Literacy in the Kingdom of Judah: A Typology of Approaches and a Criticism of Quantitative Perspectives

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Abstract

The subject of literacy in ancient Israel and Judah remains hotly debated among scholars, and the case of the Kingdom of Judah proves especially controversial. To disentangle a complicated issue, this article first draws up a typology of approaches used by scholars to tackle questions such as the population's rate of literacy, the Judeans' ability to write down literary texts, and the development of literacy throughout the centuries. Then, it critically examines two quantitative approaches, which have been highly influential and currently promote the thesis that the levels of literacy were minimal in the early monarchic period in Judah (in contrast to the situation in Israel) and considerably increased at the end of this period.

Keywords: epigraphy; paleography; literacy; inscriptions; Judah; Old Hebrew; Paleo-Hebrew.

1. Introduction

The question of literacy remains at the forefront of discussions about the epigraphy of the Kingdom of Judah. Whether it concerns the rate of literacy within the population, the ability of the Judeans to write down literary texts, or the

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development of literacy throughout the centuries, researchers are more divided today than ever. Some scholars regard Judah (together with Israel) as a unique case compared to the rest of the Ancient Near East and the Classical World, arguing that it was marked with relatively widespread literacy from the Iron Age on. Most historians, however, tend to align Israel and Judah with other ancient societies in which literacy was the preserve of the few. On the other hand, there exists a recent tendency to argue that literacy was minimal in the early monarchic period in Judah (in contrast to the situation in Israel) and considerably increased at the end of this period. After a brief review of the main approaches that tackle these issues, I critically examine two arguments that play a crucial role in reinforcing this recent thesis.

2. A Brief Typology of Approaches to Literacy in Iron Age Judah

Because the sources of potential information regarding literacy in Iron Age Judah are of various types (epigraphic findings, mentions and allusions in the Hebrew Bible, and archaeological data), it is no wonder that historians and epigraphers have addressed this topic from various angles. These studies can be sorted in multiple ways, and what follows is an attempt to draw up a typology comprised of four main categories. While there are certainly other ways to present the situation, I hope this will bring some clarity to the debate. The following overview is not meant to be exhaustive but to signal the principal merits and limits of each approach. Moreover, it is important to keep in mind that the topic of literacy covers a whole series of different questions (see Demsky 2014: 91). The following queries are typical :

- What was the rate of literacy within the population of Judah, and how did it evolve in the course of the 1st millennium BCE?
- If literacy was not widespread, which sections of the population were able to read and write?
- Were there different types or levels of literacy?
- Can we reconstruct a scribal curriculum?
- From what time were the Judeans able to produce literary works?

Most approaches reviewed in the sections below represent attempts to answer one or several of these questions. We will also see that new questions are emerging.

2.1. Approaches based on the quantity, distribution, or setting of inscriptions

The most obvious kind of evidence is provided by the inscriptions found in excavations (some unprovenanced documents are likely to be authentic, but many are problematic). The relevance of these material data is indisputable, but, as we shall see, drawing inferences from them remains difficult.

2.1.1. The classic quantitative approach

Proponents of what we may term *the classic quantitative approach* regard the number and media of preserved inscriptions as reasonably reliable reflections of the uses of writing in the Iron Age. It is, therefore, a twofold approach. On the one hand, the number of inscriptions recovered is considered a reliable indication of the quantity of texts written during the Iron Age. If a period yields many inscriptions, one can safely infer that the number of texts written during that time was high and that a relatively large number of people must have been able to write. By the same token, if another period produces only a few items, one would reasonably conclude that the rate of literacy was low.

Similarly, the different kinds of *media* on which the preserved texts were written are presumed to reliably reflect the range and frequency of use of media in a given period. Long texts were typically written on papyrus,[1] and brief documents were generally written on ostraca, whole jars, etc. Thus, for scholars endorsing this premise, the absence of texts on papyrus indicates that long texts were not produced during that period. However, they often qualify this reasoning by noting that seals and bullae yield indirect evidence for the existence of papyri, even when the latter have entirely disappeared.

When it comes to Judah, the basic quantitative picture is of a dearth of inscriptions in the 10th and 9th centuries BCE, followed by an increase from the 8th century BCE into the "golden age" of the Old Hebrew script, spanning the late 8th–early 6th centuries BCE. In terms of the media, only one or two papyri from the monarchic period have been found,[2] while the number of ostraca and other media used for brief texts is considerable. However, many inscribed seals and bullae from the 8th to the early 6th centuries BCE have also been found.

1 Leather (or, more precisely, processed animal skin) does not seem to have been much used by Judeans (or Israelites) until the Persian (Haran 1983) or Hellenistic (Mastnajk 2023) period.

2 For a presentation and discussion of the four relevant papyri (including the Marzeah papyrus, regarded as Moabite), see Aḥituv (2023). The fragment of papyrus from Murabba'at, although it comes from the antiquities market, is widely believed to be genuine. The Marzeah papyrus is generally regarded as forged. I agree with Rollston (2017b) that the so-called "Jerusalem papyrus" (Aḥituv, Klein, and Ganor 2017) is also likely a fake. The "Ishmael papyrus" is, strictly speaking, unprovenanced; it has a very uncertain and complicated ownership story.

For some scholars, this means that literacy in Judah was very limited until the 8th century BCE and that long texts on papyrus were likely written afterward, although it is unclear what quantity was then produced. One way or another, this approach underlies many studies (e.g., Finkelstein 2020).

The strength of this approach derives from its reliance on solid, material data. Whereas biblical books were often subjected to many compositional stages, inscriptions are "primary sources" in the sense that they were written at a specific time without subsequent editing. However, the classic quantitative approach is frequently criticized for relying on questionable hypotheses (Millard 2008; Lemaire 2015; Richelle 2016; Rollston 2017a; Blum 2019; Greene 2023: 378–379). Indeed, applying conclusions drawn from preserved inscriptions to all the inscriptions that existed in antiquity constitutes a considerable leap, structurally similar to an argument from silence. Additionally, it is well-known that papyrus cannot survive for long in the Mediterranean climate of ancient Judah (and Israel). Nevertheless, this approach still looms large in current discussions of literacy in the Kingdom of Judah, and fresh arguments have recently been made to support it. Therefore, I will return to this approach in the second part of the article.

