

# “The deeps congealed in the heart of the sea”—linguistic investigation of the Red Sea miracle

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How did the Israelites cross the Red Sea? Cecil B. DeMille’s enduring Hollywood vision of seas parting, towering, churning walls of water, Jews crossing safely, and drowned Egyptians is indelibly seared into our cultural memory. God, in His omnipotence, could have caused the waters to defy gravity, but does the Bible indicate that? This article explores the vocabulary of the Red Sea crossing in Moses’ poetic *Song of the Sea* (esp. Exodus 15:8) and compares it to Exodus 14’s narrative. A Hebrew analysis reveals: God solidified the water, bottom to top, while simultaneously drying the sea bed (even melting a corridor) by a strong east wind. The vocabulary suggests freezing ice, although God, in His omniscience, could have used an entirely unknown process. After Israel crossed, the sea returned, drowning Pharaoh’s army. Such startling imagery was artfully described by Moses. Similar ideas were held by the earliest Jewish exegetes.

*The Song of the Sea* (Exodus 15), composed by Moses, describes the miracle of the Red Sea crossing by the children of Israel. It is the poetic version of the prose account, narrated in Exodus 14. Both accounts complement each other in their details of the Sea’s parting, Israel’s crossing, and the drowning of Pharaoh’s army. This article investigates specific vocabulary in both accounts that describes the miraculous effects exhibited upon the water by God, which caused the sea to part for the Children of Israel and close for Pharaoh’s army, drowning them in the depths. This study will concentrate on an analysis of the Hebrew vocabulary in Exodus 15:8 and 14:21–31.

## Grammatical analysis of Exodus 15:8

The Hebrew poetry of Exodus 15:8 reads:

וַבְּרִיחַ אֶפְיֹדָי נִעְרַמּוּ מַיִם נִצְבּוּ כְמוֹ-נֶדַד נוֹלִיִּם קָפְאוּ תְהַמֵּת בְּלִבֵּי־יָם<sup>8</sup>

*The English Standard Version* translates:

“At the blast of your nostrils (A) the waters piled up; the floods stood up in a heap (B); the deeps congealed (C) in the heart of the sea (D)” (Exodus 15:8).

The vocabulary<sup>1</sup> will be analyzed as four clauses (A–D) (table 1) and compared to the prose account in Exodus 14. It is hoped that a fuller picture of the miraculous intervention by God can be gleaned.

When comparing Clause A with the Exodus 14 narrative account, the common vocabulary is רִיחַ (rû<sup>h</sup>) ‘breath, wind, spirit’ (Exodus 15:8; 14:21). Here, ‘wind’ played a significant part in the miracle’s mechanics. The source of the wind is

anthropomorphically attributed to God—from his ‘nostrils’ (with a secondary meaning of ‘anger’, which Moses’ poem likely alludes to in YHWH’s judgment of Pharaoh’s army). Although not a literal description, it implies the wind was directed in a miraculous way. The prose account states:

“Then Moses stretched out his hand over the sea, and the LORD drove [וַיִּזְלֶךְ] the sea back by a strong east wind [רִיחַ] all night and made the sea dry land, and the waters were divided [וַיִּבְקַעוּ]” (Exodus 14:21).

YHWH was the first cause in driving the sea back: יִזְלֶךְ (yôlek, hiphil verb, ‘to lead, bring’). His agent, a ‘strong east wind’, implies a geographical origin from (Saudi) Arabia. Being hot, it resulted in drying the freshly exposed sea bed, enabling the Israelites to cross. However, the vocabulary does not support the secular ‘wind set-down’ theory, that occurs over shallow bodies of water.<sup>2</sup> A further aspect of the wind’s work will be discussed later.

Scripture records that it took ‘all night’ for the waters to ‘divide’. The Hebrew is וַיִּבְקַעוּ (wayyibbāq’û); a niphil (conjugation) verb meaning ‘to be cleft’. TWOT explains this word:

“This root with its derivatives appears seventy-three times in the OT. Cognates are found in Ugaritic (bq’), Arabic (faqa’a) and Ethiopic. The basic idea seems to be ‘a strenuous cleaving of recalcitrant materials’ (Greenfeld, HUCA). As a result of the cleaving, the contents may ‘burst forth’ (cf. Isa 58:8; etc.), but it is clear that this meaning is secondary and not primary ... .”<sup>3</sup>

**Table 1.** Grammatical analysis of Exodus 15:8, clauses A–B

#	Heb.	Root	Translit.	Grammatical construction	Translation
A	ו	—	û	Particle construction	And, so, then, when, or, but, that
	בְּ	—	bə	Particle preposition	In, at, by, with, among
	רוּחַ	רוח	rû <sup>ah</sup>	Noun common feminine singular construct	Breath, wind, spirit
	אַפְּיךָ	אף	ʿappēy <sup>kā</sup>	Noun common masculine dual construct suffix Second person masculine singular homonym II	1) Also, yea, 2) Nostril, nose, face, anger
B	נִעְרְמוּ	ערם	né <sup>ʿ</sup> ermû	Verb niphil perfect 3 <sup>rd</sup> person common plural homonym I	To be heaped up
	מַיִם	מי	máyim	Noun common masculine plural absolute	Water(s)
	נִצְבּוּ	נצב	niṣṣəḅû	Verb niphil perfect 3 <sup>rd</sup> person common plural homonym I	To stand
	כְּמוֹ-	כְּ	kə <sup>mô</sup> -	Particle preposition	Like, as, when
	נֶדַד נֹזְלִים	נדד נזל	nēḏḏ nōzlim	Noun common masculine singular absolute Noun common masculine plural absolute	A heap, dam Trickle, drop down, flow
C	קָפְאוּ	קפא	qāp <sup>ʿ</sup> û	Verb qal perfect 3 <sup>rd</sup> person common plural	To condense, congeal, become rigid
	תְּהוֹמֹת	תהם	tə <sup>h</sup> ômōt	Noun common both plural absolute	Deep, sea, abyss
D	בְּ	—	bə	Particle preposition	In, at, by, with, among
	לְבַ-	לב	leb-	Noun common masculine construct	Inner man, mind, will, heart
	יָם	ים	yām	Noun common masculine singular absolute	Sea

