

**The Siloam Tunnel: An Inspirational Mystery**

Caroline Damesek

University of North Carolina at Chapel Hill

ANTH 89: Archaeology and Popular Culture

Dr. Douglas K. Smit

December 11, 2023

Before the Assyrian siege in 701 BCE, Hezekiah, the king of Jerusalem, met with his council and decided to block the springs outside the city. This meant that attackers could not take from Jerusalem's water sources, but it also meant depriving his own people of their water supply. Consequently, he needed to find a new way to access water, and he had to solve this problem quickly before the siege. King Hezekiah therefore devised a plan to connect the Gihon Spring to the Siloam Pool inside the city with an underground tunnel carved through a mountain. Two teams worked on either side of the mountain, hewing with the hope of meeting in the middle. Despite the twisted route each team took, they miraculously found each other, saving the city. The remarkable moment the teams met is described in the Siloam Inscription (Megalim Institute, 2013), which was discovered at the end of the tunnel by the sixteen-year-old Jacob Eliahu in 1880 (Norin, 1998).

This is the story told to visitors at the Siloam Tunnel, a popular site in the City of David which tourists can walk through, immersing themselves in the ancient narrative which has inspired many. Despite the archaeological, geological, chemical, biblical and epigraphic evidence supporting the narrative of Hezekiah's tunnel (Frumkin, A., & Shimron, A., 2006), some scholars argue that the tunnel was not in fact built by Hezekiah, but instead centuries later (Rogerson, J., & Davies, P. R., 1996). Additionally, the method used to create the tunnel is under debate; some state that the teams hewed along a natural karstic route (Reich, R., & Shukron, E., 2002), while others claim that the tunnel is an authentic engineering project with no previously existing conduit (Frumkin, A., & Shimron, A., 2006). The commonly accepted religious narrative that the tunnel was built under Hezekiah's rule without the help of a karstic conduit is depicted in (some) media; however, the Siloam Tunnel has not been deployed in popular culture. There is much potential for the tunnel to be incorporated into popular culture, though the lack of

conclusive evidence means that any narrative told could potentially be deemed inaccurate. While there are still many questions regarding this archaeological site, it continues to have a strong religious impact, and has the capability to intrigue both Christian and non-Christian audiences. Both the inspiration and mystery surrounding the tunnel provide great potential for integration into popular culture and additional research in the future.

In 1996, Rogerson and Davies proposed the theory that the Siloam Tunnel was not built by Hezekiah, but instead constructed centuries later, a claim with notable cultural and religious implications. In their article they consider the archaeology of the Gihon water system and the line of walls in (ancient) Jerusalem, biblical references to the Gihon Water System, and the Siloam Inscription as evidence. Rogerson and Davies date the three main elements (Warren's shaft and its corresponding passage and tunnel, the Siloam Channel, and the Siloam Tunnel) of the Gihon water system using the line of the walls, as the shaft and Siloam tunnel brought water from outside the wall to inside the wall (therefore the wall must have been built before the water system). According to the scholars, the Eastern wall, which ran between the shaft and the Gihon spring, was not built until the Persian period, an age significantly after the Assyrian siege. Based on excavations of the Western wall, they date the construction of the tunnel to the time of the Hasmoneans. They argue that the Hasmonean period aligns best with known archaeological information regarding the tunnel. For their biblical evidence, the researchers contend that the texts used to link Hezekiah with the Siloam tunnel have been mistranslated. They cite the various possible translations of relevant words, suggesting that previous interpretations of the verses have been inaccurate. Additionally, Rogerson and Davies assert that the Siloam Inscription has been misdated; it "paleographically...falls somewhere near the beginning of the Christian era", supporting a Hasmonean-Herodian, rather than an Iron Age II, date (Rogerson, J., & Davies, P.

R., 1996). While some researchers, such as Sneh, Weinberger and Shalev (2010) have supported the notion proposed by Rogerson and Davies that the tunnel was not built in Hezekiah's time (Sneh et al. argue that the minimum time of four years it would have taken to build the tunnel could not have been started as a response to the upcoming Assyrian siege), the findings of Rogerson and Davies have been generally received with great criticism (Llewelyn, S., Heap, N., & Wrathall, A., 2019), as they contradict the popularly accepted evidence and narrative surrounding the tunnel. Hendel is among the scholars who disagree with Rogerson and Davies, pointing out that almost all paleographers date the inscription to the late eighth century BCE. In his analysis, he assigns the inscription to the eighth-seventh century sequence and not the sequence of paleo-Hebrew scripts from the Hasmonean era and later (Hendel, 1996).