2.1.2. Approach based on geographical distribution and setting

The second approach focuses on the geographical distribution and setting of inscriptions. As it happens, inscriptions have been found in sites distributed over many areas of the territory of the ancient Kingdom of Judah, suggesting that literacy was not confined to the capital, Jerusalem, or even to political, military, or economic centers. Rather, it was present in most of the kingdom, including "modest" sites such as minor towns.

Moreover, Shmuel Aḥituv and Amihai Mazar (2020: 435) have observed that archaeologists have uncovered inscriptions from various contexts, including domestic ones, suggesting that writing was not the preserve of a few official scribes working in public buildings but an everyday practice exercised by people who were not necessarily professionals. This point needs some qualification, as the place of an inscription's recovery need not be where it was written. For instance, some texts could be written by a local clerk or accountant, and some objects could be inscribed by those who made them and taken home by somebody else, the same way that most texts and objects in our houses have been written and manufactured elsewhere.

However, the same objection does not hold for graffiti on the walls of some caves in Judah, likely produced by refugees fleeing the Assyrians or the Babylonians (Parker 2003); nothing suggests they were written by scribes. This yields some

support for the notion that literacy was not the preserve of specialists in the late monarchic period (Schniedewind 2013: 112–114; Millard 2021: 5–6). However, this support is limited because the number of graffiti is small, and because we cannot rule out the possibility that the persons who wrote them happened to be part of an elite or a class of persons in which literacy was unusually high, such as the military. Indeed, a significant number of ostraca have been found in fortresses, notably at Tel Arad, Tel Lachish, and Horvat ʻUza, which suggests a relatively high rate of literacy in the military, at least among officers. This is seemingly confirmed by several ostraca where officials explicitly mention writing a message or telling a colleague to write something (Arad ostraca 1 and 7; Lachish ostraca 4 and 6).

It should also be noted that a significant part of the Old Hebrew corpus consists of brief inscriptions on jars and other ceramic vessels: marks of ownership, brief descriptions of the contents, etc. One could ask: Should we assume the presence of professional scribes behind each of these inscriptions? Is it not more realistic to assume that they were written by the same people who made these vessels or their coworkers? Indeed, another way to approach these issues is to ask whether scribes were likely to have contributed to the finishing details of these objects and question whether the scholarly focus leans too heavily on scribes and too little on artisans and other craftsmen, as recently argued by Alice Mandell (2023b; see also Schniedewind 2013: 105; 2024). She states that in current scholarship, "Scribes are assumed to be the people involved in the production of most ancient Levantine inscriptions" (Mandell 2023b: 125) and that this is an oversimplification. Although current scholarly discussion is arguably a bit more nuanced than she portrays, Mandell's essay is a helpful corrective to a widespread tendency.

Mandell argues that artisans were not only able to use materials and tools to craft objects but also possessed some literacy skills typically attributed to scribes and that the boundaries between the sets of skills of the two professions were blurred (2023b: 136). This raises an interesting question: How do we differentiate between the contributions of scribes and artisans (or other persons involved in the objects' production)? Moreover, what literacy skills did the artisans possess? Mandell cautiously and rightly advocates a case-by-case approach. She concludes, "Sometimes there is clear evidence that the object-maker was the text-maker; other text-types point more clearly to collaborations between a scribe (a literacy specialist) and an artisan with specialized knowledge of tools and particular writing media (the object-maker)" (2023b: 172–173). She also notes that the interest in artisans and "craft-literacy" can "complement" studies focused on scribes (ibid., 98), and I agree that it may well shed light on understudied aspects of literacy. However, the scope of its impact is likely to be limited. The conditions of production of large swathes of writing, including long literary compositions,

are likely to remain unaffected by the craft-literacy angle, and Mandell is right in assuming that these are two distinct directions of research worth pursuing.

Underlying these questions is a difference in approach between scholars. Some epigraphers focus on "scribes," regarded as writing specialists, and emphasize the skills they had to learn in a specialized curriculum (e.g., Rollston 2006; 2010). Other scholars observe that a variety of professions produced inscribed objects and infer from this, and from anthropological analogies, that their professional skills included some degree of literacy. In a nutshell, "writing was a skill used in profession" (Schniedewind 2024: 14). Accordingly, an artisan did not necessarily need to ask a professional scribe to add text to an object he or she had produced; the artisan or another member of the workshop community could do it. Part of the debate boils down to what exactly one means by the term *scribe*. While some publications use the word to designate a specialized profession, other publications employ it to designate a person who writes with a certain degree of proficiency, even though this may have been a priest, a soldier, or an artisan. As William Schniedewind writes, "Since literacy was a skill, literacy need not be strictly limited to individuals holding the title 'Scribe'" (2024: 17); moreover, in his view, "Scribal training was part of many professions" (2024: 134).

These variations in the scholarly discourse are due partly to a difference in emphasis or focus and partly to deeper difficulties. Some inscriptions are arguably equivocal concerning the agency behind them; they do not contain features (linguistic, paleographic, or content-related) that could indicate whether they were made by, say, a craftsman possessing literacy skills or a professional scribe. Scholars often assume one or the other rather than proving it. Or, again, they use the word *scribe* in different senses (there is no official terminology in the field). All of this is related to another difficulty: distinguishing, grasping, and describing various types of literacy. Much remains to be done to clarify these issues, a subject I shall return to later.

2.2. Approaches based on external data about writing

Since inference from epigraphic findings remains difficult, scholars have often turned to indirect evidence provided by "external" data, external in the sense that they are not part of the epigraphic record or come from other countries or periods.