TWOT discusses the following occurrences, in 30 verses, listed under 5 categories (with an additional 6<sup>th</sup>) which are listed below (table 2).

Table 2 discussion

TWOT notes that “bāq<sup>ʿ</sup> is used in five situations, all of which express the forcefulness of the splitting action.” 1) Locates the splitting actions as coming from within, 2) Expresses the splitting actions encountered in daily life, 3) References to the earth splitting, 4) Associated with warfare and violence, 5) Associated with water and creation. (TWOT adds a 6<sup>th</sup> category, including the ‘cloven’ shekel and ‘divided’ plain/valley). The instances occurring with water are of particular relevance. Psalm 74:15 refers to a spring breaking open\* (see table 2), likely referring to the rock from which the waters gush, rather than the waters themselves. Proverbs 3:20 and Genesis 7:11 refer to the ‘Tehom’\* breaking up, from which the floodwaters surge, which, like Proverbs 3:20, likely refers to the earth as the broken container storing the waters. Exodus 14:16; Psalm 78:13; and Isaiah 63:12 refer to the splitting of the Red Sea\*.

The only clear instance of bāq<sup>ʿ</sup> referring to water is at the accounts of the Red Sea crossing (Exodus 14:16, narrative; Psalm 78:13, poetic; Isaiah 63:12, prophetic). But what of other words meaning ‘to divide’ that are applied to water? Table 3 lists them all.<sup>4</sup>

Table 3 discussion

Table 3 lists 7 different Hebrew words for ‘dividing’ (typically of solids) which are also applied to water. It is noteworthy that in all three Red Sea passages (of different genres) the same word for ‘dividing’ (bāq<sup>ʿ</sup>û) is used, when 7 other verbs could suffice. This implies that the ‘cleaving’ of the Red Sea is thought of as qualitatively distinct, compared to other OT examples describing dividing water. The question needs to be asked, in what way does bāq<sup>ʿ</sup>û relate to water, when used typically for solid materials, for example, breaking through walls or splitting wood? This will be treated more fully later.

Clause B

“... the waters piled up; the floods stood up in a heap ...”

Clause B describes, with startling imagery, the behaviour of the water. The niphil perfect verb נִעְרְמוּ (né<sup>ʿ</sup>ermû) means ‘to be heaped up’, and describes the action done on the water. The root of נִעְרְמוּ (né<sup>ʿ</sup>ermû) occurs in a word meaning ‘heap’ (solid materials) (עֲרִמָה), for instance of ‘grain’,<sup>5</sup> ‘offerings’, or ‘rubbish’.<sup>6</sup> The following niphil perfect verb נִצְבּוּ (niṣṣəḅû) describes additional action performed on the water, making it ‘to stand’. Finally, the floods (flowing waters) נֹזְלִים (nōzlim) are described as being ‘as/like’ כְּמוֹ (kə<sup>mô</sup>) a ‘heap’ (nēḏḏ).

The nearest analogy to this clause is found in Joshua 3:16, describing Israel’s Jordan crossing. Here, the text

**Table 2.** Instances of bāq‘û in TWOT with context (items\* are further discussed)

Reference	Context	Genre	Comment	TWOT#	Solid
Gen 7:11	God’s works in the Flood	Narrative	‘Tehom’ split open	5	yes*
22:3	Abraham and Isaac sacrifice	Narrative	Split wood for sacrifice	2	yes
24:22	Abram’s servant offers gifts	Narrative	Half-shekel weight	6	yes
Exo 14:16	God divided Red Sea	Narrative	Israel passes through Red Sea	5	?*
38:26	Materials for Tabernacle	Narrative	Half-shekel weight	6	yes
Num 16:31	Ground splits	Narrative	Korah’s rebellion	3	yes
Jos 9:4, 13	Gibeonites trick Joshua	Narrative	Old leather wineskins are torn	1	yes
I Sam 6:14	Ark travels to Bethshemesh	Narrative	Split wood for sacrifice	2	yes
I Kin 1:40	Anointing of Solomon	Narrative	Metaphor for earth-splitting noise	3	yes
II Kin 8:12	Horrors of war	Narrative	Women with child ‘ripped open’	4	yes
15:16	Horrors of war	Narrative	Women with child ‘ripped open’	4	yes
25:4	Babylon’s siege of Jerusalem	Narrative	City wall broken through	4	yes
II Chr 21:17	Judah routed under Jehoram	Narrative	Palace broken into	4	yes
25:12	Horrors of war	Narrative	Children dashed to pieces	4	yes
Psa 74:15	God’s works in nature	Poetic	Water springs broken open	5	yes*
78:13	God divided Red Sea	Poetic	Israel passes through Red Sea	5	?*
141:7	Psalm of David	Poetic	Earth broken by ploughing	2	yes
Pro 3:20	God’s works in Creation	Poetic	‘Tehom’ split open	5	yes*
Isa 34:15	Isaiah’s prophetic symbolism	Prophetic	Breaking snake egg shell symbolism	1	yes
40:4	Isaiah’s prophetic symbolism	Prophetic	New valleys created	6	yes
48:21	God refreshes Israel	Prophetic	Rock split to release water	5	yes
58:8	Isaiah’s prophetic symbolism	Prophetic	Light ‘breaks forth’	1	no
59:5	Isaiah’s prophetic symbolism	Prophetic	Breaking snake egg shell symbolism	1	yes
63:12	God divided Red Sea	Prophetic	Israel passes through Red Sea	5	?*
Eze 30:16	Destruction of Egyptian cities	Prophetic	Thebes city destroyed	4	yes
Amo 1:13	Horrors of war	Prophetic	Women with child ‘ripped open’	4	yes
Mic 1:4	Day of the Lord	Prophetic	Valleys will split	3	yes
Zec 12:11	Judgement of Jerusalem	Prophetic	Valley (lit. split place)	6	yes
14:4	Day of the Lord	Prophetic	Mount of Olives split	3	yes

