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Yahweh, the Canaanite God of Metallurgy?

NISSIM AMZALLAG

nissamz@bgu.ac.il

Abstract

In antiquity, south-eastern Canaan was a very important centre for copper smelting. While it is likely that there existed a patron deity of metallurgy, the identity of the Canaanite god of smelting remains unknown. Although some biblical writings suggest a south Canaanite origin of Yahweh, no details are provided concerning his worship prior to him becoming the god of Israel. This study explores whether Yahweh was formerly the Canaanite god of metallurgy. The following observations corroborate this hypothesis: (1) Yahweh was worshiped by the Edomites, and especially by the Kenites, a small tribe regarded as the Canaanite smelters; (2) the Israelite cult of Yahweh was associated with copper and with a bronze serpent, a typical symbol of metallurgy; (3) the melting of copper is considered in Exodus 4 as the specific sign of Yahweh; (4) a parallel exists between Yahweh and the god of metallurgy worshiped in Egypt (Ptah), Mesopotamia (Ea/Enki) and Elam (Nafir), all of them being a mysterious lonely deity; (5) fighting the (other) gods is common to Yahwism and to ancient metallurgical traditions. These data suggest that, before becoming publicly worshipped in Israel, Yahweh was formerly the god of the Canaanite guild of metallurgists.

Keywords: Cain, copper smelting, Yahweh, Edom, Kenite, origin of monotheism.

1. Introduction

Until now, investigations into the origin of Yahweh worship have remained highly speculative, not least because the deity is almost ignored outside of the biblical writings. Many scholars have emphasized the occurrence of a crisis of polytheism during the second half of the second millennium BCE in Egypt, Canaan and Mesopotamia.¹ In such a context, some scholars have proposed a foreign origin for Yahweh.² And yet, no evidence exists towards a foreign cult of Yahweh. Other scholars have assumed the existence of an endemic tribal cult of Yahweh in Canaan prior to the deity's metamorphosis into the 'national god' of Israel. In this case, the increasing importance of Yahweh would result from a political expansion of the tribes worshiping him, and monotheism would emerge as a consequence of a gradual subordination of all Canaanite gods to Yahweh prior to their progressive 'collapse'.³ However, such a 'gradualist' explanation is not entirely satisfying. The raising up of a clan-deity and his transformation into a 'national god' is considered as a common feature in the history of religion, yet it does not always evolve towards monotheism. Furthermore, as observed with the raise of Marduk at Babylon, the transformation of a clan-deity into a national deity is generally concomitant with the concentration of political power towards the town this god patronized. In the Canaan of the early Iron Age, no such concentration of political power can be used to justify the collapse of the whole pantheon. Shechem, a place of central importance for the ancient Israelite religion,⁴ was not the capital of any vast kingdom at the beginning of the first millennium BCE. Even Jerusalem, the town subsequently associated with Yahweh, was formerly patronized by *Shalem*, an epithet of the Canaanite god Resheph.⁵

1. See J.C. de Moor, *The Rise of Yahwism: The Roots of Israelite Monotheism* (Leuven: Peeters, 1990), pp. 42-100.

2. For example, Keel and Uehlinger have shown, from an extensive comparative approach of iconography in the Near East, affinities between Yahweh and Amon-Re, the Egyptian solar deity; see O. Keel and C. Uehlinger, *Gods, Goddesses and Images of God in Ancient Israel* (Minneapolis: Fortress Press, 1998), especially pp. 110-14.

3. For an extensive review of opinions concerning the rise of Yahwism, see, for example, R. Gnuse, *No Other Gods* (JSOTSup, 241; Sheffield: Sheffield Academic Press, 1997), especially pp. 62-128.

4. See G.R.H. Wright, 'Shechem and League Shrine', *VT* 21 (1971), pp. 572-603.

5. See H.O. Thompson, *Mekal, the God of Beth-Shan* (Leiden: E.J. Brill, 1970), p. 160. This singularity is even mentioned in Ezek. 16.3-14, where Jerusalem is considered as an 'adoptive daughter' of Yahweh and is castigated for the 'abominations' related to its early youth.

Since no substantial evidence exists to confirm the gradualist sequence from local clan-deity to universal monotheism, a ‘latent monotheism or monolatry’ inherent to the Canaanite culture is sometimes postulated in order to account for the emergence of Yahwism.⁶ However, such an *ad hoc* argument is no more than an attempt to convert the final conditions into a ‘starting point’, thus transforming the historical explanation into a tautology.

By analysis of biblical texts, some scholars have assumed for a long time that Yahweh was formerly worshipped in the south of Canaan (especially in Edom and/or by the Kenites).⁷ The claim that ‘Yahweh comes from Seir’⁸ has been strengthened by the discovery of Canaanite inscriptions evoking ‘Yahweh of Teman’,⁹ but also by Egyptian writings mentioning Negeb and northern Sinai as ‘the land of Ywh’.¹⁰

The idea of an Edomite origin for Yahweh may be of crucial importance for discovering his former identity, because the south-eastern part of Canaan was known from the earliest times as a very important place for copper metallurgy.¹¹ At Punon (Feynan), the most important centre of metallurgy in the Arabah, archaeologists have estimated that between

6. For example, Norbert Lohfink (‘Gott und die Götter im Alten Testament’, *Theologische Akademie* 6 [1969], pp. 50-71 [mentioned by Gnuse, *No Other Gods*, p. 91]) assumes that a latent monotheism or monolatry existed in the ancient Near East.

7. The southern origin of Yahweh was already suggested in the nineteenth century; see, for example, Karl Budde, *Die Religion des Volkes Israel bis zur Verbannung* (Giessen: Alfred Töpelmann, 1900). Recent scholars defending this opinion are discussed by Gnuse, *No Other Gods*, and include Gösta Ahlström (see pp. 77-79), Hermann Vorlander (see pp. 86-88) and P. Kyle McCarter (see pp. 97-98).

