

COSMOLOGICAL MYTH AND THE TUNA OF GIBRALTAR

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I. THE MEDITERRANEAN THOLOS-COSMOLOGY

Mostly in the Mediterranean the whole sky is clear. Even in winter by noon of a clear day it is hot in the sun and the ground is dry. In the summer of hazy Beirut or dusty Athens one notices the blueness¹ of the sky less than its general brightness and heat. Thus naturally men concluded that the sky was a shiny material dome. Since it was self-supporting it must be metal, and at first that metal could only be bronze. *Il.* 5.503-4:

λευκοὶ ὕπερθε γέγοντο κονισάλω, ὃν ῥα δι' αὐτῶν
οὐρανὸν ἐς πολύχαλκον ἐπέπληγον πόδες ἵππων

“[The Achaians] turned white all over with the dust that the horses’ hooves dashed among them towards the *bronze sky*.” Similarly *Il.* 17.424-25:

ὥς οἱ μὲν μάρναντο, σιδήρειος δ’ ὀρυμαγδὸς
χάλκεον οὐρανὸν ἔκε δι’ αἰθέρος ἀτρυγέτοιο

“So they fought, and the ringing of *iron* reached through the barren(?) upper air to the *bronze sky*.” Normally one fights only in the good weather which to an Anglo-Saxon is indistinguishable from drought. Hebrew predicts a drought in the same imagery, Deut. 28:23-24,

¹ Neither Greek nor Hebrew can say “the sky is blue.” *Kyaneos* “steel-blue” is used of stormclouds, *Il.* 5.345; *hyacinthinus* “hyacinth-blue” is not used of the sky. Heb. *ṯkēlet* “violet” is only used of cloth and probably represents a particular dye. Contrast Latin, where apparently from *caelum* is formed *caeruleus*: *caeli caerula templa* (Ennius *ap. Cic. De div.* 1.20.40), *per caeli caerula* (Lucr. 1.1090). (Varro *L.L.* 5.18 takes it from *caelare* “engrave,” *caelum dictum scribit Aelius quod est caelatum*, a nice reflection of the metal-vault theory.)

"And thy heavens above thy head shall be *bronze*, and the earth under thy feet iron; the LORD shall make the rain of thy land powder and dust"—i.e. instead of rain you will get the sandy desert wind. The LXX has a Homeric ring: *καὶ ἔσται σοι ὁ οὐρανὸς ὁ ὑπὲρ τῆς κεφαλῆς σου χαλκοῦς, καὶ ἡ γῆ ἡ ὑποκάτω σου σιδηρᾶ. δῶν κύριος τὸν ὑέτον τῇ γῇ σου κοινορτόν.* Deuteronomy was perhaps written ca. 612 B.C., but anyway has old materials. Both documents record an archaic theory of a bronze sky, while anachronistically making a parallel with the iron their characters are not supposed to know about.

Later the sky becomes iron. *Od.* 15.329 (cf. 17.565):

τῶν ὕβρις τε βίη τε σιδήρεον οὐρανὸν ἵκει

"[the suitors'] arrogance and force reach the iron sky." Cf. Lev. 26:19, perhaps a revision of the Deuteronomy-passage: "And I shall break the pride (Heb. *g'ōn*) of your power; and I shall make your heavens as iron, and your earth as bronze." Both passages are closer metaphor than the earlier ones; remarkably it is the same metaphor: arrogant men are put in the suitable setting of an iron sky. The Iron Age and its social conditions generate a common literary motif. The LXX here as elsewhere translates *g'ōn* by *ὕβρις*, perhaps through actual recollection of Homer: *καὶ συντρίψω τὴν ὕβριν τῆς ὑπερηφανίας ὑμῶν, καὶ θήσω τὸν οὐρανὸν ὑμῖν σιδηροῦν καὶ τὴν γῆν ὑμῶν ὥσει χαλκῇν.*

Lactantius suggests that the pre-Socratics modified an earlier bronze-sky theory: "an si mihi quispiam dixerit *aeneum* esse *caelum* aut vitreum aut, ut Empedocles ait, *aerem glaciatum*, statimne assentiar?"² The "Orphics" saw the sky as performing the same function in the universe as the shell in the egg, *τὸ λέπυρον ἐν τῷ ὠῷ*, and the *aithēr* as the inner membrane;³ a neat picture of the modern "eggshell" construction of the sky-vault. When (Hdt. 1.131) the Persians are said to give the name "Zeus" to *τὸν κύκλον πάντα τοῦ οὐρανοῦ*, this is not "wheel of the horizon" but "vaulted dome"; the same usage as in *κοιλογάστρος κύκλου* "hollow-bellied shield" (Aesch. *Sept.* 496).

Israel, which remained pre-scientific, works out the naive description more precisely. The root *rq*^c means "beat out as a goldsmith," and

² Lactantius *De opif. dei* 17.6 = Diels-Kranz⁸ 31 A51 (i.293).

³ Achilles *Isag.* 4 p. 33.17 Maas = Diels-Kranz⁸ i.11 line 19.

the *riqqū^c* of Num. 17:3 are “broad metal plates” (LXX *λεπίδας*, Vg *laminas*). Hence the noun *rāqīa^c* of Gen. 1:6–30 (LXX *στερέωμα*, Vg *firmamentum*) is a “vaulted metal dome,” and serves to hold the upper waters (the source of rain) away from the earth. Dan. 12:3 speaks of its brightness (Theodotion *ἡ λαμπρότης τοῦ στερεώματος*). So behind the austere theology of Genesis lies a God who hammered the sky out like a tinker, Ps. 19:2: “The heavens declare the glory of El, and the firmament (*rāqīa^c*) shows the work of his hands.” The same verb shows that the earth is of similar construction, “who beats the earth out thin” (Isa. 42:5, 44:24; Ps. 136:6). Homer’s formal description of the cosmos is the shield of Achilles, dramatically worked into the narrative; thus its hammering-out by Hephaistos may be a demythologized creation-narrative.⁴

Pindar, who frequently works over Homeric materials, takes the brazen sky (like the Atlantic beyond Gades) as the symbol of off-limits for even the strongest men. “The brazen sky is inaccessible to him” (*Pyth.* 10.27), ὁ χάλκεος οὐρανὸς οὐ ποτ’ ἀμβατὸς αὐτῷ. The exordium of *Nem.* 6 shows an additional contact with Hebrew myth in making the sky a divider. “The race of men and of the Gods is one and the same, we both have our breath from one mother. But an entire discrete force *separates* them, so that one is nothing, and for the other the brazen sky remains permanently as its secure seat”:

... διείργει δὲ πᾶσα κεκρμμένα
 δύναμις, ὡς τὸ μὲν οὐδέν, ὃ δὲ χάλκεος
 ἀσφαλὲς αἰὲν ἔδος
 μένει οὐρανός . . .

Since the bottom of the sky-vault is obviously a perfect circle, so must be the plane of earth and water it encloses. Herodotus (4.36) laughs at mapmakers (*γῆς περιόδους γράψαντας*) for “drawing Ocean flowing round the earth, which is made wheel-shaped as if by compasses,” οἱ Ὠκεανὸν τε ῥέοντα γράφουσι περίξ τὴν γῆν, ἐοῦσαν κυκλοτερέα ὡς ἀπὸ τόρνου.⁵ (Some maps like that of Aristagoras

⁴ Cf. the thorax of Kinyras (*Il.* 11.24–25) and the Hesiodic *Scutum*; I discuss these in “Kothar, Kinyras and Kythereia,” *Journal of Semitic Studies* 10 (1965) 197–219.

⁵ I wonder if *tornoi* can be related to Heb. *sarney*, I Kings 7:30 “axles” (Vg *axes*); cf. *tyranmoi* with “Philistine” *sarney*, Judg. 3:3 “rulers.”

were on a bronze plate, *χάλκεον πίνακα*.) The historian's travels had shown him the irregularities of the continents; his predecessors had worked by theory. Two Hebrew passages with *hūg* "circle" (LXX *γῦρον*) show the need of a neat fit: Job 22:14 "He treads the *circle* of the heavens"; Isa. 40:22 "He sits upon the *circle* of the earth."

