Reinterpreting the Obscure Biblical Hebrew Lexeme צעה (*Ẓoʿe*) in Arad Ostracon 16

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Abstract

This article deals with an obscure Biblical Hebrew (BH) wine-associated lexeme, *ẓoʿe* (צעה). The lexeme appears five times as metaphors in the biblical Books of Isaiah and Jeremiah, reflecting consistency in the contemporary Judahite vernacular. The translations of these occurrences vary greatly, suggesting that the idiom may have fallen out of use after the Babylonian conquest in 586 BCE. The lexeme also appears on Arad Ostracon 16 (AO 16), which derives from the late Iron Age fortress of the same name. It was recently discovered thanks to the application of advanced technologies to the ostracon's *verso*, revealing the lexeme הצע, *hẓ*ʿ. In this article, we endorse the newly deciphered reading of AO 16 but reinterpret its content, offering new insight into wine handling in late Iron Age Judah.

Keywords: postscript; Jeremiah; Arad Fortress; bath; jar reuse; Elyashib; wine talk.

1. Introduction

This article studies a late Iron Age Biblical Hebrew (BH) lexeme used in Arad Ostracon 16 (AO 16). The ostracon was discovered in Arad Fortress (Figs. 1–3; see Aharoni 1981; Faigenbaum-Golovin et al. 2016; 2017; 2021), which guarded

the southern approach to Judah and was destroyed during Nebuchadnezzar's conquest in 586 BCE (Herzog et al. 1984; Mazar and Netzer 1986; Herzog 1987; 2002). The archaeological excavations at the site yielded a sizeable epigraphic and paleographic corpus, including about 100 Hebrew ostraca, most of which were probably written over a short period (Aharoni 1981).[1] Since then, the ostraca received numerous amendments, comments, and interpretations (Lemaire 1977: 155–184; Pardee 1978; 1982; Renz and Röllig 1995; Dobbs-Allsopp et al. 2005: 8–41; Na'aman 2011; 2022; Aḥituv 2012: 110–112).
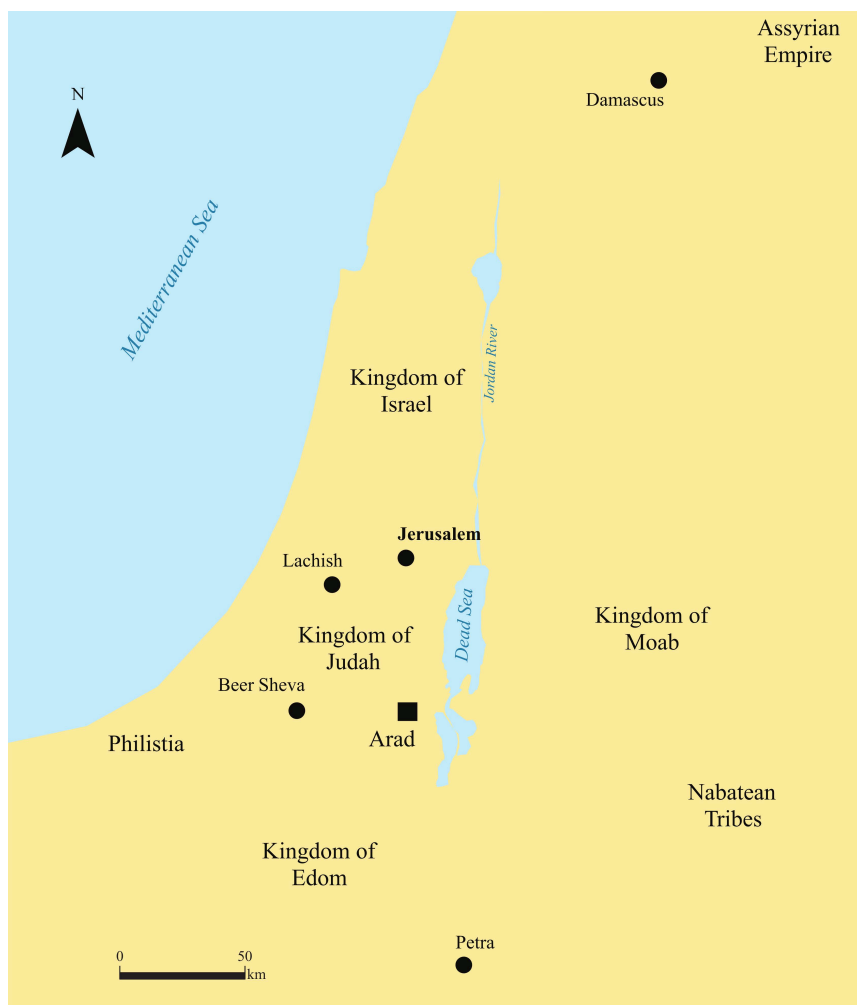

Fig. 1. Map of biblical-period kingdoms and Arad Fortress on the southern fringes of the Kingdom of Judah (illustration: Yulia Gummeni, courtesy of the Israel Antiquities Authority).

