

Comets, Cults, and Coins: A material-theoretic framework for the archaeoastronomical study of the Book of Revelation

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Abstract

Here I outline a material-theoretic framework for an archaeoastronomical study of the New Testament Book of Revelation. I begin with basic principles of materiality theory. I then argue that carefully observed celestial objects, as part of the material landscape, are on par with human-used structures. Thus, I develop a deeper notion of the “astral landscape.” Within this framework, I fit the basic Annaliste paradigm of three levels of space-time, and propose what I call a “cognitive-heuristic approach” to the study of this cognitive-material structure. Finally, employing data from astronomical software and the iconography of Roman coins, I show that this cognitive-heuristic approach allows an understanding of the New Testament Book of Revelation as a case of ancient prophetic sky reading.

Introduction: Materiality theory and the materiality of the “sky-scape”

Two concepts form the basis for this study: (1) Structures, artefacts, and other materials of human use form a material medium that extends human cognition; and (2) Objects in this medium may be thought of as possessing a “social life” or “secondary agency” (Taylor 2008:314). In regard to the first concept, Timothy Taylor, relying on Michael Rowlands (2004), points out that “Although things cannot themselves experience remembering,..., they can embody and extend memory” (Taylor 2008:309).

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I make use of this point in the analysis of Roman imperial coins in relation to the Book of Revelation. The second concept comes into play when I consider how these coins and their usage not only materialised the Roman imperial will and cosmology, but—in a way unintended by the issuing authorities—became material basis for expression of the Jewish and early Christian world views as well.

But beyond extending memory, the material extension of cognition also plays a profound role in human activity. Referencing Maurice Godelier, Taylor points out that “objects are things without which one cannot actually *be* a man or a woman, a police officer or a priest...” (Taylor 2008:309). In other words, the cognitive value of the material medium goes beyond the signification of meaning, to the meaning itself. This point has implications when considering the significance of texts in relation to their being descriptions of “reality.” In the words of Anders Andrén, “since all oral presentation is linear in both time and space, the text must also preserve this linearity....Artifacts, in contrast, *are* the world...” (Andrén 1998:148ff, cited in Taylor 2008:305). In this regard, I show that the Book of Revelation reflects its material context in ways not yet fully pointed out by standard historical-critical Biblical studies.

In light of all the preceding points, the carefully observed material landscape is also part of the material medium that extends human cognition. For example, consider iconic mountains and the human sense of a “sacred.” In sky-reading traditions—whether of the Mayas or of Australian aboriginals—this cognitive extension includes the sky in a material way (see Ruggles 2005:esp. 3 in relation to Australian aboriginals). The sun, for example, usually is not thought of as an artefact, structure, or material object of human use. But consider what happens when megaliths or other structures are intentionally aligned with the rising or the setting of the sun on certain dates. Take, in particular, the way that the Temple of Kukulcan in Chichen Itza catches the late afternoon sunlight at the equinoxes. As described by Anthony F. Aveni (2001), the monumental pyramid is aligned in such a way that the optical effect of a slithering or feathered serpent (a kukulkan) appears stretching down its steps. In this case, the fullest understanding of this Maya pyramid is inseparable not only from an understanding of the Maya feathered serpent, but also inseparable from an understanding of the Maya sun – its path through the sky, its changing position on the horizon throughout the year, and its place in the Maya cosmology.

This argument for including carefully observed celestial objects in

the material medium applies not only to the sun, moon, stars, and planets. It applies to other kinds of carefully observed celestial phenomena as well; in particular, I argue, to comet apparitions. Including phenomena as evanescent as comet apparitions is not untoward. Taylor (2008: 302) notes an entire class of transient but nonetheless material phenomena: “The least durable manifestations of material culture are things like ice cubes and ice sculptures, whose existence has either to be ascertained from experiencing an instance of occurrence or indirectly inferred from a plastic ice cube tray or a photograph...”. Thus, given that one aspect of the cognitive-material medium is the carefully observed landscape, comet apparitions—at least as carefully observed celestial events—make up part of that medium too. If their observation can be inferred from other more durable clues or imprints in the material record, then the transitory nature of the apparitions themselves does not militate against their inclusion, even if they were once-in-a-lifetime happenings.

