

Hezekiah's Illness and the "Steps of Ahaz": A Proposal for Dating the Story's Emergence in Light of a Solar Eclipse

Yigal Bloch

Bible Lands Museum Jerusalem

yigal.bloch@mail.huji.ac.il  <https://orcid.org/0000-0002-7538-8973>

The narrative of Hezekiah in 2 Kgs 18–20 opens with a general presentation of his reign, including chronological data and evaluation in the eyes of the Lord (2 Kgs 18: 1–8), and the synchronisms placing the siege of Samaria by the Assyrian king Shalmaneser V in the period stretching from the fourth to the sixth regnal year of Hezekiah (vv. 9–12).¹ This is followed by three substantial episodes, which are paralleled in Isa 36–39: Sennacherib's campaign against Hezekiah (2 Kgs 18:13–19:37 // Isa 36–37), Hezekiah's illness and recovery (2 Kgs 20:1–11 // Isa 38), and the visit of the delegation sent by Merodach-baladan king of Babylon (2 Kgs 20:12–19 // Isa 39). Since the time of Wilhelm Gesenius (1821, pp. 932–936), most scholars have considered the Isaiah version of the narrative an adaptation of the version in Kings.² However, as observed by Francolino Gonçalves (1986, pp. 333–337), the links between the three episodes in both versions are secondary. At least the first two of them are composed of several distinct elements. The combination of those elements in each episode, as well as the episodes' combination in the final continuous narrative, must have been a prolonged literary process. Thus, each episode must be analysed on its own concerning its origin, date of composition, structure, and contribution to the narrative of Hezekiah's reign as a whole.

1 On these synchronisms and the resulting dating of the siege of Samaria by Shalmaneser V to 724–722 BCE, see, most recently, Bloch (2025).

2 For a presentation of this scholarly consensus and a convincing argument against attempts to challenge it, see Childs (2001, pp. 260–264).

In a more detailed discussion of the origins of the Hezekiah narrative, Gonçalves (1999, pp. 45–46) noted the view commonly shared by biblical scholars that the episodes detailed in 2 Kgs 20 // Isa 38–39 are chronologically misplaced in the narrative’s current form. Merodach-baladan (Marduk-apla-iddina II) reigned over Babylon twice – for twelve years in 721–710 BCE, before the conquest of Babylonia by Sargon II, and then for nine months in 704–703 BCE, following Sargon’s death on a battlefield in Anatolia³ – and could not have sent an embassy to Hezekiah after Sennacherib campaigned against Judah in 701 BCE. Furthermore, if Sennacherib had already retreated from Judah following the destruction of his army (2 Kgs 19:35–36 // Isa 37:36–37), it would be unnecessary for God to promise Hezekiah deliverance from the Assyrian threat (2 Kgs 20:6 // Isa 38:6). In light of this, both Hezekiah’s illness and the arrival of the Babylonian embassy – insofar as they can be assumed to reflect real historical events – must have taken place before Sennacherib’s campaigns against Judah.

In a study arguing that the story of the Babylonian delegation sent by Merodach-baladan to Hezekiah was borrowed by the Deuteronomistic historian from an earlier source, rather than formulated as a *vaticinium ex eventu* “predicting” the Babylonian exile – despite Isaiah’s prophecy to Hezekiah in 2 Kgs 20:16–18 // Isa 39:5–7 – Christopher Begg observed that “In general, there is widespread agreement that the passage ultimately reflects a historical event, i.e., an approach by Merodach-baladan of Babylon to Hezekiah sometime in the years between 711 and 703 BC” (Begg, 1986, pp. 28–29). Some scholars even attempted to

3 Thus according to the Babylonian King List A (Grayson, 1980–83, p. 93). Gonçalves (1986, p. 105) dated the second reign of Marduk-apla-iddina II to 703 BCE, since in the Babylonian King List A it appears after a two-year period of Sennacherib’s direct rule over Babylonia, and another month of rule by Marduk-zākir-šumi II. However, as observed by Levine (1982, pp. 28–40), by Cogan & Tadmor (1988, p. 261, and n. 3), and by Grayson & Novotny (2012, p. 11, n. 19), the events of Sennacherib’s first campaign against Babylonia, as narrated in his royal inscriptions, in the Neo-Assyrian Eponym Chronicle and in Babylonian Chronicle 1, fit better with the understanding that the rule by Marduk-zākir-šumi II and Marduk-apla-iddina II was a rival rule to Sennacherib’s official domination over Babylonia, which began in 704 BCE and ended with Sennacherib’s appointment of Bēl-ibni as a vassal king in Babylon in 703 BCE.

establish a precise date for this event, taking the mention of Hezekiah's fourteenth regnal year at the beginning of the episode of Sennacherib's invasion of Judah (2 Kgs 18:13 // Isa 36:1) as the original chronological anchor of this visit, which would then imply that it took place in 713 BCE (Cogan & Tadmor, 1988, pp. 228, 261–263; Vargon, 2014).⁴

