

# SOME IMPLICATIONS OF THE VOLCANIC THEOPHANY OF YHWH ON HIS PRIMEVAL IDENTITY

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## **Summary: Some Implications of the Volcanic Theophany of YHWH on His Primeval Identity**

YHWH's theophany and mode of action are frequently evoked in the Bible as a volcanic event. It is shown here that this representation, of central importance in the story of the Sinai Covenant, is probably not anchored in any specific volcanic eruption experienced by the Israelites in the past. In Antiquity, volcanic activity was specifically associated with the gods who patronized metallurgy, given the homology between lava flowing from a volcano and slag released from a furnace at smelting. Evidence towards such a link is also identified in the Bible. Accordingly, rather than being simply a literary artifice imaging the outstanding powers of YHWH, volcanism may reflect the existence of metallurgical roots in Israelite theology. This contention is supported by Biblical evidences associating YHWH with metal production: (i) his primeval dominion in mining areas, (ii) his special worship by metalworkers, (iii) the representation of his celestial universe as a giant furnace. It is concluded that the volcanic representation of YHWH's theophany and mode of action reveal a surprising level of preservation of the metallurgic religious traditions in the ancient Israelite theology.

**Keywords:** Volcanism – Metallurgy – Smelting God – Origins of Yahwism – Sinai Covenant

## **Resumen: Algunas implicancias de la teofanía metalúrgica de Yahvé en su identidad primitiva**

La teofanía y el modo de acción de Yahvé son frecuentemente evocadas en la Biblia como un evento volcánico. Se muestra aquí que esta representación, de central impor-

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tancia en la historia de la Alianza del Sinaí, probablemente no se encuentra anclada en ninguna erupción volcánica experimentada por los israelitas en el pasado. En la antigüedad, la actividad volcánica estaba asociada específicamente con los dioses que apadrinaban la metalurgia, dada la homología entre la lava que fluye de un volcán y la escoria liberada de un horno de fundición. También es posible encontrar evidencia sobre este vínculo en la Biblia. En consecuencia, en vez de ser un simple artificio literario que representa los poderes excepcionales de Yahvé, el volcanismo podría reflejar la existencia de raíces metalúrgicas en la teología de los israelitas. Esta opinión se sostiene por las evidencias bíblicas que asocian a Yahvé con la producción de metales: (i) su dominio en las zonas mineras, (ii) su adoración especial por parte de los trabajadores metalúrgicos, (iii) la representación de su universo divino como un horno gigante. Se concluye que la representación volcánica de la teofanía de Yahvé y su modo de acción revelan un sorprendente nivel de preservación de las tradiciones religiosas metalúrgicas en la teogonía del Antiguo Israel.

**Palabras clave:** Vulcanismo – Metalurgia – Dios de la Fundición – Orígenes del Yahvismo – Alianza del Sinaí

## INTRODUCTION

YHWH's revelation at Sinai is one of the main fundamentals of the religion of ancient Israel. This theophany is reported in Chapter 19 of Exodus as an extraordinary event. It begins with a series of lightning bolts accompanied by intense smoke and a terrifying noise which gradually amplifies. These phenomena are followed by an intense fire associated with violent quakes that shake the entire mountain (Ex 19:16–19). Both Biblical scholars and geologists have clearly recognized in this description the successive phases of a volcanic eruption.<sup>1</sup> The volcanic character of the revelation at Sinai is confirmed in Deuteronomy: “The mountain burned with fire unto the heart of heaven, with darkness, cloud, and thick darkness” (Deut 4:11). The flowing lava is not mentioned here, but in the song of Deborah, the entire event is referred to as a liquefaction of the Sinai mountain by the presence of YHWH: “The mountains melted (*nazlu*) to YHWH, Sinai before YHWH the God of Israel” (Judg

<sup>1</sup> The Sinai revelation has been identified as a volcanic eruption by many authors, such as Noth (1962: 156), Koenig (1964; 1966; 1968), Bentor (1990: 336) and Humphreys (2003: 84–87). See Dunn (2014: 388–397) for a review of this opinion.

5:5). It seems therefore that the Biblical tradition has kept the memory of an intimate association between volcanism and YHWH's theophany at Sinai.

Three explanations may justify this volcanic theophany. The first presupposes a historical background to this story. It assumes that in this passage the Bible reports a genuine "covenant ceremony" experienced by the Israelites in the past in the vicinity of an erupting volcano. The second explanation assumes that volcanism was introduced solely for literary purposes, the volcanic eruption providing a fantastic and impressive background for the revelation. According to the third explanation, this representation reflects a theological link between YHWH and volcanic eruptions independent of any historical or literary consideration. The validity of these three eventualities is examined first.

## THE VOLCANIC REPRESENTATION AT SINAI

### *The Historical Justification*

During historic times, volcanic activity was totally unknown in south Canaan and the Sinai peninsula. Accordingly, the assumption that the theophany at Sinai reflects the memory of an authentic eruption implies its relocation around an active volcano. Regarding the parallels between the Biblical descriptions of Mount Sinai and the landscape of the north-west Arabian Peninsula, some scholars have suggested displacing the mount of revelation from Sinai to this area, where volcanic activity is attested throughout the last millennia.<sup>2</sup> They assumed that the wanderings of the Israelites brought them to this area, where they discovered (or at least heard about) the phenomenon of volcanic eruption. Other scholars justified the relocation of the ceremony to the Arabian Peninsula by assuming that *Sinai* does not designate an area, but rather derives from *Sîn*, the Mesopotamian moon god worshipped in the Arabian Peninsula during the first millennium BCE.<sup>3</sup> However, these expla-

<sup>2</sup> Some scholars (Philby 1955: 125–126; Noth 1962: 156) located Mount Sinai in the Tabuk volcanic field, north-west of the Arabian Peninsula. Others identified the Biblical Sinai with the volcano Hala' al-Badr, Harrat ar-Raha, Jabal al-Lawz or Al-Jaw (see Silversten 2009: 59–66; Hoffmeier 2005: 131–136; Whittacker 2003: 85–145; Koenig 1971: 67–102 respectively).

<sup>3</sup> The most convincing affinity is the representation of Sin as a golden calf (Key 1965: 20), though it is also a common mode of figuration young gods in the Levant. This hypothesis fits also the identification of Sinai with *Hala' al-Badr*, the Arabian volcano whose name means

nations are not supported by any positive evidence regarding the presence of the Israelites in this area. Furthermore, the precise memory of the volcanic dimension during the revelation at Sinai, as it is attested in the Bible, is not compatible with a complete amnesia concerning its location. For these reasons, it is difficult to justify the volcanic representation at Sinai on the basis of purely historical considerations.