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1 Lately, a forensic analysis of the handwriting found a high statistical probability that four to seven individuals wrote the ostraca, which may imply a high level of literacy among military personnel, hinting at a centralized administrative, educational system (see Shaus et al. 2020).

Fig. 2. The Iron Age fortress of Arad, looking southeast
(photo Amir Gorzalczany).

Fig. 3. Plan of Arad Fortress, Strata XI–IV (after Aharoni 1981: 6–7);
the red dot marks where Elyashib's letters were found.

Significantly, a subgroup of ostraca uncovered in a casemate (Fig. 4; Loc. 637) was associated with an official (quartermaster? logistics officer?) named Elyashib, who supervised the storage and allocation of victuals, mostly wine, breadstuffs, and oil.[2] However, one of these ostraca, AO 16, also deals with non-edibles, including a purse, *shekels*, and a three-letter BH lexeme *ḥẓʿ*, which is the subject of this paper.

The AO 16 *recto* was deciphered and published soon after its discovery (Aharoni 1981: 30; Fig. 5), but its *verso* only recently became legible, thanks to an innovative interdisciplinary study applying electro-optical tools and image-processing methods (Mendel-Geberovich et al. 2017). This study showed that the AO 16 *verso* was rotated 90 degrees counterclockwise relative to the AO 16 *recto*.[3] The following discussion is based on this recent reading and decipherment of the AO 16 *verso* (Mendel-Geberovich et al. 2017).

Fig. 4. The Elyashib ostraca upon discovery during the excavation of Loc. 637 in one of the casemates in the southern wall (after Aharoni 1981: 11).

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2 It should be noted that three official seals bearing Elyashib's name were also discovered in the Arad excavations (Aharoni 1981: 119–120, Inscriptions 105–107).

3 Researchers have begun to speculate how many ostraca have been overlooked in excavations because the technology necessary for recognizing and reading them was unavailable (Levy et al. 2022).
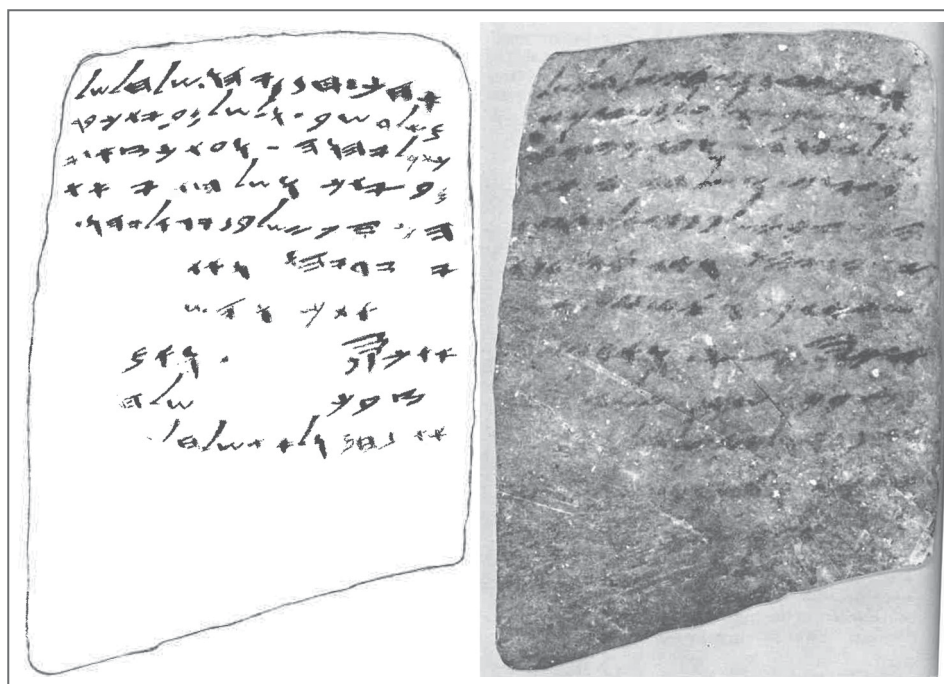
Fig. 5. Arad Ostracon 16 *recto* (after Aharoni 1981: 30).