However, as observed by Joseph Blenkinsopp (2006, p. 110, n. 7), the suggested connection between Hezekiah's fourteenth year and the visit of the Babylonian delegation is arbitrary.⁵ Rather,

Several *legenda* about Isaiah were in circulation in which he was presented as a typical 'man of God' (*'iš hā'ēlōhīm*), one might say a kinder, gentler version of Elijah or Elisha. . . Some of these *legenda* were incorporated in the History and, not unlike the stories about Elijah, Elisha, Micaiah, and other 'men of God,' were integrated with the annals, the *sēper dibrē hayyāmīm lēmalkē yēhūdā*, in such a way as to serve the ends for which the History was written. At a later stage, *legenda* about Isaiah were introduced into the book of Isaiah as part of a broader program of Deuteronomistic redaction and a reworking of

4 Other scholars, such as Nelson (1982, pp. 129–132) and Oded (2012), treated the entire episode of the visit of the Babylonian delegation, including Isaiah's prophecy, as a genuine record of events that transpired during Hezekiah's reign, but refrained from suggesting a specific date for those events.

5 It should be noted that Blenkinsopp (2006, p. 109) considered the dating of Sennacherib's campaign against Judah to the fourteenth regnal year of Hezekiah as "overwhelmingly probable." Yet, this dating can no longer be maintained, in light of the combined evidence of the synchronism between the death of Ahaz and that of an unnamed (Assyrian) king who smote Philistia – most probably Tiglath-pileser III (Isa 14:28–29) – and of the evidence of Judean fiscal bullae, which suggests that the death of Ahaz and the enthronement of Hezekiah took place in 727 BCE (Na'aman, 2024; Bloch, 2025). The dating of Sennacherib's campaign to Hezekiah's fourteenth regnal year appears to be part of a literary pattern, common to him and another king of Judah who reigned 29 years and suffered a major enemy attack in the fourteenth year of his reign – Amaziah (see Bloch, 2025, p. 234, n. 32). The synchronism between the deaths of Ahaz and Tiglath-pileser III also validates the date of Hezekiah's fourth regnal year – 724 BCE, in accordance with the antedating practice, in which the year of a king's enthronement is counted as his first – as the beginning of the Assyrian siege of Samaria under Shalmaneser V (2 Kgs 18:9), and thus undermines the proposal of Kahn (2020, p. 224) to date the embassy of Merodach-baladan to that year, which Kahn equates with 711 BCE.

prophetic material, in keeping with the Deuteronomistic redefinition of the prophetic function (Blenkinsopp, 2006, pp. 110–111; italics and parentheses preserved).⁶

Thus, an original legend that spoke of a visit of a Babylonian delegation to Hezekiah and of Isaiah's criticism of the involvement of Judah in international politics may well have been reworked at a later time as prophecy concerning the Babylonian exile – most likely, the deportation of Jehoiachin and his immediate family, along with the treasures of the Temple and the royal palace, as mentioned in (2 Kgs 24:12–16). Peter Ackroyd (1974) called 2 Kgs 20 “An Interpretation of the Babylonian Exile,” and the parallels between Isaiah's prophecy in the wake of the Babylonian delegation's arrival and the narrative of Jehoiachin's deportation cannot be minimised or explained away.⁷

Still, the connection between Hezekiah's illness and Merodach-baladan's embassy is anything but organic. Although the illness is mentioned explicitly as the reason for the embassy's arrival in 2 Kgs 20:12 // Isa 39:1, it plays no further role in the episode (Gonçalves, 1986, p. 337). In the words of Brevard Childs (2001, p. 264), the editorial linkage between these two episodes “seems wooden.” Thus, whatever the origins of the Babylonian delegation episode,⁸ the story of Hezekiah's illness and recovery most likely arose under different historical circumstances.

6 In this quotation, “the History” is the Deuteronomistic History, i.e., the sequence of Joshua–Judges–Samuel–Kings.

7 The connection between Isaiah's prophecy in 2 Kgs 20:16–18 // Isa 39:5–7 and the exile of Jehoiachin was drawn by Clements (1983) and maintained by Cogan & Tadmor (1988, pp. 262–263), Gonçalves (1999, pp. 46–48), Sweeney (2007, p. 399), Schipper (2010, p. 84), and Martins (2024, p. 386, and n. 62). Blenkinsopp (2006, pp. 116–117) explicitly offered a scenario in which an early version of a legend about Merodach-baladan's embassy to Hezekiah was rewritten by the Deuteronomistic historian, but did not connect this rewriting specifically to Jehoiachin's deportation.