2.2.1. Interpretation of biblical references to writing

Hence, a third approach draws on biblical references to writing. The Hebrew Bible mentions a number of scribes (e.g., 2 Sam 8:17; 1 Kgs 4:3; Jer 36), states

that a number of individuals (prophets, priests, kings, etc.) wrote texts, and seems to assume that in the time of the Judges, a randomly selected young man could write a list of names (Judg 8:14). We also encounter passages that seem to presuppose inscriptions everywhere (e.g., Deut 6:9; 11:20). Scholars have discussed these references at length (e.g., Young 1998a; 1998b; Carr 2006: 111–173) and sometimes combined them with inscriptional and comparative evidence (Demsky 2012: 131–168). However, they have done so with varying degrees of critical acumen, ranging from those who take the biblical text more or less at face value (often concluding that many Judeans were literate) to those who take into account the texts' compositional history, fictional and utopic elements, the iconic value of writing, and the semantic range of the verb כתב, which often means *to write* but sometimes means "to have somebody write (for oneself)" (Nissinen 2014). Scholars of the latter stripe tend to arrive at more modest conclusions about what can be inferred from the Bible (Young 1998b: 420).

A different angle was provided by a philological analysis of Biblical Hebrew terms for designating scribal tools and materials (Zhakevitch 2020). It shed light on the origins of ancient Hebrew scribalism: Since many of those terms were borrowed from Egyptian in the late second millennium BCE, it would seem that the scribal technology of the Hebrews was also borrowed from Egypt at that time. This observation suggests that the scribal tradition continued uninterrupted from then to the time of Old Hebrew inscriptions (see also Richelle 2023: 335–338).

2.2.2. Extrapolation from comparative evidence

Scholars have tried to contextualize scribalism in ancient Judah (and Israel) not only by setting it against the background of the Ancient Near East but also by drawing on scribal practices in Syria (Alalakh, Ugarit, etc.), Mesopotamia, Egypt, and ancient Rome and Greece, often with a view to extrapolating to the situation in the Hebrew kingdoms or to differentiating it (for a helpful overview, see Carr 2006: 17–109). Studies of scribalism in Syria, Mesopotamia, and Egypt have tended to point out the important social status and cultural capital attached to the scribal profession and yielded crucial insights into the training of scribes. For many scholars, the estimated low literacy in ancient Rome and Greece (10%–15% of the population, according to Harris [1989]) suggests that a similar situation is likely to have prevailed in ancient Israel and Judah. This claim is sometimes countered by reference to the thousands of Safaitic and Thamudic graffiti inscribed by shepherds (not scribes) on rocks. At first glance, they seem to point to some sort of mass literacy, suggesting that the relative simplicity of the alphabet made it possible for many to write in the Ancient Near East. However, this body of inscriptions only pertains to a highly specific kind of literacy consisting of very

simple messages or lists of names, nothing like the more significant kind of literacy evidenced by texts on other media, especially incised wooden sticks (Stein 2010).

More recently, Daniel Pioske has put forward a new kind of comparative argument, noting that "prose writing develops among most literary cultures well after the use of writing for other means" (2016: 276; 2022). In particular, he notes that prose texts appeared relatively late in Greece, in the 6th century BCE, two centuries after poetic works were first written down. In his view, the earliest redactions of biblical narratives set in prose are unlikely to have been written down in the early monarchic period, when such traditions were primarily transmitted via oral communication and poetry. While there may well be a core of truth to Pioske's reasoning, its application to Judah produces several difficulties (Richelle 2018: 105–106). Firstly, it requires determining when the use of writing began; the evidence suggests a continuous scribal tradition from the late 2nd to the 1st millennium BCE. Secondly, we should remember that Judah inherited its writing practices from Egypt, which featured prose literature, and that both countries were in almost constant contact (for a similar argument, see Greene 2023: 380). At any rate, because Pioske's interesting remark (which merits further investigation) does not preclude the possibility that poetic works were written down in the early monarchic period, his thesis concerns the specification of the literary genres that were likely in use in early Judah rather than the existence of literature there.

The study of writing practices in the Ancient Near East has led some scholars to develop another hypothesis concerning a specific genre of inscription. According to Nadav Na'aman (1998: 334–335), the presence of Assyrian monumental inscriptions (especially royal stelae) in Syro-Palestine from the 9th century BCE stimulated local rulers to erect similar inscriptions in alphabetic script (e.g., the Mesha stele, the Tel Dan stele, etc.). This would provide a *terminus a quo* for the production of such monumental inscriptions by Levantine kings in this area. One could object that this theory is based on an argument *a silentio* (no royal inscription predating the 9th century BCE has yet been found in Syro-Palestine, but could this be due to the vagaries of preservation?) and that royal, alphabetic inscriptions were produced in Byblos as early as the 10th century BCE (perhaps this already stimulated the kings in Syro-Palestine to do the same?). However, Dobbs-Allsopp and Pioske (2019) recently both strengthened and nuanced Na'aman's hypothesis. They strengthened it by pointing out specific instances of imitation of Assyrian monumental stelae, especially in iconography, and they nuanced it by highlighting western influences, especially those of the Neo-Hittite tradition. They write, "However crucial was the Assyrian stimulus for the production of these analogous royal monuments in the greater Levant, at every point the Assyrian impress will have been received in light of equally informing

western (monumental, epigraphic, cultural, historical, oral) traditions" (Dobbs-Allsopp and Pioske 2019: 390–391). While the possibility that alphabetic royal inscriptions were produced in Israel or Judah prior to the 9th century BCE can not be excluded, Na'aman's (1998) hypothesis and Dobbs-Allsopp and Pioske's (2019) refinement thereof explain the available documents well.[3]

Overall, the study of comparative evidence yields important insights into what was possible in an Ancient Near Eastern society. Sometimes, studying comparative evidence helps epigraphers better understand some Judean scribal practices. However, it hardly enables scholars to reach conclusions regarding literacy in Israel and Judah. As Seth Sanders writes, "We know Mesopotamia and Egypt so well precisely because they were so different from Israel" (Sanders 2009: 8).