Crucially for our concerns, the newly deciphered *verso* is the first case where the BH lexeme *ḥẓʿ* (הצע) was identified in a non-biblical text retrieved from a well-dated, late Iron Age archaeological context. In the Bible, closely related lexemes appear five times in the Books of Isaiah (51:14; 63:1) and Jeremiah (2:20; 48:12, twice).

Bible translators and exegetes offer various understandings of the root and derivatives of the lexeme *ẓoʿe* (צעה). The NKJV translates it as "wine-workers," a very broad term, which may have derived from Jenni (1968: 193–199). Mendel-Geberovich et al. (2017: 122) concluded that AO 16 *verso* refers to an aspect of wine talk (*oinoglossia*).[4]

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4 *Oinoglossia* can be defined as the complex field of discourse spanning wine production, marketing, consumption and connoisseurship (Silverstein 2006: 481). To these fields, we may add wine inspection and evaluation. The wide and varied biblical Hebrew lexicon of wine talk was gathered and discussed by several authors, including Sasson (1994) and, later, Jordan (2002). Inscribed items found in excavations in Iron Age Samaria and Judah have furnished further wine talk-related lexemes.

2. Reading AO 16

To place our discussion in its appropriate context, we offer a translation of AO 16 as provided by Mendel-Geberovich et al. (2017). According to this translation, the *recto* reads as follows,

Your friend, Ḥananyahu, (hereby) sends greetings to (you), Elyashib, and to your household. I bless (you) by YHWH. And now, when I left your house. I sent the receipt to Geʾalyahu [by the intermediary] of Azaryhu. Carry the purse with you! And return a[ll of it]. If (there is still) money < … > (in the sum of) 5 *sheqels* Xar. And if there is still any oil left at your [p]ost, send it! (As for the other thing,) drop it. Don`t send it / one unit … [8 lines of unintelligible traces].

The *verso* seems to pick up from where the *recto* leaves off (Fig. 6), "If there is any wine, send {1/2 1/4?}. If there is anything (else) you need, send (= write to me about it). And if there is still < >, gi[ve] them (an amount of) Xar out of it. And Geʾalyahu/Gemalyahu has taken a (type of wine)/*bat* wine," אם היין. .תשלח < וכל חפצך תשלח ואם יש ה] [ ]{חאר} לה [ ]; ונשא גא/מליהו הצע בת יין Mendel-Geberovich et al. (2017: 122) suggest that it pertains to "a certain type of wine that has hitherto been unattested."
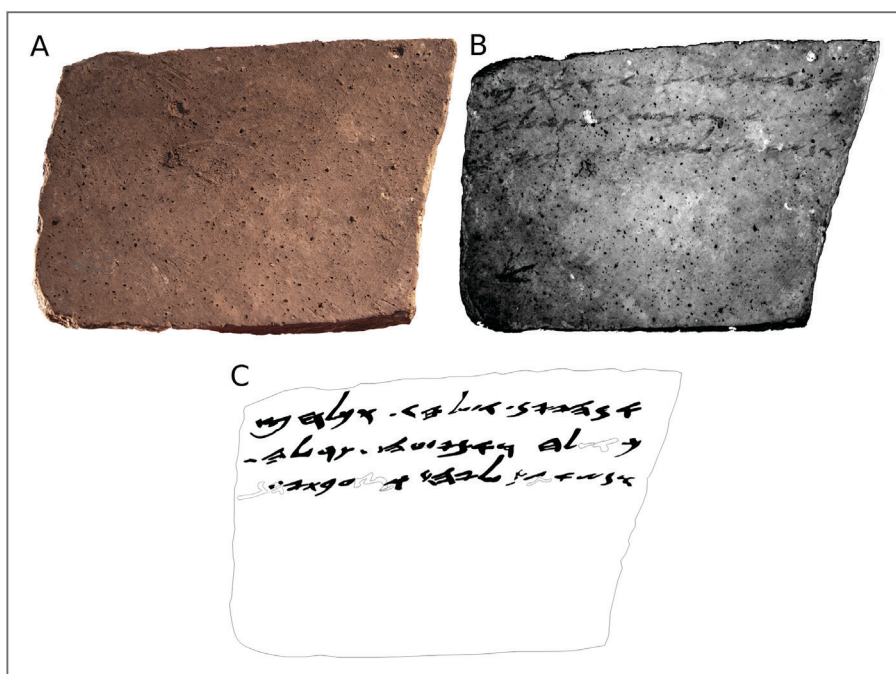

Fig. 6. Arad Ostracon 16 *verso*: (A) The sherd as viewed under natural light, (B) the same sherd photographed with visually enhancing techniques, and (C) a facsimile of the inscription (courtesy of Israel Finkelstein).