Frumkin, Shimron, and Rosenbaum also support the narrative that the Siloam Tunnel was a fully engineered project undertaken during the time of King Hezekiah. In 2003, they dated the tunnel to the Iron Age II, aligning it in time with the biblical account. In their initial study (Frumkin, A., Shimron, A., & Rosenbaum, J., 2003), as described in the introduction of their 2006 study, they used radiocarbon and U-Th (uranium–thorium) dating to refute the claims that the tunnel was built before or after Hezekiah's time. While geologically mapping the tunnel, the researchers extracted samples from the plaster covering its floors and walls applied to prevent loss of water from fissures. These samples were classified using field relations, petrography, geochemistry, scanning electron microscopy, X-ray diffraction and isotopic analyses. Various types of plaster were identified, each adding to the understanding of the tunnel's age. One of the types of plaster, red plaster and mortar, was found in both the southern exit of the tunnel and in the blocking walls east of the Gihon spring; the pottery shards in the plaster reveal that it is Byzantine or younger in age. Another type of plaster identified, the gray plaster and mortar, was

dated to 1250-1516 CE, the Mamluk period, indicating the addition of plaster over time. Natural deposits of flowstone, tufa, and siltstone were only found above the ancient plaster, the oldest classification of plaster, which supports the idea that the tunnel was an authentic engineering project because if there was a natural karstic conduit, there would have been deposits beneath the ancient plaster (since these sediments are constantly deposited from the spring). The speleothem found in the tunnel was U-Th dated to  $317 \pm 18$  years BCE, indicating the minimum age of the tunnel; younger ages of speleothems were also found in the tunnel. These findings support the popular biblical narrative because the flowstones would have been deposited over the ancient plaster and hewn surface, meaning that they would postdate the creation of the tunnel. Additionally, organic materials in the ancient plaster were carbon 14 dated to be from 822-796 BCE for a piece of wood and 790-760 or 690-540 BCE for a short-lived plant (Frumkin, A., & Shimron, A., 2006).

In 2006 Frumkin and Shimron continued their investigation of the tunnel by conducting a systematic study of morphological features in and near the Siloam Tunnel, which they examined in relation to the morphology and the surface topography of the tunnel using a Brunton compass and Disto electronic distance measuring device. They studied samples using “petrographic (microscopic), geochemical, scanning electron microscope and X-ray diffraction methods” along with other data to refute the karstic theory (Frumkin, A., & Shimron, A., 2006) that the creation of the tunnel was “guided by” natural features of the land (Sneh, A., Weinberger, R., & Shalev, E., 2010). Frumkin and Shimron found no evidence of a continuous karst conduit. Their comparison of the narrow width of the Siloam Tunnel to the “kilometers-long” widths of cave passages in the area surrounding the tunnel suggests that a “total obliteration” of a natural conduit would most likely not have been possible. To add, if the karst theory was true, there

would be no false starts, areas where miners began to hew but did not continue, and “continuous structural guiding features” would have been found along the tunnel, which were not in fact observed. The study by Reich and Shukron (2002) supports this refutation of the karstic theory, reasoning that a horizontal fissure “with a uniform width” as long as the Siloam Tunnel could not have existed naturally. They also maintain that there is much more research to be done on the method used to mine the tunnel (Reich and Shukron, 2002).

Clearly there is debate regarding the method used and date constructed of the Siloam Tunnel. However, only the perspective that the tunnel was built under King Hezekiah is expressed in popular media, with “popular” being defined as meant for the general public. There are few videos documenting the archaeological site, which can be found on the internet, but there is much potential for the ways in which it could be deployed in popular culture. One video currently published is called “Hezekiah's Tunnel: Digging for Truth Episode 181” (Associates for Biblical Research, 2022). This miniature documentary touches on the history of the site, citing the Bible as the primary evidence for the accuracy of its story. The video also describes the interactive qualities of the tunnel which tourists can experience and addresses arguments over whether or not the tunnel was built by Hezekiah, claiming that the (archeological) evidence matches the biblical narrative closely and denying theories that the tunnel was built before or after Hezekiah’s time. Three videos, “Hezekiah's Tunnel” (Megalim Institute, 2013), “The Story of Hezekiah's Tunnel” (Armstrong Institute of Biblical Archaeology, 2023), and “David | Israel Adventure | Hezekiah's Tunnel” (The David Movie, 2022) each portray the widely accepted biblical narrative, and the third features the tour experienced by those visiting the tunnel. There is much potential for more representations of the Siloam Tunnel to be created and integrated into

popular culture, especially with the dramatic biblical narrative and celebratory moment depicted in the Siloam Inscription.