**Table 3.** Vocabulary used for ‘dividing’ applied to water

Ref.	Heb.	Translit.	Translation	Context	Genre	Comment
Gen 1:6	בדל	bḏil	Separate, divide	Creation	Narrative	Separating waters
Gen 1:9	קוּ	qāwû	To be collected	Creation	Narrative	Separating seas
Gen 2:10	פרד	pārēḏ	Divide, separate	Eden	Narrative	4 rivers separate
Jos 3:16 ff	כרת	krātû	To be cut off	Jordan	Narrative	Israel crosses
Il Kin 2:8, 14	חצה	ḥāṣû	Divide	Jordan	Narrative	Elijah crosses
Psa 114:3	יָסֹב לְאַחֲרָיו	yissōḅ ləʾāḥôr	To surround, Back, rear, behind	Jordan	poetic	Israel crosses

**Table 4.** 4 instances of qāḇʾû

Ref.	Heb.	Translit.	Translation	Verb construction	Date
Job 10:10	תִּקְפֵּי אֲנִי	taqḇiʾēnî	To curdle, coagulate	Verb hiphil imperfect 2 <sup>nd</sup> person masculine singular suffix 1 <sup>st</sup> person common singular	Pre-2000 BC <sup>10</sup>
Exo 15:8	קָפְאוּ	qāḇʾû	Congealed	Verb qal perfect 3 <sup>rd</sup> person common plural	1446 BC
Zep 1:12	קָפְאוּ	qāḇʾim	Settled	Verb qal participle masculine plural absolute	640–609 BC
Zec 14:6	וְקָפְאוּ; וְקָפְאוּ	yəqippāʾōn; wəqippāʾōn	To condense; To condense	Verb qal imperfect 3 <sup>rd</sup> person masculine plural paragogic nun kethib; Noun common masculine singular absolute qenre	520–518 BC

describes what appears to be a land-slip at Adam (likely Tell ed-Damiyeh) causing Jordan’s waters to form a dam behind the ‘heap’.<sup>7</sup> Jordan’s water ‘rose up’ קָמַו (qāmû) (particle adverb directional heh homonym) אֶחָד (ʿeḥāḏ) (numeral cardinal masculine absolute) ‘one, another’; [against] a ‘heap’ הָרְבַּע (nēḏ) [of earth]. However, the qualitative difference is that the Red Sea’s waters become ‘as/like’ a heap (i.e. self-supporting), suggesting the sea solidified (Clause C), either by freezing or an unknown miraculous process.

Psalms 33:10 also refers to waters ‘like’ (כִּי) a ‘heap’ (nēḏ), which clearly references the Genesis 1:10 creation of ‘gathered seas’. The context being, not standing heaps of water, but divinely directed gathering together.

Clause C

.... the deeps (tʿhôm) congealed (qāḇʾû) ...”

According to TWOT (2495a) תְּהוֹמוֹת (tʿhôm) ‘deep, depths, deep places’ occurs thirty-five times in the OT. In Genesis 1:2, tʿhôm occurs first to describe the unformed earth, then in Genesis 7:11; 8:2 tʿhôm refers to the floodwaters’ source. The evidence from Clause C’s vocabulary indicates the depths, possibly arising from beneath the earth<sup>8</sup>/sea floor, demonstrating the magnitude of the miracle (see Clause D).

qāḇʾû: an extraordinary word

The word translated ‘congealed’ in English is a rare Hebrew verb קָפְאוּ (qāḇʾû), which is qal perfect, meaning ‘to congeal, become rigid’. What complicates matters for translators are the associated complex verb constructions (table 3). Just three OT verses contain this word:

1. Zephaniah 1:12 describes corrupt men who are ‘settled [qāḇʾî, (qal absolute)] on their lees’, a metaphor relating to over-fermented wine, where settling sediment (lees) thickens wine to the point of ruin.
2. In Zechariah 14:6, qāḇʾû occurs within a highly complex verb construction used to describe action upon light and/or atmospheric conditions. Here, English translations offer a variety of alternatives, demonstrating the difficulty of the clause.<sup>9</sup>
3. In Job 10:10, qāḇʾû refers to ‘thickening (curdling) of cheese’; a metaphor describing God forming Job in the womb.