### *The Literary Justification*

Volcanism is an outstanding natural phenomenon. It exhibits all the components expected in theophany: the impressive atmospheric phenomena (lightning, thunder) evoke a celestial intervention; the thick rising column of smoke accounts for a sudden communication between heaven and earth. The extreme heat in the crater, reached without combustion, is essentially a miraculous phenomenon. The unpredictable and capricious nature of a volcanic eruption strengthens the aura of mystery about its cause. Finally, the devastating effect of volcanic eruptions (together with the related phenomena such as earthquakes, tsunamis) spontaneously reminds one of the expressions of divine anger.<sup>4</sup> With this perspective, it is not difficult to assume that the author of this story, wishing to stress the exceptional nature of the Sinai theophany, could be tempted to represent it as a volcanic eruption.<sup>5</sup> Such a literary use of volcanism has other advantages. Since volcanic imagery was poorly exploited by the ancient Near Eastern religions, its use at Sinai emphasizes the uniqueness of YHWH and of his Covenant with the Israelites.

If the volcanic eruption is nothing more than a picturesque metaphor, one would not expect it to interfere substantially with the covenant itself. However, in the narrative of the revelation at Sinai, the vision of the volcanic eruption, and especially of the great fire, is approached as the evidence that YHWH was truly revealed at Sinai and spoke to the Israelites (Deut 5:19–20). Furthermore, it seems that volcanism introduces restrictions in the way YHWH is approached. For example, the Israelites are asked to stand far from the mountain in order to survive the revelation. This danger is explicitly presented as a consequence of the volcanic nature of the theophany (Ex 19:21).

“the crater of the moon” (Lewy 1946: 442; Koenig 1964: 137). However, the identification on such a basis remains tenuous.

<sup>4</sup> Humphreys 2003: 84–85.

<sup>5</sup> Vitaliano 2007.

In Deuteronomy, the Israelites even refused to meet YHWH, justifying their reserve by the risk of death inherent to the volcanic eruption: “Now therefore why should we die? For this great fire will consume us; if we hear the voice of YHWH our God any more, then we shall die” (Deut 5:21). These restrictions are totally unexpected if volcanism is introduced only for literary purposes. Rather, their occurrence suggests an essential link between YHWH and volcanism, independent of any historical background or literary contingency.

### *The Theological Justification*

If volcanism is essentially related to YHWH, we may expect to find in the Bible a multiplicity of representations of YHWH’s theophany as a volcanic event, and a close relation of the symbolic meaning of volcanism with an essential attribute specifically related to YHWH. This point is examined here.

### *The Pillar of Cloud*

The presence of YHWH among the Israelites, during the 40 years of wandering, is symbolized by a pillar of cloud (Ex 40:36–38). Approached as a genuine theophany of YHWH, this miraculous phenomenon is described as a column of smoke by day and a fire by night.<sup>6</sup> A description of this nature is, once again, a precise reminder of what is observed when approaching an active volcano: a thick, dark cloud of volcanic ash, gas and steam skyward, which in the dark radiates reddish light from the crater.<sup>7</sup> For this reason, the “cloud” moving with the Israelites can be considered the epitome of the volcanic phenomenon.

The volcanic homology between the Sinai theophany and the “presence” of YHWH in the pillar of cloud is so deep that some authors assume a strict equivalence between the two.<sup>8</sup> However, the pillar of cloud appears immediately after the Exodus (Ex 13:21–22), before the Sinai theophany and independently of it. This is why it should not be considered as a substitute for the Sinai theophany, but rather as another volcanic marker of the divine presence.

<sup>6</sup> Ex 13:21; 16:10; Num 14:14; Neh 9:12,19. See also Mann 1971.

<sup>7</sup> For the identification of the volcanic nature of the pillar of cloud / fire, see Bentor 1996: 334; Noth 1962: 109; Lewy 1946: 442; Humphreys 2003: 164–171.

<sup>8</sup> Cassuto (1953: 337–340) concluded that the tabernacle and the pillar of cloud symbolize together a Mount Sinai in miniature moving with the Israelites.

### *The Melting of Mountains*

YHWH is praised for his general ability to transform mountains into active volcanoes. In Ps 114, the psalmist evokes YHWH liquefying the stone (v. 8) and “skipping” the mountains (v. 4.6).<sup>9</sup> The same reality is attested to in Ps 46:7 (“He utters His voice, the earth melts”). Here again, volcanism is considered as an inevitable consequence of the manifestation of YHWH on the earth. This specific power of YHWH is confirmed in Ps 97:5, where the volcanic activity appears to be essentially related to YHWH: “The mountains melt like wax at the presence of YHWH, at the presence of the master of the whole earth.” It is also explicitly acknowledged in Ps 104:32: “He looks at the earth, and it trembles. He touches the mountains and they smoke.”

The volcanic activity even appears to be an inevitable consequence of the manifestation of YHWH on the earth. This is clearly expressed in Ps 144:5, where the call to YHWH to self-reveal leads spontaneously to a volcanic event: “YHWH, bow Your heavens and come down, touch the mountains that they may smoke.” Exactly the same linkage is stressed in Isa 63:19: “That you would rend the heavens, that you would come down, that the mountains may be liquefied (*nāzōlû*) at your presence.”<sup>10</sup> The consequence of this volcanic dimension inherent to the divine revelation is tragically evoked by Amos: “My Lord, YHWH-Sebaoth, he touches the land and it melts, and all that dwell therein mourn” (Amos 9:5). If YHWH cannot approach the earth without provoking a destructive volcanic eruption, it must be concluded that volcanism was truly approached by the Israelites as an essential component of his theophany.

### *The Volcanic Mode of Action of YHWH*

In the book of Job, it is mentioned that YHWH regularly recasts the landscape by “moving” mountains: “He removes the mountains, and they know it not, when He overturns them in His anger” (Job 9:5). Such a process characteristic of volcanic eruptions is evoked here as a general mode of action following

<sup>9</sup> On the volcanic dimension metaphors used in Psalm 114, see Amzallag and Avriel 2011: 311–313. Exactly the same metaphor of lava flowing down the mountain like a herd (“The mountains skipped like rams, the hills like young sheep”, Ps 114:4) is used in Greek mythology to evoke the volcanic activity of the Etna. See Scarth 1989: 92–94.

<sup>10</sup> The same image is reproduced in Isa 64:1–2, this time in direct contact with the revelation at Sinai. This is another evidence of volcanic dimension of this theophany.