The “astral landscape” and the cognitive-heuristic approach to “total history”

The inclusion of the carefully observed landscape—especially the “sky-scape” of celestial objects—in the material medium that extends human cognition, suggests that profound ties may be elucidated between cosmologies and the material landscapes that they inhabit. The *Annaliste* concept of “total history,” with its concern for *mentalités* and for the three levels of space-time that these world views inhabit, provides a basic structure for these ties. Here I appropriate these general concepts, but prescind from in-depth engagement with *Annaliste* historical study itself. The *Annaliste* structure provides useful concepts for handling the ties between world views and material landscapes (for a basic introduction to the *Annaliste* paradigm and to other archaeological engagements with it, see Bintliff 1991). But here, materiality theory provides the basic understanding for elucidating those ties.

Indeed, as articulated by Lambros Malafouris (2010:51 Fig. 1b), *material engagement theory*, in addition to the two principles mentioned at the start of this article, contains a third: “... the hypothesis of enactive signification,... explores the nature of the material sign not as a representational mechanism but as a semiotic conflation and co-habitation through matter that enacts and brings forth the world,...”. In other words, cosmologies not only reflect and inhabit (or are extended by or into) the material landscape, they *create* that landscape. This proposition makes

sense, even when considering the celestial landscape. Thus, for example, in the world that was *created* at Chichen Itza, the equinoctial sun attains a significance that is explained in full only cosmologically. There the sun and its motion were *made a part of* or were *incorporated into* the material medium, just as artefacts, structures, and sacred mountains are incorporated into the material medium of human traditions. The result is an “astral landscape.” Minus that material incorporation, the equinoctial Maya sun would not have quite the impression that it does upon the human mind.

The significance of this third basic principle for the concept of “total history” is immediate. Different cultures that share the same objective landscape may recognise that landscape—that is, “create” it—in different ways. Indeed, when these cultures look at the same object in that landscape, not only cultural values but entire cosmologies may clash. This insight in turn suggests that from the point of view of *mentalité*, the categories of space-time in “total history” cannot be populated by material objects defined in a categorical manner, with definitions or descriptions applying equally across cultures. Indeed, historians have already recognised that a multiplicity of conflicting interpretive memories exist *intra-culturally* as well. E.g., see the discussion of the issue in Confino (1997).

This point is especially true when applied to the material context of the Book of Revelation. As I shall show, the comet that inspired the proclamation of Caesar’s divinity in one tradition became, in its material iconography, the inspiration for a heavenly but unholy beast in another tradition. Moreover, the notion that no Jews or Christians ever engaged in sky reading turns out simply not to be true.¹ Thus what has populated each level of space-time for each culture must be discovered by the researcher; it cannot simply be received from that culture’s current self-view. As seen, ancient texts in themselves are not enough to uncover the ancient world; one must go to the material landscape itself. That landscape yields an irreplaceable understanding of the ancient “reality” of which the texts are only partial reflections. Thus materiality theory suggests not only a cognitive, but also a heuristic (or, loosely speaking, scientific) approach within the framework of “total history.” In this approach, no presumed “memory” of the past is off limits to critical

¹ The study of early Jewish and Christian astrology is relatively new, yet the literature is already quite large. For the classic article in the field, see Charlesworth (1977).

questioning. I call this approach the cognitive-heuristic method of materiality theory.

This approach has further implications for one's way of research and interpretation. In concluding his overview of materiality theory, Taylor (2008: 315) mentions that the theory "revives old-style ancient and prehistoric art connoisseurship" that looks at "the tangible qualities of material and style in the creating of cultural life". Here I pick up on the themes of aesthetic and sense-oriented appreciation, as elements in the cognitive-material approach. For archaeoastronomical research, the cognitive-heuristic approach—in addition to library, "lab" (i.e. computer), and field (i.e. archaeological site) studies—calls for phenomenological studies, especially of the "sky-scape." Here I make a distinction between a phenomenological sense of the observed sky, versus the understanding of the astral landscape of a particular culture. The archaeoastronomer needs the first in order to obtain a realistic sense of the second.²

For example, geophysicists have claimed that chapter 1 of the Old Testament Book of Ezekiel describes auroral lights (for the latest proposal, see Guskova *et al.* 2010). Clearly, study of visual experiences of the aurora as reported or recorded by observers in a wide variety of cultural contexts, coupled with a close reading of the Biblical text in its original language, will help decide if indeed the description in Ezekiel chapter 1 correlates with that of an aurora. This essentially cognitive approach is highly heuristic. Thus, also clearly, the investigator's own observation of the material object in question—i.e., auroral lights—will greatly aid in his or her investigative discrimination.