Table 4 lists all passages containing qāḇʾû, their associated verb construction, translation, and generally accepted date of composition.

Clines adds ‘contract, be reduced’ (Zechariah 14:6); ‘curdle, coagulate’ (Job 10:10); and ‘foam’ (Exodus 15:8), and a ‘curse term’ from Qumran Scroll (4QapMes 5.2<sub>13</sub>), as

well as ‘frozen’ and ‘frost’.<sup>11</sup> As can be seen, the word qāḇʾû is used in varying, complex ways, to describe the ‘thickening’ of substances: wine, atmospheric conditions / light(?), cheese, and water. Wine and cheese thickening involves protein coagulation, but in what way is water ‘thickened’? The following discussion addresses this question.

Greek Septuagint evidence

The Septuagint (LXX) Greek translation of the first five books of the Hebrew Bible (Torah/Pentateuch), occurred c. mid-3<sup>rd</sup> century BC.<sup>12</sup> It is instructive to know how biblical Hebrew vocabulary was comprehended. The translation of qāḇʾû in Exodus 15:8 is informative:

“καὶ διὰ πνεύματος τοῦ θυμοῦ σου διέστη τὸ ὕδωρ ἐπάγη ὡσεὶ τεῖχος τὰ ὕδατα ἐπάγη τὰ κύματα ἐν μέσῳ τῆς θαλάσσης.”<sup>13</sup>

The English translation (LXE) by Brenton<sup>14</sup> states:

“And by the breath of thine anger the water parted asunder; the waters were congealed as a wall; the waves were congealed in the midst of the sea.”

The *Liddell-Scott Greek Lexicon*<sup>15</sup> lists ἐπάγη under πήγνυμι (LSGL-34484). A closely related root word (LSGL-34486) πηγυλίζ means ‘frozen, icy-cold’.

This verb also appears in LXX Job 6:16, which mentions: ‘κρύσταλλος πεπηγώς’, i.e. ‘congealed ice.’<sup>14</sup>

However, ἐπάγη appears in Lamentations 4:10 to refer to ‘skin cleaving (congealing) to bones’. Job 10:10 uses ἐτύρωσας meaning ‘to curdle, to coagulate’<sup>16</sup>, used here of cheese. The LXX ‘paraphrase’ of Zephaniah 1:12 does not use a word for congeal. It can be concluded that ἐπάγη (πεπηγώς) can be used of ice, but also of congealed skin. So, not conclusive in determining how the LXX scribes understood Hebrew qāḇʾû.

**An extra-biblical occurrence of qāḇʾû**

*The Book of Sirach, or Ecclesiasticus*, originally written in Hebrew, is considered the largest example of wisdom literature (similar to Proverbs) to have survived from antiquity (c. 200–175 BC). *Sirach* was written by the Judahite scribe (Yeshua) Ben Sira(ch) of Jerusalem (figure 1). In Egypt, it was translated into Greek by Ben Sira’s anonymous grandson, who added a prologue.

*Sirach* 43:20 uses qāḇʾû in relation to water. The commentary and Hebrew translation by Schechter and Taylor (1899) is enlightening, revealing the translational challenges of this verse. The passage describes God’s works in nature,

specifically seen through weather events. Verse 20 deals with the cold, which, in Hebrew, states<sup>17</sup>:

20 עֵינַת רוּחַ צָפוֹן יִשִּׁיב וְכִרְקַב יִקְפִּיא מִקּוּרוֹ:  
20 עַל כָּל מַעַמַּר מִיַּם יִקְרִים וְכִשְׂרִיּוֹן יִלְבַּשׁ מְקוּהַ:

“The cold of the north wind he causeth to blow, and congealeth [qāḇʾû] his spring (marg. [inal note] the pond) ... . Over every standing water he spreadeth a crust, and a pond putteth on as it were a breastplate.”<sup>18</sup>

The Greek text of these verses states:

“ψυχρὸς ἄνεμος βορέης πνεύσει, καὶ παγήσεται [frozen] κρύσταλλος [crystal] ἐφ’ ὕδατος ἐπὶ πᾶσαν συναγωγὴν ὕδατος [καταλύσει καὶ ὡς θώρακα ἐνδύσεται τὸ ὕδωρ].”<sup>19</sup>

Schechter and Taylor explain:

“The Greek states the fact that ice is formed in cold weather; but the context seems to [require] a simile, to stand in parallelism with כִּשְׂרִיּוֹן ‘as it were a breastplate.’ ... Ice on water [is] being compared in the next line to a breastplate ...”<sup>20</sup>

A modern Hebrew translation by Wright is more understandable:

“A cold north wind will blow, and ice will freeze [qāḇʾû] on water; upon every gathering of water, it will settle, and like a breastplate the water will put it on.”<sup>21</sup>



Figure 1. (Yeshua) Ben Sira(ch) teaching Tora, 1860 woodcut by Julius Schnorr von Carolsfeld.