"Ocean" was a big river flowing around the outside of the circle of continents. Greeks early heard of the sea beyond the Pillars of Herakles. Herodotus (2.11) suggests that the land-barrier between the Mediterranean and Red Sea once did not exist. Bolton⁶ proposes there was once thought to be a strait, the Phasis (later identified with the Tanais-Don) leading from the Sea of Azov to an outer Sea. Hence it may have been conjectured that Atlantic, Red Sea, and Northeast Sea were all one Ocean; and that three outlets from the Mediterranean marked off the earth into three continental islands. At any rate Ocean appears as a river (*potamos*) around the rim of Achilles' shield (*Il.* 18.607-8); it is *ἀψορρόου Ὠκεάνοιο* (*Il.* 18.399) "flowing back into itself." Perhaps this is meant by the snake with its tail in its mouth encircling the Bernardini "Phoenician" patera.⁷ As the constellations set in the West they are bathed in Ocean, and only the circumpolar Bear is exempt (*Il.* 18.489 etc.).

A widespread folk-motif⁸ has the sun carried from West to East during the night in a golden bowl (a double of itself) ready to rise again in the morning. Herakles sometimes is the ferryman. Mimermus⁹ has the sun go "from the Hesperides to the land of the Ethiopians," which indicates a counterclockwise flow of Ocean stream, unless "Ethiopia" is due East. Anyway, in the morning the sun finds itself in the eastern sector of Ocean stream, *Od.* 3.1-2:

Ἡέλιος δ' ἀνόρουσε, λιπὼν περικαλλέα λίμνην,
οὐρανὸν ἐς πολύχαλκον

"And Sun arose, leaving the most fair lake, into the bronze sky"—a passage which summarizes the cosmological picture to date. Psalm 19,

⁶ J. D. P. Bolton, *Aristeus of Proconnesus* (Oxford 1962) 56-57.

⁷ Illustrated D. Harden, *The Phoenicians* (London 1962) p. 190. Phoenicia gave Greece a name for the patera: Heb. *gullāh* (Ugaritic *gl*), whence *γαυλός*.

⁸ C. M. Bowra, *Greek Lyric Poetry from Alcman to Simonides*, (Oxford 1961) 90-92.

⁹ Frag. 10 ed. E. Diehl, *Anth. Lyr. Gr.* 1³ p. 52 = Ath. 11.470A, who quotes other poets on the same theme.

after describing the reciprocal praises of days and nights, goes on (vss. 4-6):

In them¹⁰ he has set a tent for the Sun
 who comes forth as a bridegroom from his chamber
 he rejoices as a strong man (LXX *gigas*) to run his course
 his rising is from the end of the heavens
 and his circuit is to the end of them
 and nothing is hidden from his heat.

In Greek, *Ἡώς* "Dawn" is feminine and "arises from her bed from beside goodly Tithonos" (*Od.* 5.1-2; Verg. *Georg.* 1.447). In Canaanite, *Šaḥar* "Dawn" is mostly masculine,¹¹ his eyelids (*Job* 3:8) are the first light; cf. Soph. *Ant.* 100-4 ἀκτὶς ἀελίου . . . ὧ χρυσέας ἀμέρας βλέφαρον "ray of Sun . . . eyelid of golden Day."

Prov. 8:27-9 describes the process of creation to date:

When he established the heavens I was there
 when he inscribed (*hqq*) a circle (*hūg*) on the face of the Deep (*Tehom*)
 when he made firm the upper clouds
 when he established(?) the fountains of the Deep
 when he assigned the Sea its limit (*hδq*)
 that the waters might not disobey his command (lit. *mouth*)
 when he inscribed (*hqq*) the foundations of the Earth . . .

The root *hqq* is used Ezek. 4:1 for inscribing a city-map on a clay tablet.¹² Hebrew for "compasses" is *m'ḥūgāh*, the *nomen instrumenti* from *hūg* "circle" (*Isa.* 44:13). Blake's famous drawing of God holding his compasses over the deep shows a deep insight into our Hebrew texts. Evidently there is a circular boundary between earth and sea; the parallelism between the two halves of vs. 27 suggests strongly that the circular base of the sky-hemisphere rests on the waters. (For we can sail out into Ocean some distance without meeting Sky.) Also the earth floats on the waters: Ps. 24:2, 136:6. This raises the same question as the Greek idea of Ocean: what prevents the sky-vault from sinking into the Ocean? Perhaps our Greek-Hebrew parallels up until

¹⁰ I.e. the heavens? Kittel conjectures "sea" which would make a nice parallel with the Greek, but Canaanites could not see the sun as rising from the sea.

¹¹ In Ugaritic and at Ps. 139:9; but it has a womb, Ps. 110:3.

¹² Cf. the round Babylonian map of the world, illust. J. O. Thomson, *History of Ancient Geography* (Cambridge 1948) Plate I.

now can be explained by chance or similar cultural development. But their joint answer to this question requires a more definite contact, probably Phoenician: the sky-vault stays in place because it is *propped up by pillars*.

Homer identifies Kalypso (*Od.* 1.52-54):

"Ατλαντος θυγάτηρ ὀλοόφρονος, ὃς τε θαλάσσης
πάσης βένθεα οἶδεν, ἔχει δέ τε κίονας αὐτὸς
μακράς, αἱ γαῖάν τε καὶ οὐρανὸν ἀμφὶς ἔχουσι

"the daughter of Atlas of destructive mind, he who knows the depths of the whole sea, and holds up the great pillars¹³ which keep earth and sky apart." Later sources¹⁴ tell us this was his punishment for joining the revolt of the Titans.

The notion of a mountain with roots in the sea and propping up the sky is dissociated into man plus pillar(s). In Hesiod *Theog.* 517-18 only the man remains, clearly located in the West among the Hesperides. Herodotus (4.184) knows a mountain Atlas in western Africa which the natives call κίονα τοῦ οὐρανοῦ. Euripides, *Ion* 1-2, gives him bronze shoulders like the sky he supports:

"Ατλας, ὁ χαλκίοισι νώτοις οὐρανὸν
θεῶν παλαιὸν οἶκον ἐκτρίβων . . .

"Atlas, propping up on his bronze shoulders the sky, the ancient seat of the Gods . . ." Of interest in several ways is the combined description of Atlas and the Pillars of Herakles in a late geographer:¹⁵

ἀρξάμεναι στοιχηδὸν ἀφ' ἐσπέρου Ὠκεάνοιο
ἐνθα τε καὶ στήλαι περὶ τέρμασιν Ἡρακλῆος
ἐστᾶσιν, μέγα θαῦμα, παρ' ἐσχατόωντα Γάδειρα,
μακρὸν ὑπὸ πρηῶνα πολυσπερέων Ἀτλάντων
ἥχι τε καὶ χαλκείος ἐς οὐρανὸν ἔδραμε κίων
ἡλίβατος, πυκινοῖσι καλυπτόμενος νεφέεσσιν

¹³ Etymology of *kíōn* unknown. It is tempting to compare Heb. *kūn* "make erect" but no Heb. noun of proper form exists. Frisk quotes Armenian *siwn*. Should we compare Heb. *šiyon* "gravestone"?

¹⁴ Eustathius *ad loc.*: "Atlas is made out to be one of the Titans. He rose up against Zeus to his own destruction, whence he is called 'destructive-minded,' and received as punishment the burden of the pillars." Pind. *Pyth.* 4.287 associates Atlas with the Titans. The war is referred to by Servius on *Aen.* 4.247; Hyginus, *Fab.* 150; Philo Byblius, Jacoby 790 F2.20.

¹⁵ Dionysius Periegetes 63-68, Müller G.G.M. ii.107.

“Beginning in order from western Ocean, where the *stêlai* of Herakles stand on the limits of earth, a great wonder, at farthest Gadeira, near the great cliff of the far-spread Atlantes, where a steep bronze pillar runs up to the sky, covered with thick clouds.” Here only is the mountain plural and the pillar of bronze. Atlas “the Bearer” (α-copulative, *τλα-*) probably had independent mythical existence before being more or less clearly identified with a particular mountain whose native name was *Duris*.¹⁶

So in Hannah’s song (I Sam. 2:8): “For the pillars of the earth are the LORD’s, and upon them he has set the world.” “Pillars” here is a unique word; its root suggests cast metal, i.e. bronze. Here apparently it is the earth that rests on the pillars (contrast Job 26:7 where the earth is suspended over nothing).¹⁷ Other passages use the noun *‘ammūd* (*‘md* “stand”) and envisage their being shaken, by various causes. Ps. 75:4: “When the earth and all its inhabitants tremble, it is I who keep its pillars steady”; here the cause is undefined, God is agent of stability. Job 9:5–6, God himself is agent of decreation:

Who removes mountains and they know it not
when he overthrows them in his anger
who shakes the earth out of its place
and its pillars tremble.