3. **Reinterpretation of AO 16** *Verso*

The reading of the AO 16 *verso* provided above and the understanding that it concerns wine talk are widely accepted. However, unlike Mendel-Geberovich et al. (2017: 122), we contend that the lexeme *hẓ'* (הצע) does not refer to a type of wine. In our opinion, it pertains to an activity associated with a container of wine and wine keeping. We base our interpretation on three pillars: (1) the *verso*'s syntax, (2) the imperative form of the lexeme *hẓ'* (הָצַע), and (3) an observation that the three-lexeme phrase הצע בת יין forms a postscript.

3.1. The syntax of AO 16 *verso*

While Mendel-Geberovich et al. (2017: 122) read the lexeme ונשא in the last line of AO 16 *verso* as "has taken," we read it as "carry." We presume it refers to the items listed before on the *verso*. The *waw* opening this lexeme is a special *waw* consecutive, the likes of which occur in other AOs, too (e.g., AO 3:8). In BH, this *waw* is used to mark the last item on a list of objects, actions, events, or situations (Gesenius, Kautzch, and Cowley 1966: §49,132–135; see also §111–112,326–339.).

Consider, for example, Gen 28:21–22: ...אִם-יִהְיֶה אֱלֹהִים עִמָּדִי, וּשְׁמָרַנִי ... וְנָתַן-לִי וְשַׁבְתִּי בְשָׁלוֹם... וְהָיָה יְהוָה לִי, לֵאלֹהִים. The activities "being with," "guarding me," "giving me," and "bringing me back in peace" are summed up by "the Lord becoming my God." Similarly, the *waw* consecutive of ונשא in AO 16 concludes a list of actions, stating that Gemalyahu is sending them. Unfortunately, this list spans the poorly-preserved second part of AO 16 *recto*, precluding the identification of all the actions listed. Thus, the main text of AO 16 concludes with two grammatically connected lexemes: the verb ונשא, "carry," and the courier's identity, Geʾalyahu or Gemalyahu.

3.2. The postscript הצע בת יין

Insofar as the phrase ונשא גא/מליהו marks the end of the letter, as we have just suggested, we may presume that the three lexemes that follow, הצע בת יין, comprise a postscript. Postscripts dealing with wine are not exceptional in the AO corpus (see Lemaire 1977: 159; Pardee 1982: 2, 34, Renz and Röllig 1995: 355; cf., Aḥituv 2012: 90); AO 1:9–10 and AO 2:7–8, for example, feature unofficial messages using wine talk (Aharoni 1981: 14). In this postscript, Elyashib is instructed to perform a task, הצע, associated with בת.

Significantly, *wine* seems to function here as an adjective for the substantive *bath*. This follows the grammatical rule that in BH, according to which the qualifying adjective follows the substantive: "The adjective … which serves as an attribute of a substantive, stands after the substantive, and agrees with its gender

and number" (Gesenius, Kautzch, and Cowley 1966: §132a, 427). Interestingly, in most archaeologically recovered BH texts, the order is the other way around: *Wine* is the substantive followed by an adjective. This is the case, for example, in the Samaria Ostraca, where יין is spelled ין (Rosen 1986), and one finds the lexemes ישן ין, wine-kind (Aḥituv 2012: 278–279 passim). Other archaeologically recovered names of specific wines also manifest this structure: the wine from the Ḥebron area (Demsky 1972; 1979), Gaza (Naveh 1987: 27), Gat Carmel (Shiqmona, south of Haifa) (Naveh 1987: 28), and Arad (Aharoni 1981: 14; Aḥituv 2012: 90).[5] Similarly, the postscript of AO 1 features wine as a substantive defined by its intended use, יין האגנת, wine to be served in craters. However, the syntax of AO 16's postscript implies that *wine* describes *bath*. But what is *bath*?