8 Martins (2024, pp. 385–387) noted the absence of particularly Deuteronomistic terminology in the story of Merodach-baladan's embassy (*contra* Begg, 1987), and argued that this episode was given its final shape in an attempt to supplement the Deuteronomistic explanation of the Babylonian exile, which holds Hezekiah's son Manasseh as the essential culprit (2 Kgs 21:10–15; 23:26–27; 24:3–4). Similarly, Cranz (2021, p. 101) considers the episode of the Babylonian delegation post-Deuteronomistic. If so, the connection between this episode and Jehoiachin's exile does not undermine the theory of the double redaction of the Deuteronomistic history proposed by Cross (1973, pp. 274–289) and Nelson (1982).

The present study will suggest a specific historical context and a *terminus ante quem* for this story's emergence.

1. The story of Hezekiah's illness: content and structure

In the story of Hezekiah's illness in 2 Kgs 20:1–11, "there are two separate elements which have been brought together" (Ackroyd, 1974, pp. 343–344). The first element consists of Hezekiah's illness and recovery, and ends with 2 Kgs 20:7: "Then Isaiah said, 'Take a lump of figs.' So they took and laid it on the boil, and he recovered." The second element involves a sign of recovery given by God to Hezekiah:

And Hezekiah said to Isaiah, "What is the sign that the Lord will heal me, and that I shall go up to the house of the Lord the third day?" Then Isaiah said, "This is the sign to you from the Lord, that the Lord will do the thing which He has spoken: shall the shadow go forward ten steps or go backward ten steps?" And Hezekiah answered, "It is an easy thing for the shadow to go down ten steps; no, but let the shadow go backward ten steps." So Isaiah the prophet cried out to the Lord, and He brought the shadow ten steps backward, by which it had gone down on the steps of Ahaz (2 Kgs 20:8–11)⁹.

It is, of course, somewhat strange for the king to ask for a sign of healing after he had already recovered, and in the version of the same story in Isaiah, the mention of the recovery was moved to the end of the episode (Isa 38:21), preceded by Hezekiah's psalm of thanksgiving (vv. 9–20) that is missing from Kings. Moreover, in the version of Isaiah, the verbal forms expressing the application of the lump of figs to the boil and Hezekiah's recovery are vocalized in the Masoretic Text (MT) as jussives, expressing the prophet's command rather than an actual occurrence: *wəyimrēḥû* "and let them smear" and *wəyehî* "and let him live" (as opposed to *wayyiqṭōl* indicative forms *wayyāšîmû* "and they applied"

⁹ Here and below, translation of biblical verses follows the New King James Version (NKJV), unless noted otherwise. In the present quotation, the Hebrew term *ma'ālôt* is rendered as "steps" – the term's literal meaning, acknowledged by NKJV, although it opted for a more idiomatic translation as "degrees" and, in the final instance in v. 11, "sundial."

and *wayyehî* “and he lived/recovered” in 2 Kgs 20:7).¹⁰ The command is followed by the king’s question: “What is the sign that I shall go up to the house of the Lord?” (Isa 38:22) – an abbreviated version of the question asked by Hezekiah in 2 Kgs 20:8, before the miracle of the shadow on the steps of Ahaz. But in Isa 38, both the prophet’s command and the king’s request for a sign of recovery remain unfulfilled, and this fact, along with the relocation of the two elements to the end of the episode, indicates that the Isaiah version is an adaptation of the one found in Kings (Childs, 2001, p. 283; Kasher, 2001, pp. 43–44; Panov, 2019, p. 105).¹¹

If the partition of the Hezekiah illness episode into two separate elements is correct, which of them would be original?¹² The mention of Hezekiah’s illness and healing is essential to the story, and it would appear that the original content of this episode included 2 Kgs 20:1–7. However, Alexander Rofé (1988, pp. 137–138) suggested that only vv. 1 and 7 are original, and the entire text in between – Hezekiah’s prayer for recovery and God’s response through the prophet Isaiah, who had just informed the king of his upcoming death in v. 1 – was added by a later editor who also augmented the story with the addition of the miracle of the shadow on the steps, in an attempt to underscore the role of God, rather than the prophet, as one who heals, and

10 The Septuagint and the Peshitta translate the verbal forms in 2 Kgs 20:7 as jussives. Yet, such a translation “makes the verse anomalous among biblical traditions concerning prophetic healing. In all other such traditions the effect of the treatment is virtually immediate and is never a promise for the future” (Zakovitch, 1985, p. 182).

11 Kahn, who holds that the entire narrative of Hezekiah’s reign is more original in the Isaiah version than in that of Kings, suggested that the verses Isa 38:21–22 “were moved at a very late stage to the end of the chapter as an afterthought” (Kahn, 2020, pp. 226–227). Yet, if this move is separated from the overall redactional approach underlying the version of Isa 38, the reasons for it become unclear.