The key passage is Job 26:10–13, to which we shall return:

He has encircled a boundary (*hōq*) on the face of the waters
at the boundary of light and darkness
(when) the pillars of heaven tremble
they are astonished at his rebuke
by his power he stilled the Sea
by his understanding he smote Rahab (*ἔτρωσε τὸ κῆτος*)
by his wind the heavens were made fair
his hand pierced the fleeing(?) serpent (*δράκοντα ἀποστάτην*).

“He has encircled a boundary” has the same two roots as Prov. 8:27 above, but with noun and verb reversed. The darkness is the chaos outside the sky-vault. Here the pillars are of heaven; presumably then

¹⁶ Eustathius *ad loc.*, G.G.M. ii.228–30.

¹⁷ A good summary of Hebrew cosmological theories in A. Bertholet, *A History of Hebrew Civilization*, tr. A. K. Dallas (London 1926) 284–89.

they rest on Ocean, pass through the earth, and hold up the sky, like Homer's Atlas. Like Atlas also they are personified; the trembling is their fault, they recognize rebuke.

There are some indications that the Biblical pillars are in the West. For *ammūd* the LXX has *στῦλος*. Strabo 3.5.6 compares the mountains at Gibraltar to *στυλίδες* or *στῆλαι*. (*στῦλος* and *στυλὶς*, like *κίων*, is a load-bearing column.) Job 38:10 (cf. 26:10 above): "And I broke off my boundary (*hōq*) at [the Sea] and set bars and gates (LXX *πύλας*)." A fragment of Pindar¹⁸ quoted by Strabo 3.5.5-6 calls the Pillars of Herakles the *πύλας Γαδείριδας*, "gates of Gadeira"; nothing could so appropriately be called the "gates" of the sea as Gibraltar; the Phoenician original of Hanno's *Periplous* presumably had some equivalent to his "Pillars of Herakles" (*Στηλῶν Ἡρακλείων*). We should not expect closer location of the pillars of earth and sky from Hebrew literature; its charm is that it is not Tyrian literature, all places overseas like "Tarshish" are invested with vagueness and myth.

For Greeks, "pillars" in the West are located at Atlas; Aetna (Pindar *Pyth.* 1.19, sect. 3 below); and the "pillars of Herakles." The last are usually *στῆλαι*, which implies free-standing inscribed monuments, not load-bearing. But Philostratus (*Vit. Ap.* 5.5), although he describes the pillars in the Herakleion of Gades as of electrum and inscribed, interprets them as "stays of earth and heaven."¹⁹ However normally in Greek they are specialized in the boundary-function of Job 38:10. Pindar, *Olymp.* 3.44-45: Theron has reached *Ἡρακλέος σταλᾶν*, and the poet adds *τὸ πέραν δ' ἐστὶ σοφοῖς ἄβατον κάσοφοῖς*, "that which lies beyond is impassable for wise men or fools."²⁰ I suppose the real hindrance was the Punic monopoly, buttressed by tales of Atlantic terrors and *beluae*.²¹ Pliny 9.8 describes the *physeter* (whale-spout?)

¹⁸ Frag. 271 Bowra².

¹⁹ Malalas p. 161 Dindorf says the kings of Italy set up "gold and porphyry *stélai*" to Herakles. At *Vit. Ap.* 2.23, which describes the shield of Herakles, H. is "represented as marking a boundary at Gadeira, setting up the mountains as *stélai*, and drawing Ocean into the interior [i.e. the Mediterranean]." Here shield-making is clearly used as cosmological myth.

²⁰ Scholiast *ad loc.*: "When Herakles in search of the oxen of Geryon reached the island by Ocean called Erytheia, after having traversed the entire navigable sea, he wished to go further; but when he found chaos and *zophos* (Nem. 4.69) he set up *stélai*, by which he marked the end of the sea, to show that it was not further navigable." Cf. *Isthm.* 4.12.

²¹ Horace, *Carm.* 4.14.47; Tac. *Germ.* 17.2; Avienus, *Ora* 410.

of the Gallic sea, and in the "ocean of Gades" the *rotae* and *arbor* "which spreads itself out into such vast branches that from this cause it is believed never to have entered the Straits"—giant squid? The "Atlantic" itself, while located with reference to Gibraltar, is apparently named for the mountain thought of as bounding it, Hdt. 1.202 (cf. Plato, *Crit.* 114A) ἡ ἔξω Στηλέων θάλασσα ἡ Ἀτλαντὶς καλομένη.

The Greeks had heard of Pillars in the West before they got there, and Strabo 3.5.5–8 offers a selection of possible identifications in geography of the legendary objects. But at any rate both Greeks and Hebrews knew of pillars in the West, acting as gates to the Sea, and/or props of earth and sky. Of course pillars at one point only in the circumference of Ocean could not hold up the sky-hemisphere. In fact we hear of pillars of Herakles also in Pontus (Servius on *Aen.* 11.262), Germany (Tacitus, *Germ.* 34), India (Strabo 3.5.6—really columns of Ashoka?); and have a Greek dedication to Tyrian Herakles from Hadrian's Wall at Corbridge.²²

When we read in Prov. 9:1 that "Wisdom has built her house, she has set up her seven pillars (*ἑπτὰ στύλους*)," we should suspect that her house is the world. Our data so far suggest a *tholos*-cosmology: the universe is seen as a circular temple with pillars supporting a domed metal roof. Hadrian the *restitutor*²³ of the provinces rebuilt Agrippa's circular temple into the Pantheon, a microcosm at the heart of Empire. Of it Dio Cassius 53.27 remarks that "being in form a *tholos* it resembles the sky," *θολοειδὲς ὃν τῷ οὐρανῷ προσέοικεν*. The capitals of the pillars put up in it by Agrippa were of "Syracusan" [*bronze*], Pliny 34.3. The Caryatids by Diogenes of Athens were much praised (*in columnis templi eius Caryatides probantur inter pauca operum*, Pliny 36.38); they must at least have appeared to support the roof. It had Hellenistic prototypes as at Magnesia, where an official is ordered to conduct a procession "bearing statues of all twelve Gods in most fair garments, and to set up a *tholos* in the agora beside the altar of the twelve

²² IG XIV 2554. Herakles Tyrius in Bactria, Arrian, *Anab.* 4.28, 8.5. Skymnos (Müller G.G.M. 1.202–3), speaking of the Kelts, described a *stêlē boreios* sloping into a stormy sea—perhaps the Pyrenees. Hesychius s.v. *stêlas distomous* (v.78 ed. M. Schmidt, Jena 1862) says that some reckoned three Pillars and some four.

²³ Provincial series of sestertii; E. M. Smallwood, *Docs. Illust. the Principates of Nerva, Trajan and Hadrian* (Cambridge 1966) no. 84.

Gods.”²⁴ Cf. Petronius 9.5 *caelus hic in quo duodecim dii habitant*. Eustathius²⁵ thinks that the pillars of Herakles may be “statues (*andriantes*) or cities or hills named after him.”²⁶

Atlas varies between man, mountain, and pillar; Herakles temporarily takes his place, at another time sets up his own pillars. The pillars of Job 26:11 are morally responsible. A natural expression of this variation in art would be to represent pillars in human form. The fluting of columns (originally representing trees or papyrus) can be transformed into female drapery; the “Caryatides”²⁷ of the Erechtheum are a natural development of the Ionic column. The use of the male figure in architecture seems more baldly symbolic. Vitruvius 6.7.6, “si qua virili figura signa mutulos aut coronas sustinent, nostri *telamones* appellant . . . Graeci vero eos *atlantes* vocitant,” “representations of the male figure supporting brackets or cornices are called *telamones* in Latin, *atlantes* in Greek.”²⁸ He seems unaware that *τελαμών* is equally Greek and from the same root, originally “baldric”; it appears in inscriptions as “base of stele.”²⁹ A silver *telamon* supports Achilles’ cosmic shield, *Il.* 18.480.³⁰ Architectural *telamones* are best known from the colossal Doric temple of Zeus Olympios at Akragas; one of the figures was restored in the nineteenth century, 7.6 m. high. Hieron II had a great ship incorporating Doric architectural elements, including *atlantes* (*Ath.* 5.208B).³¹

²⁴ O. Kern, *Die Inschriften von Magnesia am Maeander* (Berlin 1900) no. 98 lines 41–44, ca. 195 B.C. Altars with 12 Gods and a zodiac, cf. K. Ziegler, *RE* 36, pt. 2 (1949) 742, s.v. “Pantheon.” The assemblage of planets and stars is called a *pantheon*: Aristotle frag. 18 Rose = Philo *De aet. mundi* (iii) 10.

