

# Exodus 15:1–19

## Translation, Logoprosodic Analysis, and Observations

### The Song of Moses at the Crossing of the Sea

Ex 15:1–19

#### A. *Moses and the Israelites Sang This Song: “I Will Sing to YHWH”* (15:1) [3.6]

15:1	Then / <sup>a</sup> Moses and the Israelites sang / this song to YHWH /	19 2	5 5 0
		<u>14 1</u>	<u>4 4 0</u>
		14:31–15:1b	<b>26 22 4</b>
	And they said / saying //	<u>10 2</u>	<u>2 2 0</u>
		14:30–15:1c	<b>44 32 12</b>
	I will sing to YHWH / for he has triumphed gloriously / horse and rider / he has thrown into the sea //	20 2	5 0 5
		<u>15 2</u>	<u>4 0 4</u>
		14:30–15:1	<b>53 32 21</b>

#### B. *YHWH Is My Strength and My Salvation—He Is a “Man of War”* (15:2–3) [6.6]

15:2	My strength and <my> <sup>a</sup> might / is Yah / and he has become to me / salvation // this is my God / and I will praise him /	11 2	3 3 0
		12 2	3 3 0
		<u>11 2</u>	<u>3 0 3</u>
		15:1–2d	<b>29 17 12</b>
	My father’s God / and I will exalt him //	<u>17 2</u>	<u>3 0 3</u>
		15:1–2	<b>32 17 15</b>
15:3	YHWH / is a man of war // YHWH / is his name //	11 2	3 3 0
		<u>7 2</u>	<u>2 0 2</u>
		15:1–3	<b>37 20 17</b>

#### C. *HE Cast Pharaoh’s Army into the Sea—They Sank Like a Stone* (15:4–5) [4.4]

15:4	Chariots of Pharaoh / and his army / he cast into the sea // and his picked officers /	19 3	5 5 0
		<u>10 1</u>	<u>2 0 2</u>
		14:31–15:4b	<b>61 38 23</b>
	They were sunk in the Red Sea //	<u>8 1</u>	<u>3 0 3</u>
		14:31–15:4	<b>64 38 26</b>
15:5	Floods / covered them // and they went down into the depths / like a stone //	11 2	2 2 0
		<u>16 2</u>	<u>4 0 4</u>
		15:2–5	<b>33 16 17</b>

**D. O YHWH, You Overthrew Your Foes Consuming Them Like Stubble (15:6–7) [5.6]**

15:6 Your right hand, O YHWH / is glorious / in power //	18 3	4 4 0		
your right hand, O YHWH / shatters the enemy //	_15 2_	<u>4 0 4</u>		
	14:31–15:6	<b>78 44 34</b>		

15:7 [ ] <sup>a</sup> In the greatness of your majesty / you overthrew your foes //	17 2	4 4 0		
you sent out / your fury / it consumed them / like stubble //	<u>17 4</u>	<u>4 0 4</u>		
	15:4–7	<b>32 15 17</b>		

**E. You Caused Waters to Pile Up—“the Floods Stood Up as a Heap” (15:8) [2.4]**

15:8 [ ] <sup>a</sup> At the blast of your nostrils / the waters piled up /	_14 2_	<u>4 4 0</u>		
	15:4–8a	<b>36 19 17</b>		

The floods / stood up as a heap //	_14 2_	<u>4 4 0</u>		
	15:4–8b	<b>40 23 17</b>		

The deeps congealed / in the heart of the sea //	_14 2_	<u>4 0 4</u>		
	15:5–8	<b>34 18 16</b>		

**F. The Enemy Pursued Israel with the Intent to Destroy Them (15:9) [4.4]**

15:9 The enemy said / “I will pursue (and) I will overtake /	13 2	4 4 0		
I will divide the spoil //	_8 1_	<u>2 2 0</u>		
	15:7–9b	<b>26 18 8</b>		

My desire shall have its full of them /	_10 1_	<u>2 0 2</u>		
	15:4–9c	<b>52 29 23</b>		

I shall draw my sword /	7 2	2 0 2		
my hand / shall destroy them” //	<u>12 2</u>	<u>2 0 2</u>		
	15:5–9	<b>46 24 22</b>		

**G. You Blew with Your Wind and They Sank Like Lead in the Waters (15:10) [2.2]**

15:10 You blew with your wind / the sea covered them //	_17 2_	<u>4 4 0</u>		
	15:6–10a	<b>44 26 18</b>		