In this regard, while video footage of the aurora provides one objective means for study of the claim, it is also common knowledge that video does not capture all the subtleties of the aurora that the unaided human eye can see. Videos of the aurora do yield broad correlates to the "great cloud with brightness" in Ezekiel 1: 4, to the "wheels" in Ezekiel 1:15-21, to the "torches moving to and fro" in Ezekiel 1:13, and perhaps to the various coloured lights mentioned (New Revised Standard Version). The chapter is visually rich, however, and further optical resolution may be needed to further determine what in it corresponds to the phenomenological experience, and what may be ascribed to theological

² The interested reader might wish to compare, for example, the overall quality of the proposals related to Biblical astronomy put forward in Maunder (1908), with the quality of those put forward in Malina (1995). Maunder was an astronomer by profession and a Biblicist on the side, whereas Malina is a professional Biblicist.

overlay.³ There is also the practical need for the basic experience of seeing the aurora “out in the open.” If the geophysical explanation is correct, then for the prophet Ezekiel the great astral landscape became the equivalent of a temple. In which case, for the archaeoastronomer, seeing the aurora out in the open versus watching a video of the aurora, is akin to the difference between visiting a temple in its actual landscape, versus watching a walk-through of its virtual simulation, when the actual one still stands in the field.

As for implications on interpretation, although I have stressed that the researcher must remain aware of the multiplicity of traditions even within a single culture, Taylor (2008: 315) points out that materiality theory necessitates a grand narrative “of a sort that the postmodern project,..., decried”. As Taylor puts it, an overall generalising view about how materiality works across cultures is needed because:

... how the material world creates and affects human subjects and communities of subjects, and how these work on the world, and themselves, is likely to involve regularities.... If this were (or is) not so, then there could (or can) not be any such thing as a secure archaeological inference. (Taylor 2008:315)

In other words, valid insights asserted as such into particular cultures or traditions are impossible without a general sense of what one may validly look for, because such generalities are what cultures are made of. I believe the presumption here is a principle of uniformitarianism, but extended to the basic neuro-chemistry and neuro-cognitive structure of the human cognitive engine as it works individually and in society. Without a presumption of this kind, even a basic heuristic approach to the topic is impossible.

For the dissertation at the University of the Philippines that is to grow out of this study, such a grand narrative should include a study of cross-cultural associations of the aurora with the sense of the supernatural, as well as a study of cross-cultural associations of comet apparitions with omens of cosmic import. But for reasons of space, here I shall not go further into such an overview. Before proceeding to a demonstration of the analysis of the Book of Revelation, however, I should briefly underscore the difference between text-based socio-

³ Biblicists disagree about the extent to which Ezekiel borrowed from Babylonian theological iconography. For an investigation into this question that I believe also has implications for the geophysical hypothesis see Kingsley (1992).

historical approaches to the topic, and the material cognitive-heuristic approach that I am using.

In a 1982 article that I believe deserves greater consideration by Bible scholars, Richard Oster calls upon these scholars and historians to find greater use for numismatics in their study of the early Christian social context (Oster 1982; see also Oster 1985-1986). After issuing his challenge, Oster begins with a point-by-point clarification of methodological issues. He starts with the question of the historical value of coins. He moves on to other questions, then tackles substantive issues in the early Christian social context. Drawing upon other historical studies, his article *ultimately uses numismatics in order to support the historical assertions made or implied by ancient texts*. J. Nelson Kraybill's more recent book-length studies on the Book of Revelation also make use of ancient *iconography* (see Kraybill 1996, Kraybill 2010). Nonetheless, this usage mainly *helps support the study of the early Christian social context based on the study of ancient texts, as seen in the light of modern theories of social analysis*.

Undoubtedly this kind of work helps paint the grand view of things. Kraybill and especially Oster's works are valuable resources for my own investigation. However, in the material-theoretic approach, though ancient texts are also used, the materiality of the ancient landscape takes centre stage. Moreover, I believe that the cognitive-heuristic approach of materiality theory allows a re-presenting of the ancient landscape in a way not otherwise available to the preceding method, and thereby invites new hypotheses for testing.

The comet of 44 B.C. and the comet denarius

In 44 B.C., about two months after Julius Caesar's murder, a comet appeared in the northern skies. Visible across the northern hemisphere, the apparition lasted only a few days, according to Chinese and Korean records. It had a reddish-yellow colour (McIvor 2005:87). According to Pliny the Elder, Augustus later publicly acknowledged the belief held by "the common Sort" that this apparition had signalled the ascent of his uncle's soul to the gods. Thus he had a star emblazoned on the head of the statue of Julius Caesar that stood in the Forum. As for Augustus himself, he too had been deeply impressed by the apparition (Pliny, *Natural History*: Book II, Ch. XXV). Indeed, though it was already some 20 years after the celestial event, Augustus also had an imperial coin struck with

an icon of the comet (McIvor 2005:87). The obverse of the coin shows the head of the emperor and his title “Caesar Augustus.” The reverse shows an eight-rayed star, with the top ray feathered, giving the impression of a comet, and across the face the proclamation: “Divine Julius.” The circulation of the coin proclaimed the divinity of the Caesars, and thereby their right to be worshipped. Thus a comet, normally seen as an omen of doom, was transformed into a heavenly imprimatur on Roman rule. As Pliny put it: “In the whole of the World, in only one Place, namely Rome, a Comet is worshipped” (Pliny, *Natural History*: Book II, Ch. XXV) (Figure 1).