Image: Julius Schnorr von Carolsfeld (1794–1872), Wikimedia / Public Domain

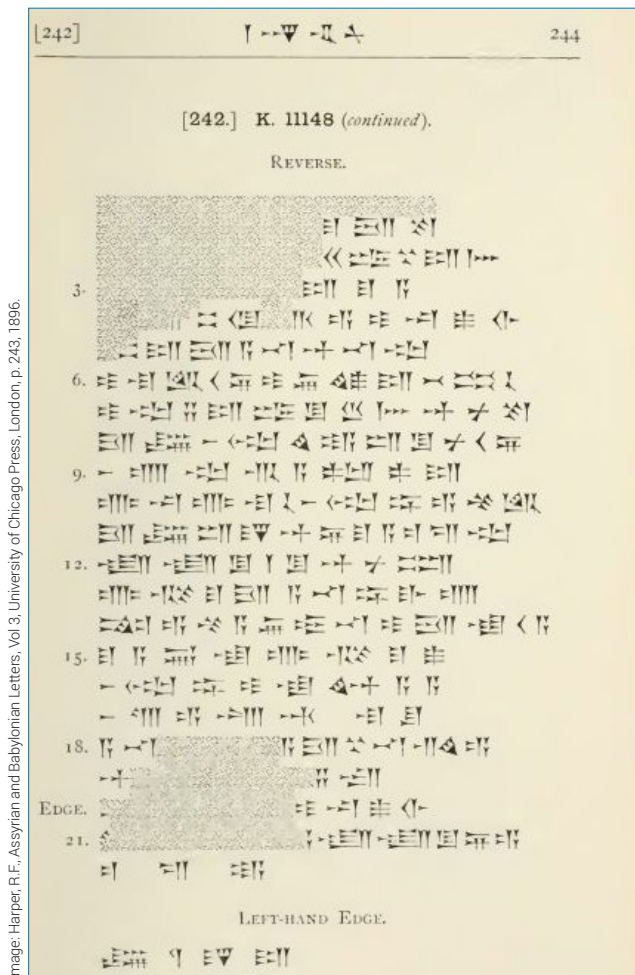


Figure 2. Cuneiform tablet K. 11148 (242)

In *Sirach* the Hebrew verb  $qāḇû$  is being used to mean ‘frozen’, and the water had become ‘ice’ which furnishes the metaphor of a covering ‘breastplate’.

Further evidence is to be found in modern Hebrew dictionaries, where  $qāḇû$  is understood as ‘frozen, congealed’ (e.g. *The Oxford English–Hebrew Dictionary*<sup>22</sup> and *NTC’s Hebrew and English Dictionary*).<sup>23</sup> Furthermore, modern Greek–English dictionaries translate  $\pi\alpha\gamma\omicron\varsigma$  as ‘ice’, where the root for  $\pi\alpha\gamma\acute{\omega}\nu\omega$  means ‘frozen’ (e.g. *Oxford New Greek Dictionary*)<sup>24</sup> and  $\pi\alpha\gamma\acute{\eta}\sigma\epsilon\tau\alpha\iota$  is understood as ‘frozen, congealed’ (*Collins English–Greek Dictionary*).<sup>25</sup> It can be concluded that by c. 200 BC  $qāḇû$  was understood as ‘frozen’/‘ice’ when applied to water.

A likely cognate of  $qāḇû$  in Neo-Assyrian

Evidence from Neo-Assyrian seems to suggest a cognate word. Here, a near phonetically identical word, *kuppû*, means ‘snow, ice’ (CAD 8, 551).<sup>26</sup> For instance, cuneiform

tablet K. 11148 (242) (figure 2)<sup>27</sup> (dated 798/797 BC)<sup>28</sup> from Ashurbanipal’s library in Kuyunjik, Nineveh, uses *kuppû* to describe ice and cold. Harper translates:

Line 10 transliteration: *issu pan ku-up-pi* ...

Translation: “I abandoned ... the chariot which went with me on account of the ice.”

Line 11 transliteration: *ku-up-pu dāna addaniš* ...

Translation: “The King knows the cold is very severe.”

Neo-Assyrian (spoken between 10<sup>th</sup>–7<sup>th</sup> century BC) is an Akkadian branch (along with Babylonian) of the East Semitic language.<sup>29</sup> Although a direct etymological link between (Semitic) Hebrew  $qāḇû$  and (Semitic) Neo-Assyrian *kuppû*, meaning ‘ice’, cannot be proved here, the comparison is nonetheless instructive.<sup>30</sup>

### Bible commentaries and $qāḇû$

Cross and Freedman state:

“The meaning of the verb is difficult to determine. ... The principal meaning of the word, so far as it may be interpreted from other OT contexts, seems to be ‘congeal’ or ‘coagulate’. We may suppose an earlier meaning ‘churn’, ‘ferment’, or ‘work’, from which the later meanings were derived. With respect to milk, ‘to churn’, and ‘to coagulate’ or in the case of wine, ‘to ferment’ and ‘to thicken’ are not long jumps in thought. In the present context the former idea, involving action, is preferable.”<sup>31</sup>

Cassuto, in his commentary of Exodus 18, states:

“And at the blast of Thy nostrils—by the east wind that Thou didst cause to blow—the waters piled up—that is, hyperbolically, the waters stood like a heap on both sides; the floods stood up in a heap [גד נדח]—the waters, which are naturally fluid, stood firm as though they were a heap, a mound of earth (*nadd* in Arabic), or as if the deeps congealed in the heart of the sea—as though the waters of the deeps in the midst of the sea were turned to solid ice. By means of these miracles, the LORD brought retribution upon the wicked according to their wickedness.”<sup>32</sup>

Boyle, in her analysis of Exodus 15, states:

“Fascination with the phenomenon/miracle expressed in the verb  $qāḇû$  [qāḇû] dominates scholarly attention to the verse about activity in the heart of the sea (Exod. 15:8). Controversy persists over its meaning, whether ‘congeal’ or antithetically ‘churn’. The translation ‘churn’ honors the motion of the sea, while ‘congeal’ (AV, RSV) is a scientific anachronism.”<sup>33</sup>

Boyle argues that  $qāp̄û$  cannot mean ‘freezing’ because the ancient Israelites didn’t have a modern, scientific understanding of thermodynamics, or hydrogeology, so “would not have known the phenomenon as freezing.” Furthermore, she denies that the use of  $qāp̄û$  in Exodus 15:8 means ‘freeze’ because of its varying usage in Job, Zephaniah, and Zechariah:

“The freezing of water and the curdling or sedimentation of other liquids ... are very different processes ... . The biblical appropriation of the same verb to designate these very dissimilar processes betrays a superficial observation of liquids thickening or hardening. Even the concept of solidification is too sophisticated, for it involves ‘a complex interplay of many physical effects’, beyond the ken of ancient poets.”<sup>34</sup>

Boyle’s condescending rhetoric does no justice to Moses, who was “educated in all the wisdom of the Egyptians” (Acts 7:22). However, such knowledge is certainly not ‘beyond the ken’ of the divine author of Exodus and the mind behind the miracle.

W.H.C. Propp states:

“... despite some ambiguities, the translation ‘congeal, solidify’ fits all occurrences. ... In Exod. 15:8, too, ‘congeal’ fits well.”<sup>35</sup>

Propp goes on to state:

“... Yahweh freezes the Sea (... v. 8 ‘congealed’). If so, the reference to Yahweh’s burning anger in v 7 becomes more appropriate. Yahweh’s first blast turns the Deeps to ice. His second (v. 10) melts the gelid [icy] waters.”<sup>36</sup>

“... The poet has been developing a progressively paradoxical and miraculous image: the waters are first piled up ( $ne^c$ ermû), not unusual in a storm, but then they actually stand upright, ( $nissahû$ )! How? Because some of the waters, the ‘Deeps’, have congealed, presumably into ice ... .”<sup>35</sup>

As can be seen, commentators grapple with this verb and offer diverse opinions.

### Ice in Job

Job is an ancient (possibly pre-Abrahamic)<sup>37</sup> book of wisdom literature which contains many examples of natural imagery declaring God’s wonders in creation. Specific to this discussion are references to ice, frost, and snow. Here, Job describes how the surface of the ocean is turned to ice, in what appears to be a reference to the post-Flood Ice Age<sup>38</sup>:

“From whose womb did the ice ( $qārah$ ) come forth, and who has given birth to the frost ( $kəp̄ōr$ ) of heaven? The waters become hard like stone, and the face of

the deep ( $təhôm$ ) is frozen ( $lakkād$ )” (Job 38:29–30).

Here, the Hebrew word  $qārah$  (קָרַח) refers to ‘ice’ (cf. Job 6:15; Psalm 147:17) and  $kəp̄ōr$  (כְּפֹר) ‘frost’.<sup>39</sup> The Hebrew verb  $lakkād$  (לָכַד) is hithpael imperfect, typically translated ‘capture’ or ‘overthrow’, and is here uniquely translated ‘frozen’.<sup>40</sup> In Job 37:10  $mūṣāq$  (מוֹצֵק), ‘narrowing’ is used in the sense of broad areas of water being constricted by forming ice. ‘Snow’,  $šāleḡ$  (שָׁלֵג) also occurs in Job.<sup>41</sup>

Of particular interest to this discussion, two words from Job (snow and frost) occur in Exodus. At Exodus 4 Aaron and Moses performed miracles before Pharaoh’s court, including the sign of the leprous hand (v. 6) described as being ‘leprous like snow’ ( $šāleḡ$ ) (cf. Numbers 12:10). ‘Frost’ ( $kəp̄ōr$ ) is used to describe the appearance of manna on the ground (Exodus 16:14). Both the leprous hand and manna are being compared to freezing phenomena that must have been familiar to the Israelites and Egyptians at the time of the Exodus. It should be noted that frost is a near analogy to ice, being frozen water, albeit on a micro-scale, and  $kəp̄ōr$  is phonetically and semantically analogous to  $qāp̄û$ , suggesting a linguistic link. However,  $qāp̄û$  in Job is translated ‘congeal/coagulation’ (Job 10:10), specifically for cheese, whereas Job uses other terms for ‘ice’ and ‘frozen’. Furthermore, the 7<sup>th</sup> plague (Exodus 9:18–34) involved ice, i.e. ‘hail’  $bārād$  (בָּרָד) mixed with ‘fire’ (i.e. lightning). The root  $brd$  means ‘cold’. Therefore, the Egyptians and Hebrews had become familiarized with ice and freezing phenomena by this time.