They sank / like lead [ ] in the mighty / waters //	_18 2_	<u>4 0 4</u>		
	15:8–10	<b>101 32 18 14</b>		

H. **Who Is Like You, O Yhwh? Your Majestic Splendor is Awesome!** (15:11–12a) [4.4]

15:11	Who is like you among the gods / <b>YHWH</b> / who is like you /	18 2 _8 1_	4 4 0 <u>2 2 0</u>
		15:9–11b	<b>26</b> 16 10
	(You are) majestic in holiness //	_7 1_	<u>2 2 0</u>
		15:8–11c	40 <b>26</b> 14
	(You are) awesome in splendor / doing wonders //	_14 2_	<u>4 0 4</u>
		15:9–11	<b>32</b> 18 14
15:12	You stretched out / your right hand /	_11 2_	<u>2 2 0</u>
		15:9–12a	<b>34</b> 20 14

I. **In Covenant-Love You Guided Your People to Your Holy Abode** (15:12b–13) [4.2]

	The earth / swallowed them //	_10 2_	<u>2 2 0</u>
		15:7–12	66 <b>34</b> 22
15:13	In your covenant-love you led (them) /	_10 1_	<u>2 2 0</u>
		15:10–13a	<b>26</b> 18 8
	The people whom you redeemed //	_9 1_	<u>3 3 0</u>
		15:6–13b	<b>69 43 26</b>
	You guided <sup>a</sup> (them) by your strength /	_8 1_	<u>2 0 2</u>
		15:11–13c	<b>23</b> 17 6
	To your holy abode //	_7 2_	<u>3 0 3</u>
		15:11–13	<b>26</b> 17 9

J. **Neighboring Peoples Heard and They Were Dismayed** (15:14–15) [6.5]

15:14	The peoples heard / they trembled //	_13 2_	<u>3 3 0</u>
		15:12–14a	<b>17</b> 12 5
	Pangs seized / the inhabitants <sup>a</sup> of Philistia //	_14 2_	<u>4 0 4</u>
		15:13–14	<b>17</b> 8 9
15:15	Then they were dismayed / the chiefs of Edom /	_14 2_	<u>4 4 0</u>
		15:11–15a	45 28 <b>17</b>
	The mighty ones of Moab / they were seized with trembling //	_18 2_	<u>4 4 0</u>
		15:11–15b	<b>49 32 17</b>
	They melted away / all / the inhabitants of Canaan //	_17 3_	<u>4 0 4</u>
		15:11–15	53 <b>32</b> 21

**K. In Terror They Were Silent until Your People Passed By (15:16) [4.4]**

15:16	Terror fell upon them / and dread / by the might of your arm /	17 2 _8 1_	4 4 0 <u>2 2 0</u>
		15:14-16b	25 17 8
	They became as still as a stone //	_9 1_	<u>2 2 0</u>
		15:11-16c	53 36 17
	Until your people passed by / O YHWH / until they passed by / the people whom you acquired //	12 2 _14 2_	4 0 4 <u>5 0 5</u>
		15:11-16	62 36 26

**L. You Established Them In the Place You Chose as a Possession (15:17-18) [6.6]**

15:17	You brought them in / and you planted them /	_15 2_	<u>2 2 0</u>
		15:14-17a	38 21 17
	In the mountain of your own possession /	_8 1_	<u>2 2 0</u>
		15:14-17b	<b>40 23 17</b>
	The place / that you made to be your abode / O YHWH //	_17 3_	<u>4 4 0</u>
		15:14-17c	44 27 17
	The sanctuary / <O YHWH > <sup>a</sup> / that your hands established //	_18 3_	<u>4 0 4</u>
		15:15-17	41 24 17
15:18	YHWH / will reign / forever and ever //	_16 3_	<u>4 4 0</u>
		15:15-17	45 28 17

**M. You Destroyed Pharaoh's Army as Israel Crossed on Dry Ground (15:19) [6.3]**

15:19	When the horses of Pharaoh came / with his chariots and with his chariot drivers / into the Sea /	9 1 _16 2_	4 4 0 <u>3 3 0</u>
		15:17-19b	23 19 4
	And YHWH brought back / upon them / the waters of the sea //	_18 3_	<u>6 6 0</u>
		15:18-19c	17 17 0
	And the Israelites / walked on dry ground / in the midst of the sea //	21 2 _6 1_	4 0 4 <u>2 0 2</u>
		15:18-19	23 17 6
		15:1-19	198 114 84
		15:1-27	321 187 134

