14 (1964): 201–18; Horowitz, Caneforium in Canaan, 66–68; and, most recently, Wayne Horowitz et al., “Hazor 17: Another Clay Liver Model,” Israel Exploration Journal 60 (2010): 133–45, esp. 134–35 (photo and drawing) and 139–40 (discussion): interestingly, Hazor 17 includes two crescent moon signs on the liver being described. While the editors of that model posit a relationship between celestial omens and the crescent moons that appear on the model, the fact remains that the moons appear on the liver in question and not in the sky.
Celestial Divination in the Hebrew Bible

Many scholars, both ancient and modern, have suggested that there are oblique allusions to celestial divination in the Hebrew Bible. In the 13th century C.E., midrashic collection Yalqut Shimoni, the rabbis associated Joseph's astral dream in Genesis 37:9–10, as well as Jacob's blessings to the twelve tribes in Genesis 49, with the zodiac. Modern scholars have focused on other pericopes, such as Joshua 10:12c–13c, the famous passage in which Joshua orders the sun to stand still so the Israelites can finish their slaughter of the routed Amorite army. Both Holladay and Walton have offered less-than-convincing arguments in favor of Israelite use of divination in this passage. Large-ment understands Numbers 24:17b–18 (Balaam's unwilling prediction of the downfall of the Trans-Jordanian states to an emerging Israelite monarch, using an astral metaphor for kingship) as drawing on celestial divination terminology. Gaster maintains that the same passage is an overt description of a real observed celestial phenomenon together with its interpretation. Loretz sees fragments of Israelite celestial divination in Joel 2:10, 3:3–4, and 4:15. There is not space in this study to address these suggestions, which are, overall, profoundly speculative.

There are, in fact, only two indisputable mentions of celestial divination in the Hebrew Bible: Isaiah 47:13 and Jeremiah 10:2–3a. The first of these explicit references, addressed to the daughter of Babylon (Isaiah 47:1), is situated within Deutero-Isaiah (47:13):

“Wearied by so much of your advice, why don’t you let them stand up and save you – those who chart the sky, who observe the stars, those who announce the new moons – from the things that will happen to you!”

Jeffers notes that the phrases חָוֵית בּוֹלְכָבִים, בַּכּוֹכָבִים and מִדְרִיסִי הַשָּׁמַיִם are not terms whose origin can be found in Akkadian. However, she argues that because of this they are native Israelite technical terms, ignoring the context of the passage entirely. While they are Hebrew terms, they are also transparent descriptions of the activities involved with celestial divination. While they could be technical designations, Jeffers’s argument (that, because they are not loan

36 Yalqut Shimoni (Leviticus 418).
42 Jeffers, Magic and Divination, 154.
words or calques from Mesopotamian terminology, they must indicate a full-blown native tradition) is simply illogical. Indeed, rather than ridiculing the Judahites for the practice, the author of Isaiah 47:13 is derisively addressing the Babylonians (47:1). Here, as he does on other occasions, the author lampoons derisively addressing the Babylonians (47:1). Here, tremendous insight into our problem can be gained by this noteworthy ellipsis in the biblical text. Unlike astral religion, which is framed by the biblical authors as a foreign practice that is nevertheless observed by Israel, celestial divination, also seen as a foreign tradition, is not actually employed by anybody except foreigners. Even if there were significant syncretism with astral aspects of Assyro-Babylonian religion, this does not necessarily indicate that Assyro-Babylonian celestial divination traditions were imported in conjunction with them. Indeed, Neo-Assyrian texts indicate that celestial divination was a secretive practice, not only guarded by the state for purposes of making policy decisions, but also, and more importantly, by the scribes themselves as a matter of protecting their guild’s secret knowledge.

After the Babylonian cultural koinē of the mid-second millennium during which a wide variety of Mesopotamian scholarship was exported, Mesopotamian celestial traditions only began to move across cultural boundaries again, it seems, in the Persian period.

In the second passage, Jeremiah 10:2–3a, too, the biblical author is referring to a foreign practice—and here he actually warns Israel against adopting it:

כָּל֙ אַל־לִּמֵּ֔דֵו הַגּוֹיִם֙ הַגּוֹיִ֔ים הַגּוֹיִ֖ים כִּֽי־יֵחַ֥תּוּ

“Thus Yahweh has said: ‘You should not learn the ways of the nations, nor should you be worried by the signs of the sky because the nations are worried by them, since the customs of the peoples are worthless.’”

In the contrary to the very specific Isaiah 47:13, in Jeremiah the nations who “are worried by the signs of the sky” are not identified. But, since the nations of Mesopotamia were most often connected in antiquity with celestial divination, we should assume here, too, that this refers to Babylon. In any case, it is certainly not Israel. Clearly, Jeremiah is concerned that his brethren are attempting to acquire foreign knowledge. The passage does not appear to be a polemical characterization of a rejected native Canaanite tradition but a rejection of a truly foreign practice. Furthermore, as indicated by the grammar of the passage (which uses the negative לֹא plus the jussive rather than the stronger, prohibitive לֹא plus the imperfect), this is not a prohibition but a significantly softer admonition within a prophetic rather than a legal context. If celestial divination were a concern deriving from Canaanite custom in Iron II Judah, we would expect to see an outright prohibition in Deuteronomy rather than an off-the-cuff admonition within prophetic literature.