²⁵ *Ad D. P.* 64, *G.G.M.* ii.228; he adds that they were previously called the pillars of Kronos or Briareus (Aelian, *V. H.* 5.3.). The bronze statue at Carthage to which human sacrifices were made was called “Kronos” (Diodorus 20.14.6), and this may really be Melqart. I do not know whether Briareus was a predecessor of Herakles or a dragon-like figure killed by him.

²⁶ H. M. Howe, “The Dome of Clement,” *TAPA* 97 (1966) 261–73, which I saw after writing the text, with a quite different set of passages reinforces my conclusions.

²⁷ So called by Vitruvius 1.1.5; origin of the name unclear.

²⁸ Cf. Servius ad *Aen.* 1.741 (cf. ad *Aen.* 4.246): “*Atlas* is Greek, like Nilus; for Ennius (frag. 32 Warmington) has *Melo* for *Nilus* and *Telamon* for *Atlas*.”

²⁹ Kaibel no. 1072 = *CIG* 1 3431, Philadelphia, ded. to Hours and Nymphs: *κεῖονας ἀτλαντῶς τε*.

³⁰ Telamon son of Teucer does not as we might expect serve any connected mythological function.

³¹ Naevius 44–46 Warmington shows *Atlantes* somehow similarly represented in art.

2. THE PHOENICIANS IN GADES

Gades is shown to have been Phoenician-speaking in 250 B.C. by its nice silver coinage: obv., "Herakles" in lion's head; rev., pair of tuna-fish, and the legends *mb^cl* (obscure) and *ḡdr*, with variations.³² *ḡdr* is the city-name in Punic; the prefix may be the definite article. The first Punic inscription from Cádiz was found in 1961: a gold ring dedicated to the androgynous god *MLk-^cšrt* and belonging to "the people of Gades," *l^m ḡdr*.³³ Pliny 4.120 (=Ephoros, Jacoby 70 F129a), followed by later writers, says that *Gadir* means "wall" in Punic—this is Heb. *gādēr*. The city is first named in Pindar, *Nem.* 4.69. *Γαδείρων τὸ πρὸς ζόφον οὐ περατόν ἀπότηρεπε αὐτὶς Εὐρώπαν ποτὶ χέρσον ἔντεα ναός* "that which lies on the dark westward of Gadeira is impassable; turn toward the dry land Europe your ship's gear." Gadeira was said to be specifically a Tyrian colony;³⁴ Velleius 1.2.3 dates its founding 80 years after the Trojan War and before Utica. The city known to Pindar was certainly Phoenician, and old enough then to have been familiar to Hebrew poets.

There was a great sanctuary at Gades to a god called in Greek "Herakles"; Silius, *Punica* 3.17-31 describes the barefoot priests wearing linen dress with a purple stripe. Appian, *Iberica* (1) 2: "It appears also that the Phoenicians founded the temple of Herakles at the Pillars: the cult is even now conducted in the Phoenician manner, and their god is not the Theban Herakles, but the Herakles of the Tyrians."³⁵ Arrian (*Anab.* 2.16.4) peculiarly writes as if the old city Tartessos were extant in his or Alexander's time: "So also I think that the Herakles honored at Tartessos by the Iberians—where are what are called the Pillars of Herakles—is the Tyrian Herakles: for Tartessos is a Phoenician foundation, and it is in the Phoenician manner that the temple to the Herakles there was built and the sacrifices are offered." Sallust³⁶

³² A. Heiss, *Description générale des monnaies antiques de l'Espagne* (Paris 1870) 374 ff.

³³ H. Donner and W. Röllig, *Kanaanäische und Aramäische Inschriften* (3 vols., Wiesbaden 1962-64) no. 71. No. 72 is a Punic inscr. from Ibiza (Ebusus) perhaps of the fifth century B.C.

³⁴ Mela 3 (6) 46; Strabo 3.5.5; cf. Diodorus 25.10.

³⁵ Similarly Diodorus 5.20.2; Justin 44.5.2.

³⁶ Frag. II.5, p. 63 Maurenbrecher, from Priscian 2.54, 2.234, Donat. ad Ter. *Eun.* 3.1.11: "ut alii tradiderunt Tartessum, Hispaniae civitatem, quam nunc Tyrii mutato nomine Gaddir habent." So Avienus, *Ora* 35. Appian, *Iberica* 2, thinks Tartessos was later Karpessos.

assumed that the old Tartessos known to Greek lyric and Herodotus later became "Gaddir"; this is wrong, but Arrian accepts it.

Hebrew "Tarshish" (perhaps not always a place-name) has been identified with Tartessos, but shares in the mistiness of Hebrew maritime geography.³⁷ Isa. 23:6-7, addressed to Tyre, suggests that Tarshish is her colony: "Pass over to Tarshish, wail, O inhabitants of the coast! Is this [Tyre] your exultant city, whose origin is from days of old,³⁸ whose feet carried her to settle afar (LXX *πόρωθεν εἰς ἀποικίαν*)?" Cf. Strabo 3.5.5, *ἐπὶ τὰς Ἡρακλέου στήλας ἀποικίαν πέμψαι*.

This passage in Strabo (probably from Poseidonios, Jacoby 87 F53) says that many people think the famous Pillars are really "the bronze pillars 8 cubits high in the Herakleion of Gadeira, on which stands inscribed the cost of building the temple." This implausible content is what tourists were told; probably then the text was unintelligible, i.e. Punic. Pliny 2.242 describes them as *Herculi columnas Gadibus sacratas*. Some idea of the inscription is given by two identical pillars from Malta (2nd cent. B.C.):

Ἰδnn ἰmlqrt b'l šr š ndr 'bdk 'bd'sr w'hy 'sršmr šn bn 'sršmr bn 'bd'sr k šm' qlm ybrkm

Διονύσιος καὶ Σαραπίων οἱ Σαραπίωνος Τύριοι Ἡρακλεῖ ἀρχηγέτει

"To our Lord (*Adon*) Melqart, Baal of Tyre; that which was dedicated by thy servant 'Abd-osir ("Servant of Osiris") and his brother Osir-shamar ("Osiris has preserved"), the two sons of Osir-shamar the son of 'Abd-osir, because he heard their voice. May he bless them."³⁹ The names illustrate how Ptolemaic cult infiltrated Phoenician as well as Hellenistic culture. The "synod of Tyrian merchants and captains" at Delos refer to Herakles as *ἀρχηγού . . . τῆς πατρίδος ὑπάρχοντος*.⁴⁰

³⁷ In the archaic Phoenician inscription of Nora on Sardinia, Donner and Röllig no. 46 (cf. note 33 above), we should probably read *btršy* "in Tarshish," but are still not much enlightened.

³⁸ Heb. *mimey qedem qadmāthāh*: this might lie behind the phrases "Tyrian Kadmos" (Hdt. 2.49, Eur. *Phoen.* 638), *Tyros . . . Cadmea* (Propertius 3.13.7).

³⁹ Donner and Röllig no. 47. This was the first Phoen. inscription recognized (1697) and the basis of decipherment.

⁴⁰ F. Durrbach, *Choix d'Inscriptions de Délos*, vol. I (all pub.) no. 85, p. 140; ca. 153/2 B.C. Herakles was called *archégetēs* at Sparta (Xen. *Hell.* 6.3.6) and *archégos* at Tarsus (Dio Chrys. 33.47, who speaks of the local funeral pyre made for him).

Nonnus 40.430 ff. gives a founding legend of Tyre in which Herakles fixes the previously floating island.