3.3. What is a *bath* of Wine?

בת in AO 16 *verso* is clearly a component of wine talk vocabulary. However, scholars disagree on its precise meaning. Some contend that it is a measure of volume (e.g., Kletter 2014: 30), while others claim it is a type of ceramic container: "The *bath* was not a fixed measurement for liquid volume, but rather the name of a specific jar—the Judahite storage jar—well-known in archaeological research from the late eighth to the early sixth century BCE" (Lipschits et al. 2010: 459; see also Sergi et al. 2012).

Perhaps the biblical *bath* was associated with the Judahite *lmlk* storage jar, which was often used for wine (cf. Kletter 2014: 30). Notwithstanding, as a measure of volume, the *bath* was estimated at 19.22 (Kletter 2009: 36) or 22.50 liters (Zapassky, Finkelstein, and Benenson 2006; 2009: 54), possibly reflecting early efforts at wine-volume standardization (Lipschits et al. 2010: 469–470).

4. Handling *bath* in the Arad Fortress

Notably, *bath* jars were widely used and reused in Judah (Lipschits, Sergi, and Koch 2011: 15, n. 7; cf., Zimhoni 2004: 1795; Garfinkel and Mendel-Geberovich 2020: 163–164). This implies that empty jars often remained in circulation. Presumably, used and empty *bath* jars accumulated in Arad Fortress. We hypothesize that the directive concerning *bath* handling in the AO 16 postscript was not an exception but could have been the norm. This was probably also the case at other late Iron Age wine-handling sites in Judah.

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5 Numerous post-BH texts continued employing similar formulas: היין השרוני, "the wine of Sharon" (m. Nid. 2:7); יין כרמלי, "wine of Carmel" (b. Nid. 21a); and יין קפריסין, "'wine of Cyprus" (b. Ker. 6a). For a comprehensive discussion on the topic, see Naveh (1987: 29–30).

Given the semi-arid conditions in the area of Arad Fortress, it is unlikely that the region saw wine production in the late Iron Age. The Arad military fortress did not produce wine but stored wine from elsewhere. The AO administrative records mention יין, wine, 12 times, more than any other item. Breadstuffs occur seven times, and שמנ, oil, is mentioned nine times. Olive oil and wine were usually transported in ceramic containers. The Arad bureaucracy uses the term *bath* to discuss the storage, accounting, supervision, quantification, allocation, and transportation of the latter only.

In later periods, the reuse of ceramic containers in the Mediterranean wine trade is a well-documented practice (e.g., Peña 2007: 317–319; Taxel 2018: 71–115). Royal and state-run centers of wine storage and handling, which filled, stored, emptied, and refilled ceramic containers, were widespread throughout the Mediterranean. Something similar has been suggested for late Iron Age Judah, where so-called "central sites" governed the circulation and use of ceramic jars (Lipschits, Sergi, and Koch 2011: 9–10, Tabel 1). According to these studies, officials used two kinds of marks to regulate the *bath* jars: *lmlk* impressions and concentric-circle incisions. The *lmlk* signs were pressed onto the wet clay before firing, whereas the concentric circles were incised into the hard, dry pottery after firing. Thus, *bath* jars bearing both marks went through at least two stages of use. New *lmlk*-stamped jars were sent to outposts full of wine; sometimes, empty *bath* jars with *lmlk* impressions were reused and incised with concentric circles before refilling (Lipschits, Sergi, and Koch 2011: 7–8). AO 16's postscript might reflect this mode of operation, as Hananyahu instructed Eliashib to examine if a jar can be reused.

5. Vinegar and the *Ẓoʿe's* Function

The *ẓoʿe's* task and function are exemplified by AO 2's postscript, which records an incident of vinegar contamination of wine *bath* jars in Arad Fortress (Rosen and Ayalon 2021). This occurs when bacteria infiltrate the jars and turn the wine into vinegar, polluting the vessels in the process (e.g., Mas et al. 2014). A professional wine taster, probably the person titled צעה, *ẓoʿe*, is likely to have offered the diagnosis, having tasted the liquid and smelled the wine. Under these circumstances, a *bath* jar should only be used after thorough washing and sanitizing. Such a procedure is unfeasible in a desert fortress, requiring that they be eliminated instead.