YHWH's anger. In fact, his wrath is described as a fire igniting the foundations of the mountains (*mosdey harim*, Deut 32:22), an image evoking, here again, their transformation into active volcanoes.<sup>11</sup> Similarly, some prophets explicitly represent the "anger of YHWH" as a hot and destructive liquid flowing on the earth.<sup>12</sup> Even the eschatological visions, where YHWH is expected to self-reveal to the entire earth, are characterized by an intense volcanic activity. This is clearly expressed by Micah:

*For, behold, YHWH comes forth out of His place, and will come down, and tread upon the high places of the earth. And the mountains shall be molten under Him, and the valleys shall be cleft, as wax before the fire, as waters that are poured down a steep place. (Mic 1:3–4)*

Also in the book of Isaiah, the eschatological vision of the revelation of YHWH is accompanied by a huge volcanic eruption darkening the sky, and blindly destroying the world.<sup>13</sup> This volcanic representation may explain why this eschatology holds such a terrifying character.<sup>14</sup> It is not surprising that the result of this final revelation is approached by Isaiah as an event leading to the genesis of a new landscape, where the valleys are leveled and the mountains removed: "Every valley shall be lifted up, and every mountain and hill shall be made low; and the rugged shall be made level, and the rough places a plain" (Isa 40:4).

These many instances show that the volcanic theophany of YHWH may in no way be restricted to the Sinai revelation. They also reveal that this volcanic representation cannot be simply interpreted as a metaphor. The lament of Amos about the blind-destructive consequence of YHWH's volcanic theophany (Amos 9:5), the call of Isaiah for a volcanic intervention by YHWH against the enemies of Israel (Isa 63:19) and the explicit representation of the day of YHWH as a giant volcanic event suggest that volcanism was interpreted

<sup>11</sup> It is therefore not surprising that the destruction of Jerusalem is precisely described as a fire consuming the deep foundations of the city (Lam 4:11).

<sup>12</sup> Ezek 22:31; Hos 5:10; Zeph 3:8.

<sup>13</sup> Isa 13:9–10, 42:14–15.

<sup>14</sup> The book of Joel describes in detail the devastation that lava is expected to provoke on the earth (Joel 2:1–10), at the time the sun will be veiled (Joel 3:4, 4:15), probably by a thick cloud of volcanic ash.

as the genuine manifestation of YHWH on the earth. Furthermore, the belief that volcanism is able to reveal YHWH to mankind (Joel 4:15–17; Zeph 3:8–9) implies the existence of an essential relation between YHWH and volcanism.

Two possible explanations may justify such an essential kinship. The first assumes that YHWH was formerly a foreign volcano-god introduced in Canaan by the Israelites. The second possible explanation assumes that YHWH is not a volcano-god, but that volcanism serves as a symbol representing one of his most essential attributes. In order to test this latter eventuality, it is necessary to first identify what volcanism symbolized in Antiquity, and to examine whether this reality is essentially related to YHWH.

## THE RELIGIOUS SIGNIFICANCE OF VOLCANISM

### *Furnaces and Volcanoes*

Smelting, the transformation of ore into metal in a furnace, is the only human activity involving stone melting. Therefore, a perfect and even *exclusive* homology exists between the flowing of lava from a volcano and the release of slag from a furnace during the smelting process.<sup>15</sup> This explains why volcanoes were typically related to the gods of metallurgy in Antiquity. Hephaestus, the Greek smith-god is called the prince of Etna.<sup>16</sup> Also his “servants,” the Cyclops, dwelled around the Etna and Lipari volcanoes. Their metallurgical activity was supposed to occur at the heart of the volcano.<sup>17</sup> The Etruscan and Roman counterparts of Hephaestus (respectively Sethlans and Vulcan) are also fully identified with active volcanoes. A homology between metallurgy and volcanism is also clearly attested to in the mythologies of Central and Northern Europe.<sup>18</sup>

<sup>15</sup> This homology is related by Dieterle (1987: 5) as following: “... Among the apparati of the forge, there is no doubt that it is the furnace that corresponds to the volcano, since the molten slag flowing from it is profoundly like the flow of the molten lava from a volcano...”

<sup>16</sup> Euripides, *Cyclops*, v. 600.

<sup>17</sup> In the *Odyssey*, Polyphemus, the most famous Cyclop, is even completely assimilated to the volcanic activity of the Etna. See Scarth 1989.

<sup>18</sup> See Davidson 1958: 158; Dieterle 1987: 3–6. Surt, the Icelandic volcano god, is acknowledged as the master of the giants, the mythical metalworkers from the past. His metallurgical acquaintances are confirmed by his legendary flaming sword and the metallic boat in which he moves. And exactly as the eschatology related by some Biblical prophets, the Nordic mythographers tell that the volcanic activity of Surt is expected, in the far future, to entirely consume



The essential nature of the association between metallurgy and volcanism is confirmed by the figuration, in ancient Greece, of the islands of Rhodes and Lemnos as sites of volcanic activity.<sup>19</sup> Exactly as with the Sinai in the Bible, this volcanism remains a pure fiction. It was apparently introduced in order to justify the presence of the semi-divine metalworkers and their patron deity in these islands.<sup>20</sup> These observations reflect a widespread symbolic correspondence, in Antiquity, between active volcanoes and metal workshops, and especially the furnace.<sup>21</sup>

### *Volcanism and Metallurgy in the Bible*

In the Bible, the intimacy of the relationship between metallurgy and volcanism is revealed in the text referring to the theophany of YHWH at Sinai. There, a homology is promoted between the pillar of smoke rising from the mountain and the smoke of a furnace: “Mount Sinai was altogether on smoke, because YHWH descended upon it in fire. The smoke thereof ascended as the smoke of a furnace (*kibšan*), and the whole mount quaked greatly” (Ex 19:18). This comparison is very striking. The mention of a massive pillar of smoke rising from the mountain is easily seen, so it does not require any clarification through analogy. Furthermore, the didactic power of smelting imagery is very limited, smelting being a highly specialized activity. Finally, the smoke of a furnace is so reduced with regards to the smoke of a volcano that the analogy minimizes the outstanding amplitude of the events relative to the Sinai revelation. These considerations suggest that the reference to furnace metallurgy is introduced here in order to stress the homology between volcanic eruptions and furnace activity.

This interpretation is confirmed by literary considerations. The text of the Sinai revelation (Exodus 19) is organized as a giant chiasm centered on verse

the creation in order to replace it by a new world (see Davidson 1958: 154). MacCulloch (1930: 202, 279–280) reports that in Nordic mythology, volcanic eruptions are considered to be caused by the giants and their activity. On the relationship between Giants and metallurgy in Norse mythology, see Dieterle 1987: 4.