Figure 1. The comet of 44 B.C. memorialised in the imperial coinage [AN632776001 © the Trustees of the British Museum (britishmuseum.org)].

The comet denarius in the *Pax Romana*

How might this coin have impinged on the cognitive sensibilities of denizens of the empire, those who were enjoying the *Pax Romana*? First, there was no escaping its daily usage. Use of the Roman silver coin, or denarius, pervaded all corners of the empire. In the western half, the coinage of conquered states was demonetised and replaced by the denarius standard; while in the eastern half, local silver coins were allowed, but exchanged at discount values for the Roman coin (Hill 1899:85-87). In a New Testament tale, when Jesus demands to be shown a denarius, one is immediately produced with Caesar’s head and title on it. “Give to Caesar what is Caesar’s,” Jesus admonishes (see Matthew 22:19-21; Mark 12:15-17; Luke 20:24-25). Anywhere in the empire, to strike one’s own gold coinage was considered a declaration of rebellion, while the issuance of unauthorised silver was potentially treasonous. In short, to reject the imperial coinage was to declare one’s freedom from Rome (Hill 1899:87). Indeed, when it comes to metals in the form of coins, Taylor, relying on Richard Seaford (2004), highlights the point that the intrinsic value of the metal is “overtaken by a more abstractly socially conferred value... based on quantity (thus negotiability) and the stamp and the state

authority behind the stamp..." (Taylor 2008:308). Thus Caesar's coin not only had to be handled every day, but, by the necessity of that very reality, it became—in the realm of *événements*—the daily material reminder of the fact of Caesar's rule and power.

Moreover, the coin not only highlights that Augustus holds that power, but that he, as Caesar, is the personage in whom that power resides. Its reverse side carries his illustrious uncle's name, and thereby highlights both Augustus's succession and his bloodline. Thus the coin yields the sense that Augustus's rule participates in some kind of grand permanency. It makes this cognitive engagement in a way that only a metal object that obtains its value by virtue of its universally recognised use and iconography can do. The denizen who handles the coin is thus brought into the realm of the *moyenne durée*. Here only the Roman Caesars rule. The coin thus obtains a secondary agency. Taylor brings up the notions of primary and secondary agency in the context of materiality theory. The first kind of agency applies to people, the second to things. Citing Christopher Gosden's study of Maori meeting houses, Taylor quotes: "a Maori meeting house is a materialization of the group's power and intentions to affect others" (Gosden 2004:36f, cited in Taylor 2008:306). The coin, in like manner, materialises Rome's intention to be the only stable authority.

But the rule of Caesar (in the realm of *événements*) and the authority of Rome (in the *moyenne durée*) attain another level of meaning altogether in the image of the comet. On the coin, Augustus Caesar is literally the earthly half of the "divine Julius," the one who has ascended to heaven as a comet, and who now has his place among the stars and the immortals. As the poet Ovid put it, recounting the death of Julius:

...kindly Venus, although seen by none,
 stood in the middle of the Senate-house,
 and caught from the dying limbs and trunk
 of her own Caesar his departing soul.
 She did not give it time so that it could
 dissolve in air, but bore it quickly up,
 toward all the stars of heaven; and on the way,
 she saw it gleam and blaze and set it free.
 Above the moon it mounted into heaven,
 leaving behind a long and fiery trail,
 and as a star it glittered in the sky.

(*Metamorphoses*: XV 884-894)

For Ovid, as for “the common Sort,” the comet is Caesar’s divinised soul. On the coin it becomes Augustus’s soul as well, and fundamentally the soul of Rome. In this way the denizen’s cognitive sensibility is now brought into the realm of the gods – in short, into the realm of imperial cosmology. This is by virtue of the space-time of the celestial *longue durée*. The coin, indeed, creates a world.