To summarize, in the only two clear cases of celestial divination in the Hebrew Bible (Isaiah 47:13 and Jeremiah 10:2–3a), the practitioners of celestial divination are not Israelites but foreigners. Thus, the case for native or imported celestial divination is entirely different from that of other forms of divination in ancient Israel, which, even if their practice is never described in the Hebrew Bible, are nevertheless explicitly forbidden in the list of prohibited diviners in Deuteronomy 18:10–12. Celestial divination, not mentioned in this rather detailed and specific list, is not forbidden—it is merely mocked and chided as an ineffectual foreign practice. Here, tremendous insight into our problem can be gained by this noteworthy ellipsis in the biblical text. Unlike astral religion, which is framed by the biblical authors as a foreign practice that is nevertheless observed by Israel, celestial divination, also seen as a foreign tradition, is not actually employed by anybody except foreigners. Even if there were significant syncretism with astral aspects of Assyro-Babylonian religion, this does not necessarily indicate that Assyro-Babylonian celestial divination traditions were imported in conjunction with them. Indeed, Neo-Assyrian texts indicate that celestial divination was a secretive practice, not only guarded by the state for purposes of making policy decisions, but also, and more importantly, by the scribes themselves as a matter of protecting their guild’s secret knowledge.

After the Babylonian cultural koinē of the mid-second millennium during which a wide variety of Mesopotamian scholarship was exported, Mesopotamian celestial traditions only began to move across cultural boundaries again, it seems, in the Persian period.

In SAA 16 65, the writer informs Esarhaddon that, to his horror, a goldsmith hired a skilled Babylonian to educate his own son in multiple forms of restricted scholarship, including celestial divination, without royal consent; see Mikko Luukko and Greta van Buylaere, The Political Correspondence of Esarhaddon, SAA 16 (Helsinki, 2002), 64–68. See also Beate Pongratz-Leisten, Herrschaftswissen in Mesopotamien, SAAS 10 (Helsinki, 1999), 298–99; and Alan Lenzi, Secrecy and the Gods: Secret Knowledge in Ancient Mesopotamia and Israel, SAAS 19 (Helsinki, 2008), 154–56.


The spread of Babylonian traditions in this period was in many ways a result of its democratization; see Francesca Rochberg, “The Cultural Locus of Astronomy in Late Babylonia,” in Die Rolle der Astronomie in den Kulturen Mesopotamiens: Beiträge zum 3. Grazer
Jewish Astrology in the Second Temple Period

Though the pre-exilic biblical texts provide no solid evidence for Israelite celestial divination, we know that at least some Jews in the Hellenistic period engaged in various forms of astrology. Of course, the post-exilic attitude toward the practice was most often negative, and can undoubtedly be traced back to the prophetic warnings against such foreign practices (Isaiah 47:13 and Jeremiah 10:2–3). This negative assessment of celestial divination and astrology was expressed explicitly in the post-exilic period in the book of Daniel (2:27; 4:4; 5:7, 11) as well as in pseudepigraphical literature (1 Enoch 8:3; Jubilees 12:16–18; and Sibylline Oracles 3:220–26). Perhaps, however, the ambiguity of the biblical warnings and the lack of an outright prohibition against the practice left the door open for “faithful” Jewish experimentation. This, coupled with the demise of Israelite astral religion during the exile and the commensurate triumph of monotheism within Judaism, meant that Jews could not practice celestial divination, simply because there was essentially no such practice in their Canaanite religious heritage. Furthermore, there is no evidence that they adopted any such foreign tradition before the exile.

Conclusion: Astral Religion and Celestial Divination in Ancient Israel

It is clear that Iron Age Israel had a tradition of astral religion that was simply part of its ancient roots in the Levant, as is amply attested in both Iron Age material remains as well as biblical testimony. Astral religion, in this sense, was just like other ancient Canaanite traditions that the biblical authors dismissed and derided as foreign. It might seem odd to us, but in spite of the antiquity of astral religion in ancient Israel, celestial divination does not seem to have been part of Israel’s religious tradition. Material from Ugarit shows that any celestial divination in Syro-Palestine in the Bronze Age was nothing more than immature speculation, while the biblical text provides evidence only for foreign practice. Furthermore, when, after the Iron Age, Jews did engage in forms of astrology,

50 Jonathan Ben-Dov, Head of All Years: Astronomy and Calendars at Qumran in their Ancient Context, STDJ 78 (Leiden, 2008), 286–87.
those forms were basically Jewish adaptations of Late Babylonian or Hellenistic practice and show no Israelite or Neo-Babylonian/Neo-Assyrian legacy. The paradigm in which astral religion and celestial divination are necessarily linked by us moderns in ancient Israel is ultimately and understandably based on the Mesopotamian model. But we should, perhaps, cite another parallel. We know, for example, that in Egypt, though astronomical calendars were used in support of astral cults since the Predynastic period, there was no native tradition of celestial divination. Indeed, the first indication of any form of celestial divination in Egypt does not appear until the Hellenistic period, when Late-Babylonian and Greek astrology were introduced.51 In the southern Levant, this seems to have been the case as well—the first indisputable evidence of Jewish astrology occurs only at Qumran.