<sup>19</sup> Newbold 2006: 3. Concerning the association between the Telchines from Rhodes and metalworking, see Martin 2004: 10; Eliade 1977: 87; Blakely 2006: 15–16, 152–156.

<sup>20</sup> Burckert 1970: 1–16; Capdeville 1995: 272.

<sup>21</sup> See Virgil, *Enneid* iii 571.582; *Georg.* i. 471, Ovid. *Metam.* xv, 340. In Scandinavia, for example, the furnace (*aflar*) is explicitly identified with a volcano (see Einarson 2011: 63, 84).

18, a feature stressing its central importance for understanding the story as a whole.<sup>22</sup> The homology between the smoke of the volcano and that of the furnace promoted in this verse becomes therefore a key to reading the whole story of the Sinai revelation.<sup>23</sup>

The homology between metallurgy and volcanism also appears in the book of Isaiah. On the one hand, it is related that the holy of holies of the Jerusalem temple is filled by a cloud of smoke by day and a light visible at night (Isa 4:5), a description inspired by the volcanic theophany of YHWH (see above). On the other, the temple of Jerusalem is symbolically considered as the site of divine metallurgical activity. This is revealed by the sentence closing the divine speech in Isa 31:9: “This is the word of YHWH, whose fire is in Zion, and His furnace in Jerusalem” (Isa 31:9). Here, the mention of the “divine furnace” at Jerusalem cannot be approached simply as a metaphor because it is introduced to ensure that YHWH truly spoke, exactly as volcanism ensures that the theophany at Sinai is that of YHWH. It appears therefore that the Jerusalem temple was approached as the “furnace of YHWH,” at the time his presence was evoked through volcanic imagery.

The book of Isaiah describes the celestial throne of YHWH as being surrounded by *seraphim* (Isa 6:2). These dragon-like creatures are standing near burning coals (Isa 6:6) exuding a thick smoke (Isa 6:4). These details suggest that YHWH’s throne is symbolically assimilated here to something recalling both a furnace and a volcano. This kinship is confirmed in the book of Daniel evoking the Divine Master sitting on a throne positioned above a huge torrent of fire (Dan 7:10). This vision is reminiscent of a volcanic effusion of lava and/or flow of slag cast out of an open furnace.

All these considerations indicate that the homology between volcanism and metallurgy was acknowledged in ancient Israel as it was in other ancient cultures. This invites us to examine to what extent YHWH’s volcanic theophany and mode of action reflect an essential link between the deity and metallurgy, and especially with furnace smelting.

<sup>22</sup> Avishur 2000: 119–203.

<sup>23</sup> As related by Meynet (2010: 310–311), the central verse of a concentric structure is well known as representing a key of reading for the entire text. See also Van der Lugt 2010: 537–542.

## METALLURGY AS YHWH'S ESSENTIAL ATTRIBUTE

Some elements link YHWH to metals and metalworking in the Bible. For example, YHWH's mode of action is sometimes envisioned as a metallurgical process (ore roasting, smelting, furnace re-melting, and metal purification).<sup>24</sup> The scepter-serpent transformation performed by Moses in the name of YHWH (Ex 3:2–3, 4:2–5) resembles a process of furnace remelting.<sup>25</sup> Also YHWH's divine emissary (malak-YHWH) displays strong affinities with the Canaanite smith-god.<sup>26</sup> Even the limping of Jacob inherent to his transformation into Israel (Gen 32:32–33) recalls an initiatory infirmity typically associated with smiths and metalworkers.<sup>27</sup> These elements together suggest an essential relation between YHWH and metallurgy. This conclusion is confirmed by further observations.

### *YHWH and the Mining Areas*

The essential link between YHWH and mining areas is revealed by the mention of his "origin" in the mountainous region of Seir, South Arabah and Sinai (Deut 33:2; Judg 5:4; Hab 3:3). The common point of these locations is the presence of rich resources of copper ore: the mining area of Punon (Faynan, North Arabah), of Timna (South Arabah) and of Serabit El-Khadim are located at Seir, Paran and Sinai respectively. All these areas knew an intense activity of mining and copper production in Antiquity, attested to by the huge amount of slag found in these sites.<sup>28</sup> At the end of the second millennium BCE, this metallurgical activity was particularly intense in the Arabah valley.<sup>29</sup>

The god specifically related to these areas is expected to be deeply involved in the wealth of their inhabitants. Since the exploitation of copper ore and

<sup>24</sup> See Gen 19:24–28; Isa 34:9; Jer 6:27–30, 9:6; Ezek 22:18, 24:11. For discussion about the metallurgical dimension of this mode of action, see Amzallag 2013: 158–162.

<sup>25</sup> See Laughlin 1975: 16, n. 41; Amzallag 2009a: 395–396.

<sup>26</sup> See Amzallag 2012.

<sup>27</sup> See Eliade 1977 [1956]: 88–89; Martin 2005: 17–20; Dieterle 1987: 3–4; Amzallag 2009a: 400–401.

<sup>28</sup> The amount of slag produced between the fourth and first millennia BCE is evaluated as 100.000 tons in the Punon (Faynan) area (Bartlett 1989: 36; Levy *et al.* 2004: 867). The same amount is evaluated at BirNasib in the mining district of Serabit el Khadim (Rothenberg 1987: 4). The amount of slag at Timna is estimated at up to 10,000 tons (Erez Ben-Yosef, pers. comm.).

<sup>29</sup> See Levy *et al.* 2004.

metal reduction was practically the only local activity of these desert regions, it is likely that YHWH patronized copper production. This is confirmed by further considerations. The land granted by YHWH to the Israelites is evoked in Deuteronomy as a country rich in iron and copper ore resources, considered to be a substantial source of wealth: “A country where you should eat your bread without scarceness, where you will lack nothing; a land whose stones are iron and out of whose hills you can dig copper” (Deut 8:9). This claim is unfounded, however, because the “Promised Land” is completely devoid of these ores. The rich resources of copper ore in south Canaan (the region of the Arabah) were granted by YHWH to the Edomites, not to the Israelites (Deut 2:5). The Israelites were obviously aware that this mention of fabulous mineral resources was a fiction, so that such a false claim weakens the entire promise. This means that it was probably introduced not as an instrument of persuasion, but rather as a theological requirement. If YHWH originally dwelled in a mining area, his presence among the Israelites requires the symbolic transformation of the entire “Promised land” into a giant mining area.