Scansion in SAS Units:

$$(3.6).(6.6) . (4.4).(5.6) . (2.4).(4.4).\boxed{2.2}.(4.4).(4.2) . (6.5).(4.4) . (6.6).(6.3)$$

$$= (9 + 12) + (8 + 11) + (14 + \boxed{4} + 14) + (11 + 8) + (12 + 9) = 40 + \mathbf{32} + 40 = 112$$

**Notes:**

- 15:1<sup>a</sup> Reading *munaḥ* followed immediately by *gaʿyā* (= *meteg*) here in BHS as disjunctive.
- 15:2<sup>a</sup> Reading *wəzimirāṭī* (“and my might”) here rather than *wəzimirāṭ* (“and might”) in BHS with some Heb Mss, Samaritan Pentateuch and Latin Vulgate to improve balance in mora-count.
- 15:7<sup>a</sup> Removing the *wau*-conjunction here to improve balance in mora-count.
- 15:8<sup>a</sup> Removing the *wau*-conjunction here to improve balance in mora-count.
- 15:13<sup>a</sup> Reading *niḥaltā* (4 morae: “you guided [them]”) here rather than *nəḥaltā* (5 morae: same meaning) in BHS with Samaritan Pentateuch and Targum Jonathan to improve balance in mora-count.
- 15:14<sup>a</sup> Reading *ṭipḥā* here in BHS as conjunctive.
- 15:17<sup>a</sup> Reading *yhwh* (“YHWH”) here rather than *ʾădōnāy* (“Lord”) in BHS with many Heb Mss, Cairo geniza fragments, and Samaritan Pentateuch to improve balance in mora-count.

## Summary of the Logoprosodic Analysis

1. Exod 15:1–19 has 13 strophes: 15: 1, 2–3, 4–5, 6–7, 8, 9, 10, 11–12a, 12b–13, 14–15, 16, 17–18 & 19.

A 15:1	2 balanced dyads + pivot:	[19 + 14] + 10 + [20 + 15]	= 33 + 10 + 35	morae
B 15:2–3	2 balanced triads:	[11 + 12 + 11] + [17 + 11 + 7]	= 34 + 35	morae
C 15:4–5	2 balanced dyads + pivot:	[19 + 10] + 8 + [11 + 16]	= 29 + 8 + 27	morae
D 15:6–7	2 balanced dyads:	[18 + 15] + [17 + 17]	= 33 + 34	morae
E 15:8	balanced triad:	[14 + 14 + 14]	= 14 + 14 + 14	morae
F 15:9	2 balanced dyads + pivot:	[13 + 8] + 10 + [7 + 12]	= 21 + 10 + 19	morae
<hr/>				
X 15:10	balanced dyad:	[17 + 18]	= 17 + 18	morae
<hr/>				
F' 15:11–12a	2 balanced triads + pivot:	[18 + 8] + 7 + [14 + 11]	= 26 + 7 + 25	morae
E' 15:12b–13b	balanced triad:	[10 + 10 + 9]	= 10 + 10 + 9	morae
15:13cd	balanced dyad:	[8 + 7]	= 8 + 7	morae
D' 15:14–15a	balanced triad:	[13 + 14 + 14]	= 13 + 15 + 14	morae
15:15bc	balanced dyad:	[18 + 17]	= 18 + 17	morae
C' 15:16	2 balanced dyads + pivot:	[17 + 8] + 9 + [12 + 14]	= 25 + 9 + 26	morae
B' 15:17a–c	balanced dyad + pivot:	[15 + 8 + 17]	= 15 + 8 + 17	morae
15:17d–18	balanced dyad:	[18 + 16]	= 18 + 16	morae
A' 15:19	2 balanced dyads + pivot:	[9 + 16] + 18 + [21 + 6]	= 25 + 18 + 27	morae

- 2. The 1<sup>st</sup> strophe (15:1) is a single part with three subdivisions: 15:1ab, 1c and 1de.
  - 14:30–15:1            **32** words before *atnach*
- 3. The 2<sup>nd</sup> strophe (15:2–3) is a single part with three subdivisions: 15:2a–c, 2d and 3.
  - 15:1–2                **32** words and **17** words before *atnach*
  - 15:1–3                **17** words after *atnach*