8. Judg. 5:4: ‘LORD, when you went out from Seir, when you marched from the region of Edom’. For the correspondence between Seir and the land of Edom, see Z. Kallai, ‘The Campaign of Chedorlaomer and Biblical Historiography’, *Shnaton* 10 (1989), pp. 153-70.

9. See J.A. Emerton, ‘New Light on Israelite Religion: The Implications of the Inscriptions from Kuntillet Ajrud’, *ZAW* 94 (1982), pp. 2-20. See also A. Lemaire, ‘Les inscriptions de Khirbet el-Qom et l’Ashera de YHWH’, *RB* 84 (1977), pp. 595-608; J. Hadley, ‘The Khirbet el-Qom Inscriptions’, *VT* 37 (1987), pp. 39-49.

10. See de Moor, *The Rise of Yahwism*, p. 111. See also M. Weinfeld, ‘The Traditions Relative to Moses and Jethro at Mount Elohim’, *Tarbiz* 56 (1988), pp. 449-60 (Hebrew). See also K.A. Kitchen, ‘The Egyptian Evidence on Ancient Jordan’, in P. Bienkowski (ed.), *Early Edom and Moab: The Beginning of Iron Age in Southern Jordan* (Sheffield Archaeological Monographs, 7; Sheffield: JSOT Press, 1992), pp. 21-34.

11. E.A. Knauf and C.J. Lanzen, ‘Edomite Copper Industry’, in A. Hadidi (ed.), *Studies in the History and Archaeology of Jordan* (Amman: Department of Antiquities, 1987), III, pp. 83-88.

150,000 and 200,000 tons of slag resulted from copper metallurgy in the period from the Chalcolithic to the Iron Age.¹² Even the emergence of Edom as a political entity, during the first millennium BCE, has been related to the sudden increase in mining and smelting activities in this area.¹³ Thus, it would be extremely surprising if metallurgy had not impacted the Edomite way of life and religion.

Based on the central importance of Levantine copper smelting from the earliest times,¹⁴ the patron of the Canaanite smelters would certainly have been famous. And yet, strikingly, this deity has not been yet identified among the 240 Canaanite deities mentioned in the Ugaritic texts.¹⁵ In parallel, it is interesting to notice that the Ugaritic texts also ‘forgot’ to mention Yahweh. All these indications invite the testing of the hypothesis that Yahweh was formerly the Canaanite god of metallurgy.

2. Yahweh, an Edomite God

Many ‘theophoric’ names including the divine name Qos have been found in Edom. Accordingly, it has been assumed that Qos was the main

12. V.C. Pigott, ‘Near Eastern Archaeometallurgy: Modern Research and Future Directions’, in J.S. Cooper and G.M. Schwartz (eds.), *The Study of the Ancient Near East in the Twenty-first Century* (Winona Lake, IN: Eisenbrauns, 1996), pp. 139-76. According to these authors, a collapse in copper metallurgy industry is observed during the second millennium BCE.

13. Bienkowski (ed.), *Early Edom and Moab*, pp. 1-13. Concerning the metallurgic activity in Edom at the beginning of the first millennium BCE, see T. Levy *et al.* ‘Reassessing the Chronology of Biblical Edom: New Excavations and ¹⁴C Dates from Khirbat en-Nahas (Jordan)’, *Antiquity* 302 (2004), pp. 865-79.

14. See G.N. Amzallag, *The Copper Revolution: Canaanite Smelters and the Origin of Civilizations* (Shani: Hameara, 2008 [Hebrew]).

15. See J.C. de Moor, ‘The Semitic Pantheon of Ugarit’, *UF* 2 (1970), pp. 187-218. Canaanite gods have been identified in recently discovered Ugaritic texts, but the god of metallurgy is yet absent from these writings. See D. Pardee, *Les textes para-mythologiques de la 24^e campagne* (Paris: Edition Recherche sur les Civilisations, 1988). In Ugaritic mythology, Kothar is the god who produces copper artifacts both for the other deities and for the heroes, suggesting that he was the patron of the coppersmiths. However, one has to keep in mind that during Antiquity, smelting (the genesis of copper from ore) and metal craft (the cold-working, hot-working and casting of copper) were activities carried out by distinct corporations; see T. Levy and S. Shalev, ‘Prehistoric Metalworking in the Southern Levant: Archaeometallurgical and Social Perspectives’, *World Archaeology* 20 (1989), pp. 352-72. See also Amzallag, *The Copper Revolution*, pp. 46-63. Thus it is likely that the patron of metal crafts and the god of metallurgy were distinct entities.

Edomite deity.¹⁶ However, nothing is known about Qos worship since no public cult is found in Edom.¹⁷ Neither is the interpretation of Qos as the main Edomite deity supported by the biblical writings, where this name is never mentioned. In fact, the name of no other Edomite is mentioned. This situation contrasts with the explicit mention of Chemosh and Milkom as the ‘national’ deities of Moab and Amon respectively.¹⁸ This silence about the Edomite deity is probably not incidental. Edom, the bitter enemy of Israel, is never blamed for idolatry by the prophets. This suggests that Edom did not oppose Israel in the name of any other god.¹⁹

The silence of the biblical writings about the Edomite deity provides circumstantial evidence for its identification with Yahweh. Further indications strengthen this claim.

First, Edom is qualified as ‘the land of wisdom’ in Jer. 49.7 and Obadiah 8. In a monotheistic context, it is difficult to assume that wisdom would have a source other than Yahweh. Furthermore, it seems that the book of Job, the main ‘wisdom book’ of the Bible, has an Edomite origin,²⁰ thus strengthening the linkage between Edom and Yahweh.