The comet of 66 A.D. and the comet denarius in a Jewish and early Christian context

Though the coin was issued ca. 24 B.C., we may presume that it remained in circulation as long as its metallic lifetime allowed it. Indeed, we still possess some of these coins in museums today. How might these coins have impinged upon the cognitive sensibilities of a Jewish-Christian in Judea in 66 A.D.? What would have been perceived as their blasphemous content is well known. But think further. The Jewish-Christian would still have possessed in recent memory the news of Nero Caesar’s bloody persecution of Roman Christians in 64-65 A.D. While in the present, the threat of war between Rome and Jerusalem would have constituted current gossip. Judaism and Christianity had not yet parted ways, and Christians still maintained headquarters in the holy city, although even here Jewish-Christians were beginning to suffer at the hands of fellow Jews as well. With persecutions and wars in the air, might these be the days of great tribulation that were to mark the end of the age?

Early in 66 A.D., in the hours before dawn, Halley’s Comet appeared in the skies above Jerusalem. It remained visible for about three months. According to Josephus, it hung like a sword above the city. In Jerusalem it was seen as one of many omens that had the effect of exciting “the unskillful” and “the common people,” but which the sacred scribes and the learned understood as reasons for trepidation (Josephus, *The Jewish War*:§6.288ff.). At the same time, in the political sphere, Jewish resentment at Roman rule teetered on the brink of revolt, festering with impulsive acts of rebellion. All-out war would break out in August.

Think back to our Jewish-Christian in 66 A.D. Blasphemous coin in hand, wild talk running through the holy city of a humanly unwinnable war, and a dreadful comet in the sky, these images or threats of impending disaster had come together all at once on all cognitive levels of space-time. Might the imperial legendry concerning Caesar’s comet also have come to the fore, though in worried whispers? How it had

arisen each night of its brief apparition “bright and clear” (Pliny, *Natural History*: Book II, Ch. XXV), perhaps even that it had blazed reddish-yellow? That it was the soul of Caesar ascending to the gods, and was now indeed—especially in its present manifestation—the soul of Rome itself, as the imperial coinage so insistently proclaimed? Might these cogitations have occasioned the memory of the following verses from Jewish scripture, verses often understood to be about the illustrious one who rebelled against God, by striving to be a god himself? These verses which, in this context of heightened cosmological sensibilities, might have sounded both like wish and like prophecy:

How you are fallen from heaven, O Day Star, son of Dawn! How you are cut down to the ground, you who laid the nations low! You said in your heart, “I will ascend to heaven; I will raise my throne above the stars of God; I will sit on the mount of assembly on the heights of Zaphon; I will ascend to the tops of the clouds, I will make myself like the Most High.” But you are brought down to Sheol, to the depths of the Pit.

(Isaiah 14:12-15, New Revised Standard Version)

If so, then how does a Jewish-Christian community under siege battle the ruthless cosmology of an angry imperial “beast”? Raise a prophet, perhaps, a messenger of the one true God who can read the material signs of space-time? Chapter 12 of the Book of Revelation—the pivotal chapter of the entire end-of-the-age narrative—opens with these verses:

A great portent appeared in heaven: a woman clothed with the sun, with the moon under her feet, and on her head a crown of twelve stars. She was pregnant and was crying out in birth pangs, in the agony of giving birth. Then another portent appeared in heaven: a great red dragon, with seven heads and ten horns, and seven diadems on his heads. His tail swept down a third of the stars of heaven and threw them to the earth. Then the dragon stood before the woman who was about to bear a child, so that he might devour her child as soon as it was born.

(Revelation 12:1-4, New Revised Standard Version)

Is this woman the archetypal *mater dolorosa*, or *Shekinah* of the Hebrews—the spirit of mother Israel herself—crowned with the twelve tribes, and giving birth to messiah Jesus? Is this great red dragon in the sky the comet of the divine Caesar, the mere mortal presumed to be a god, whose presumption to rule the world is now the soul of Rome itself? For

in the original Greek, the dragon's colour is *πυρρός* (*purros*) which means "red" as in fiery red; the noun *πυρ* (*pur*) meaning "fire." Moreover, its seven heads associate it on a primordial level with the ancient chaos monster, the enemy and opposer of divine cosmic order (Figure 2). Is this dragon's attempt to devour the woman's child at birth, the Roman crucifixion of Christ? In the succeeding verses, the dragon is frustrated, the woman flees into the wilderness (the typological domain of Israel's wandering before entry into the Promised Land), and the dragon is thrown out of heaven onto the earth. But on earth "the dragon was angry with the woman, and went off to make war on the rest of her children, those who keep the commandments of God and hold the testimony of Jesus" (Revelation 12:17, New Revised Standard Version).