12 The partition into separate elements was rejected by Zakovitch (1985, pp. 181–185), who considered the verse 2 Kgs 20:7 as intrusive, a later addition by an interpolator intended to present Isaiah as a healing prophet, similar to Elisha. In this he was followed by Cogan & Tadmor (1988, p. 257) and Panov (2019, pp. 105–106). Yet, the promise of healing, *hinēni rōpē lāk* “surely I will heal you,” appears already in v. 5, and though these words are missing from the Isaiah version, the promise of additional fifteen years of life features there (Isa 38:5 // 2 Kgs 20:6) and implies a promise of healing. As noted by Zakovitch himself (see above, n. 10), it would be anomalous for such a promise to appear in a prophetic story without a mention of its effectuation.

the necessity of prayer to effectuate divine healing. However, in such an instance, it is unclear why the mention of the actual healing in v. 7 separates Isaiah's message that the healing is about to come (vv. 5–6) from the sign of the shadow intended to herald the healing (vv. 8–11). In any event, the promise that Hezekiah's life would be extended by fifteen years and the promise of deliverance from the Assyrian threat (2 Kgs 20:6 // Isa 38:5–6) appear in the text separating the mention of Hezekiah's illness from that of his recovery. These promises may well have prompted the Deuteronomistic historian, who combined the episode of Sennacherib's invasion with that of Hezekiah's illness, to date the entire sequence of events to Hezekiah's fourteenth regnal year, thus placing an existential threat – from which Hezekiah emerged successfully – in the middle of his reign, even though this placement is not chronologically correct.

In short, the most attractive solution appears to be the simplest one: the story of Hezekiah's illness and recovery originally contained what is now 2 Kgs 20:1–7, and was expanded with the element of the miracle on the steps of Ahaz (vv. 8–11) at a later stage. The editor who expanded the story, probably before its inclusion in the continuous narrative of Hezekiah's reign, drew on Isaiah's promise to Hezekiah, "On the third day you shall go up to the house of the Lord" (v. 5), to present the miracle as a sign affirming that promise. The addition created a distinction between Hezekiah's immediate deliverance from a mortal danger (v. 7) and his subsequent complete healing and purification, which would allow him to enter the Temple on the third day (Kasher, 2001, p. 52).¹³ The original story hardly intended this distinction. However, the addition of the miracle on Ahaz's steps emphasised it.

¹³ The absence of any mention of the third day in Isa 38 is probably due to the fact that the application of a lump of figs in that version was joined with Hezekiah's request for a sign as something ordered or asked for, rather than an actual occurrence (Isa 38:21–22). The text of Isaiah as it stands does not mention any effectuation of the prophet's command or the king's request, and thus a specific temporal framework is not needed. The phrase *hinēni rōpē' lāk* "surely I will heal you" (2 Kgs 20:5) was probably understood by the adaptor responsible for the Isaiah version as part of the same promise related to the third day – even though syntactically it forms a different unit – and thus omitted as well.

2. The steps of Ahaz: text and architecture

The episode of the miracle on the steps of Ahaz is not free of textual problems in itself. The most extensive of those pertains to the fact that the dialogue between Hezekiah and Isaiah in the version of 2 Kgs 20:8–10 is replaced in the version of Isaiah with a simple pronouncement by the prophet: “And this is the sign to you from the Lord, that the Lord will do this thing which He has spoken: Behold, I will bring the shadow on the steps, which has gone down with the sun on the steps of Ahaz, ten steps backward” (Isa 38:7–8).¹⁴ The question naturally arises, which text is closer to the original? Scholars working on purely text-critical assumptions tend to favour the shorter text, and those who view the Isaiah version of Hezekiah’s illness story (minus Hezekiah’s psalm in Isa 38:9–20) as more original present this as one of the considerations supporting their view.¹⁵

However, the matter is more complicated. In the book of Isaiah, there is another king who is offered the choice of a sign from God to verify the veracity of Isaiah’s prophecy – Ahaz, Hezekiah’s father (Isa 7:10–17). There, Ahaz refuses to choose so as not to test the Lord, but the prophet condemns this refusal as an act of disobedience and proclaims a sign nonetheless. The reason for this condemnation is unclear, and the understanding of Ahaz’s position as “wearisome hypocrisy arising out of sheer unbelief” (Childs, 2001, p. 65) is based on nothing more than a generally negative portrayal of Ahaz in both Isaiah and Kings. However, if a king who was not sufficiently pious still refused to test God, the readiness to formulate the conditions for such a test on Hezekiah’s part might adversely reflect on his image *a fortiori*. This does not raise a difficulty in the context of Kings, where Isaiah’s approach to Ahaz is

¹⁴ For the rendering of Hebrew *ma’alôt* as “steps” rather than “degrees” or “sundial,” see above, n. 9.