Second, the worship of Yahweh in Edom is explicitly mentioned in Isa. 21.11 (‘One is calling to me [Yahweh] from Seir’), and the duty of Yahweh in regard to his Edomite worshippers is stressed by Jer. 49.11 (‘Leave [Edom] your orphans, I [Yahweh] will keep them alive; and let your widows trust in me’).

16. See J.A. Dearman, ‘Edomite Religion: A Survey and an Examination of Some Recent Contributions’, in D.V. Edelman (ed.), *You Shall Not Abhor an Edomite for He is Your Brother* (Atlanta: Scholars Press, 1995), pp. 119-36.

17. See also J.R. Bartlett, *Edom and the Edomites* (JSOTSup, 77; Sheffield: JSOT Press, 1989) (see especially Chapter 11: ‘Religion in Edom’, pp. 187-207).

18. For Chemosh, see, for example, Num. 21.29; Judg. 11.24. Concerning Milkom, see 1 Kgs 11.33 and 2 Kgs 23.13.

19. Concerning the outstanding position of Edom in the prophetic literature, see B. Dicou, *Edom, Israel’s Brother and Antagonist: The Role of Edom in Biblical Prophecy and Story* (JSOTSup, 169; Sheffield: Sheffield Academic Press, 1994).

20. About the Edomite origin of the book of Job, Uz, the country of Job (Job 1.1), has been identified with Edom in Lamentations (4.21). Teman, the homeland of Eliphaz (Job 4.1), is also located in the south of Canaan. The name Job has been also related to Jobab, mentioned in Gen. 36.33 as a grandson of Esau and king of Edom. Furthermore, a short text very similar to a fragment of the book of Job has recently been discovered at Khirbet Uzza (south of the Dead Sea), providing further evidence for the Edomite origin of the book of Job. See V. Sasson, ‘An Edomite Joban Text with a Biblical Joban Parallel’, *ZAW* 117 (2006), pp. 601-15.

Third, according to the book of Exodus, Esau–Edom and not Jacob–Israel had to inherit Yahweh’s benediction from Isaac (Exod. 27.2-4). This suggests that, before emergence of the Israelite alliance, Esau was the ‘legitimate trustee’ of the Yahwistic traditions.²¹

1. The Israelite *nazirim* (the men self-consecrated to Yahweh in Israel) are compared by Jeremiah to the Edomites: ‘For thus says the LORD: If those [the Israelite *nazirim*] who do not deserve to drink the cup still have to drink it, shall you [Edom] be the one to go unpunished? You shall not go unpunished; you must drink it.’²² Such a parallel between the elite of the Israelite worshippers (*nazirim*) and the Edomite people as a whole also suggests that Edom was the first ‘land of Yahweh’.
2. The primacy of Edom did not disappear quickly from the Israelite collective memory. This point is clearly stressed by Amos (9.11-12): ‘On that day I will raise up the booth of David that is fallen, and repair its breaches, and raise up its ruins, and rebuild it as in the days of old; in order that they may possess the remnant of Edom...’

Together, these five points suggest the conclusion that Yahweh was truly the main (if not the only) deity worshipped in Edom. In this case, it is likely that (1) the name of Yahweh was not used publicly in Edom,²³ and (2) ‘Qos’ was an Edomite epithet for Yahweh rather than an autonomous deity.²⁴

21. This prevalence is confirmed by the fact that Jacob had to disguise himself as Esau in order to receive Yahweh’s benediction (Exod. 27.20-26).

22. See Jer. 49.12. A similar parallel is established in the book of Obadiah (16). This linkage confirms the relationship existing between the Kenites, Edom and Yahweh. The interdiction against consuming wine is common to the *nazirim* in Israel (Num. 6.2-3; Judg. 13.4-5; Amos 2.12) and to the Kenites (Jer. 35.5-6).

23. A lack of public use of the name of the metallurgic deities is well known and relates to the initiatory dimension of the cults related to metallurgy; see Amzallag, *The Copper Revolution*, pp. 64-97; and M. Eliade, *Forgerons et Alchimistes* (Paris: Flammarion, 1977), pp. 45-53. Even though the Israelite cult of Yahweh was public, it seems that the ‘use’ of his name was submitted to severe restrictions (see, e.g., Exod. 20.7 and Deut. 5.11).

24. See M. Rose, ‘Yahweh in Israel—Qaus in Edom?’, *JSOT* 4 (1977), pp. 28-34.

3. The Metallurgic Dimension of Yahwism

Yahweh, a Kenite God

From the earliest of times, production of metal from ore (a stone) in the furnace was interpreted as an act of creation of matter.²⁵ Interestingly, the name Cain derives from the Semitic root (QN) that formerly referred to acts of creation.²⁶ Accordingly, it is not surprising that Cain is the common name of the smelters in ancient Canaanite, and that Tubal-cain is regarded in the book of Genesis as ‘the father of every smith’ (Gen. 4.22).

The Kenites (the sons of Cain), a small tribe mentioned in the Bible, have been identified for a long time as the Canaanite copper metallurgists.²⁷ Bringing together data from many biblical sources reveals that this small tribe originated from the land of Edom, and especially to the area of Bozrah–Sela–Punon,²⁸ the homeland of the Canaanite copper metallurgy.

The intimate link existing between Yahweh and the Kenites is strengthened by the following observations:

1. The first mention of Yahweh (neither Elohim nor Yahweh–Elohim) in the book of Genesis is related to the birth of Cain: ‘Now the man knew his wife Eve, and she conceived and bore Cain, saying, “I have produced a man with the help of the LORD’ (Gen. 4.1). This may be a symbolic way to claim that the ‘discovery’ of Yahweh is concomitant to the discovery of metallurgy.
2. Enosh is mentioned in Genesis as the first man who worshipped Yahweh: ‘To Seth also a son was born, and he names him Enosh. At that time people began to invoke the name of the LORD’ (Gen. 4.26). Interestingly, Enosh is the father of Keynan (= Cain). Again, the worship of Yahweh appears to have been linked to the discovery of metallurgy.