The local name of the God was known to Greeks (and its vowels to us) through Philo of Byblos: *Μέλκαρθος* (variant *Μέλκαθρος*) ὁ καὶ *Ἡρακλῆς*.⁴¹ The nature of the Tyrian pantheon is complicated and obscure.⁴² We are told that "the sepulchre of Hercules was shown at Tyre, where he was cremated."⁴³ There is also a series of suggestions that his reawakening was celebrated.⁴⁴ Arnobius (*Con. gen.* 1.36) says that Tyrian Hercules "was buried in the regions of Spain." There is also some indication that his burning was celebrated at Gades. Pausanias 10 (*Phokis*) 4.6: "[Cleon of Magnesia] said that once he had been at Gadeira, and he and the remaining crowd had sailed from the island according to the command of Herakles. When they came back to Gadeira they found a sea-man cast ashore; he was about 5 plethra long, and burning because he had been struck by a thunderbolt from the God." The death by fire of Melqarth is parallel to that of Greek Herakles; he has also been compared with Melikertes, who has possible Phoenician connections. It is not certain that the etymology is *ml(k)-qrt* "king of the city."

The cultic origin of the temple-pillars at Gades is the two *stélai*, probably free-standing, of the principal temple of Herakles at Tyre (Hdt. 2.44); one of "refined gold," one of "emerald stone (*σμαράγδου λίθου*) shining strongly at night."⁴⁵ Ezek. 28:12-13 associates 9 jewels (one, *borqath*, perhaps the origin of (*s*)*maragdōs*) with the "prince" of Tyre—who may in fact be the God Melqart. Tyrian imperial

⁴¹ Jacoby 790 F2.27 = Euseb. *Praep. ev.* 1.10.27. Cf. Euseb. *De laud. Const.* 13 (Migne, PG 20.1400).

⁴² Comte du Mesnil du Buisson, "Origine et Evolution du Panthéon de Tyr," *RHR* 164 (1963) 133-63; R. Dussaud, "Melqart," *RHR* 151 (1957) 1-21; M. Chéhab, "Tyr à l'Époque romaine," *Mélanges de l'Univ. Saint-Joseph* 38 (1962) 13-40; H. Seyrig, "Les grands dieux de Tyr à l'époque grecque et romaine," *Syria* 40 (1963) 19-28.

⁴³ *Clementine Recogn.* 10.24 (PG 1.1434).

⁴⁴ Athenaeus 9.392, Eust. ad *Od.* 11.600 (i.440 Stallbaum), Zenobius 5.56 (*Corp. Paroem. gr.* i.143-44), Herakles and the quail. His *egersis* at Tyre, Josephus, *Con. Ap.* 1.118 = Menander, Jacoby 783 F1. I Kings 18:27 "perhaps he is asleep and must be waked up."

⁴⁵ Theophrastus, *De lap.* 25 thinks that the second stele is what he calls "false emerald"; hence Pliny 37.75. There was a gold pillar in the "temple of Zeus" at Tyre, dedicated either by Hiram (Menander, Jacoby 783 F1) or Solomon (Eupolemos, Jacoby 723 F2b. 34.16).

bronzes of the third century after Christ⁴⁶ show two phallic⁴⁷ stelai labeled ἀμβρόσιε πέτρε. Nonnus 40.469 ff. explains that the "Ambrosial Rocks" are two islands or peaks which were stabilized by Herakles to found Tyre. The stelai were thought of as mounted on these rocks. Ezek. 26:11 mentions the "pillars" (*massēboth*) of Tyre. Philo of Byblos⁴⁸ says that Ousôos (the eponymous ancestor of mainland Ušu or Uzu—otherwise attested only in Akkadian) "consecrated two stelae to Fire and Pneuma, worshipped them, and poured out blood on them from the wild animals he hunted down." Nonnus and Philo show that the stelai have the same function as those of the West: stabilizing land, sea, and sky in their proper relations.

The two free-standing pillars of Solomon's temple (I Kings 7:15) were surely adapted from a Phoenician prototype. Their names Jachin and Boaz are of uncertain meaning, but suggest the roots "establish" and "be strong." Their connection with the cast bronze "Sea" standing on twelve bulls (II Kings 7:23 ff.) suggests a symbolic picture of the Mediterranean cosmos we have discovered.

Atlas was the son of Iapetos (Hesiod, *Theog.* 507–9, Apollodorus 1.2.3), who is probably identical with Hebrew Japheth.⁴⁹ Atlas in a sense is himself a pillar of Herakles; for the hero in his eleventh labor temporarily takes the burden of the sky from Atlas. The story as told in Apollodorus 2.5.11 goes back to Pherecydes.⁵⁰ It was illustrated on the chest of Kypselos (Pausanias 5.18.4) and on the metopes of the temple of Zeus at Olympia (extant): Herakles assisted by Athena stands in the center of the panel as quasi-architectural element,

⁴⁶ E. Will, "Au sanctuaire d'Héraclès à Tyr: l'olivier enflammé, les stèles et les roches ambrosiennes," *Berytus* 10 (1952–53) 1–12.

⁴⁷ Heb. for "phallus" is *yad* "hand," as my student Anthony Nugent pointed out, at Cant. 5:4, probably also Isa. 57:8. The "hand of Absalom" at II Sam. 18:18 is described in the same verse as a *massebeth*, LXX *stêlê*, and takes the place of Absalom's son.

⁴⁸ Jacoby 790 F2.10, Euseb. *P. E.* 1.10.10. See Comte du Mesnil du Buisson, "L'ancien dieu tyrien Ousô sur des monnaies de Tyr," *Mélanges de l'Univ. Saint-Joseph* 41 (1965) 1–27. He identifies embarking deities as Ouso or Cadmus. But note that Pausan. 7 (Achaia) 5.5–8 describes how "Herakles" sailed on a raft of planks from Tyre to Erythrai of Ionia—which can only be towed ashore by a rope braided of women's hair.

⁴⁹ I discuss him in "Literary Contexts of the Common Hebrew-Greek Vocabulary," *Journ. Sem. Stud.* 13 (1968) 163–91.

⁵⁰ Jacoby 3 F17 = Schol. on Apollonius Rhod. 4.1396.

holding up the sky on two cushions, as Atlas brings him the apples of the Hesperides.⁵¹

Philostratus' partly fanciful description of the Herakleion at Gades (*Vit. Ap.* 5.4–5, already discussed) has further contacts with the temple at Tyre. It is on an island of the same size “with no native rock remaining, but all smoothed like a turning-post”—itself a kind of stele. It contained the “golden olive tree of Pygmalion” with emerald fruit—I suppose Philostratus wishes us to think it set up in the time of Dido. It also contained “the golden belt of Teucer the son of Telamon”; I do not know what this is.

Yahweh, in his function as shaker of the pillars, has as Greek counterpart Poseidon “Earthshaker”—perhaps from the observed connection between earthquake and tidal wave. Tyre with its tall buildings was particularly liable to earthquake (Strabo 16.2.23; Lucan 3.217 *Tyros instabilis*; Isa. 23:11). A close Greek equivalent to the Hebrew fear of cosmic collapse is in Pindar, *Paeon* 4.37–40:

τρέω τοι πόλεμον Διὸς Ἐννοσίδαν τε βαρύκτυπον,
χθόνα τοί ποτε καὶ στρατὸν ἀθρόον
πέμψαν κεραυνῷ τριόδοντί τε
ἐς τὸν βαθὺν Τάρταρον

“I fear the war of Zeus, and Earthshaker of deep roar; they once sent the earth and the whole host [of Titans] by lightning and trident down to deep Tartaros.” I hope elsewhere to compare Greek and Hebrew feeling about earthquakes.

Samson in doublet stories pulls down the two posts of the city-gate of Gaza (Judg. 16:3), and the pillars of the “house” of Dagon(?), Judg. 16:30.⁵² His name in Hebrew suggests “solar hero” (*šemeš* “sun”), and the vicissitudes of his locks the sun’s rays. Samson and Herakles were compared in antiquity (*Chronicon Paschale* p. 153); the twelve labors of Herakles, many involving an animal, suggest the zodiac.⁵³ Hence perhaps Samson is a demythologized cosmic figure.

⁵¹ R. Lullies and M. Hirmer, *Greek Sculpture* (London 1957) Plate 105.