### *The Patron of the Smelters*

As a god originating from an area of copper production, YHWH is expected to display a special relationship with the smelters and metalworkers. This point is acknowledged in the book of Isaiah, where YHWH reveals his presence in the smith’s workshop. He is involved in blowing air on the coals, and he even participates in the production of metal artifacts: “Surely, I am (YHWH) who have created the smith, who blows on the fire of coals and who brings forth the instrument of his work” (Isa 54:16). In the Bible, such an involvement is not seen in relation to any other human activity, a feature suggesting, here again, a special kinship of YHWH with metallurgy.

This conclusion is confirmed by the closeness of YHWH to the Canaanite smelters, the Kenites.<sup>30</sup> Their importance is stressed by the mention of Cain, the ancestor of the tribe, as the firstborn of mankind (Gen 4:1).<sup>31</sup> The special attachment to YHWH of this congregation is promoted by the sign of their

<sup>30</sup> For the identification of Kenites as Canaanite metalworkers, see Miller 1974; McNutt 1990: 239–249; Blenkinsopp 2008: 140; Mondriaan 2011: 416–418.

<sup>31</sup> The comparative analysis of the genealogies in Genesis 4 and 5 led some authors to assume that Cain, and not Seth, was formerly regarded as the ancestor of Noah. See Lewy 1956: 431; Sawyer 1986: 158; Knohl 2004: 63–70. According to Sawyer (1986), Genesis 4 evokes not only the closeness to YHWH of Cain and his lineage, but also their status of civilizing heroes.

divine protection (Gen 4:15), a mark of their prestigious status and closeness to YHWH,<sup>32</sup> as well as their Yahwistic fervor and inspiration.<sup>33</sup> The mention of Jethro the Kenite as a priest dwelling near the holy mountain of YHWH (Horeb) confirms these conclusions. Furthermore, it is highly significant that Moses discovered the genuine identity of YHWH hitherto unknown to the Israelites (Ex 6:3) after dwelling for years near Jethro, his father-in-law.<sup>34</sup> For all these reasons, many authors assume that YHWH was formerly a Kenite god, that is to say, a god worshiped specifically by the Canaanite metalworkers.<sup>35</sup>

Edom was a nation emerging at the end of the second millennium BCE in the Arabah in close relation with the Kenites and to the production of copper.<sup>36</sup> Many Biblical indications suggest that YHWH was committed to the Edomites as he was to the Israelites.<sup>37</sup> A senior status of Edom is even revealed

<sup>32</sup> See Blenkinsopp 2008: 141–142; McNutt 1990: 239–241. This sign is also mentioned in Ezekiel 9:4.

<sup>33</sup> Caleb and Othniel, two members of a clan (Qenizites) affiliated to the Kenites, are praised for their zeal for YHWH and their divine inspiration (Num 32:12; Judg 3:9–11). The attachment of the Kenites and their related clans (Qenizites, Rechabites, see McNutt 1990: 242–243) to YHWH is evoked in Ex 18.10–12; Num 13.6; Jos 14:13–14; 2Kgs 10:15–16; and Jer 35:18–19. Also Bezalel and Uri, the metalworkers involved in construction of the tabernacle, are considered as being filled with “the spirit of god” (Ex 31:1–5).

<sup>34</sup> Concerning the Kenite influence on Moses, see North 1964: 381; Albright 1963; Garbini 1988; Weinfeld 1988; Blenkinsopp 2008: 133–136.

<sup>35</sup> The Kenite hypothesis of the origin of YHWH is debated for a long time. See for example Smith 1918; Schmökel 1933; Gray 1953; Albright 1963; North 1964; Weinfeld 1988. For recent developments and discussions, see Blenkinsopp 2008; Mondriaan 2011. Curiously, the metallurgical affinities of YHWH and his cult were denied even by the authors promoting the Kenite hypothesis. For example, Immanuel Lewy (1956: 431) assumed that “The Kenites and related tribes worshipped Yahu or Yahweh but they did not know the origin of that worship and so they attributed it to their ancestor, Cain, the first smith or hammerer.” However, this speculative explanation remains unlikely, due to the great conservatism of the metallurgical traditions and beliefs in Antiquity, as revealed by their similarities in different cultures. See Eliade 1977: 82–91. This feature is confirmed by the similarities observed between the metallurgical traditions from traditional societies in Africa and those on Ancient Greece and Canaan. See Blakely 2006: 1–5; McNutt 1990: 241, 245–246.

<sup>36</sup> See Levy and Najjar 2006; Tebes 2009: 107–108. The ethnic/cultural continuity between the ancient people of Seir and the new Edomite political entity, already suggested in Genesis 36, is supported by comparison of the archaeological findings from the Late Bronze Age (Seir) and the Early Iron Age (Edom) (see Levy 2009: 251–252). The cult of YHWH by this population is confirmed by an Egyptian inscription from the temple of Amon at Soleb (Nubia) from the time of Amenophis III mentioning “the shasu Land of Yahu” (see Giveone 1971: 27). For interrelations between the Kenites and Edomites, see Abramsky 1953: 119–120.

<sup>37</sup> On the Biblical evidences about the worship of YHWH in Edom, see Haney 2007;

led by the divine blessing that Isaac intended to give to Esau “Let peoples serve you, and nations bow down to you. Be a lord over your brothers, and let your mother’s sons bow down to you. Cursed be every one that curses you, and blessed be every one that blesses you” (Gen 27:29). The stormy story of the transfer of the primogeniture rights from Esau to Jacob (Genesis 27) confirms that the privileged status of Israel as “people of YHWH” was originally destined to the Edomites, and not to the Israelites.<sup>38</sup>

Juan Manuel Tebes suggested that the “wisdom” of Edom explicitly mentioned in Jer 49: 7–8 (see also Obad 8) is closely related to metallurgy.<sup>39</sup> A few verses later, the Edomites are likened to those in Israel who are consecrated to YHWH, through their common interdiction of wine consumption (Jer 49:12).<sup>40</sup> This suggests that the “metallurgical” wisdom of the Edomites was not restricted to manual skill, but also extended to deep knowledge of YHWH.

### *The Celestial Furnace*

In the vision opening the book of Ezekiel, the celestial throne is evoked as a universe of fire, flames and embers (Ezek 1:4,13). Amid these embers, Ezekiel evokes a strange reality he calls *ḥašmal*: “And I looked, and, behold, a stormy wind came out of the north, a great cloud, with a fire flashing up, so that a brightness was round about it; and out of the midst thereof as the color of *ḥašmal*, out of the midst of the fire” (Ezek 1:4).