25. This explains why metallurgists were generally considered as men with divine powers. See Eliade, *Forgerons et alchimistes*, pp. 71–81; M. Martin, *Magie et magiciens dans l’Antiquité* (Paris: Errance, 2005), pp. 17–54. See also Amzallag, *The Copper Revolution*, pp. 46–63.

26. This initial meaning is mentioned in Gen. 14.19, where the verb *qnh* is used to express the act of creation of the earth and the heaven by ‘El Elyon’.

27. See S. Abramsky, ‘The Kenites’, *ErIs* 3 (1953), pp. 116–24 (Hebrew). See also M. Rosen and S. Bendor, *The Origin of Kingdom in Israel: An Introduction to the Book of Samuel* (Tel Aviv: Sifryat Poalim, 1959 [Hebrew]).

28. See Abramsky, ‘The Kenites’.

3. The Kenites had a sign (*taw*) on their forehead. From Gen. 4.15, it appears that this sign signalled that Yahweh protects Cain and his sons. From Ezek. 9.4-6, it seems that, at the end of the First Temple period, a similar sign remained the symbol of devotion to Yahweh.
4. The book of Jeremiah confirms the existence of a Kenite worship of Yahweh as follows: 'Jonadab son of Rechab shall not lack a descendant to stand before me [Yahweh] for all time' (Jer. 35.19).²⁹

When considered together, these data suggest that Yahweh was intimately related with the metallurgists from the very discovery of copper smelting.

Yahweh and Copper Smelting

An essential link between Yahweh and copper is suggested in the book of Zechariah, where the dwelling of the God of Israel is symbolized by two mountains of copper (Zech. 6.1-6). In his prophecies, Ezekiel describes a divine being as 'a man was there, whose appearance shone like copper' (Ezek. 40.3), and in another part of this book, Yahweh is even explicitly mentioned as being a smelter (Ezek. 22.20).³⁰

In Isa. 54.16, Yahweh is explicitly mentioned as the *creator* of both the copperworker and his work: 'See it is I who have created the smith who blows the fire of coals, and produces a weapon fit for its purposes'. Such an involvement of Yahweh is never mentioned elsewhere for other crafts or human activities.

Extensive use of copper is made in the construction of the 'tabernacle of Yahweh' (Exod. 27) and the Jerusalem temple (1 Kgs 7). In the latter case, the entrance to the temple is described as being flanked by two large columns wholly made of copper (termed Boaz and Yakhin, 1 Kgs 7.15-22). These two bronze columns are not pillars supporting the roof of the Temple. Devoid of any architectural function, their presence should

29. This fidelity of smelters and smiths to the initial Yahwistic tradition may explain why the liberators of Judah, Israel and Jerusalem are depicted as smiths in the book of Zechariah (Zech. 2.3-4).

30. A similar association is encountered in the book of Zechariah (Zech. 13.9). It is interesting to notice that these visions are not simple popular metaphors. Both Ezekiel and Zechariah described processes of metal purification (fractionation through melting for Ezekiel and cupellation for Zechariah), suggesting that the authors of these two books had a deep knowledge not only of Yahwistic traditions, but also of metallurgy.

be considered as purely symbolic. By their outstanding dimensions (about 9 meters height and 2 meters in circumference), they were the most prominent symbol of the Temple.³¹

Interesting evidence of the essential link between Yahweh and copper metallurgy is provided by the story of the first ‘encounter’ between Moses and Yahweh on Mt Horeb, near the ‘burning bush’ (Exod. 3), where it is related that Moses is involved in the mission to deliver the sons of Israel from Egyptian tyranny. It is also stressed that Moses had to perform a ‘prodigy’ in order to demonstrate that he acts *in the name of Yahweh* (Exod. 4.5). This prodigy is depicted as the reversible transformation of a *matteh* into a *nahash* (Exod. 4.2-5).

The term *matteh* is generally understood as designating a wood-made staff, but this meaning is probably secondary. From Isa. 10.15 and Ezek. 19.13-14 it appears that a *matteh* was formerly a copper scepter hung up on a wooden staff.³²

The term *nahash* is generally translated as ‘serpent’. However, the closeness existing in Hebrew between the terms *nahash* (‘serpent’) and *nehoshet* (‘copper’) suggests that *nahash* may also designate copper.³³

31. Also the ‘sea of copper’, another unique masterpiece of art of metallurgy (1 Kgs 7.23-36), is especially reminiscent of the praise of a god of metallurgy. The central importance of the bronze columns and the sea of bronze is also stressed in 2 Kgs 25: among the seven verses relating the Temple’s destruction (vv. 9, 10, 13-17), three (vv. 13, 16, 17) are devoted to the removal of the bronze columns and the sea of bronze. Apparently, this act was considered as the symbol of the Temple’s destruction.

32. The term *matteh* is explicitly used to designate the wooden staff in Exod. 17.16-23. But the initial meaning is revealed in Isa. 10.15, when it is asked, ‘Shall the axe vaunt itself over the one who wields it, or the saw magnify itself against the one who handles it? As if a rod should raise the one who lifts it up, or as of a staff should lift the one who is not wood!’ If a *matteh* cannot be hung up without a wooden staff, it is clear that it is not the wooden staff itself but something that is fitted with it. Furthermore, in his lamentation about the destruction of Israel, Ezekiel mentions the fact that the staff supporting the *matteh* will burn and will provoke a *qeyna* (Ezek. 19.13-14), a term designating the smelting of copper (and by extension its melting). This strongly suggests that the *matteh* is a copper-scepter. In some cases, traces of wood have been found in the inner space of the scepter, confirming that such items were probably borne upon wooden staffs. See P. Bar Adon, *The Cave of the Treasure* (Jerusalem: Israel Exploration Society, 1980).