That said, beyond the comparison of Israel and Judah with other contemporary societies, it is also interesting to compare them with later populations who occupied the same region. A detailed analysis indicates that Jewish literacy in Roman Palestine was relatively low (Hezser 2001). Drawing primarily on the Bar Kokhba documents, Michael O. Wise estimated that 2.5%–5% of adult Judeans living between the early 1st century BCE and the early 2nd century CE could read a book and that 16% could produce a signature (Wise 2015: 350).

2.3. Approaches based on features of the inscriptions

In recent years, approaches have emerged for drawing information on literacy from inscriptions in a manner that goes beyond those mentioned above.

2.3.1. The study of scribal education

One such approach focuses on scribal education and the skills required to write in an alphabetic script. For a long time, epigraphers stipulated that the alphabet was such a simple writing system that learning it took a matter of days. In an important study, Rollston (2006; see also 2010) demonstrated that many Old Hebrew inscriptions followed epigraphic and orthographic conventions that presuppose a standardized curriculum. That said, this conclusion is based on 8th–6th-century BCE texts only, and many inscriptions of that time span are too brief to manifest these conventions. Thus, it is not entirely clear that every writer necessarily benefitted from the same education. In fact, it is conceivable (some would say likely) that limited forms of literacy did not require such an education

3 Another kind of insight gained from a comparative perspective that does not erase local particularities concerns the emergence of Hebrew literature as a vernacular literature (see Sanders 2009).

(Schniedewind 2013: 105). This, of course, is related to the debate mentioned above regarding who among the population possessed literary skills (Section 2.1.2). With this question in mind, current research continues to shed light on scribal education (Schniedewind 2019; 2024).

2.3.2. Paleographic approach

More recently, several scholars have developed a paleographic approach that associates the presence of cursive features with fast writing. The script tends to become cursive when scribes write often and fast with ink on papyrus: Each letter leans more heavily toward the next; the letters' angles become more acute; the downstrokes lengthen, and so on. From the observations made by Lehmann (2008) and Sass (2016), it appears that such cursive features already occur in early 1st-millennium Levantine inscriptions: the 10th-century BCE Byblos Inscriptions, some southern Levantine 9th-century BCE monumental inscriptions (Tel Dan stele, Mesha stele), and even early 9th-century BCE Israelite and Philistine inscriptions (on the Tel Rehov inscriptions, see Greene 2023). Cursive features that had first appeared on papyrus were thus already used on other media in the early 1st millennium: Cursive writing influences "formal" writing. One may add that insofar as cursive features are the *result* of fast writing, it may well be that the production of long texts in the Old Hebrew script predates the emergence of cursive features by several decades.

Crucially, this paleographic approach potentially pushes back in time the date of the emergence of literature in the southern Levant. Admittedly, the relevant inscriptions with cursive features dating from the 10th and 9th centuries BCE do not come from Judah but from Israel, Phoenicia, and Philistia. Nevertheless, it is unlikely that Judah was isolated from its immediate neighbors in this regard. Rather, its alleged isolation is most likely an illusion due to the vagaries of preservation. The recent discovery of inscriptions from Judah itself (e.g., the Ophel ostracon) and from sites that may or may not be in its territory, depending on scholarly opinion (e.g., Khirbet Qeiyafa), tend to nuance the picture. It is likely that inscriptions from Judah with cursive features have been destroyed or are yet to be discovered.

2.3.3. Multimodality perspective

Whereas epigraphers have long focused on the linguistic content of inscriptions, the multimodality perspective, recently applied to Northwest Semitic inscriptions, "considers … other semiotic modes that have the potential to engage audiences" (Mandell 2023a: 348). It entails studying "visual and spatial properties (e.g.,

the script, layout and scale, spatial orientation, and other design features)" of the text and "its socially situated context when it engages an audience" (ibid., 360). In other words, it considers various "literary practices" that go beyond the ability to read and write. For instance, the mere presence of a monumental victory stele erected by a foreign ruler in a city previously controlled by Israel or Judah conveyed an assertion of political domination that spoke even to non-literate people. To take another illustration, some smaller objects such as seals and amulets, when inscribed, acquired an iconic value that could be recognized even by those who could not read the text.

By including within the realm of literary practices the various ways in which non-literate people may have related to inscriptions, this approach represents an extension of the traditional use of the word "literacy." By definition, the multimodality perspective is not aimed at answering the questions listed at the beginning of this article but at broadening the perspective of epigraphers by raising new questions, and shedding light on understudied aspects of inscriptions.

2.4. Contextual approaches that attempt to predict literacy

Although they are necessarily speculative, two approaches attempt to predict the extent of literacy in Judah based on the historical context; they do so from two different angles: a socio-historical angle and a quantitative angle.

2.4.1. Socio-historical approach

The socio-historical approach is relatively dated but still influential. It attempts to correlate the spread of literacy with Judah's "level of development" and its putative connection to or isolation from the surrounding countries. This line of analysis was defended in one of the most influential books on the subject, Jamieson-Drake's (1991) *Scribes and Schools in Monarchic Judah: A Socio-Archaeological Approach*. Jamieson-Drake argues for a correlation between a society's level of development and the emergence of literature. He believes there was a correlation between variables such as economic productivity, skilled artisanship, and centralized control, on the one hand, and "artifactual evidence for writing," on the other. As a result, a society with little evidence for economic and material development is not likely to have produced much scribal activity and long literary works. Building on these premises, some archaeologists, who think Judah was not well developed prior to the 8th century BCE, have inferred that no significant literary work could have been composed there before that date. This is especially the case among scholars who adopt the so-called *low chronology* defended by Finkelstein (1996).