4. The 3<sup>rd</sup> strophe (15:4–5) is a single part with three subdivisions: 15:4ab, 4c and 5.
  - 14:31–15:4                **64** (= **32** x 2) words and **26** words after *atnach*
  - 15:2–5                    **17** words after *atnach*
5. The 4<sup>th</sup> strophe (15:6–7) is a single part with two subdivisions: 15:6 and 7.
  - 14:31–15:6                **78** (= **26** x 3) words and **34** (= **17** x 2) words after *atnach*
  - 15:12–13                 **17** words before *atnach*
6. The 5<sup>th</sup> strophe (15:8) is a single part with three subdivisions: 15:8a, 8b and 8c.
  - 15:4–8b                    **40 = 23 + 17** [compositional formula]
  - 15:5–8                    **34** (= **17** x 2) words
7. The 6<sup>th</sup> strophe (15:8) is a single part with three subdivisions: 15:9a, 9b and 9cd.
  - 15:5–9                    **46** (= **23** x 2) words
8. The 7<sup>th</sup> strophe (15:10) is a single part with two subdivisions: 15:10a and 10b.
  - 15:8–10                    **32** words
9. The 8<sup>th</sup> strophe (15:11–12a) is a single part with four subdivisions: 15:11a, 11b, 11c and 12a.
  - 15:9–11                    **32** words
10. The 9<sup>th</sup> strophe (15:12b–13) has two parts with five subdivisions: 15:12b, 13a, 13b, 13c and 13d.
  - 15:7–12                    **34** (= **17** x 2) words before *atnach*
  - 15:11–13                 **26** words and **17** words before *atnach*
11. The 10<sup>th</sup> strophe (15:14–15) has two parts with five subdivisions: 15:14a, 14b, 15a, 15b and 15c.
  - 15:13–14                    **17** words
  - 15:11–15b                 **49 = 32 + 17** [compositional formula]
  - 15:11–15                    **32** words before *atnach*
12. The 11<sup>th</sup> strophe (15:16) is a single part with three subdivisions: 15:16ab, 16c and 16de.
  - 15:11–16                    **26** words after *atnach*
13. The 12<sup>th</sup> strophe (15:17–18) has two parts with five subdivisions: 15:17a, 17b, 17c, 17d and 18.
  - 15:14–17b                 **40 = 23 + 17** [compositional formula]
  - 15:15–17                    **17** words after *atnach*
  - 15:15–18                    **17** words after *atnach*
14. The 13<sup>th</sup> strophe (15:19) is a single part with three subdivisions: 15:19ab, 19c and 19de.
  - 15:18–19                    **23** words and **17** words before *atnach*

## Observations

1. The 13 strophes in Exod 15:1–19 may be outlined in a nested menorah pattern on prosodic grounds, as follows:

**1<sup>st</sup> Level Menorah: The Song of Moses at the Crossing of the Sea** **Exod 15:1–19**

A	Moses and the Israelites sang this song: “I will sing to YHWH”	[3.6]	15:1
B	YHWH is my strength and my salvation—he is a “man of war”	[6.6]	15:2–3
C	He cast pharaoh’s army into the sea—they sank like a stone	[4.4]	15:4–5
X	<b>YHWH defeated his foes and brought Israel to his holy abode</b>	—	15:6–15
C’	In terror they were silent until your people passed by	[4.4]	15:16
B’	You established them in the place you chose as a possession	[6.6]	15:17–18
A’	You destroyed pharaoh’s army & Israel crossed the sea on dry ground	[6.3]	15:19

**2<sup>nd</sup> Level Menorah: YHWH’s Great Victory in the Sea Crossing** **Exod 15:6–15**

A	O YHWH, you overthrew your foes consuming them like stubble	[5.6]	15:6–7
B	You caused waters to pile up—“the floods stood up as a heap”	[2.4]	15:8
C	The enemy pursued Israel with the intent to destroy them	[4.4]	15:9
X	<b>You blew your wind and they sank like lead in the waters</b>	[2.2]	15:10
C’	Who is like you? Your majestic splendor is awesome!	[4.4]	15:11–12a
B’	In covenant-love you guided your people to your holy abode	[4.2]	15:12b–13
A’	Neighboring peoples heard and they were dismayed	[6.5]	15:14–15

2. In terms of the 198 words in Exod 15:1–19, the **arithmological center** falls between the words **כעופרת במים** (“like lead in the water”) in the second half of v 10, with 99 words on either side. The **meaningful center** is found by including six words on either side of the **arithmological center**, as follows:

10	נשפת ברוחך כסמו ים	You blew with your wind (and) the sea covered them
	צללו <b>כעופרת במים</b> אדירים	They sank like lead in the mighty waters
	מי־כמכה באלם יהוה	Who is like you among the gods, O YHWH?