Figure 2. The chaos monster depicted as a seven-headed hydra in a seal impression [Frankfort 1955: Plate 45 No. 478]. The Mesopotamian seal dates to ca. 2300 B.C., but an archaeological find in an older layer depicting a similar theme indicates that the myth itself has even earlier roots (Frankfort 1934:8). The seven-headed beast resembles a serpent or dragon. It is the equivalent of the primordial chaos monster found in other ancient Near Eastern mythic traditions, including Tiamat of the Babylonians and Leviathan of the Hebrews.

How is this frustrated dragon going to carry out its threat of war against the nascent Jesus movement? At the end of Chapter 12, we are told that the dragon goes to stand on the shores of the sea. Then at the opening of Chapter 13, the prophet writes:

I saw a beast rising out of the sea, having ten horns and seven heads; and on its horns were ten diadems, and on its heads were blasphemous names. And the beast that I saw was like a leopard, its feet were like a bear's, and its mouth was like a lion's mouth. And the dragon gave it his power and his throne and great authority.

(Revelation 13:1-2, New Revised Standard Version)

This beast is the mirror image of the dragon (“ten horns and seven heads” on the beast, compare the simple re-ordering of terms “seven heads and ten horns” on the dragon), but it comes “rising out of the sea.” In 66 A.D. Comet Halley first appeared in the region of the constellation of Aquarius, the god whose dwelling was in the watery abyss. This part of the sky was known as “the waters” (Aratus, *Phaenomena*: 389). At that point in time the planet Mars shone nearby. Over the next weeks the comet moved out of “the waters,” eventually entering into the region of the constellation Hydra, the sea-serpent. Here, as it grew to maximum brightness, it made a close pass to the planet Saturn. It then quickly faded from view. But for the brief appearance of the planet Mercury, Mars and Saturn were the only other planets visible in the sky during the hours of the night when Comet Halley was visible (Figure 3).

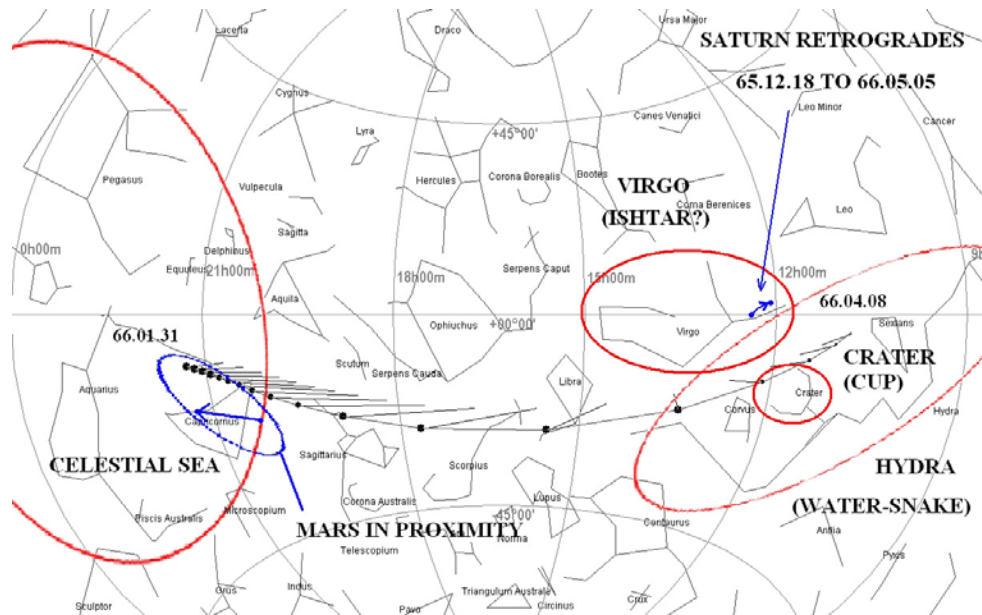


Figure 3. Path of Comet Halley in 66 A.D. This sky map was produced using the *Cartes du Ciel* software and the 66 A.D. ephemerides for Comet Halley (Yeomans and Kiang 1981:643). The path of Comet Halley begins at left on 31 January 66 A.D.