33. The term *nahash* is also used to designate copper in languages closely related to Hebrew (Ugaritic, Aramaic, Arabic). In the book of Chronicles, the term *nahash* is used once to designate copper: Ir Nahash was a town founded by a descendant of Celoub (Caleb), a clan of metalworkers (1 Chron. 4.11-12), so that it designates the town where

Accordingly, the prodigy performed ‘in the name of Yahweh’ becomes the transformation of a copper artifact (*matteh*, the scepter) into melted copper (*nahash*, the serpent). It is interesting to notice that such a ‘prodigy’ (occurring not so far from the camp of Jethro the Kenite) happens after Moses threw his *matteh* on a hot source, the ‘burning bush’, which may be a poetic evocation of live charcoal. If the reversible *matteh*–*nahash* conversion is considered in the book of Exodus as a *specific* sign of Yahweh, this implies that this deity was intimately associated with copper melting,³⁴ at least in the period prior to the Israelite Alliance.

4. Homology between Yahweh and the Other Gods of Metallurgy

In his comparative study, *Forgerons et alchimistes*, Mircea Eliade observed a high level of similarity in way of life and beliefs of metallurgists all over the ancient world.³⁵ This singularity has been related to their mode of organization as a guild of craftsmen travelling very long distances for trade, copper smelting and mining survey.³⁶ This over-extended metallurgical network is, at least partly, the source of the broad degree of homogeneity among the Bronze Age civilizations.³⁷ Strong similarities are observed between beliefs and traditions of metallurgists from Bronze Age cultures of Africa, Asia and Europe. Accordingly, we may expect to find affinities between the god of metallurgy from (among other places) Egypt, Mesopotamia, Elam and Yahweh, in the event that he is truly the Canaanite god of copper metallurgy.

copper was smelted or worked (see Abramsky, ‘Ir Nahash’, in *Encyclopaedia Biblica*, VI [Jerusalem: Bialik Institute, 1971], pp. 218-19).

34. The production of molten copper occurs both during the smelting process and after heating copper ingots for casting. Thus, it is not exclusively related to smelting. Copper is molten not only during the smelting process (the production of metallic copper from ore), but also during the re-melting (purification, alloying and casting of the already-existing metal). However, these activities, being the late stages of production of copper, may be also integrated into the smelting process.

35. See Eliade, *Forgerons et alchimistes*, pp. 14-20.

36. See J.D. Muhly, ‘Copper and Tin: The Distribution of Mineral Resources and the Nature of the Metal Trade in the Bronze Age’ (unpublished PhD dissertation, Yale University, 1969). See also K. Kristianssen and T.B. Larsson, *The Rise of the Bronze Age Society: Travels, Transmissions and Transformations* (Cambridge: Cambridge University Press, 2005). See also Amzallag, *The Copper Revolution*, pp. 22-45.

37. See Kristianssen and Larsson, *The Rise of the Bronze Age Society*.

The Mysterious Great God

The god of metallurgy generally appears as an outstanding deity. He is generally involved in the creation of the world and/or the creation of humans. The overwhelming importance of the god of metallurgy reflects the central role played by the copper smelters in the emergence of civilizations throughout the ancient world.

Ptah, the Egyptian god of metallurgy, was considered to be the source of the *Ka*, the vital principle dwelling both in gods³⁸ and humans. He was also contemplated as a mysterious deity devoid of any shape, vitalizing the world as a whole.³⁹

The Mesopotamian god of metallurgy, Ea/Enki, was one of the three main deities of the Akkadian pantheon.⁴⁰ Like Ptah in Egypt, he was celebrated in Sumerian hymns as ‘the intelligent’, but also as the ‘lonely god’.⁴¹ At Dilmun, he was worshipped as the god that both created the world⁴² and opened a new era of prosperity. Ea/Enki was also the god reigning over the domain of Apsou, through which he ensured a permanent vitalization of the world. Undoubtedly, these attributes conferred on Ea/Enki an outstanding position among the gods.⁴³

Elam was termed ‘the country of copper’ in Mesopotamia, and archaeology has confirmed the central importance of copper metallurgy in the

38. This special status should not be related only to the fact that Ptah was the tutelary god of Memphis. Amon-Re, the patron of Thebes, was also considered as the creator of the universe. In order to make this association, the poets had first of all to identify him to Ptah. In the Theban papyrus 1350, it is written: ‘*You [Amon] self-transform in Ta-Tenen (Ptah) to engender the first deities in the time of origins*’ (S. Sauneron and J. Yoyote, ‘La naissance du monde selon l’Égypte ancienne’, in A.M. Esnoul and P. Garelli (eds.), *La naissance du Monde* [Paris: Seuil, 1959], p. 61).

39. See Sauneron and Yoyote, ‘La naissance’, pp. 73-74.

40. H. Koch, ‘Theology and Worship in Elam and Achaemenid Iran’, in J.M. Sasson (ed.), *Civilizations of the Ancient Near East* (New York: Macmillan, 1995), III, pp. 1959–65. Ea/Enki was regarded as the ‘father’ of the gods who patronized crafts, but he was also intimately related to metallurgy. Ea/Enki was the patron of Eridu (the town of *Urud*, which means ‘copper’), and also dwelled at Dilmun, a very important centre of metallurgy and copper working during the Bronze Age.