In this instance, the **concentric compositional formula** is:

$$198 = 93 + 12 + 93 \quad [\text{word count— for Exodus 15:1–19}]$$

3. The 46-word **meaningful framework** (with the 24-word framework highlighted in gray) reads as follows:

1	אז ישיר־משה ובני ישראל	Then Moses and the Israelites sang
	את־השירה הזאת ליהוה	this song to YHWH:
	ויאמרו לאמר אשירה ליהוה	And they said saying: “I will sing to YHWH,
	כי־גאה גאה	For he has triumphed gloriously;
	סוס ורכבו רמה בים	Horse and rider he has thrown into the sea.
	עזי וזמרת־י	My strength and my might is Yah.

18	יהוה ימלך לעלם ועד	YHWH will reign forever and ever.
19	כי בא סוס פרעה ברכבו ובפרשיו בים	When the horses of Pharaoh went with his chariots and his chariot drivers into the sea,
	וישב יהוה עליהם את־מי הים	Then YHWH brought back upon them the waters of the sea;
	ובני ישראל הלכו ביבשה בתוך הים	And the Israelites walked on dry ground; in the midst of the sea.

4. Summary of the concentric compositional formulae:

$$198 = 98 + 4 + 98 \quad \text{word-count}$$

$$198 = 93 + 12 + 93$$

$$198 = 89 + 20 + 89$$

{with others in between}

$$198 = \mathbf{23} + 152 + \mathbf{23}$$

$$198 = 12 + 174 + 12$$

$$112 = 40 + \mathbf{32} + 40 \quad \text{SAS (syntactic accentual-stress) units}$$

$$\mathbf{64} = 22 + 20 + 22 \quad \text{briques (primary SAS units)}$$

5. In the prosodic structure of Exod 15:1–19, the basic building blocks are the **briques** (primary SAS units). These sub-units are delineated by the Masoretes, who marked most of the boundaries with one of the following:

- **Soph Pasuq** A large colon following a word signifies the end of a verse, which does not always coincide with the end of a sentence.
- **Atnach** A small caret-like mark (like ^) beneath the consonantal text, pointing upward, is used to divide most verses. Its primary importance for our purposes concerns its use in the matter of numerical composition—i.e., the total word-count in each line is divided into the number of words before and after *atnach*.
- **Zaqeph Qatan** A small colon written above a word signifies a significant disjunctive break within a given verse.

In the prosodic analysis presented with the translation (above), the presence of these two primary disjunctive markers is indicated with a double slash (/). Exod 15:1–19 has 64 **briques** (primary SAS units), 55 (85.9%) of which are marked by:

- *soph pasuq* 19 times, at the end of each verse
- *atnach* 17 times, in each verse, except vv 12, 18
- *zāqēp̄ qāṭan* 19 times (15:1 [bis], 2 [bis], 6, 7, 8, 9 [bis], 10, 11, 12, 14, 15 [bis], 16 [bis], 17, 19)

The boundaries of the remaining 9 **briques** are marked by:

- *təḥîr* 2 times (15:17, 19)
- *gereš* 2 times (15:1, 19)
- *tiḥā* 3 times (15:6, 10, 13)
- *paštâ* 2 times (15:8, 17)

6. The prosodic structure of Exod 15:1–19, in terms of its **primary syntactic accentual stress units (briques)**, may be displayed as follows [: represents *soph pasuq*; ^ represents *atnach*; † represents *zaqeph qatan*; and † is any other such boundary marker].