At a previous critical point in Israelite history, the night sky lit up and the prophet Ezekiel experienced the astral landscape as the temple of his god. The tradition obtained much theological nurturance from his testimony. But now, at this critical point in Israelite history, what does this sea-beast rising up out of “the waters” portend? How is the Jewish-Christian prophet to read this astral matter? According to Pliny, who drew upon a common regional sky reading tradition that traced back at

least to the Babylonians, in order to properly read the meaning of a comet, one must see what the comet looks like [i.e., “resembling a long sword” (Josephus, *The Jewish War*:§6.289)], at what part of the sky it first appears (i.e., “the waters”), and to what part it travels (i.e., Hydra, the sea-serpent). One must also see what other celestial bodies come into its proximity (Pliny, *Natural History*: Book II, Ch. XXV). Here, we see the comet coming into the proximity of Mars (in the region of Capricornus), and Saturn (in the region of Virgo). Indeed, these planets mark the beginning and the end of the cometary path. As to the portentous quality of the planets, according to Pliny, the planets Jupiter and Venus are beneficent, whereas the planets Mars and Saturn are maleficent (Pliny, *Natural History*: Book II, Ch. VIII; see also Ptolemy, *Tetrabiblos*: Book I, Ch. V). Thus, to our Jewish-Christian in 66 A.D., the comet above Jerusalem and its celestial path, read correctly, boded ill.

Thus given the direction of the sky reading, peculiar parallels between the celestial path of the comet and then current imperial iconography must have struck the imagination of our Jewish-Christian sky reader (for that is now what we are supposing that he was), and must have further confirmed him in his reading. Another Roman coin, also issued during the reign of Augustus, showed on its obverse the helmeted head of Mars, the god of war, and on its reverse, the shield of the war god emblazoned with what must have appeared to our sky reader as the same blasphemous eight-rayed star (Figure 4). Indeed, in the Book of Revelation, the portent of war marks the sea-beast’s rising: “it [the sea-beast] was allowed to make war on the saints and to conquer them. It was given authority over every tribe and people and language and nation, and all the inhabitants of the earth will worship it” (Revelation 13:7-8, New Revised Standard Version).



Figure 4. Mars, god of war, with an eight-rayed star on his shield [AN633007001
© The Trustees of the British Museum (britishmuseum.org)]

This close pass to the planet Mars at the start of the comet's path occurs in the region of Capricornus (the sea-goat). Augustus, who had officially connected Julius to the comet of 44 B.C., is known to have identified his own destiny with this sign of the zodiac. Another coin that he issued shows his profile on the obverse, and on the reverse, Capricornus straddling a globe (Figure 5). What might this have meant to our sky reader, seeing the comet of 66 A.D. passing Mars in this sign of the zodiac? Revelation also speaks about a third beast, who rises out of the earth, and who induces the peoples of the earth into blasphemous worship of the sea-beast: "Then I saw another beast that rose out of the earth; it had two horns like a lamb and it spoke like a dragon. It exercises all the authority of the first beast on its behalf, and it makes the earth and its inhabitants worship the first beast, whose mortal wound had been healed" (Revelation 13:11-12).



Figure 5. Capricornus, Augustus' self-identified zodiac sign, straddling the globe
[AN632762001 © The Trustees of the British Museum (britishmuseum.org)]

Finally, at the end of its path, as the comet of 66 A.D. slid down the length of the constellation of Hydra, it passed in between the constellation of Virgo, the woman, and the constellation of Crater, the cup. Here it made its closest pass to the planet Saturn. According to Ptolemy, if two ill-omened planets are in the sky together, then one will cancel the effects of the other (in today's math, much like two negatives cancel each other to make a positive) (*Tetrabiblos*: Book II, Ch. VII).⁴

⁴ Ptolemy's birth in all likelihood post dates 70 A.D., and he is said to have lived 78 years (see Ashmand 1822:xx). Today his *Tetrabiblos* is generally recognised as a 2nd century text. As pointed out by an anonymous reviewer, this means that its writing post dates the appearance of Comet Halley in 66 A.D. by nearly a century. The reading of the planets Venus and Jupiter as generally benefic, and of Mars and Saturn as generally malefic, appears to date back at least to the Babylonians (see the more detailed discussion in Rochberg 2010:135-142). However, as suggested by the reviewer, it is not known if in this instance this detail belongs to the more ancient tradition, or arose after 66 A.D.

Indeed, bringing an end to the narrative that began with the sea-beast that rose out of the sea, the author of Revelation hears an angelic voice pronouncing the divine comeuppance:

“Come, I will show you the judgment of the great whore who is seated on many waters, with whom the kings of the earth have committed fornication, and with the wine of whose fornication the inhabitants of the earth have become drunk.” ...I saw a *woman* sitting on a scarlet beast that was full of blasphemous names, and it had seven heads and ten horns. The woman was clothed in purple and scarlet, and adorned with gold and jewels and pearls, holding in her hand a golden *cup* full of abominations and the impurities of her fornication;....”