### Linguistic origins of $qāp̄û$

Jewish tradition<sup>42</sup> holds Moses was the editor/redactor of Job, specifically during Moses’ 40-year exile in Midian.<sup>43</sup>  $Qāp̄û$  appears first in Job 10:10 as a word to mean ‘congeal’, and Job probably pre-dates Exodus. However, Job contains words for ‘ice’ and ‘freeze’ that Moses could have used in Exodus 15:8, but didn’t. This leads to the possibility that  $qāp̄û$  does not mean ‘freeze’, in terms of ice. However, Moses could have re-emphasized  $qāp̄û$  to refer to ‘freezing of ice’, but from where did he derive this meaning? If Moses did not use this word from Job, could he have used vocabulary inherited from Canaan via Jacob? A survey of the language of Canaan (West Semitic) reveals the word  $qrh$  (cf. Akkadian  $qarāhu$ ), meaning ‘to freeze, to become frosted’, and  $qrh$  (cf. Akkadian  $qarhu$ ) meaning ‘frozen’, and  $qrš$  ‘to freeze, to be(come) a solid mass’.<sup>44</sup> However, these words are too far removed phonetically to represent borrowed vocabulary. Moses likely knew Hittite, where the root word ‘eka’ appears in words for ‘cold, ice, frost, frozen’; however, ‘eka’ is not phonetically related to  $qāp̄û$ .<sup>45</sup> Could Moses have utilized an Egyptian word? A possibility lends itself: ‘qbb’, which means to be ‘cool, cold, refreshing, icy’

**Table 5.** List of possible cognate, or phonetically and semantically related ANE vocabulary

Reference	Translit.	Translation	Language	Date
Exo 15:8	qāḫp̄ʾû	Congea, freeze	Biblical and modern Hebrew	c. 1446 BC
Exo 16:14	kəḫp̄ōr	Frost	Biblical Hebrew	c. 2000 BC (?)
Cuneiform tablet K. 11148	ḫuppû	Ice	Neo-Assyrian	798/797 BC
Wb 5, 22.5–23.20	qbb	Cool, cold, refreshing, icy	Middle Egyptian	c. 1200 BC

(Wb 5, 22.5–23.20). This evidence will be investigated fully in part 2. Table 5 lists four semantically and phonetically similar ANE words that theoretically offer cognates for Hebrew qāḫp̄ʾû.

At this stage it is still unclear as to how Yahweh solidified the water from the biblical linguistic evidence provided by qāḫp̄ʾû.

Clause D

“... in the heart of the sea.”

The poetic use of ‘heart’ (leb) mirrors the idea of Clause C’s ‘depths’ (ṭəḫōm) of the sea (yām). Both clauses, C and D, have implications for where the Israelites crossed, as the vocabulary indicates the larger scale approach.<sup>46</sup>

### Walls of water

Exodus 14:22 states:

“And the people of Israel went into the midst of the sea on dry ground, the waters being a wall (חֹמָה) to them on their right hand and on their left” (cf. 29).

The Hebrew word חֹמָה (ḫōmā<sup>h</sup>) ‘wall’ occurs first at Exodus 14:22, then 69 times in the OT (a common word). The context of succeeding occurrences determines its meaning. Table 6 lists the first five earliest occurrences of ḫōmā<sup>h</sup> (excluding Exodus), along with their English translations.

‘Wall’ (ḫōmā<sup>h</sup>) in these verses clearly refers to solid structures. The question is, how does ḫōmā<sup>h</sup> refer to other kinds of non-solid barriers? Table 7 lists all occurrences.

**Table 6.** First five occurrences of texts using ḫōmā<sup>h</sup>

Reference	Translation of text using ḫōmā <sup>h</sup>	Genre
Lev 25:29	“If a man sells a dwelling house in a walled city ...” (cf. vs 30–31).	Narrative
Deu 3:5	“All these were cities fortified with high walls ...”	Narrative
Jos 2:15	“... [Rahab’s] house was built into the city wall, so that she lived in the wall.”	Narrative
Jos 6:20	“... the people shouted a great shout, and the wall fell down flat.”	Narrative
2 Sam 11:20	“Did you not know that they would shoot from the wall?”	Narrative

**Table 7.** Five occurrences of ‘metaphorical’ texts using ḫōmā<sup>h</sup>

Reference	Translation of text using ḫōmā <sup>h</sup>	Genre
1 Sam 25:16	“They [David’s men] were a wall to us both by night and by day ...”	Narrative
Prov 18:11	“A rich man’s wealth is his strong city, and like a high wall in his imagination.”	Wisdom
Sol 8:9	“If she is a wall, we will build on her a battlement of silver ...” (cf. vs. 10).	Poetry
Isa 30:13	“... therefore this iniquity shall be to you like a breach in a high wall.”	Prophecy
Lam 2:8	“The LORD determined to lay in ruins the wall of the daughter of Zion.”	Poetry

These texts demonstrate ḥōmā<sup>h</sup> can be used metaphorically. For instance, David’s men acted as a ‘protective barrier’ in I Samuel 25:16, a narrative text. The two occurrences in Exodus 14 (narrative) refer to walls, but those made of water. The remaining 62 occurrences of ḥōmā<sup>h</sup> refer to solid structures. The evidence that the water in Exodus 15:8 had become solidified (qāḇ<sup>ʔ</sup>û), either by some unknown miraculous process or frozen, makes sense of an otherwise mysterious verse.<sup>47</sup>

### Earliest Jewish commentary on Exodus 15:8

Philo of Alexandria, also Philo Judaeus (c. 20 BC–c. AD 50) (figure 3), was a Hellenistic Jewish philosopher who lived in Alexandria, a Roman province of Egypt. He wrote Greek commentaries based on the Hebrew Bible. In his commentary of the *Life of Moses* (2:253), he stated of the Red Sea crossing:

“The sea was broken asunder, each portion retired back, there was a consolidation of the waves along each broken-off fragment throughout the whole breadth and depth, so that the waves stood up like the strongest walls; and there was a straight line cut of a road thus miraculously made, which was a path for the Hebrews between the congealed waters ...”<sup>48</sup>

Here the Greek used by Philo, translated ‘congealed’, is ‘κρυσταλλωθέντων’ (*krystallôthenton*), which literally means ‘crystallized’<sup>49</sup> (figure 4).