In a similar vein, the AO 16 postscript may be a call to examine used *bath* jars to locate one without traces of vinegar. Thus, the abovementioned postscript of AO 2 (Aharoni 1981: 15) indicates that the souring of wine was not a rare occurrence

in Arad's wine store and that such incidents required the quick disposal of the vessels. Interestingly, a metaphor used by Jeremiah (48:12) describes how one or more persons holding the title צעה, *z̠ o'e*, break vessels. In this verse, the lexeme denotes both the person and the action:

לָכֵן הִנֵּה-יָמִים בָּאִים, נְאֻם-יְהוָה, וְשִׁלַּחְתִּי-לוֹ צֹעִים (z̠o'im) וְצֵעֻהוּ (ze'uhu); וְכֵלָיו יָרִיקוּ, וְנִבְלֵיהֶם יְנַפֵּצוּ.

The traditionally much-used KJV reads, "Therefore, behold, the days come, saith the Lord, that I will send unto him wanderers, that shall cause him to wander, and shall empty his vessels, and break their bottles."[6] The updated NKJV translates the passage, "Therefore behold, the days are coming, says the Lord, that I shall send him wine-workers who will tip him over and empty his vessels and break the bottles." In light of our proposal, the prophet's wine talk metaphor becomes more familiar to his audience.

As indicated above, empty reusable wine jars were valuable and, as such, subject to administrative control. The צעה official examining the jars verified the absence of unpleasant odors or physical damage causing leaks and contaminations. If a jar were deemed unusable, the צעה would destroy it, a procedure accompanied by the clamor of shattering jars (Jer 48:12). On the other hand, the jars that passed inspection were probably cleaned, requiring water and some effort. Jeremiah's use of the lexeme צעה as a metaphor strongly suggests that such events were common at the time.

Given these observations, we suggest employing the English term *cull* for the Hebrew צעה, defined as "selecting or separating out as inferior or worthless" (*Webster's* s.v. "cull") or as "selecting and removing from a group, especially to discard or destroy as inferior" (*Dictionary.com* s.v. "cull"). After culling, the surviving jars constitute a selected group; this is the metaphor employed by the prophet.

6. Discussion and Conclusions

This article focuses on the lexeme צעה, a wine talk element in BH from before the Babylonian conquest of Judah. After the conquest, the lexeme is absent in Hebrew

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6   The root צעה, *z̠o'e*, is interpreted in Gesenius and Robinson (1955: 858) and Kaddari (2006: 918) as "bent, inclined." In Koehler and Baumgartner (1996: 1040; צעה), the word is interpreted as "cellarman." This change from wanderers to "wine talk" was first suggested by Ernst Jenni (1927–2022).

suggested that the lexeme be read as *cellarman*, offering a positive reading of the lexeme. In their new dictionary, they left concepts related to bad behavior, such as prostitution and betrayal, and added cellarman, a concept associated with the positive, desirable aspects of wine talk.

Associating the term צעה with wine talk metaphors in the Books of Isaiah and Jeremiah, its translation as *cellarman* placed it in a relatively broad semantic field (Koehler and Baumgartner 1996: 1040; צעה). In turn, this more exact reading drives home the understanding that the break in Judahite wine production and handling following the Babylonian subjugation was also responsible for the concept's disappearance. A similar case was cited for the lexeme *zedah*, זדה, which appears in the Siloam Tunnel inscription discovered over 140 years ago (Dobbs-Allsop et al. 2005: 499–506). The term remains ambiguous, broadly defined as a "cracked/broken/split rock" (Young 2013: 14–15). It may have been associated with construction and quarrying projects and tunnels in the Kingdom of Judah. Following the kingdom's destruction, the lexeme fell out of use, and its meaning was lost.

The present article reassessed data from BH ostraca from the Arad Fortress. It was built on the work of an interdisciplinary team, which incorporated new analytical technologies into the archaeologist's "toolbox" (see Mendel-Geberovich et al. 2017). The application of these resources resulted in the discovery of hitherto little-known or poorly understood routine wine storekeeping activities, ultimately providing a more comprehensive appreciation of the fortress' bureaucracy. As noted, the Arad Ostraca and Jeremiah were contemporaries predating the Babylonian conquest. Their use of the same wine talk vocabulary, albeit for different purposes, underscores their shared socio-political circumstances. Jeremiah's evocation of צעה in his sermons echoed procedures of jar reuse in Judahite wine stores. Specifically, he employed the idiom in a positive sense, conveying the goodness, honesty, and trustworthiness of the צעה.

To conclude, our study identified a hitherto unknown Judahite official responsible for regulating the use of ceramic wine containers; it also effectively indicated the standard wine container of the late Iron Age Kingdom of Judah. Recognizing the postscript as a bureaucratic literary device helped us understand AO 16 as a whole.

Acknowledgments

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