(Revelation 17:1-4, New Revised Standard Version: *italics mine*)

Thus the visionary sense of the celestial display ends with the picture of a woman who is the crude anti-type to the heavenly *mater dolorosa* seen earlier.⁵ Riding the sea-beast, she luxuriates in excessive wealth. This cometary display was over by early March, 66 A.D. Later that year, Vespasian led the imperial armies into Judea, quelling any opposition that he encountered, and setting Jerusalem under siege. But in the wake of the outbreak of inter-Roman fighting, he returned to the capital in order to assume the emperorship. Leaving his son Titus in charge of the Judean campaign, he quickly brought an end to the Roman civil war. Titus destroyed Jerusalem in 70 A.D. Apparently, the divine comeuppance, which was promised upon the beast-riding woman, would have to wait. However, lest the reader not understand the divine promise, the author of Revelation also apparently added an explanatory gloss to his initial vision of the anti-type woman: “*This calls for a mind that has wisdom: the seven heads are seven mountains on which the woman is seated; ...*” (Revelation 17:9, New Revised Standard Version: *italics mine*). Shortly after the end of both the Roman civil war and the Judean campaign, the new emperor issued a coin that celebrated the re-established Roman peace. The obverse shows the new emperor; the reverse shows the goddess Rome languidly seated on the fabled seven hills (Figure 6).

⁵ One Mesopotamian notion of the goddess Ishtar was that of heavenly harlot (see Harris 1991:271-272, who cites Jacobsen 1976:140; see also the more general discussion of Ishtar's association with sex and the crossing of social boundaries in Harris 1991). For the tantalising possibility that the constellation Virgo was at some point in time associated with Ishtar in the Ancient Near East, see Rogers (1998).



Figure 6. The goddess Rome seated on seven hills (antiquitiesproject 2011)

Conclusion

Thus the first comet/dragon once dwelt in the heavens, and once made war against the heavenly archetypes. But now a second comet/beast rises out of the sea, and makes war against the saints, receives the power, throne, and authority of the first comet/dragon. And a third beast—a cross between a lamb and a dragon—causes the world to worship the second beast. Even so, the Roman empire rose up, and every Roman emperor after Julius, beginning with Augustus, inherited Caesar’s power, throne, authority, and even his supposed divinity. This much, given as conclusion, is discernible from the text itself, given even the slightest sense of its context. Yet in the field of Biblical scholarship, the actual point in time to which this seemingly obvious interpretation refers has remained a matter of much debate.

Indeed, for those who have studied it, no matter how astute one’s *literary exegesis* of the text or *social analysis* of its context, these are limited by our lack of sure knowledge of the original dating of the text itself. The reason for this floating quality of the text is that its reading still manages to elude the best of grips, and to slip into a dreamscape of bewildering images—it is like a hallucinatory romp through imagined other worlds (Gentry 1989:10-14). Gentry (*ibid.*), wrestling with his confessional conundrums, gives an exemplary collection of commentary by exegetes on the difficulty of this interpretive problem. Here I reproduce two such comments: “the Revelation...is by common consent one of the most difficult of all the books of the Bible. It is full of strange symbolism.... The result is that for many modem men Revelation remains a closed book” (Morris 1969:15, cited in Gentry 1989:11); and “The key to the interpretation disappeared with the generation to which the book was

addressed..., and apart from any clue to its immediate reference, it was little else but a maze of inexplicable mysteries" (Swete 1906: cxix, cited in Gentry 1989:14). In short, though a sense of the text is easy enough to get, the meaning of its details elude us.

But I believe that in the light of a more fundamental material-theoretic approach, what may be the earliest original part of the text reflects the dark flip side of an equally material *Pax Romana*. Thus the Book lines up with a very material structure; one that includes a demonstrable and datable ancient astral landscape. I realise that I am no Biblical expert. Yet the four-way correlation between ancient iconography, ancient celestial event, ancient text, and ancient history is too strong to put down to coincidence. Biblical scholarship has for some time proposed two possible dates for the origination of the Book of Revelation: ca. 70 A.D. and ca. 90 A.D. The second dating currently enjoys the majority position, though opinion on the matter tends to swing like a slow pendulum. But I believe that the four-way correlation outlined here shows that the major visions in the Book are originally rooted in an eye-witness to the events going into and coming out of 66-70 A.D. In my forthcoming dissertation, I hope to show the further likelihood of an early Jewish-Christian sky reading practice, but which was rooted in an older Jewish sky reading tradition that dated back at least to Ezekiel, and which ultimately was located in the Jerusalem temple.

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