However, other archaeologists argue that Judah was well-developed in the 10th and 9th centuries BCE, and the low chronology is far from being widely accepted (for a summary of these debates, see Richelle 2018: 81–94). In a recent article, Gadot and Uziel (2023: 135–136) write, "The realization that Jerusalem acquired the status of a central geopolitical power by the 9th century seems to have become indisputable." In a special issue of this journal, devoted to state formation in the 10th century BCE Levant (JJAR 1), various archaeologists argue that the kingdom of David and Solomon was significantly more powerful than many of their more skeptical colleagues believe. Whatever one thinks about these matters, the least that can be said is that Judah's status in the early 1st millennium BCE is still controversial. Additionally, the notion that there is a correlation between a society's "level of development" (assuming such development can be well defined and measured in the first place), on the one hand, and its ability to produce literature, on the other, is doubtful, as several counterexamples indicate (Richelle 2016: 578–580). In sum, any scenario built on the socio-archaeological approach rests on shaky foundations.

2.4.2. Quantitative approach based on computational analyses

Recently, some scholars formulated a quantitative approach that links the number of attested scribes or hands to the proliferation of literacy (Faigenbaum-Golovin et al. 2016; 2021; Shaus et al. 2020). According to this view, when relatively numerous contemporary hands can be detected in a given archaeological site (e.g., the Judean fortress of Arad, ca. 600 BCE), we may consider it a plausible setting for the writing of long compositions like those we find in biblical books.

3. A Discussion of Recent Arguments in Favor of Quantitative Approaches

I will now enter into conversation with some colleagues who recently made challenging arguments related to the first and the last approaches mentioned above (Sections 2.1.1, 2.4.2), which are largely quantitative. In particular, Shira Faigenbaum-Golovin, Barak Sober, and other scholars recently achieved breakthroughs in applying the digital humanities to epigraphy. They also discussed the impact of these analyses on the question of literacy. Because these colleagues have made interesting points, I will reflect on some underlying methodological questions.

3.1. The classic quantitative approach

As noted, the classic quantitative approach has two premises: (a) that there is a correlation between the *number* of preserved inscriptions and the proliferation of writing, and (b) that there is a correlation between the *media* of preserved inscriptions and the media effectively used in the Iron Age. Simply put, the increase in the number of inscriptions during the Iron Age reflects an increase in the frequency of writing, and the dearth of inscriptions in certain periods indicates that little writing was practiced at the time. Additionally, because the medium for long literary texts, namely papyrus, is virtually absent in the Iron Age record, literary works were not written in Judah at that time. However, this argument is qualified when we have indirect evidence for literacy, such as seals and bullae (more on this later).

Essentially, these are arguments from silence, and they underlie a number of conclusions reached by several scholars. Thus, Finkelstein (2022: 567) writes that "the epigraphic evidence puts the earliest possible date for the composition of Hebrew literary texts ca. 800 BCE in Israel and close to 700 BCE, if not somewhat later, in Judah." In an article titled *The Emergence and Dissemination of Writing in Judah*, he argues that there is no securely dated Hebrew inscription in Judah from before the late 8th century BCE and that this period marks the beginning of the proliferation of writing in that kingdom, as well as the earliest possible date for the writing of literary works in Judah (Finkelstein 2020: 269–282). He is cautious enough to admit the theoretical possibility of writing on papyrus and royal inscriptions a century earlier. However, in the absence of evidence, he prefers to situate the "ability to compose literary texts" not before the time of Hezekiah and connects this development with the influx of northern refugees (Finkelstein 2020: 274). In a similar fashion, Timothy Hogue (2022: 396) believes that "the appearance of Israelite writing in Judah during this time [i.e., the last third of the 8th century BCE] is just a sort of technology transfer."

The usual reply to these arguments is that the absence of evidence is not evidence of absence and that papyrus is perishable. To substantiate this last point, it is worth noting that Anat Mendel-Geberovitch (2023) has recently counted more than 270 *provenanced* seals and bullae from Jerusalem and eight items from other Judean sites found during the last two decades. These figures should be added to the provenanced items already published in the *Corpus of West Semitic Stamp Seals* (Avigad and Sass 1997) and other publications. Eythan Levy (2023: 304) recently counted 303 provenanced and published Hebrew seals and seal impressions. In contrast to the relative abundance of seals and bullae, only one or two First Temple-period Hebrew papyri have been recovered to date. And, of course, a seal could be used on numerous papyri. Therefore, it is clear that, save

for rare exceptions, papyri simply disappeared in the Judean climate. Moreover, this only concerns the papyri that were sealed; all the others disappeared without a trace.

Significantly, the hypothesis of papyri is not an *ad hoc* explanation unique to Judah (or Israel). Hellenistic Babylonia, where one can distinguish between the sealing of clay tablets and the sealing of parchments or papyri, is a case in point: "A clay tablet was sealed directly on its edges and/or one or both faces, whereas a parchment or papyrus document was rolled, tied, and wrapped about with a spheroidal clay or bitumen bulla resembling a napkin ring which bore the seal impressions on its outer surface" (Wallenfels 2000: 333). Such seals have been found in "Babylon, Larsa, Nippur, and in especially large numbers at Seleucia, on the Tigris" (Wallenfels 1998: xiv). While thousands of bullae have been found, the papyri and leather scrolls they sealed have not. The existence of this lost documentation is now acknowledged in accounts of the history of Mesopotamia, notably in Stephanie Dalley's recent history of the city of Babylon (Dalley 2021:14–15).