¹⁵ For an example of a text-critical approach of this kind, see Person (1997, pp. 52–53, 71–72, nos. 182–213). Kahn (2020, p. 237) noted that the simpler version of the sign episode in Isaiah, combined with its placement before the mention of the actual healing, supports the more original character of this version. This, however, partly contradicts his argument that the movement of the verse mentioning the healing (Isa 38:21) to the end of the story belongs to a very late redactional stage (see above, n. 11).

not mentioned, but in the book of Isaiah, Hezekiah's readiness to test God would appear more problematic, and this may well be the reason why the adaptor of the story for Isaiah opted for a simple presentation of the sign by the prophet (Blenkinsopp, 2000, p. 482).¹⁶

Another point concerns the details of the sign provided. "The steps of Ahaz" (*ma'ālôt 'āhāz*) are mentioned in the MT of Kings in the description of the sign's effectuation (2 Kgs 20:11). In that of Isaiah, in the initial description of the sign (Isa 38:8a). In both these instances, the entity moving on the steps is the shadow (*šēl*). However, the mention of the sign's effectuation in Isa 38:8b has the sun (*haššemeš*) moving backwards on the steps. Moreover, the mention of the shadow in both 2 Kgs 20:11 and Isa 38:8a is supplemented with the relative clause *'āšer yārēdā/yārādā* "which had gone down," and the feminine form of the verb is incongruent with the masculine gender of *šēl* in the Hebrew text of Kings. It is therefore likely that in this text also, the implied feminine subject of the verb is *šemeš* "sun." In the Septuagint (LXX) version of Kings, the verb ἐπιστρέφω "to turn about" parallels Hebrew *šwb* "to turn back," with σκιά "shadow" as its subject (4 Reg 20:10–11), but in the LXX version of Isaiah it is ἥλιος "sun" that appears as the subject of the verbs καταβαίνω "to go down" and ἀναβαίνω "to go up," as well as the direct object of the transitive verb ἀποστρέφω "to turn smb./ smth. back" (Isa 38:8). It is only at the end of v. 8, in the relative clause which parallels *'āšer yārādā*, that σκιά appears as the subject of the verb καταβαίνω – precisely in a place where the Hebrew text mentions the sun as the subject. In addition, while the LXX uses ἀναβαθμός "flight of steps, stair" for Hebrew *ma'ālôt*, in both 4 Reg 20:11 and Isa 38:8, no mention of Ahaz is made in its version of 2 Kings (4 Reg), and in Isaiah the flight of stairs is modified by the genitival phrase τοῦ οἴκου τοῦ πατρὸς σου "of the house of your father."

The general preference for a shorter original text led Raymond Person (1997, pp. 52–53, 71–72, nos. 185–201) to reconstruct for Kings

¹⁶ Childs (2001, p. 282) sees "an intertextual resonance with Ahaz" in the mention of the choice of the sign in 2 Kgs 20:8–10, but the omission of a similar choice in Isa 38:7–8 is a better candidate for such a resonance in light of the contrast between Ahaz and Hezekiah drawn in both Kings and Isaiah.

an original text that contains solely Isaiah's announcement of the sign as the shadow moving back on the steps, without either the steps being characterized as those "of Ahaz" or the shadow being modified by a relative clause referring to the sun that went down. More recently, Csaba Balogh (2023) reconstructed a complicated textual development of the relevant verses, in which the Isaiah version is assumed to be closer to the original. However, the sun is understood by Balogh as the only entity moving in the reconstructed original layer of the text, with the relative clause describing the shadow moving down in the LXX of Isaiah and the references to the steps as those "of Ahaz" (MT of Isaiah and Kings) or "of your father" (LXX of Isaiah) taken as later scribal glosses.

Interestingly, this preference for a shorter original text stands in contrast to the textual reconstruction of Samuel Iwry (1957), offered soon after the discovery of the Great Isaiah Scroll from Qumran (1QIsaa), which reads *m'lw̄t 'lyt 'h̄z* "the steps of the upper chamber of Ahaz" in Isa 38:8a (for this verse in a recent edition of the scroll, see Ulrich & Flint, 2010, pp. 62–65). 1QIsaa also mentions *'t h̄šmš* "the sun" (with the direct object particle) instead of the MT *b̄šmš* "with the sun" immediately after *m'lw̄t 'lyt 'h̄z*. Iwry combined this with the LXX version to reconstruct an entire additional clause, *'ny mšyb 't h̄šmš 'hwrnȳt 'sr m'lw̄t* "I am turning the sun back ten steps," at the end of Isa 38:8a, before the effectuation of the sign in the second part of the verse.