⁵² In a comparable scene, *Od.* 8.66, the chair of the blind bard leans against a pillar.

⁵³ Macrobius, *Sat.* 1.20.6–7, thinks that Tyrian Herakles, like many other divinities, is a sun-god. The late god of Gaza, Marnas—thought to be Cretan—is called “lord of the rains” (Marcus Diaconus, *Life of Porphyry* 19). Stephanus Byz. s.v. *Gaza* says that the city was named after one “Azon son of Herakles.”

A plausible interpretation of the Western pillars would then be that the sun-god went through them into his house or pulled them down at sunset. But no texts state this explicitly. Perhaps the closest is Silius, *Punica* 10.537–38 (cf. 3.399, 6.1–4) where sunset is represented by the passage of Apollo past Tartessus:

donec anhelantis stagna in Tartessia Phoebus
mersit equos

3. THE PILLARS AS SCENE OF DRAGON-COMBAT

A series of Greek texts locates a dragon-combat near the various sites of the Pillars:

(1) Typhon at Aetna. Pindar (*Pyth.* 1.15–20b) symbolizes by Typhon the barbarians defeated at Himera and Cumae, and imagines him as the related volcanos Vesuvius and Aetna.⁵⁴

Τυφῶς ἑκατοντακάρανος· τὸν ποτε
Κιλικίον θρέψεν πολυώνυμον ἄντρον

“Hundred-headed Typhon, whom once the Cilician cave of many names generated . . .”

. . . κίων δ' οὐρανία συνέχει
νιφόεσσ' Αἴτνα, πανέτης
χιόνος ὀξείας τιθήνα

“a heavenly pillar holds him down, frosty Aetna, the year-round nurse of sharp snow.” The sky-pillar serves among other things to confine the underground dragon.

Aeschylus, probably using Pindar, has Prometheus (*P.V.* 348 ff.) lament the fate of his brother Atlas, comparing it with that of Typhon:

. . . Ἀτλαντος, ὃς πρὸς ἐσπέρους τόπους
ἔστηκε, κίον' οὐρανοῦ τε καὶ χθονὸς
ῥμοις ἐρείδων, ἄχθος οὐκ εὐάγκαλον

“Atlas, who stands by the western regions, holding up the pillar of

⁵⁴ Strabo 5.4.9 observes that Pindar (correctly) presumes a connected chain of volcanic activity from Naples to Sicily.

heaven and earth on his shoulders, not an easy burden." He is then reminded how he saw Typhon punished,

τὸν γηγενῇ τε Κιλικίων οἰκήτορα

"the earthborn dweller of Cilicia," put down "under the roots of Aetna" where Hephaistos has his forge. Typhos is presumably a recent comer to the West who has fallen heir to an old mythical pattern.⁵⁵

(2) The dragon of the Hesperides. Herakles' eleventh labor was to steal the golden apples from the garden of the Hesperides (Hesiod, *Theog.* 215). These are guarded by a dragon (Eurip. *Her. Fur.* 394-99, cf. Paus. 6.19.8, Ovid, *Met.* 4.637 ff.). Apollodorus 2.5.11 describes it as "an immortal dragon, the offspring of Typhon and Echidna with a hundred heads, which spoke with many and different voices."

(3) Geryon at Erytheia. Herakles went to the island Erytheia, where he killed the three-headed herdsman (Hes. *Theog.* 287) and drove off his oxen. Hdt. 4.8 locates Erytheia "off Gadeira which is outside the pillars of Herakles in Ocean."

(4) Ophion at Tartessos. Scholiast A on *Iliad* 8.479: "When Zeus deposed his father Kronos from his kingdom and assumed the rule over the gods, the Giants, sons of Earth, in resentment prepare a great battle against Zeus in Tartessos (a city by Ocean). Zeus engages and defeats them, relegates them to Erebus, and grants his father Kronos rule over them. And he defeated Ophion who thought himself superior to all, and put on him the mountain which is named Ophiônion after him." The mountain is perhaps Ophiousa (Strabo 3.5.1), mod. Formentera. Pherecydes⁵⁶ had said there was a bet between Kronos and Ophioneus that whoever got pushed into "Ôgênos" (Ocean) was the loser. Thallus⁵⁷ says that Ogygos when defeated also fled to Tartessos.

⁵⁵ F. Vian, "Le mythe de Typhée et le problème de ses origines orientales," *Éléments orientaux dans la religion grecque ancienne*, Colloque de Strasbourg 22-24 mai 1958 (Paris 1960). Typhon has his name from Baal-Šaphon; Vian points out that he is called *anax* at Hes. *Theog.* 859. I discuss elsewhere (see above, note 49) the *harpê* or *hereb* with which the dragon is killed.

⁵⁶ Celsus in Origen C. *Cels.* 6.42 = Diels-Kranz⁸ 7 B4; cf. Philo, Jacoby 790 F4.50 = Eusebius *P.E.* 1.10.50.

⁵⁷ Theophilus *Ad Autol.* 3.29 = Jacoby 256 F2.

He split her like a shellfish into two parts:
 Half of her he set up and ceiled it as sky,
 Pulled down the bar and posted guards.

In Hebrew we can imagine the “waters above the firmament” as the upper half of Rahab, the sea as the lower; and the “bar and gates” of Job 38:10 are clearly a barrier to keep the sea out.

Obviously the Straits of Gibraltar could be interpreted either as letting the Atlantic waters into the Mediterranean or keeping them out. Pliny (3.4) holds the first view: “indigenae columnas eius dei vocant, creduntque perfossas exclusa antea admisisse maria et rerum naturae mutasse faciem,” “the locals call [the facing mountains] Columns of [Hercules], and believe that when they were excavated they let in the previously excluded sea and thus changed the face of nature.” Diodorus 4.18.5 says that many held this view; and that Herakles likewise had previously drained the Thessalian plain by cutting the Peneius gorge—an act which Herodotus (7.129) ascribed alternatively to Poseidon as earthmover.

But Diodorus prefers an alternative which embodies the complete Hebrew-Phoenician cosmological myth of the Pillars. Herakles built the Pillars as promontories from Libya and Europe towards each other, both as memorials of his campaigns and to narrow the passage, “so that by making it narrow and shallow he might prevent the great cetaceans from passing out of Ocean into the inner Sea,” *ὅπως ἀλιτενοῦς καὶ στενοῦ γενομένου κωλύηται τὰ μεγάλα κήτη διεκπίπτειν ἐκ τοῦ ὠκεανοῦ πρὸς τὴν ἐντὸς θάλατταν*. Pindar, in the unique passage where he calls the Pillars *κίονες* (*Nem.* 3.20–24), actually has Herakles engage in combat with the sea-monsters:

... οὐκέτι πρόσω
 ἀβάταν ἄλα κίωνων ὑπὲρ Ἡρακλέος περᾶν εὐμαρές,
 ἦρως θεὸς ᾧς ἔθηκε ναυτιλίας ἐσχάτας
 μάρτυρας κλυτὰς· δάμασε δὲ θήρας ἐν πελάγεϊ
 ὑπερόχους

“It is not a light matter to go beyond in the impassable sea, beyond the Pillars of Herakles, which the hero god set as notable monuments

of his farthest voyage. He overcame the monsters that rose up in the deep."⁶¹

The dashing of the Ocean against the rocks is mythologized as the futile resistance of the dragon to the hero; the pillars are bounds or "doors" of the sea. At Jer. 5:22 the sand is the perpetual barrier of the sea. We have seen at Prov. 8:28 that the waters themselves can be seen as the disobedient element. None but Yahweh (Job 38:8-11) shut in the sea with doors and said, "Thus far shalt thou come and no farther, and here shall thy proud waves be stayed."

4. THE TUNA AND THE TANNIN

Actually the Mediterranean is not always that much more peaceful than the Atlantic. The reality of cetaceans outside the Pillars needed no coloring by mythology or exaggeration from Punic monopolists to impress ancient sailors. And a quite adequate natural source for the motif of the dragon-combat exists in the migration of tuna⁶² through the Straits of Gibraltar—especially in view of their greater abundance in antiquity.