*Elektron*, the Greek term translating *ḥašmal* in the Septuagint, is generally used to designate amber or a metal alloy of pale yellow color. The same dual meaning is also encountered in the words close to *ḥašmal* in Egyptian (*ḥasmn*), Akkadian (*ešmarû*) and Elamite (*išmalu*).<sup>41</sup> Amber is a fossilized resin, so that it carbonizes without shining light once surrounded by fire. This means that, in Ezekiel’s vision, *ḥašmal* designates a metal. Being positioned amid glowing embers, this matter is probably not in a solid state. It seems that here Ezekiel describes molten metal through the pale yellow radiation radia-

Blenkinsopp 2008. About the affinities between the Qos, the Edomite god, and YHWH, see Kelley 2009: 264–271.

<sup>38</sup> On the significance of the conflict between Jacob and Esau, see Waterman 1938; Tebes 2006.

<sup>39</sup> See Tebes 2009.

<sup>40</sup> This interdiction of wine consumption of the metallurgists is confirmed in Jer 35:6 (accounting for the kinship between the Rechabites and the Kenites stressed in 1 Chron 2: 55).

<sup>41</sup> See Bodi 1991: 82–90.

ting from it, exactly as it may be observed in a furnace.<sup>42</sup> This is an additional detail revealing that the throne of YHWH was conceived by the Israelites as being positioned upon a giant celestial furnace. This representation confirms the assumption of a relationship between a volcanic theophany and metallurgy as an essential attribute of YHWH.

### THE CAULDRON SYMBOLISM

The link between furnace and volcanism may also be deduced from the use of the cauldron as a symbol of the Jerusalem temple, because the cauldron was in Antiquity the cultic artifact expressing the homology between metallurgy and volcanism.

#### *The Cauldron as Furnace/Volcano*

Cultic cauldrons were approached in Antiquity as specific sites of rejuvenation by fire and liquefaction.<sup>43</sup> The single human activity corresponding to such a property is the recycling of rust copper by its remelting in a furnace. The strong reducing power of the furnace enables an ingot of shiny copper to be regenerated from old rust artifacts without any loss of matter. The furnace is therefore the site of infinite regeneration of metal through destruction/loss of shape by fire. This consideration introduces an essential homology between cauldrons and furnaces. It is even strengthened by the similar shape of cauldrons and furnaces used in copper metallurgy, as well as the metallic nature of this cultic artifact.

The comparative analysis of the symbolism of the cauldron in Antiquity reveals its strong homology with the crater of a volcano in activity.<sup>44</sup> This is especially expressed through the serpent symbol. Snakes are typically associated with cauldrons in Antiquity, adorning the body, the protomes and even the support of this ritual artifact.<sup>45</sup> The volcanic affinities of this symbol are

<sup>42</sup> Driver (1951: 62) already concluded that the Ezekiel vision identifies the celestial throne of YHWH with a furnace of copper smelting.

<sup>43</sup> See Tresidder 2008, article "Cauldron." This fact is attested from the Bronze Age in the Mediterranean world. See Willets 1962: 315–316.

<sup>44</sup> According to Suhr (1967: 218–219), "The bronze cauldron, around which the protomes are placed, is similar in shape to the caldera or crater from which gas and lava are ejected."

<sup>45</sup> See Hopkins 1960; Suhr 1971; Erdy 1995; Ridgway 1977. This association between cauldrons and snakes is apparently ancient in the Near East (see Hornblower 1933: 84).

revealed by the fact that the volcano was frequently regarded as the preferential habitat of snake-dragons.<sup>46</sup>

As a parallel, this mythical animal is also typically associated with metallurgy. In Mesopotamia, the gods who patronized metallurgical activity were closely related to dragons.<sup>47</sup> Their Egyptian counterpart, Ptah, was identified with the cosmic dragon Ir-ta.<sup>48</sup> The same ophidian symbolism is encountered in ancient Greece, where Hephaestus is the father of the serpent-god Erechtonius. In the Levant and the Arabian Peninsula, snake worship is clearly attested to in mining areas, where it is observed in close relation with ritual metallurgy.<sup>49</sup> Also in the Bible, it is reported that the Israelites were bitten by burning serpents (*seraphim*) at the vicinity of the copper mining area of Punon (Num 21:4–9).<sup>50</sup> This reveals that these creatures were, here again, closely related to metallurgy.

The link between metallurgy, snakes and cauldrons is confirmed by the representation, on the Gundestup cauldron (Denmark), of a deity (probably Cernunnos) holding a serpent in one hand and a torque in the other, as a sign of their close relationship.<sup>51</sup> The torque was the preferred form of storage of metal in Central Europe during the Bronze Age.<sup>52</sup> Accordingly, the relationship between snakes and metal ingots in the context of the cauldron confirms that this ritual artifact symbolized the regeneration of copper by recycling old rust artifacts in a furnace.

These considerations reveal that the use of the serpent / dragon to symbolize the cauldron, the volcano and the metallurgical activity reflects an essential link between them.

<sup>46</sup> In Greek mythology, for example, Typhoon lives in the Etna. It is even regarded as responsible for the volcanic eruptions. See Ogden 2013: 162–163, 219–220.

<sup>47</sup> Enki is called the snake from Apsu (Espak 2006: 51–53), Ea is closely associated with snakes (Budge 1921: 24–26) and Ningizzida, his homolog, is represented as a dragon (Van Buren 1934; McDonald 1989: 29–35; Wiggermann 1997: 40–41).

<sup>48</sup> Sauneron and Yoyotte 1959: 33–38; Cruz-Urbe 1994: 188.

<sup>49</sup> See Rothenberg 1984: 93–100; Potts 2007: 65; Benoist 2007: 38, 46–48.

<sup>50</sup> For identification of the site as Punon, see Sawyer 1986: 156; Tebes 2009: 108.

<sup>51</sup> See Fickett-Wilbar 2003: 85–87, 95. Weland, the Nordic counterpart of Cernunos is also explicitly associated with snakes and dragons. See Davidson 1958: 152, 154, 156–157.

<sup>52</sup> Schaeffer 1949.



### *The Cauldron as Symbol of the Jerusalem Temple*

The book of Kings evokes ten copper-made chariots positioned at the entrance of the Jerusalem temple, each one supporting a copper-made basin (*kior*) (1Kgs 7:27–39). This cultic artifact is generally interpreted as the recipient of the water used by the priests for purifications.<sup>53</sup> However, beyond this purpose, it is likely that the basins had also a symbolic function. The term *kior* also designates in the Bible a site of combustion: “In that day will I make the chiefs of Judah like a *kior* of fire among the wood, and like a torch of fire among sheaves” (Zech 12:6). In 1 Sam 2:14, this term explicitly designates a cultic cauldron in which the meat of the sacrifice was cooked.