I A <sup>1</sup> *ʔāz yāšīr-mōšeh ūḅanē yisrāʔēl †* *ʔet-haššīrah hazzōʔt la-yhwh †*  
*wayyōʔmərū lēʔmōr ^* *ʔāšīrah la-yhwh kī-gāʔoh gāʔah †*  
*sūs wərōkəḅô rāmāh ḅayyām :*

B <sup>2</sup> *ʕozzī wəzimrātī yāh †* *wayəhī-lī līšūʕāh ^*  
*zeh ʔelī wəʔanwēhū †* *ʔēlohē ʔāḅī waʔārōməmenhū :*  
<sup>3</sup> *yhwh ʔiš milḅāmāh ^* *yhwh šəmô :*

II C <sup>4</sup> *markəḅōt parʕoh wəḅēlô yārāh ḅayyām ^*  
*ūmihḅar šālīšāyw ṭubbəʕū ḅəyam-sūp :*  
<sup>5</sup> *təhōmōt yəkasyūmū ^* *yārədū ḅimšōlōt kəmə-ʔāḅen :*

D <sup>6</sup> *yəminəkā yhwh †* *neʔdārī bakkōah ^*  
*yəminəkā yhwh †* *tirʕaš ʔōyēḅ :*  
<sup>7</sup> *ūḅərōḅ gəʔōnəkā tahārōs qāmēkā ^* *təšallah ḅārōnəkā †*  
*yōʔkəlēmô kaqqaš :*

III E <sup>8</sup> *ūḅərūah ʔappəkā †* *neʕermū mayim †*  
*nihḅəḅū kəmə-nēḅ nōzəlīm ^* *qāḅəʔū təhōmōt ḅəleb-yām :*

F <sup>9</sup> *ʔamar ʔōyēḅ ʔerdōḅ ʔaššīg ʔəhallēq šālāl ^* *timlāʕēmô napšī †*  
*ʔārīq ḅarḅī †* *tôrišēmô yādī :*

X <sup>10</sup> <i>nāšaptā ḅərūḅākā †</i>	<i>kissāmô yām ^</i>
<i>šālālū</i> <span style="border: 1px solid black;"><i>kaʕōḅeret †</i></span>	<span style="border: 1px solid black;"><i>bəmayim</i></span> <i>ʔadīrīm :</i>

F' <sup>11</sup> *mī-kāmōkāh bāʔəlīm yhwh †* *mī kāmōkāh neʔdār baqōdeš ^*  
*nōrāʔ təhillōt ʕōsēh peleʔ :* <sup>12</sup> *nāḅītā yəminəkā †*

E' *tiḅlāʕēmô ʔereš :* <sup>13</sup> *nāḅītā ḅəḅasdəkā ʕam-zū gāʔalētā ^*  
*nēhaltā ḅəʕozzəkā †* *ʔel-nūwēh qoḅšekā :*

IV D' 14 *šāmə'û 'ammîm yirgāzûn ^ hîl 'āhaz † yōšəbê pəlāšet :*  
 15 *'āz niḥhālû 'allûpê 'ēdôm † 'êlē mō'āb † yō'hāzēmô rā'ad ^*  
*nāmōgû kōl yōšəbê kənā'an :*

C' 16 *tippōl 'ālēhem 'ēmāyāh wāpahaḏ † biḡdōl zərô'ākā yiddəmû kā'āben ^*  
*'ad-ya'ābōr 'amməkā yhwḥ † 'ad-ya'ābōr 'am-zû qānîṭā :*

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V B 17 *təḥi'ēmô wəṭittā'ēmô † bəhar nahālātəkā †*  
*mākôn ləšibtəkā † pā'altā yhwḥ ^*  
*miqqəḏās 'ādōnāy kōnənû yādēkā :*  
 18 *yhwḥ yomlōk lə'ōlām wā'ed :*

A' 19 *kî bā' sūs par'ōh † bəriḳbô ûḥəpārāšāyw bayyām †*  
*wayyāšəḥ yhwḥ 'ālēhem 'et-mē hayyām ^*  
*ûḥənē yiśrā'ēl † hāləkû ḥayyabbāšāh bəṭōk hayyām : D*

7. The 64 **briques** are distributed in seven strophes in Exod 15:1–19 as follows:

$$(5 + 6) + (4 + 7) + (4 + 4 + \boxed{4}) + 4 + 4) + (7 + 4) + (6 + 5) = 22 + 20 + 22 = 64$$

The **arithmological center** of Exod 15:1–19 falls in the second half of v 10 between the words ka'ôperet bəmayim (“lead in water”), with 65 words on either side. There are 112 SAS units, 64 briques, 21 versets, and 13 strophes. The **arithmological center** is in the middle strophe, the middle verset, the middle two briques, and the middle two SAS units.

8. The divine-name YHWH appears 12 times in this poem, plus one occurrence of the shortened version “Yah” (v 2). This corresponds to the twelve tones in the octave “circle” plus the comma in spiral of fifths tuning.

9. Bibliography {to be added later}

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