The coins of Gadeira are evidence enough of "fishermen who sail in to Gadeira" from the "outer sea."⁶³ In a work of uncertain date ascribed to Aristotle (*De mirab. auscult.* 148) we read:

They say that the Phoenicians who colonized the place called Gadeira, sailing with the east wind (*Apeliotes*) outside the Pillars of Herakles for four days, arrived at certain deserted regions, full of rushes and seaweed (*phykos*), which are not touched by the water at ebbside but submerged at fulltide. Here they find an exceptional number of tunas, incredible both in size and fatness, whenever they run ashore. They pickle these, store them in casks, and bring them back to Carthage. These are the only tuna which the Carthaginians do not export; they consume them themselves because of their excellent taste.

There is no question here of rumors of the Sargasso Sea suspected in

⁶¹ Scholiast *ad loc.*: "he killed sea monsters like the *kêtos*."

⁶² All the ancient texts conveniently gathered in D'Arcy W. Thompson, *A Glossary of Greek Fishes* (Oxford 1957) 79-90.

⁶³ Aristides, *Oration* 48 (Egyptian) ii.474 Dindorf.

some ancient texts,⁶⁴ since it is coastal banks of seaweed that are described. Strabo quoting Polybius⁶⁵ describes their feeding (3.2.7):

Much fat thick tuna comes here [to Turdetania, above Gades] from the opposite coast [Africa?]. They feed on the acorns of a dwarf "oak" that grows in the sea . . .⁶⁶ When it ripens, the seacoast both inside and outside the Pillars is covered with its acorns washed up by the tides. . . . Polybius says that these acorns spread out as far as Latium—while allowing for the possibility that they are produced by Sardinia and the adjacent mainland. The nearer the tuna get to the Pillars, as they are carried in from the outside, the thinner they become as their food fails them. So this creature may be called a sea-hog. For it loves the acorn and grows particularly fat on it; whenever there is a good crop of acorns there is a good crop of tuna.

These statements are confirmed by the gastronomic texts quoted in the seventh book of Athenaeus. Aristotle⁶⁷ knew that in summer the tuna had a parasite which made it jump out of the water into fishing-boats. Hence Theodoridas (Ath. 7.302C):

θύννοι τε διοιστρήσονται
Γαδείρων δρόμον

"And tuna will dart gadfied through its course past Gadeira." Ath. 3.116C quotes verses of Euthydemus describing the "huge tuna hearts" from Gadeira or Tarentum, packed tightly in casks and brought by Bruttian or Campanian ships—ancestor of canned tuna-chunks.⁶⁸ Tyrian merchants in Jerusalem in the fifth century B.C. sold fish on the Sabbath (Neh. 13:16)—probably marine, an important source of iodine. (So the tuna sandwiches in our children's school-lunches in Beirut were not a hopeless Americanism, but had a respectable ancestry.) Similarly Ath. 7.315CD:

⁶⁴ For the Sargasso question see Plut. *De fac. in orbe* 26 (941B) with the Loeb notes. The "sluggish" sea of Tac. *Agr.* 10, *Germ.* 45 is more likely ice-floes.

⁶⁵ Polybius 34.7; same extract given less fully by Ath. 7.302C.

⁶⁶ Theophrastus, *H.P.* 4.6.4 refers to similar plants. Hort in the Loeb Theophrastus (ii.446) thinks the sea-oaks of Polybius are seaweed, *Cystoseira ericoides* and *Sargassum vulgare*. Prof. Sebastiano Genovese ("Il tonno, la sua storia e la sua vita," *Atti Società Peloritana di Scienze Fisiche Matematiche e Naturali* 2.3 [1956] 3-11, copy kindly sent me by the author) thinks it the seed-plant *Posidonia Caulinii*.

⁶⁷ *Hist. An.* 602A25, quoted by Ath. here.

⁶⁸ Thompson's frontispiece (above, note 62) is a charming Campanian comic vase of a tunny-merchant.

The *orkynos* (giant tuna). Dorion, in *On Fishes*, says that the *orkynoi* make their way from the [Atlantic] Sea at the Pillars of Herakles and come into our sea. Hence very many are taken in the Iberian and Etruscan seas, whence they disperse to other seas. Hikesios says that those caught at Gadeira are fatter; and next after them, those caught in Sicily. But those a long ways from the Pillars of Herakles are lacking in fat because they have swum a longer distance.

Today the bluefin tuna (*Thunnus thynnus* Linn.) appear in summer at Cádiz in two states. In May and June they appear from the Atlantic, very fat and with gonads ripening, the *derecho* (coming season) of Spanish fishermen; in July and August they proceed west through the Straits (the *revés*, returning season) and up the Spanish coast, thin (15% lighter) and with gonads in post-spawning state.⁶⁹ Studies at Messina indicate that in fact they refuse food when at sexual maturity.⁷⁰ In ancient and medieval times they were unquestionably more abundant and bigger than today.⁷¹ Careful records have been kept in Spain; one fishery in 1552 produced 55,000 fish in the yearly catch which may get 5,000 today.⁷² All the phenomena described by the ancient sources are consistent with the current picture on a scale perhaps ten times as great. The fish must have made Gades very wealthy indeed. In fact they were ancient man's one contact with the American continent, so to speak Plato's Atlantis: for tuna marked off the Bahamas have been taken at Bergen and Narvik in Norway in as little as 50 days; and fish tagged at Cape Cod and Bergen recovered off Cádiz and in the Bay of Biscay.⁷³

⁶⁹ Julio Rodríguez-Roda, "Biología del Atún . . .," *Investigacion Pesquera* 25 (Barcelona 1964) 33-146.

⁷⁰ Sebastiano Genovese, "Sul regime alimentare di *Thunnus thynnus* (L.)," *Bollettino di Pesce, Piscicoltura e Idrobiologia* 36 (n.s. 15) fasc. 2 (1960) 177-88 (Rome 1962).

⁷¹ Aristotle, *Hist. An.* 8.30 (607B31) describes an old fish of 15 talents (ca. 1125 lbs); the biggest fish of many hundreds reported by Rodríguez-Roda was 425 kg. (1045 lbs). Prof. Rodríguez-Roda kindly writes me (letter of Apr. 25, 1964) "Si creo que la población atunera haya descendido, ya que los medios de captura actuales so muchos más que los antiguos."

⁷² Luis Lozano Y Rey, *Peces Fisoclistos, Subserie Toracicos, seg. part. Ordenes Labriformes y Escombriformes = Memorias de la Real Academia de Ciencias exactas, físicas y naturales de Madrid; serie de ciencias naturales* 14 (1952) 501-12.

⁷³ Julio Rodríguez-Roda, "Movimientos migratorios del atún . . .," *Publicaciones Técnicas de la Junta de Estudios de Pesca, Ministerio de Comercio, Direccion general de pesca marítima*, Pub. num. 3 (Madrid 1964) pp. 279-304.

Aristotle knows the tuna in the Aegean and Black Sea only (*Hist. An.* 6.17, 571A8–23 etc.); the wealth of Byzantium came in large part from this fishery (Strabo 7.6.2, Tac. *Ann.* 12.63). Schliemann found a layer of tuna-bones (with alleged sharks) at Troy.⁷⁴ The fish was important at Sinope (Strabo 12.3.11, 19); Cyzicus in the sixth century B.C. minted electrum staters with a tuna head. Even so our sources agree that the tuna going through the Hellespont were comparatively small; the lower salinity and cyclic production of H₂S in the Black Sea prevent its being a permanent home for the species.⁷⁵ Numerous ancient references describe the catch from Gades to Sicily, the watch-points along the coasts, and the fishing by means similar to the complex net, *tonnara*, of today.⁷⁶ Oppian, *Hal.* 3.620–48 describes the migration from the Atlantic to Sicily; Aelian, *NA* 15.3 (cf. 15.5–6, 9.42) alleges migration from Sicily to the Black Sea. This may be false deduction from Aristotle *Hist. An.* 5.10 (543B4) who says that the “pelamys [both bonita and young tuna] and the tuna breed in the Euxine alone.” Prof. E. Postel⁷⁷ kindly informs me that in his opinion there is no possibility of migration between Atlantic and Black Sea. However, I wonder if over-fishing may have broken up a former more extensive migration-pattern of which the Gibraltar and Hellespont migrations were only parts.⁷⁸

Aristotle (*Hist. An.* 3.20, 521B21–25) was well aware that the dolphin, porpoise (MSS *φώκη*, read *φώκαινα*) and whale (*φάλαινα*), all of which he classifies as *κήτη*, have breasts and produce milk. Nevertheless in popular usage the tuna is called a cetacean.⁷⁹ Archestratus (Ath.