However, Finkelstein rejoins with two new and interesting objections. "First, had there been intensive writing on papyri, especially in the Iron IIB–C, some material evidence should have surfaced in the many excavations in the dry Beersheba Valley (also in Edomite sites of the 7th century BCE)" (Finkelstein 2020: 273). In other terms, even if papyrus disappeared in Jerusalem, some traces would have remained in the Beersheba Valley. This is an interesting point, but as Jaakko Frösén explains, papyrus is perishable even in Egypt, where it is only preserved in two situations: when contact with the desert sand absorbs the humidity and when documents are stored in "jars, boxes, and chests in collapsed buildings in dry areas or in tombs in desert cemeteries" (Frösén 2009: 79–80). I doubt such conditions were often met in the Negev. More importantly, and as Finkelstein intimates when he stresses the Iron Age IIB–C, this argument is particularly relevant for the period when the number of Judean sites in the Negev increased. In fact, precisely in the late monarchic period, for which Finkelstein's argument is most interesting, we find indirect evidence of hundreds of papyri in Jerusalem in the form of seals and bullae but no evidence of papyrus in the Negev. In other words, the absence of preserved papyrus in the Negev is no proof that the use of papyrus in other parts of the kingdom was limited or nonexistent.

Finkelstein's second objection is as follows: "Had there been widespread writing on papyri in the Iron IIA and Iron IIB, even concentrated only around the king in Jerusalem, something could be expected to leak to other media of writing: ostraca, incisions, seals and seal impressions and bullae; this is not the case" (Finkelstein 2020: 273). This argument runs into two problems. The first is

that its premise that no inscription on media other than papyrus has been found in Judah before the late 8th century BCE is by no means universally accepted, hinging on the exclusion of part of the evidence (I will return to this issue below).

The second problem pertains to extensive stretches of time in the history of Judah and Israel during which long literary texts are widely conceived to have been written but which have left only an extremely poor epigraphic record. Finkelstein himself believes that a whole body of biblical literature was first written in the Northern Kingdom in the first half of the 8th century BCE: the Jacob cycle, stories about the savior judges, the "original Ark Narrative," and "royal traditions on Saul, Jeroboam I, and Jehu" (Finkelstein 2022: 567). And yet, the 80 years spanning the onset of the 8th century BCE and Samaria's fall hardly left a trace in the site's documentation (the Samaria Ostraca bear the dates of only three distinct years, and very few other inscriptions have been found). Notwithstanding, no scholar would infer from this that the Israelite administration spent most of the 8th century BCE sleeping. While nobody doubts that papyrus was widely used in Samaria in the 8th century, it turns out that for most years of that century, this activity did *not* "leak to" other media. Finkelstein himself reckons that only a "handful of scribes" are attested in the Northern Kingdom in the 8th century (Finkelstein 2020: 273).

Incidentally, the "leaking" argument leads Finkelstein to situate most Persian-period literary activity in Hebrew in Babylonia and Egypt rather than Yehud (Finkelstein 2022: 569–570). He does so despite the fact that a small number of inscriptions in Old Hebrew script have been found in Yehud and even though Hebrew texts could have been written in the Aramaic script. While some biblical books may have been composed in Babylonia and Egypt, this is unlikely for others, such as Haggai or early redactions of Ezra-Nehemiah and Chronicles. Furthermore, one should consider not only the composition of new books but also the *copying* and *redactional development* of others. In the case of the Pentateuch, the renewed studies of the Samaritans and a better understanding of the history of the Gerizim temple have led many scholars to conclude that these five books are the result of a compromise between the authorities of Yehud and of Samaria in the Persian period.

In this regard, Sass and Finkelstein's interesting suggestion that "stratified inscriptions and their radiometric datings" ought to "take center stage" (Sass and Finkelstein 2023: 28) might complicate the issue. Since dating alphabetic inscriptions on paleographic grounds is very difficult for some periods, looking for more solid anchors is an excellent idea. However, while stratigraphy affords relative dating, it does not always yield undisputed absolute dates, certainly not with regard to Iron Age IIA. Radiometric dating is also very approximate for that

period. Moreover, restricting one's observations to stratified inscriptions can only be a provisional, methodological step. Excluding the non-stratified inscriptions means setting aside a large body of evidence and, thus, artificially inflating the "absence of evidence" phenomenon. For instance, Finkelstein excludes the earliest Arad ostraca (Nos. 76–79, 81) and some ostraca from other sites due to their unclear stratigraphic provenience. As a result, in his view, "Of the ca. 200 ostraca known from Judah, almost all originated from the 7th century (mainly late 7th-century) contexts; only two to four ostraca (at Tel Beersheba and possibly Lachish) can be securely dated to the late 8th century BCE" (Finkelstein 2020: 272). I do not think we can be that assertive.

Elsewhere, Finkelstein himself does not refrain from using inscriptions that are dated on paleographic grounds only. He does precisely that with Sass in their latest article, *The West Semitic Alphabet in the Early Iron Age*, about inscriptions from Byblos they assign to their hypothetical "Transitional Phase from Proto-Canaanite to Cursive" around the early 9th century BCE (Sass and Finkelstein 2023: 29, see also 34, Table 2). They "propose that the transitional Proto-Canaanite-to-Cursive alphabet of most arrowheads and Byblos sherds be intercalated *via letter typology (its only dating criterion)* between the contextually dated early and late Iron IIA phases of Gath and Rehov" (Sass and Finkelstein 2023: 32, my emphasis).

Finkelstein's exclusion of inscriptions that cannot be securely dated on stratigraphic grounds also led him to conclude that his "survey puts a question mark on the very foundations of past paleographic observations regarding the Hebrew letters in the different phases of the Iron II" and that "even analysis of the late 8th- versus late 7th-century ink letter shapes is impossible" (Finkelstein 2020: 273). However, this ambitious assertion overlooks the inner logic that underlies a script's development, which can be an object of research in its own right and a device for relative dating. While some paleographic differences may be synchronic (that is to say, due to, for instance, variations between individual hands, the use of different media, and different "registers" of writing, such as monumental as opposed to cursive), the main differences are diachronic. No paleographer submitted to a blind test would confuse the script of the early 8th-century BCE Samaria Ostraca with the late 7th-century BCE Lachish Letters, nor would this paleographer consider these differences synchronic.