Movies about the tunnel could be documentary style or historical fiction; each has the potential to captivate viewers with both inspiration and mystery. Possible scenes which could be depicted include the meeting with Hezekiah and his council, the hewing of the mountain, the moment when the teams met, and the discovery of the Siloam Inscription in 1880. Though the exact method used to create the tunnel is unknown, producers could speculate about it using the current information available; however, they would have to be careful to make the film as historically accurate as possible. Visually, filmmakers could focus on the contrast in lighting between the darkness in the tunnel and the light outside the tunnel. It would be quintessential for them to include at least one extreme wide shot, causing the people in the film to appear small in comparison to the landscape in their background and thus demonstrating their relative size in the great expanse of human history. They could also emphasize the intense moments of the story, such as the impending threat of the siege, the excitement from the meeting of the teams, and the wonder of discovering the Siloam Inscription with auditory components, namely dramatic nondiegetic music. Another element which could be included in movies about the tunnel is interviews with researchers. This would be particularly interesting if scholars with opposing viewpoints were consulted. The mixture of documentary style interviews and cuts to historical fiction scenes would likely be the most effective way to intrigue viewers. The proposed film could appeal to many audiences, but especially those who are interested in archaeology and history or who have completed the trek through the tunnel before.

When exploring the Siloam Tunnel, tourists (who do not use a flashlight) are submerged in darkness, their only option being to reach out and use the walls as a guide in order to navigate

through the passage. With soggy feet, visitors stumble through the winding, confined tunnel, bumping into false starts, low ceilings, and dead ends, until finally, light can be seen. In the same way, researchers work in the darkness, searching for answers in the great expanse of unknown history. The Siloam Tunnel exemplifies the mystery of the ancient past. Clear is its awe-inspiring feat of engineering and considerable potential for being integrated into popular culture; however, there are still many unanswered questions surrounding this archaeological site. Scholars can only hope to someday find the light at the end of the tunnel.

## References

- Armstrong Institute of Biblical Archaeology. (2023, January 8). The Story of Hezekiah's Tunnel. YouTube. <https://www.youtube.com/watch?v=5l4tY2FhQuQ>
- Associates for Biblical Research. (2022, October 9). Hezekiah's tunnel: Digging for truth episode 181. YouTube. <https://www.youtube.com/watch?v=QdbUGO9N9UM>
- Frumkin, A., & Shimron, A. (2006). Tunnel Engineering in the iron age: Geoarchaeology of the Siloam Tunnel, Jerusalem. *Journal of Archaeological Science*, 33(2), 227–237. doi:10.1016/j.jas.2005.07.018
- Frumkin, A., Shimron, A., & Rosenbaum, J. (2003). Radiometric dating of the Siloam Tunnel, Jerusalem. *Nature*, 425(6954), 169–171. doi:10.1038/nature01875
- Hendel, R. S. (1996). The date of the Siloam inscription: A rejoinder to Rogerson and Davies. *The Biblical Archaeologist*, 59(4), 233–237. doi:10.2307/3210565
- Llewelyn, S., Heap, N., & Wrathall, A. (2019). Reading the Siloam inscription as narrative. *Journal for the Study of the Old Testament*, 43(3), 343–358. <https://doi.org/10.1177/0309089217702887>
- Megalim Institute. (2013, December 2). Hezekiah's Tunnel. YouTube. <https://www.youtube.com/watch?v=RI3t80ZSg6M>
- Norin, S. (1998). The age of the siloam inscription and hezekiah's tunnel. *Vetus Testamentum*, 48(1), 37–48. doi:10.1163/1568533982722063

Reich, R., & Shukron, E. (2002). Reconsidering the karstic theory as an explanation to the cutting of hezekiah's tunnel in Jerusalem. *Bulletin of the American Schools of Oriental Research*, 325, 75–80. doi:10.2307/1357715

Rogerson, J., & Davies, P. R. (1996). Was the Siloam Tunnel Built by Hezekiah? *The Biblical Archaeologist*, 59(3), 138–149. doi:10.2307/3210545

Sneh, A., Weinberger, R., & Shalev, E. (2010). The why, how, and when of the Siloam Tunnel reevaluated. *Bulletin of the American Schools of Oriental Research*, 359, 57–65. doi:10.1086/basor25741828

The David Movie. (2022, May 5). David | Israel Adventure | Hezekiah's Tunnel. YouTube. <https://www.youtube.com/watch?v=b6hXcj6ruZs>