⁷⁴ H. Schliemann, *Ilios* (New York 1881) 318.

⁷⁵ Curt Rosswig, “Some Biological Aspects of Fishery Work in Turkey,” *Publications of the Hydrobiological Research Institute of the Faculty of Science of the Univ. of Istanbul* 1.3 (1953) 215–23—known to me from mimeographed excerpts only.

⁷⁶ Photos and diagram of the *tonnara* of Favignanna (W. tip of Sicily), “largest in the Mediterranean,” *National Geographic Magazine* 107 no. 1 (Jan. 1955) 10–11.

⁷⁷ Office de la Recherche Scientifique et Technologique Outre-Mer, Div. de Océanographie, Paris; letter of May 19, 1964.

⁷⁸ The little species *Euthynnus alletteratus* is common off the Phoenician homeland; C. J. George et al., *The Fishes of the Coastal Waters of Lebanon* = *Amer. Univ. of Beirut, Pub. of the Fac. of Arts and Sciences, Misc. Papers in the Nat. Sciences*, no. 4, 1964. *Thunnys thynnus* and *Th. alalunga* have been reported but are unknown to them from specimens. The “Tyrian tuna” of Pollux, *Onom.* 6.63 (p. 243 Bekker) must be from Carthage or some Phoenician colony, and named after the founding city.

⁷⁹ A Byzantine gloss to Oppian quoted by R. Strömberg, “Studien zur Etymologie und Bildung der griechischen Fischnamen,” *Göteborgs Högskolas Årsskrift* 49 (1943:2)

7.301F) says that the Samians call the tuna *orkys*, but others call it *kétos*. Oppian, *Hal.* 1.369 among the species of *κήτεα* includes ἐν δὲ μέλαν θύννων ζαμενὲς γένος. Strabo 3.2.7 points out that *κήτη* are bigger in the Atlantic,⁸⁰ and that the conger-eels become monstrous (ἀποθηριοῦνται); he then proceeds to the description previously quoted of the great Atlantic tuna. Cf. Hor. *Serm.* 2.5.44:

plures adnabunt thynni et cetaria crescent.

Scymnus 162 (Ephorus, Jacoby 70 F129b) says generally that Gadeira is where the biggest *kété* are found. Sharks and whales being rare, the tuna (with the scarcer swordfish) was the biggest well-known marine animal—certainly the biggest regularly eaten. In view of the edibility of the Tannin and Leviathan (Ps. 74:14), the immense shoals of tuna coming in through Gibraltar past the Punic *tonnara* form the most natural basis in fact for the mythological theme of Yahweh or Herakles killing sea-monsters by the Western Pillars.

These considerations give added force to the etymological comparison often made between Greek θύνν-ος and Hebrew *tannîn*.⁸¹ Apart from passages where the Hebrew means “land serpent,” in eight instances it is clearly marine; the LXX tr. *κήτος* at Gen. 1:21 (elsewhere *δράκων*), Jerome *cetus* also at Job 7:12, Isa. 27:1. The -in of *tannîn* is apparently part of the word, though in some mss of Ezek. 29:3 interpreted as an Aramaic plural. I suggest that the Hebrew may show the fish-suffix attested in many Greek words like *δελφ-ίν-ες*, *έρυθρ-ίν-ος*, *σαρδ-ίν-ος* etc.; it would then be “Mediterranean.” No Semitic name for the tuna is preserved; Beirut fishermen call *Euthynnus alletteratus* “*balāmīda*”—showing the Byzantine accentual pronunciation of accusative *πηλαμύδα*, plus lack of *p* in Arabic.⁸²

p. 74, gives a series of 8 fish-names in order of increasing size as stages in development of one species: tsiphos, skombros, koloios, pēlamys, lakedra, thynnos, orkynos, kétos.

⁸⁰ Strabo describes the spout of the *physeter* as “the likeness of a cloudy pillar, *nephodēs kiôn*”; did the whale-spout help make the connection between dragons and pillars?

For a seafaring poetry, Homeric *kétos* is curiously ill-defined. Its playing (*ἄταλλε*, *Il.* 13.27) is closely paralleled in the playing of Leviathan (Ps. 104:26).

⁸¹ Boeotian *θοῦννος* (BCH 60 [1936] 27) is normal dialectal variation and does not suggest alternative hearing of a foreign vowel.

⁸² Mimeographed sheet of Beirut fish-names from Professor George (cf. above, note 78), which I shall be glad to turn over to any fish-lexicographer.

Our Hebrew texts generally show that Tannin, Leviathan, and Rahab are practically identified, and that their slaying takes place at the Pillars; this is strongly suggested for Tannin in particular at Ps. 74:13 above. At Job 7:12 *tannin* is parallel to Sea, at Ps. 148:7 to *tehomoth* "Deeps." At Isa. 27:1 it is parallel to Leviathan, at 51:9 to Rahab. Elsewhere I have treated its appearance in Ugaritic.⁸³

Antigonus of Carystus (Ath. 7.297E) says that the people of an uncertain city (Halai in Attica?) sacrificed a tuna to Poseidon in a good season. This is our only indication of cultic usage in Greek.⁸⁴

Peisistratos was given an oracle (Hdt. 1.62) about the success of his ambush:

ἔρριπται δ' ὁ βόλος, τὸ δὲ δίκτυον ἐκπεπέτασται
θύννοι δ' οἰμήσουσι σεληναίης διὰ νυκτός

"The cast has been made, the net is spread wide, the tuna will come darting through the moonlit night." The Greek sailors at Salamis, dealing with the drowning enemy (Aesch. *Pers.* 424-6)

τοὶ δ' ὥστε θύννους ἢ τιν' ἰχθύων βόλον
ἀγαῖσι κωπῶν θραύμασιν τ' ἐρειπίων
ἔπαιον . . .

"hit them with broken oars and bits of wreckage as if they were tuna or a haul of fish." So the Pharaoh (Ezek. 32:2 ff., cf. 29:3 ff.) thought himself a lion among nations; but really "you are like a *tannin* in the seas." This is derogatory demythologizing: the prophet uses *tannin* as simple "fish," although also showing awareness of the cosmic usage. For he goes on, "I will throw my net over you with a host of many peoples, and they will haul you up in my seine," LXX καὶ περιβαλῶ ἐπὶ σὲ δίκτυα λαῶν πολλῶν καὶ ἀνάξω σε ἐν τῷ ἀγκίστρῳ μου. Then he is made food for birds and animals as in Ps. 74. In these comparisons of the defeated Oriental enemy to the tuna caught in the fisherman's net we have a good candidate for a Phoenician literary motif.⁸⁵

⁸³ See above, note 4.

⁸⁴ Tiglath-Pileser I (1114-1076) killed a *nahiru* at Arvad (Arados): Pritchard (above, note 60) p. 275a. Oppenheim's "narwhal" seems impossible; perhaps either dolphin or tuna. Did the king ceremonially re-enact the creation-business?

⁸⁵ *Addenda*: The cult of Herakles-Melqart at Gades has now been discussed by D. van Berekem, "Sanctuaires d'Hercule-Melqart; Contribution à l'Étude de l'Expansion

phénicienne en Méditerranée," *Syria* 44 (1967) 73-109 [Gades and Thasos], 307-38 [Rome (!)]; P. Cintas, "Tarsis-Tartessos-Gadès," *Semitica* 16 (1966) 5-38; A. García y Bellido, "Hercules Gaditanus," *Archivo Español de Arqueología* 36 (1963) 70-153; *idem*, in Ramón Menéndez Pidal (ed.), *Historia de España* t. I vol. II (Madrid 1952) 311-36 etc. For the voyage of Herakles in his golden cup-boat see further Eustathius on Dion. Per. 558 (G.G.M. II. 325-26), quoting Euphorion and others. W. F. Albright has recently reviewed all the evidence for the pantheon of Tyre and the other Phoenician cities in *Yahweh and the Gods of Canaan* (Garden City 1968) chapt. 3. The gold pillar in the temple of Tyre is said by one Theophilus (Jacoby 733 F1) to have been a statue of Hiram's daughter—an Oriental prototype of the Caryatid.