Furthermore, from a paleographic viewpoint, considering Judean inscriptions separately from Israelite inscriptions is debatable. Even if one accepted the somewhat radical scenario that the Judeans only learned to write in the Old Hebrew script when Israelite refugees arrived in ca. 720 BCE, it would follow that the Judean 7th-century BCE script evolved from the Israelite script of the

preceding centuries, justifying paleographical comparison. In addition, many paleographical discussions include the Moabite Stone in their analysis of the Old Hebrew script (e.g., Renz and Röllig 2016: 103–208).

Finally, we may have evidence that papyrus was already used in Judah in the 10th, 9th, and 8th centuries BCE. Many anepigraphical bullae (that is, bullae bearing only iconography, no inscriptions) found in the City of David, near the Gihon Spring, and originally dated to ca. 800 BCE feature "papyrus lines" on their backs (Reich, Shukron, and Lernau 2007; Keel 2017). The date of the fills in which these bullae were found is debated: Singer-Avitz (2012) and Finkelstein (2013) do not think they predate the 8th century BCE. However, upon close analysis of the iconography of bullae featuring papyrus lines, Othmar Keel (2017) assigned them to various earlier chronological periods: 1050–900 BCE (ibid., 358, 364, Nos. 176, 193), 945–800 BCE (ibid., 352, 354, Nos. 166, 167), 980–830 BCE (ibid., 366; No. 197), 900–800 BCE (ibid., 372, 374, e.g., Nos. 208, 209, 211, 212, 213), and 830–800 BCE (ibid., 384, 386, e.g., Nos. 232, 234, 235, 237). Moreover, anepigraphic seals are widely considered to predate the emergence of inscribed seals in the 8th century BCE. While one could counter that the Gihon Spring documents could have been sent from Egypt or Phoenicia, petrographic analysis of several bullae demonstrated they were made locally near Jerusalem (Goren, Gurwin, and Arie 2014: 147).

At any rate, this is a striking piece of evidence that the use of papyrus began earlier than many people think, including Finkelstein. Relying on a personal communication with Baruch Brandl, he tries to avoid this conclusion by suggesting that the lines in question may be "prints of wooden boxes or basketry" (Finkelstein 2020: 273). However, Keel's quotations of the scholars who found and examined the bullae (Ronny Reich, Eli Shukron, and Atalya Fadida) clearly show that they differentiated "lines of papyrus" (sometimes "clear lines of papyrus") from traces of other surfaces, tentatively identified as rough straw (Keel 2017: 360; No. 180), a possible leather object (ibid., 362, No. 185), a wooden plank (ibid., 362, No. 188), fine woven fabric (ibid., 364, No. 191), flax (ibid., 366, No. 194), a wicker basket (ibid., 378, No. 220), fabric (ibid., 384, No. 233), etc. In sum, the evidence from the Gihon Spring indicates that papyrus was used in Jerusalem from the 10th (perhaps 11th) century BCE onwards.

3.2. An approach based on the proliferation of literacy

The second argument to be discussed here, albeit much more briefly, concerns the proliferation of literacy. Shira Faigenbaum-Golovin, Arie Shaus, Barak Sober, and others authored important publications applying algorithmic handwriting

(Faigenbaum-Golovin et al. 2016) and forensic analyses (Shaus et al. 2020) to some Arad ostraca (for a recent synthesis, see Faigenbaum-Golovin et al. 2021). In particular, they proved that literacy was widespread among the soldiers and officers occupying the fortress ca. 600 BCE, which is perhaps not entirely new but is now clearer than ever. More precisely, they write, "Our algorithmic work revealed a minimum of five to seven authors in the 16 Arad ostraca. The forensic examination notes 12 different "hands" within this corpus. Even if some of the texts were sent to Arad from other locations, there are still at least three writers among the 20–30 military personnel stationed at this small, remote fortress" (Faigenbaum-Golovin et al. 2021: 155).

Here is what they conclude in terms of significance for literacy (Faigenbaum-Golovin et al. 2016: 1),

> Scholars debate whether the first major phase of compilation of biblical texts took place before or after the destruction of Jerusalem in 586 BCE. Proliferation of literacy is considered a precondition for the creation of such texts. Ancient inscriptions provide important evidence of the proliferation of literacy. This paper focuses on 16 ink inscriptions found in the desert fortress of Arad, written ca. 600 BCE. By using novel image processing and machine learning algorithms we deduce the presence of at least six authors in this corpus. This indicates a high degree of literacy in the Judahite administrative apparatus and provides a possible stage setting for compilation of biblical texts.

The key sentence in the preceding quotation is, "Proliferation of literacy is considered a precondition for the creation of such [i.e., biblical] texts." The same kind of reasoning underlies the conclusion of a more recent article: "Widespread writing within the military, religious and civil bureaucracies hint at the existence of an appropriate educational system in Judah at the end of the First Temple period…The unprecedented scribal activity during this era … provides a suitable literacy level and historical context for the composition and dissemination (including appreciation among the population) of several fundamental Judahite biblical texts" (Shaus et al. 2020: 10).

This is an interesting but perplexing statement. Why should a relatively high number of literate people be a prerequisite for the production of long literary texts? Why could a single scribe with appropriate training not produce such a written work? Faigenbaum-Golovin et al. (2016: 4) anticipated this objection, saying, "True, biblical texts could have been written by a few and kept in seclusion in the Jerusalem Temple, and the illiterate populace could have been informed about

them in public readings and verbal messages by these few. However, widespread literacy offers a better background for the composition of ambitious works such as the Book of Deuteronomy and the history of Ancient Israel in the Books of Joshua to Kings (known as the Deuteronomistic History), which formed the platform for Judahite ideology and theology" (see also Faigenbaum-Golovin et al. 2021: 155).