Rabbi Yishmael ben Elisha Nachmani wrote the *Mekhilta*, the earliest known (c. 100–135 AD) halakhic midrash (Jewish commentary) on extracts of Exodus (figure 5). He described the miracles performed by God at the Red Sea crossing:

“The sea was broken through and made like a vault ... It was piled up into stacks ... It formed a sort of a heap [גד]... The sea congealed [קפאון] on both sides and became a sort of glass crystal [זכוכית של ברזל] ...”

Although both Philo and R. Yishmael wrote centuries after the Red Sea miracle, their writings are consistent with the Bible’s vocabulary, and likely reflect ancient Jewish traditions (figure 5). Yahweh solidified the Red Sea, which may have included the idea of freezing ice (figure 6).

### Conclusion

Key poetic vocabulary in Exodus 15:8, compared with narrative vocabulary in Exodus 14:21–22, 27–29 has been considered. It was found that the Hebrew verb (qāḇ<sup>ʔ</sup>û), translated ‘congealed’, in context, can refer to freezing ice or other solidifying effects. Later Hebrew literature (*Sirach*, c. 200–175 BC) and modern Hebrew suggests freezing ice. Neo-Assyrian kuppû (798/797 BC) and Middle Egyptian



Image: Andrie Thevet (1502–1509), Wikimedia / Public Domain

Figure 3. Philo of Alexandria, imaginative illustration by André Thevet (1584), French portrait artist.



Image: Didier Descouens, Wikimedia / CC BY-SA 4.0

Figure 4. Philo used Greek ‘κρυσταλλωθέντων’ (*krystallôthenton*) for ‘congeal’, literally ‘crystallized’.

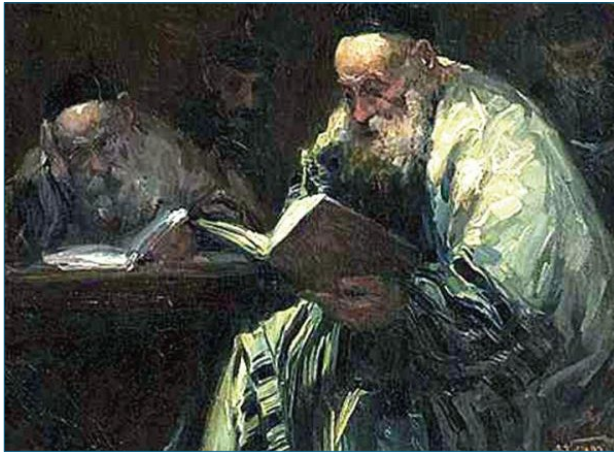


Figure 5. Painting of Talmud readers by Adolf Behrman (1876–1942)

Image: Adolf Behrman (1876–1942), Wikimedia / Public Domain



Figure 6. Heaped up crystal-like shards of sea ice

Image: Simon Berger, Pexels.com / CCC



Figure 7. Israel crossing the Red Sea—composite illustration with *Exodus from Egypt* (1907) by the Providence Lithograph Company, in the foreground.

qbb (19<sup>th</sup> Dynasty) carry the meanings of ‘snow, ice’; ‘cool, refreshing, cold, icy’ representing possible cognate words. Freezing makes sense of the description of the sea being ‘split open’ (bāq‘û), a word typically reserved for solid, resistant materials. Also, ‘walls’ of water, where Hebrew (hōmā<sup>h</sup>) typically refers to solid structures throughout the OT. If freezing is correct, then thermal expansion of the ice likely buckled the sea surface, thrusting up shards of broken ice, referred to as ‘standing’ (niššəbû) ‘heaps’ (né<sup>c</sup>ermû), although this is only a possible interpretation. Wind (rû<sup>h</sup>) played an essential part in the miracle, whereby a (hot) easterly wind blew all night, thereby drying the seabed, enabling Israel’s crossing. If freezing ice was involved, the wind would have melted a glassy corridor (cf. Philo’s *krystallôthenton*). After this, God broke the walls (possibly by thawing), causing the sea, dammed behind, to drown the Egyptians. Earliest Jewish exegetes Philo Judaeus (c. 20 BC–c. 50 AD) and Rabbi Yishmael (c. 100–135 AD), basing their studies on the biblical Hebrew, drew similar descriptive conclusions. Yahweh may have used a freeze–thaw cycle to accomplish this miracle of saving the Israelites and drowning the Egyptians. However, the original biblical verb qāp’û, meaning ‘freezing’, is not conclusive. What can be said is that, by divine means, unknowable to human minds, God ‘solidified’ the sea for Israel and returned it to water for the Egyptians, thereby drowning them—a striking visualization of the miracle, based upon the implications of the Hebrew text. It represents a radically different vision than that popularized by Cecil B. DeMille’s *The Ten Commandments*, whereby watery ‘walls’ defy gravity (cf. figure 7 composite image). Part 2 will look at the Egyptian religious and linguistic aspects of the Red Sea crossing.

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