However, both the minimalist approaches of Person and Csaba and the maximalist approach of Iwry seem to be overly dogmatic. The phrase *'t h̄šmš* in 1QIsaa is probably nothing more than a gloss intended to harmonise the feminine verbal form *yrdh* with the masculine noun *šl*, and it is unjustified to reconstruct an entire additional verbal clause around it. Similarly, *'lyt 'h̄z* may be merely a gloss to the original *m'lw̄t 'h̄z* preserved in the MT, influenced by the mention of "the upper chamber of Ahaz" in 2 Kgs 23:12. On the other hand, the phrase "of the house of your father" in the LXX of Isa 38:8a suggests that a mention of Ahaz was present in the Hebrew Vorlage of this translation. The omission of any such mention in the LXX of 2 Kgs 20:11 may be nothing more than a copying or translational accident. The development of the textual variants reflected in the various witnesses to the text of both Kings and

Isaiah must have taken place relatively late in the Second Temple period, and it is hard to assume that at this stage, a reference to "the steps of Ahaz" would be invented out of whole cloth. Rather, this reference would be more likely to be made by someone in First Temple-period Jerusalem who saw the architectural element so named. Indeed, the steps in question may well have led to "the upper chamber of Ahaz" erected atop one of the buildings in Jerusalem's acropolis, even if 'lyt 'hz in 1QIsaa is a later gloss. As for the entity that went up or down the steps, the variance between the MT and the LXX in both Kings and Isaiah suggests that the sun and the shadow were understood synonymously in this context – the movement of the shadow reflecting that of the sun – and any attempt to arrive at an original text that mentioned only one of them appears to be futile.

What kind of construction could "the steps of Ahaz" be? In 1959, Yigael Yadin published a study dealing with this question. Based on the LXX translation of the term *ma'ālôt* as ἀναβαθμός, on the reading 'lyt 'hz in 1QIsaa, on the description of Hezekiah's illness and recovery in Flavius Josephus's *Jewish Antiquities*, 10.29, and on other occurrences of *ma'ālôt* in the Hebrew Bible (such as Exod 20:26, 1 Kgs 10:19–20, and Neh 12:37), Yadin demonstrated that the term's original meaning was "steps," and it was understood this way down to the 2nd–4th centuries CE, when the interpretation "sundial" first appeared in the translations of Symmachus, Targum Jonathan and the Vulgate (Yadin, 1959, pp. 92–93; and similarly Iwry, 1957, p. 31).¹⁷ Further, Yadin pointed to an Egyptian model sun clock from the third millennium BCE, now in the Cairo Museum (inv. no. 33401), which combines three different methods of measuring time based on the movement of the shadow (Fig. 1). One of those methods involved two flights of stairs leading to an upper platform, with a vertical wall positioned before each flight. If the model, or a similarly built architectural element, were positioned in an east-to-west orientation, in the morning hours, the eastern wall would

¹⁷ The arguments adduced by van Dorp (2007, pp. 259–260) in favor of the understanding of *ma'ālôt* as degrees marked on a sundial ignore the distinction between ἀναβαθμός and βαθμός, as well as the contexts in which these terms are used in the LXX and in the relevant passage in Josephus.

cast a shadow on the eastern flight of the stairs, with the shadow gradually moving downstairs as the sun rose. At noon, the shadow would disappear, and in the afternoon, the western wall would similarly cast a shadow on the western flight of the stairs, with the shadow moving upstairs as the sun descended (Yadin, 1959, pp. 95–96).¹⁸

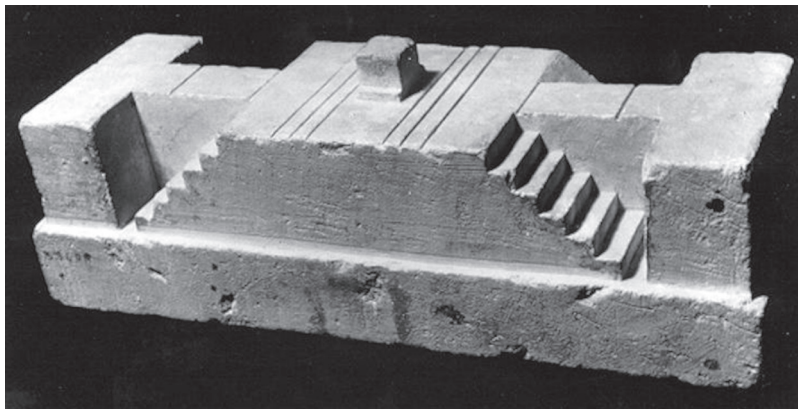


Figure 1. Egyptian model sun clock from the third millennium BCE, Cairo Museum 33401. Photo: Wikimedia Commons (https://commons.wikimedia.org/wiki/File:%C3%84gyptische_treppenuhr_Inv._33401.jpg)

Yadin held that a building erected by Ahaz in the acropolis of Jerusalem, mentioned as “the upper chamber of Ahaz” in 2 Kgs 23:12 and in the 1QIsaa version of Isa 38:8, had a similar architectural construction attached to one of its walls and oriented east-to-west.¹⁹ The choice given by Isaiah to Hezekiah in 2 Kgs 20:9 – whether the sign of his healing would involve the shadow moving ten steps forward or backward – suggested to Yadin that the dialogue between the prophet and the king took place at noon, when the shadow’s backward movement, i.e., its return to the early morning condition, would be perceived as

¹⁸ This model sun clock was published by Soley (1931, 172–173, fig. 12, pl. XVIII.2–4).