41. S.N. Kramer, ‘Enki and Ninursag’, *BASOR Supplement* 1 (1945), vv. 65-66.

42. In the Dilmun myth of creation, Nintu, the earth-goddess, engendered the world after being impregnated by Enki.

43. A parallel exists between *Hayoum* (the living), the name given to Ea in the Ebla texts (see R.R. Stieglitz, ‘Ebla and the Gods of Canaan’, *Eblaïtica* 2 [1990], pp. 79-89) and *Elohim Hayim* (the ‘living god’) used to designate Yahweh in the Bible (see 1 Sam. 17.26, 36; Jer. 10.10, 23, 36). A similarity may be also noticed between the Akkadian *Ea* and the Canaanite *Ya* or even *Yahu*.

development of the Elamite civilization.⁴⁴ Akkadian scribes established a parallel between Napir (the great deity of Elam) and Ea, confirming that the Elamite religion is organized around metallurgy. However, beyond this evidence, the Elamite religion is still poorly understood.⁴⁵ This obscure situation is partly due to the lack of traces of any official cult in Elam and the lack of representation of the gods. Even the names of the deities worshiped were generally hidden and replaced by attributes, as we see with *Tempt* ('my lord'), *Napir* ('the great') or *Kiririsha* ('the great goddess').⁴⁶ A similar mystery is found in Elam and in South Canaan concerning the cult related to metallurgy. This mystery features the lack of figuration of the deity, which is common to Yahweh and to the Elamite god of metallurgy.

The Bronze Serpent

Cultic bronze serpents are frequently encountered at Dilmun, the land associated with metallurgy south of Sumer. Bronze serpents have also been found at Elam, and it seems that Napir, the great god associated with metallurgy, was symbolized by a human-headed bronze serpent.⁴⁷ Enki, the Sumerian homolog of Napir, was also intimately associated with serpents. Athena, the Greek goddess of crafts, was from ancient times represented as being associated with snakes. Her son Erechthonios (also the son of the smith god Hephaestus) was symbolized by a bronze

44. See T.F. Potts. *Mesopotamia and the East: An Archaeological and Historical Study of Foreign Relations 3400–2000 BC* (Archaeology Monograph, 37; Oxford: Oxford University Press, 1994).

45. R. Labat ('Elam, c. 1600–1200 BC', in *The Cambridge Ancient History*, II, Part 2 [Cambridge: Cambridge University Press, 1975], pp. 379–416) concluded that 'The original bases of the native religion [of Elam] still escape our knowledge' (p. 416). Twenty years later, Koch ('Theology and Worship') opened his review paper on the Elamite religion as follows: 'It is very difficult to say anything certain about Elamite religion' (p. 1959).

46. The primordial importance of metallurgy is not restricted to the Near Eastern traditions. Also in Chinese mythology, the first deities are described as a couple of burning serpents (dragons, probably homolog to the Canaanite *seraphim*), Fu-Hi (male dragon) and Niu-Kua (female dragon). The latter engendered humankind. She has also instructed Yu the great, the first civilizing hero of China who was strongly associated to the metal element (as one of the five basic elements of the world). See M. Kaltenmark, 'La Naissance du monde en Chine', in Esnoul and Garelli (eds.), *La naissance du Monde*, pp. 457–61.

47. Labat, 'Elam, c. 1600–1200 BC'.

serpent, and a sacred snake dwelled in the Erechtheum on the Acropolis of Athens.⁴⁸

Cultic bronze serpents are also frequently encountered in Canaan.⁴⁹ Their association with metallurgy is suggested by the discovery of a bronze serpent in the Midianite shrine of Timna (dating from the end of the second millennium BCE), near the copper-ore mines.⁵⁰

According to the books of Kings, a bronze serpent called *Nehushtan* was worshipped at Jerusalem until the reign of Hezekiah (2 Kgs 18.4). Since this cult of a bronze serpent is not explicitly condemned as idolatry by the author of the book of Kings, it is likely that it was related to the (former) cult of Yahweh. Furthermore, it is claimed in the book of Numbers that this bronze serpent was made by Moses 'in the name of Yahweh' (Num. 21.8-9).⁵¹

This *Nehushtan* is termed *seraph* ('the burning') in Num. 21.8. This appellation may be related to the strong sensation of burning felt following the bite of the saw-scaled viper (*Echis coloratus*), a snake widespread in south Canaan, while Isaiah mentioned *seraphim* ('burning snakes') lauding the Israelite deity around his throne (Isa. 6.2-3). In this context, *seraph* probably does not evoke a dangerous snake.⁵² Naming a bronze

48. For testimonies about the serpent cult in the Erechtheum, see R. Parker, 'Myths of Early Athens', in J. Bremmer (ed.), *Interpretations of Greek Mythology* (London: Barnes & Noble, 1987), pp. 187-214. See also G. Ferrari, 'The Ancient Temple on the Acropolis at Athens', *AJA* 106 (2002), pp. 11-35.

49. In Canaan, cultic bronze serpents have been found in cultic areas at Megiddo, Gezer, Hazor, Tel Mevorakh and Shechem. At Hazor, the two bronze serpents have been discovered in the holy of holies area of the Temple; see K.R. Joines, 'The Bronze Serpent in the Israelite Cult', *JBL* 87 (1968), pp. 245-56. According to Mesnil du Buisson (*Etude sur les dieux phéniciens hérités par l'empire romain* (Leiden: E.J. Brill, 1970), pp. 131-36, this profusion of cultic bronze serpents suggests that the snake was the symbol of holiness in Canaan.

50. See B. Rothenberg, 'The Alveolated Temple of the Timna Valley', in *Israel Am VeHaaretz* (Tel Aviv: Tel Aviv Museum, 1984), pp. 93-100. It seems that this Midianite sanctuary replaced an Egyptian temple devoted to Hathor, the goddess protecting the copper-ore mines.