A close similarity exists between the chariots evoked in 1Kgs 7:27–39 and the cauldron cart from Enkomi dated from the 11<sup>th</sup>–10<sup>th</sup> Centuries BCE.<sup>54</sup> At Enkomi, the copper basin is clearly identified as a cauldron, and the central importance of cultic metallurgy at Cyprus suggests its metallurgical acquaintances. According to the similarity between the cauldron cart from Enkomi and the chariots of the Jerusalem temple, we may assume that the basin (*kior*) of these latter was also approached as a cultic cauldron.

Also the “sea of copper” of outstanding dimensions positioned at the entrance of the Jerusalem temple (1Kgs 7:23–26) looks like a giant cultic cauldron. Its appellation as “sea of copper” (2Kgs 25:13; Jer 52:17; 1Chron 18:8) even suggests that the water filling it symbolized molten copper, slag and/or lava.<sup>55</sup>

The assimilation of Jerusalem as a whole with a smoking cultic cauldron is attested in Ezek 24:6. Exactly as in 1 Sam 2:14, here the cultic cauldron is expected to cook the meat of the sacrifices (Ezek 24:3–5). However, two chapters before, the city of Jerusalem is imaged as a giant metallurgical site in which the Israelites become molten by the deity:

<sup>53</sup> This interpretation is supported by the mention of the copper basin at the entrance of the tabernacle (Ex 30:18–21, 40:30).

<sup>54</sup> See fig. 8 in Hopkins 1960.

<sup>55</sup> This interpretation is supported by the fact that the term *mayim* in Biblical Hebrew does not only designate the water element, but also every other matter at a molten state. In Ps 114:8, *mayim* explicitly evokes molten stone (see Amzallag and Avriel 2011: 312–314). Similarly, the molten lava poured by YHWH as expression of his wrath is equated to water in Mic 1:4 and Hos 5:10 (See Koenig 1966: 16–17). Identification of molten metal as water is already attested in Bronze Age cultures. See Lambert 1980: 382–387.

*Therefore thus said my lord YHWH: Because you are all become dross, therefore, behold, I will gather you into the midst of Jerusalem. As they gather silver and brass and iron and lead and tin into the midst of the furnace, to blow the fire upon it, to melt it; so will I gather you in Mine anger and in My fury, and I will cast you in, and melt you. Yea, I will gather you, and blow upon you with the fire of My wrath, and you shall be melted in the midst thereof. As silver is melted in the midst of the furnace, so shall you be melted in the midst thereof; and you shall know that I, YHWH, have poured out My fury upon you. (Ezek 22:19–22)*

The combination of these two representations reveals the equivalence promoted by Ezekiel between the cultic cauldron and metallurgy. This equivalence is confirmed by the fact that the destruction of Jerusalem is justified by the inability to eliminate the rust accumulated on the cauldron / Jerusalem without processing a complete furnace re-melting of this cultic artifact (Ezek 24: 9–13). Accordingly, Ezekiel assumes here that the purifying/revitalizing function inherent to the cultic cauldron, symbolized by furnace remelting of rust copper, becomes impossible because this cultic artifact is too corroded so that it itself has to be re-melted. This mention of the entire melting of Jerusalem as a cauldron not only fits the image of furnace re-melting, but also a volcanic event similar to that mentioned in Deut 32:22; Mic 6:2 and Ps. 18: 8.

## DISCUSSION

### *Volcanism as Symbolic Representation of Metallurgy*

The present analysis indicates that the revelation of YHWH at Sinai is conditioned by the volcanic nature of the event. However, it also stresses that volcanism should neither be approached as a historical event, nor as a simple metaphor of YHWH's overwhelming powers. Rather, the extensive use of the volcanic imagery in divine context reveals a theological background to this representation.

In light of the volcanic activity attested in the Arabian Peninsula during the historical period, some authors have suggested that YHWH was formerly an Arabian volcano god. This position was recently reformulated by Jacob Dunn as follows:

*Antiguo Oriente, volumen 12, 2014, pp. 11–38.*

*Without doubt, destruction by fire and earthquake was YHWH's modus operandi in his earliest traditions connected with a sacred mountain near Midian in northwest Saudi Arabia. In essence, YHWH can be seen as a djinn, an Arabian fire "demon" who was worshipped by the indigenous populations in proximity to Midian. It is suggested, moreover, that Yahwism entered secondarily into Israelite religion, and that this fierce volcanic deity was brought north by the Midianite/Kenites on the trade routes linking Arabia with Levant. In an entirely new land—Canaan—almost completely devoid of volcanic mountains, a volcanic deity like YHWH was quickly transformed into a storm deity like Baal. Over time the volcanic nature of YHWH was eclipsed...<sup>56</sup>*

The data exposed in this study suggest another explanation: exactly as attested in other ancient religions, volcanism may have been introduced in the Bible in order to express the essential kinship of YHWH with metallurgy. The likelihood of these two hypotheses may be compared in light of the data exposed in this study.

- (i) *Metallurgy*: If YHWH was formerly a volcano-god, he is not expected to display any specific kinship with metallurgy. Accordingly, the symbolic association between metallurgy and volcanism in ancient religions and the metallurgical background of Yahwism identified here support the second hypothesis.
- (ii) *Volcanic activity*: If YHWH was formerly an Arabian volcano god, his theophany and mode of action are expected to be inspired by the volcanic activity specifically attested in this area. In Psalm 46, we find an explicit mention of volcanic activity ("he utters his voice, the earth melts", v. 7) together with the description of mountains (islands) suddenly collapsing within the sea (v. 3). The only possible natural phenomenon fitting this description is the collapse of a caldera following overextended volcanic activity. This reality (which recalls the Santorini volcanic eruption) has nothing to do with the activity of an Arabian volcano god. However, it is perfectly justified if volcanism, wherever it occurs, is evoked as symbol of the metallurgical powers of YHWH.

<sup>56</sup> Dunn 2014: 423–424.