¹⁹ The fact that 2 Kgs 23:11 mentions various elements of a solar cult, destroyed by Josiah, suggests that “the upper chamber of Ahaz” in v. 12 was also connected to that cult, which fits well with the understanding that the stairways connected to that chamber were used for measuring time based on the sun’s movement through the sky.

a greater miracle (Yadin, 1959, pp. 95–96). Yadin's reconstruction was supported, as an explanation of "the steps of Ahaz," by David Miano (2010, pp. 14–19) and Eshbal Ratzon (2019, p. 25).

3. The miracle of the shadow and a solar eclipse

Yadin's proposal does indeed provide the most reasonable explanation of the story concerning the miracle of the shadow. However, an attempt to reconstruct the specific time of the miracle appears overstretched.²⁰ This, however, leads to the question: was there any actual occurrence that gave rise to this story?

A likely candidate would be a solar eclipse. Of course, a solar eclipse would not cause a shadow to retreat ten steps on a flight of stairs, on which this distance would cover about half a day.²¹ However, as a solar eclipse approaches totality, shadows cast by various objects on the ground begin "to behave strangely, sharp in one direction, fuzzy at right angles." This phenomenon "is a consequence of the 'crescent' form of the nearly-eclipsed Sun. Shadows are sharp in the direction across the thin middle of the crescent, blurred as usual along its length" (Frost 2024, p. 71, and n. 2).²² The phenomenon of crescent shadows visible during a near-total solar eclipse is well known (Fig. 2).

20 Miano (2010, p. 17) argued, contrary to Yadin, that "the story must take place late in the day, towards evening", but his argument is based on the LXX text of Isa 38:8, which specifies the miracle – without any choice in the matter being given to Hezekiah – as the sun moving upwards and the shadow moving downwards. Yet, the LXX version, no less than the Hebrew one in the MT, implies that the downward movement preceded the upward movement, while the two versions disagree on what specifically had moved down – the sun or the shadow, as discussed above.

21 For ten steps on the stairway of Ahaz covering about half a day, see Yadin (1959, p. 96); Miano (2010, pp. 18–19).

22 This description refers to the final stage leading to the total solar eclipse observed in Fatehpur Sikri, Agra District, Uttar Pradesh, India, on October 24, 1995.



Figure 2. Crescent shadows observed during the solar eclipse of April 8, 2024, on the campus of the A&M University, College Station, TX, USA.²³ Photo: Wikimedia Commons (https://commons.wikimedia.org/wiki/File:Solar_eclipse_crescent_shadows_College_Station_TX.jpg)

For a solar eclipse to be observed by the naked eye, it must reach the magnitude of ca. 95%, that is, about 95% of the diameter of the solar disc must be covered. If the eclipsed sun is positioned a few degrees above the horizon, near sunrise or sunset, it can be seen with the naked eye even at a lower magnitude (de Jong 2012–2013, p. 157). Of course, direct observation of the sun, even during an eclipse, is dangerous to human

²³ According to the NASA Five Millennium Catalog of Solar Eclipses (<https://eclipse.gsfc.nasa.gov/SEcat5/SEcatalog.html>), the magnitude of the eclipse at that location and date – i.e., the part of the solar disc diameter covered by the moon at the maximum stage of the eclipse – was 0.983, or 98.3%.

eyesight, and observing changes in the shadows cast on the ground is a better alternative in medical terms. However, there is no evidence that damage caused by looking directly at the sun was recognised in the ancient Near East, and for the shadow changes to be noticed, a magnitude of around 95% would still be required.²⁴

According to the catalog of eclipses in the Ancient Near East published by Manfred Kudlek and Erich Mickler, of all the solar eclipses that could be theoretically observed from Jerusalem between the enthronement of Hezekiah in 727 BCE and the destruction of Judah in 586 BCE, only one reached a magnitude nearing 95% – the eclipse that took place on the Julian date of January 12, 662 BCE (Kudlek & Mickler, 1971, pp. 64–65).²⁵ According to Kudlek and Mickler, this eclipse, as observed from Jerusalem, had the magnitude of 94%, while the NASA Five Millennium Catalog of Solar Eclipses (<https://eclipse.gsfc.nasa.gov/SEcat5/SEcatalog.html>) records its magnitude in Jerusalem as 93.3%. Remarkably, in some locations on Judah's periphery – such as Timnah (modern Tel Batash, ca. 7 km northwest of Beth Shemesh) or in the area of modern Ramallah, ca. 3 km northwest of biblical Mizpah (modern Tell en-Naşbeh) – the eclipse would be observed for a few dozen seconds as annular, meaning that the moon would cover the centre of the solar disc. Only its outer edges would be visible (Fig. 3). This would briefly turn the shadows cast on the ground into rings (Naylor, 2002, p. 48). According to the NASA catalog, the eclipse in Jerusalem and its environs would reach its maximum phase at 14:10 Universal Time (16:30 local time), with the sun ca. 7.5 degrees above the ground, and end at 15:23 Universal Time (17:43 local time), when the sun had already set.