51. This detail indicates that Moses is considered in the Bible both as the founding-father of the public cult of Yahweh in Israel and as a coppersmith (see G. Garbini, 'Le serpent d'airain et Moïse', *ZAW* 100 [1988], pp. 264-67).

52. According to J. de Savignac ('Les "seraphim"', *VT* 22 [1972], pp. 320-25), the seraphim should be assimilated to the Uraeus, the symbol of sanctity in Egypt. A parallel between the biblical Seraph and the Egyptian winged serpent (also being a symbol of deity and power) is clearly established by O. Keel (*Jahwe-Visionen und Siegelkunst* [Stuttgart: Verlag Katholisches Bibelwerk, 1977], pp. 70-79).

serpent 'burning' evokes rather the melted copper released from a furnace, which winds on the ground before solidification. Again, in this case, Yahweh can be seen as strongly related to metallurgy.

Fighting the Gods

Fighting the gods is a common feature in metallurgic traditions.⁵³ In Greece, the Cyclops (the creatures symbolizing the former metallurgists⁵⁴) are mentioned as the first creatures that revolted against Ouranos, the main god of the ancient pantheon, and against *all* the gods.⁵⁵ Prometheus, the one that revealed metallurgy to humankind, was also the hero that restricted forever the part devoted to the gods in sacrifices.⁵⁶

The deity patronizing the metal crafts is frequently represented as a limping god. Bes, an avatar of the Egyptian patron of the smiths, was depicted with leg malformations. Hephaestus, the patron of the Greek smiths, was called 'the famous cripple' by Homer. Vulcain, his roman homolog, was also described as a limping god. A similar infirmity affected Volund, the patron of the Scandinavian smiths.⁵⁷ The meaning of this singularity is revealed by the Greek mythology: Hephaestus limped because Zeus threw him down from the Olympus after he challenged his authority and that of all the other gods.⁵⁸

According to the book of Genesis, Jacob had his name changed to Israel after he successfully fought against a 'divine being'.⁵⁹ Here again,

53. Eliade, *Forgerons et alchimistes*, pp. 54-59.

54. The Cyclops are sometimes depicted as assistants of Hephaestus in his workshop or as metallurgists dwelling in the volcano of Lipari. See R. Graves, *Greek Myths* (Paris: Fayard, rev. French edn, 1967), section 22d, p. 132. See also C. Salles, *Quand les dieux parlaient aux hommes* (Paris: Tallandier, 2003), p. 170.

55. Chuvin, *La mythologie grecque* (Paris: Fayard, 1992), p. 39.

56. This characteristic has been maintained for a long time. In the Dogon mythology (Western Africa), the first metallurgist is considered as the hero who has challenged the gods for the benefit of humans (see L. Levi Makarius, *Le sacré et la violation des interdits* [Paris: Payot, 1974], p. 128).

57. See Martin, *Magie et Magiciens*, p. 19. Concerning the initiatory dimension of the cult of Volund, see also R.L. Dieterle, 'The Metallurgical Code of the Volundarkvida and its Theoretical Import', *History of Religions* 27 (1987), pp. 1-31.

58. According to Homer (*Iliad* 1.586-94), it is Zeus who threw him from Olympus. Another interesting case of limping is reported by Apollodorus (1.6.3), who tells that Typhon, the serpent god, cut off the leg sinews of Zeus during their fight, provoking his limping.

59. 'You shall no longer be called Jacob, but Israel, for you have striven with God and with humans, and have prevailed' (Gen. 32.28).

this victory was associated with a mutilation that caused him to limp: ‘When he [the divine being] saw that he did not prevail against him [Jacob], he struck him on the hip socket; and Jacob’s hip was put out of joint, as he wrestled with him’ (Gen. 32.25).

This association between the transformation of Jacob into Israel (the one who fights against gods) and his limping coincides with what is known in other metallurgical traditions. This suggests that the exclusiveness of the cult of Yahweh in Israel is not a late development, which is generally assumed. Rather, it appears to be rooted in the ancient traditions and way of thinking of metallurgists.

The Over-extended Domain of Yahweh

It is very interesting to observe that, in the Bible, Yahweh is not exclusively linked to Israel.⁶⁰ This point is clearly stressed in the book of Amos, where it is claimed: ‘On that day...they may possess the remnant of Edom and all the nations who are called by my name, says the LORD who does this’ (Amos 9.11-12). Indeed, it appears from many biblical sources that Yahweh also ‘protects’ the Canaanite alliances of Edom, Moab and Ammon, sometimes against the political interest of the Israelite Alliance.⁶¹

Even more intriguing is the special attention, in the book of Jeremiah, devoted to the far country of Elam:

I [Yahweh] will terrify Elam before their enemies, and before those who seek their life; I will bring disaster upon them, my fierce anger, says the LORD. I will send the sword after them, until I have consumed them; and I will set my throne in Elam, and destroy their king and officials, says the LORD. But in the latter days I will restore the fortunes of Elam, says the LORD (Jer. 49.37-39).

This oracle is amazingly similar to those devoted to Judah and Israel. Such a commitment concerning Elam suggests that the Elamites were

60. This reality is especially interesting considering that the south of Canaan is considered to be one of the world’s most ancient centres for metallurgy. See J.D. Muhly, ‘The Beginnings of Metallurgy in the Old World’, in R. Maddin (ed.), *The Beginnings of the Use of Metals and Alloys* (Cambridge, MA: MIT Press, 1988), pp. 2-20.