- (iii) *Origin of YHWH*: If YHWH was in the past a volcano god, we expect to find mention of his origin in a volcanic area (first hypothesis). However, this information is lacking in the Bible. In contrast, some Biblical sources explicitly mention the origin of YHWH in the mining areas of Arabah and Sinai, as predicted by the second hypothesis.
- (iv) *The prominent status of YHWH*. Nothing is known about the ancient cult of a volcano god in the Arabian Peninsula. This means that such a deity, if he truly existed in this area, was in no way approached as the supreme god. It is therefore difficult to justify how such a minor Arabian divine being may have become a supreme god in a land (Canaan) where his powerful expression is totally ignored. In contrast, the status of supreme deity of the god of copper metallurgy is perfectly plausible given the central cultural and religious importance of metallurgy in the Bronze Age.<sup>57</sup> Some of the most essential advancements in early metallurgy of copper, such as the invention of the furnace, were elaborated in Canaan during the fifth millennium BCE. Later, the Canaanites remained deeply involved in the international trade of metals, so that metallurgy remained an important source of wealth and prestige.<sup>58</sup> These singularities justify the prominent position, in the pantheon of South Canaan, of the god patronizing this activity.

According to these considerations, we may therefore conclude that the volcanic theophany of YHWH attested in the Bible does not reflect his primeval identity as a volcano god. Rather, it seems to be introduced for theological purposes, as the expression of his essential relation with metallurgy.

### ***The Knowledge about Volcanic Activity***

The Sinai theophany in Ex 19:16–19 details no less than seven different phases of a volcanic eruption, all mentioned in their chronological order of appearance.<sup>59</sup> This indicates that the author devoted special attention to providing a maximum of realism to his description, probably in order to ensure the

<sup>57</sup> According to Kristiansen and Larsson (2005: 43–61) the metallurgists were in Bronze Age societies identified as civilizing heroes and masters of the esoteric knowledge. This opinion is supported by the prestigious status of the metallurgists later observed in traditional societies from Africa and India, which recalls the status of metallurgists in Antiquity. See McNutt 1990: 43–81; Blakely 2006: 99–121, 166–183.

<sup>58</sup> Amzallag 2009b: 502–505, 511–513.

<sup>59</sup> Bentor 1990: 336.

authenticity of YHWH's revelation to the Israelites at Sinai. It implies that the author was well informed about volcanic activity, though no volcanic eruption was known in Canaan during the historical time. Three possible sources of knowledge about volcanism may be envisaged:

- (i) *Memory of ancient volcanic events.* The volcanic activity of Santorini, at the middle of the second millennium BCE, had a profound impact in the eastern Mediterranean.<sup>60</sup> This is reflected by myths and stories from Egypt and the Aegean.<sup>61</sup> Some authors have interpreted the plagues affecting Egypt at Exodus as a literary reuse of the geo-climatic disturbances that affected Egypt during the explosion of Santorini.<sup>62</sup> The description of the volcanic theophany at Sinai may therefore be an extension of such a literary use of this memorable eruption.<sup>63</sup>
- (ii) *Vicinity of the Arabian volcanic field.* The Arabian Peninsula is the site of volcanic activity in historical times.<sup>64</sup> The land of Midian, a confederation of nomads in close contact with the Israelites, extended into the Arabian north-west volcanic field.<sup>65</sup> Furthermore, the book of Jeremiah mentions contacts between Israel and the kingdoms of Dedan and Tema (Jer 25:23, 49:8), also located in a volcanic area.<sup>66</sup> In addi-

<sup>60</sup> LaMoreaux (1995) reported the identification of volcanic ash from Santorini as far as Crete, Egypt and Anatolia.

<sup>61</sup> See Foster *et al.* 1996: 3–5.

<sup>62</sup> Even destruction of Pharaoh's army in the sea is regarded by many authors as a 'literary updating' of the powerful tsunami that accompanied the explosion of Santorini. See Silversten 2009: 8, 23–24 and references therein.

<sup>63</sup> Other volcanic events may be also considered. A millennium before (2880–2460 BCE), a series of volcanic eruptions is identified in the North East of Canaan (Kra volcanic field), 100 kilometers eastward of Galilee. See Trifonov 2007: 133–142; Camp and Roobol 1989: 71–95. These eruptions destroyed many villages, a feature leaving durable traces in collective memory.

<sup>64</sup> See Camp *et al.* 1987: 489–490. According to Camp *et al.* (1991, 1992), no less than 21 volcanic eruptions are attested in the Arabian peninsula during the last 15 centuries.

<sup>65</sup> See Whittaker 2003: 18–39. On the extension of the Midianite territory, see Philby (1955). On contacts between this region and the south of Canaan at the beginning of the first millennium BCE, see Rothenberg (1998). It is noticeable that Mount Horeb, the first site of the revelation of YHWH to Moses (Ex 3:1,19), is located in the territory of Midian. The name of this mountain (= *destruction*) and the presence of a mysterious fire burning without fuel (Exodus 3:6) are particularly well suited to a volcano.

<sup>66</sup> See Ezek 25:15,20. One of the most important volcanic hot points of this volcanic area, *Harrat Rahat*, is located at about 600 kilometers eastward of the valley of the Arabah (Camp and Roobol 1989: 71, 79).

tion, many volcanic fields are close to the caravan routes ensuring traffic of gold, frankincense, spices and perfumes from southern Arabia to the Mediterranean coast.<sup>67</sup> In this way, the Israelites may have easily heard about volcanic eruptions occurring in the Arabian Peninsula.

- (iii) *Knowledge from far.* The Etna volcano has a mode of eruption consistent with that described in Sinai. Furthermore, it shows an almost continuous activity during historical times. Though this volcano is far from Canaan, knowledge about its activity may have reached the East Mediterranean area in two ways: the Philistines and the Phoenicians.<sup>68</sup>

These considerations reveal that, despite the lack of volcanic eruptions in Canaan, reliable information was available to the Biblical authors in order to make an accurate description of the Sinai as a volcano in activity and to identify the divine mode of action and even YHWH's final day as a volcanic event.

## CONCLUSION

The present study has revealed the theological dimension of the volcanic activity closely related to YHWH in the Bible. At the same time, the specific kinship between YHWH and metal production reveals the existence of metallurgical roots to Yahwism. These two realities are linked here through the symbolic relationship acknowledged in Antiquity between volcanism and metallurgy. Beyond these considerations, the multiplicity of volcanic representations in the Bible reveals that the metallurgical background of ancient Yahwism was surprisingly vivid among the Israelites.

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<sup>67</sup> See de Maigret 1998: 221–222; Dunn 2014 and references therein.

<sup>68</sup> The Egyptian documents evoke the presence of *Sherden* and *Sekelesh* among the Philistines (*Plst*). These peoples were identified by some historians as originating from Sardinia and Sicily respectively. See Woudhuizen 2006: 34, 38, 95–98, 111–115. Concerning the Phoenician presence in this area, see Stern 1991: 91–93; Tykot 1994: 73.

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