24 The diagram published by Feinberg (2024) indicates that with the eclipse magnitude reaching 95%, the sun's brightness is still similar to that observable on an overcast day. Even with this magnitude, the solar disc may still be visible through thin, bright clouds that transmit light, creating an optical effect known as halo.

25 The date of this eclipse is given as –661.1.12 in the astronomical notation, in which year 1 BCE is designated as 0.



Figure 3. The solar eclipse of January 12, 662 BCE, as observable from Jerusalem and its environs; the straight blue line marks the outer limit of the path of annularity. Map source: NASA Five Millennium Catalog of Solar Eclipses (<https://eclipse.gsfc.nasa.gov/SEsearch/SEsearchmap.php?Ecl=-06610112>)

In the ancient Near East, solar eclipses, along with lunar ones, were perceived as signs of imminent danger (Koch-Westenholz, 2001, pp. 79–80). Thus, when a threatening solar eclipse, accompanied by strange shapes of shadows cast on the ground, occurred in the middle of the reign of Manasseh (697–642 BCE), a story about a different event involving the shadows in the reign of Manasseh’s father, Hezekiah, may well have emerged among Isaiah’s disciples, in whose circles various legends concerning the prophet circulated. Those legends were favourable to both Isaiah and Hezekiah. A pre-existing story of Hezekiah’s miraculous deliverance from a life-threatening illness (2 Kgs 20:1–7) would be easily augmented by a new episode (vv. 8–11), in which a backward movement of the shadow on “the steps of Ahaz” became a sign of the king’s recovery. Thus, a threatening portent in the reign of Manasseh, whose policies were the opposite of his father’s, would be countered by a miracle involving the sun and the shadow in the reign of

Hezekiah, who trusted in God and His prophet. Sometime after the story of Hezekiah's illness and recovery was incorporated in the narrative of Hezekiah's reign in the original version of the Deuteronomistic History,²⁶ that narrative would be supplemented by another episode involving the king and the prophet – the visit of the Babylonian delegation sent by Merodach-baladan, reworked as a portent of the eventual exile of Hezekiah's descendants, namely, Jehoiachin and his immediate family.

Conclusions

The episode of Hezekiah's illness and recovery forms a separate literary unit in the narrative of Hezekiah's reign in 2 Kgs 18–20 // Isa 36–39. The version of this episode in Kings appears to be more original. It is composed of two distinct parts: an original story involving Hezekiah's illness and recovery effected by God through Isaiah (2 Kgs 20:1–7), and a subsequent addition of the miraculous element involving the movement of the shadow on "the steps of Ahaz" (vv. 8–11). Yigael Yadin's reconstruction of "the steps of Ahaz" as an architectural element consisting of two flights of stairs, on which shadows were cast by walls positioned in front of them, is well-founded. Although it involves the sun and the shadow moving in opposite directions (upward vs downward), the biblical story took the shadow's movement to represent that of the sun. The solar eclipse of January 12, 662 BCE (Julian date), which was observable in Jerusalem and its environs and which involved unusual changes in the shapes of the shadows cast by various objects on the ground, is a reasonable candidate for an event that gave rise to the story concerning the miracle of the shadow in the context of Hezekiah's illness, as a contrast between the threatening solar eclipse in the reign of Manasseh and God's miraculous command of the sun for the sake of his pious father Hezekiah. Since this miracle is probably an addition

26 Further Deuteronomistic glosses would be added to the story in Kings in the process of scribal transmission – see, e.g., Cranz (2021, p. 99) on God's promise in 2 Kgs 20:6 to deliver Jerusalem *lēma'ānī ūlēma'an Dāwīd 'abdī* "for My own sake, and for the sake of My servant David."

to the original story of Hezekiah's illness and recovery in 2 Kgs 20:1–7, that original story was most likely composed sometime before 662 BCE.

Abstract

Hezekiah's Illness and the "Steps of Ahaz": A Proposal for Dating the Story's Emergence in Light of a Solar Eclipse

This article deals with the story of Hezekiah's illness and recovery (2 Kgs 20:1–11 // Isa 38), which forms part of the narrative of Hezekiah's reign in the books of Kings and Isaiah. Despite its integration in the larger narrative, this story was originally a self-contained literary unit. The article discusses the relationship between the story's versions in Kings and Isaiah, concurring with the prevailing view that the Isaiah version is an adaptation of that in Kings, as well as the story's inner structure, where the original kernel (2 Kgs 20:1–7) was later supplemented with the miraculous element of the shadow receding ten steps on "the steps of Ahaz" to mark Hezekiah's recovery. The article suggests that the event that gave rise to this addition was the solar eclipse of January 12, 662 BCE, implying that the story's original kernel existed prior to that date.

Keywords: Hezekiah, Isaiah, Kings, illness; recovery, steps of Ahaz, solar eclipse

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