61. It is especially mentioned that the Israelites cannot conquer the lands of Edom, Moab and Ammon, since Yahweh has given them forever to the sons of Esau (Deut. 2.5) and Lot (Deut. 2.9, 19). In Jer. 9.24-25, Edom, Moab and Ammon are considered together with Judah as the circumcised, the peoples of Yahweh. The Amos oracles against Ammon, Moab, Damas or Edom (Amos 1 and 2) not only mention their ‘crimes’ against Judah and Israel, but also all the ‘crimes’ perpetrated between and among them in regard to Yahweh.

also regarded here as a 'people of Yahweh'. In this case, however, one has to assume a homology (if not an identity) between Yahweh and Napir ('the great god'), the main deity of Elam, who was also the god of metallurgy.

A singular statement of commitment of Yahweh towards Egypt appears in the book of Isaiah: 'The Lord will strike Egypt, striking and healing; they will return to the Lord, and he will listen to their supplicants and heal them' (Isa. 19.22). A similar promise concerning Yahweh's redemption of Egypt is also found in the book of Ezekiel.⁶² Moreover, Egyptians are considered as being circumcised (Jer. 9.24), a detail generally mentioned in order to distinguish the people belonging to the Alliance of Yahweh from others. This is mentioned especially concerning the king of Egypt (Ezek. 31.18).⁶³

Memphis was the symbol of unification of Egypt from the beginning of the First Dynasty. Yet it was also the city of Ptah, the god of metallurgy. This fact strongly suggests an intimate link between metallurgy and the early kingdom in Egypt.⁶⁴ A homology between Ptah and Yahweh is suggested in the book of Isaiah. There (Isa. 19.13), Memphis is qualified as the 'city of wisdom', the same expression used to describe Edom in Jeremiah (see above). A parallel between Ptah and Yahweh is clearly observed in the book of Ezekiel: 'I [Yahweh] will destroy the idols and put an end to the images in Noph' (Ezek 30.13). Hence, if Yahweh 'intends' to eliminate idolatry *especially* from Noph (Memphis), this is probably in the name of a strong homology with *Ptah*, the god of metallurgy intimately related to the city Memphis from its foundation.

62. 'Further, thus says the Lord GOD. At the end of forty years I will gather the Egyptians from the peoples among whom they were scattered; and I will restore the fortunes of Egypt, and bring them back to the land of Pathros, the land of their origin; and there they shall be a lowly kingdom' (Ezek. 29.13-14).

63. It seems that the central importance of circumcision, for the Israelites, may also be related to metallurgy. This link is revealed by the parallels observed between the metallurgical traditions from antiquity and those from traditional societies of Africa; see S. Blakely, *Myth, Ritual, and Metallurgy in Ancient Greece and Recent Africa* (Cambridge: Cambridge University Press, 2006). In many of the African mythologies, circumcision is introduced by the first smelter, and it is still practiced by smiths and smelters in traditional African societies; see Blakely, *Myth, Ritual, and Metallurgy*, p. 4; H. Tegnaeus, *Le héros civilisateur* (Upsala: Studia Ethnographica Upsaliensa, 1950), pp. 23-29, 50, 104; and Makarius, *Le sacré et la violation des interdits*, p. 143, and the references cited there.

64. This may explain why the king of Egypt is depicted in the book of Ezekiel as the nicest tree of the Garden of Eden (Ezek. 31.9).

According to these considerations, the over-extended domain of Yahweh should not be regarded as the consequence of a rapid diffusion of the Israelite religion during the First Temple period. It is rather the expression of a very ancient homology (if not identity) existing between the gods of metallurgy during the Bronze Age.

5. Conclusion

The present study reveals a strong parallel existing between Yahweh, as described in some of the biblical writings, and the gods of metallurgy known from antiquity. The evidence enables us to challenge the current paradigm depicting Yahweh as being formerly a tribal deity. While the current view about the origins of Yahweh is quite unverifiable (naturally, nothing may be known about the traditions of a small, nomadic Bronze Age tribe), the assumption that Yahweh was formerly the Canaanite god of metallurgy is open to testing.⁶⁵

If confirmed by further investigations, the identification of Yahweh as the Canaanite god of metallurgy may have significant implications for the way we approach the history of Israel and the emergence of monotheism.

First, the worship of Yahweh suddenly emerging with the Israelite Alliance becomes an Iron Age movement, the popularization of the beliefs of the Canaanite smelters. In this case, the novelty of the Israelite Alliance consists of the transformation of the (initiatory) cult of the Canaanite guild of copper smelters into a public cult.

Second, the uncompromising attitude observed in Israel towards deities other than Yahweh becomes a resurgence of a very ancient tradition, that of the Canaanite smelters, challenging the current gradualist view of emergence of monotheism from monolatry and henotheism.

Third, it seems that many of the biblical writings include traces of very ancient traditions, including those of the Canaanite metallurgists from the Bronze Age. Their identification and their comparison with other metallurgical traditions may be a tool that can be used in the identification of the various strata of redaction of the biblical texts.

65. The hypothesis of the Kenite origin of Yahwism had already been formulated in earlier scholarship. However, the absence of reliable information about metallurgical traditions in antiquity meant that this assumption was considered improvable; see R. de Vaux, 'Sur l'origine kenite ou madianite du Yahwisme', *ErIs* 9 (1969), pp. 28-32.

Today, metallurgy is considered only as a craft, making it difficult to believe that Yahweh was formerly the god of metallurgy. In addition, our ignorance of this reality results from the exclusion of almost all direct evidence linking Yahweh to metallurgy in the biblical writings. However, as shown by the sources cited in this study, something about the 'metallurgic roots' of Yahwism was certainly known at least by the authors of the book of Genesis, Exodus, Numbers, Kings, Isaiah, Jeremiah, Ezekiel, Amos, Obadiah, Habakkuk, Zechariah and Job. For this reason, the hiatus existing in the Bible concerning the former identity of Yahweh should be considered as intentional. Understanding the source of this attitude may certainly help to elucidate many obscure points in the emergence of monotheism in Israel.