It is unclear whether "widespread literacy" is considered a better background because it implies (a) a larger audience (readership) for long literary works, (b) relatively numerous scribes capable of producing collaborative works, or (c) a cultural-professional atmosphere conducive to the production of ambitious works. At any rate, all these options are problematic: (a) The notion of widely circulating scrolls across a literate population is clearly anachronistic (and it would also be anachronistic to imagine numerous scribes giving public readings to a non-literate population); (b) the notion that the Deuteronomistic history was composed in the late monarchic period by a team of scribes is out of touch with most current models in compositional criticism; it is much more realistic to assume the existence of a 7th-century BCE "Deuteronomistic library" of individual scrolls that were integrated into a whole history (Römer 2005; 2013); and (c) a cultural-professional atmosphere is a mere impressionistic notion.

In fact, the most recent studies on the uses of scrolls in Judah (and Israel) argue that very long scrolls capable of containing extensive prophetical books like Isaiah only appeared in the Hellenistic period (Carr 2023; Mastnjak 2023; Carr and Gayer 2024). If so, we need to rethink how and when long compositions that were originally preserved on multiple scrolls came into being (for preliminary reflections, see Richelle 2024). Notwithstanding, Iron Age Judah could produce literary scrolls, a capacity that is not directly related to the proliferation of literacy. Moreover, Faigenbaum et al. (2016) make an important concession, allowing for the writing of more modest literary works (for instance, the composition of minor prophetic books) when literacy was not widespread. Furthermore, the word *composition* is rather ambiguous. One should distinguish between the technical ability to write down a long composition and the cognitive ability to compose one that could be transmitted orally over a certain period of time. This distinction between writing and literary composition highlights the fact that the proliferation of literacy (as potentially attested by inscriptions found by archaeologists) is not a prerequisite of a "literary culture" capable of producing important works. Finally, as we have seen, Finkelstein himself reckons that only a "handful of scribes" are behind the Northern Kingdom's 8th-century BCE recovered inscriptions —a far cry from widespread literacy—and this is where he situates the writing of a significant amount of biblical literature.

3.3. A note on extrapolation

Taking a step back, it is worth reflecting on the role of extrapolation in discussions of literacy. Some scholars are quick to infer from the widespread literacy in the army of late monarchic Judah that literacy was widespread in the kingdom's population in general or, at least, in all parts thereof. I am not sure about that. I find it interesting that while recent studies of literacy in the Roman world note its proliferation in the military, they do *not* extrapolate from this to the general population (Woolf 2009). As studies of literacy in various societies have shown (Street 1984), the social and symbolic capital associated with it is contingent, variable, and crucial for creating an impetus to write. Some societies value oral transmission well above written transmission. In other words, even if they could, they wouldn't write down stories and poems; a special impetus is required. In the case of the military, there was, of course, a special need for swift communication between military outposts and fortresses and throughout the ranks.

4. In the Guise of a Conclusion: From Quantitative to Qualitative Approaches

At a time when the digital humanities are making significant strides in epigraphy, I suggest that we still have a lot to do, collectively, to make our discussions more sophisticated and our arguments more refined. The present contribution has tried to show that the quantitative approaches—both the old based on the number of preserved inscriptions and attested media and the new based on the number of attested hands—build on unwarranted assumptions and, therefore, fail to grasp the concrete realities of writing in ancient Judah. To be clear, I am not arguing that the quantitative aspects of literacy remained the same throughout the monarchic period; in fact, I believe that the rate of literacy increased over time. But, I doubt our ability to reliably measure their volume with the quantitative approaches developed so far.

Although quantitative approaches still loom large in the discussions of literacy, future progress is more likely to unfold along qualitative lines. The focus on multimodality in recent publications is a sign that the scholarly discussion is extending in that direction. But to answer the lingering questions mentioned at the beginning of this article, it will be especially important to reflect on the distinction between levels or types of literacy. Capturing the realities of the Iron Age will require clarifications regarding the range of literacies at work, as has long been done in the field of Greek epigraphy, where concepts such as *signature literacy* and *commercial literacy* have been explored (e.g., Thomas 2009). This will enable us to go beyond the single variable of the rate of literacy. It is interesting to note, in

this regard, that Wise's discussion on Early Roman Jewish literacy differentiated between two kinds of literacy, one pertaining to people able to read and write and another to people able to write a signature (Wise 2015: 350).

In such an endeavor, we should be open to various possibilities and refrain from making *a priori* predictions based on our intuition, which is inevitably shaped by our own modern experience. We should also avoid projecting onto the society of Judah (or Israel) the realities of other ancient cultures, including those of ancient Greece and Rome. The situation in one society is not "predictive" of the situation in another because the attitudes towards literacy are highly variable and contingent (Street 1984). In a word, we should be open to various possibilities, ranging from multiple literacies practiced in different social categories (as in the case of Greece) to the concentration of literacy skills in the hands of specific parts of the population (as in the case of Mesopotamia, although in Judah and Israel these parts of the population may well have been wider than guilds of professional scribes). In this regard, the main merit of comparative evidence is not to enable predictions but to open our minds to a broader range of possibilities than we would otherwise have entertained.

Moreover, we would do well to consider the history of research in the field of Latin epigraphy, which seems, like Greek epigraphy, to be well ahead of Northwest Semitic epigraphy as regards the study of literacy. As noted by Bodel (2024: 9–10), the discussions on literacy in ancient Rome have gone through several stages during the last half-century:

- First, under the influence of several studies, most notably Jack Goody's (1968) *Literacy in Traditional Societies*, there was a tendency to overestimate the literacy of the Roman Empire's population; this tendency culminated in the 1980s.
- Second, this view was drastically relativized under the influence of William Harris's (1989) important book, *Ancient Literacy*.
- Third, driven by Harris and others, sub-literacies proliferated in the scholarly debate (e.g., name literacy, military literacy, commercial literacy, craftsman's literacy, etc.); they were hypothesized on the basis of *instrumentum domesticum*.
- Fourth, doubts emerged regarding the fragmentation of ancient Latin literacy. In an article eloquently titled *Literacy or Literacies in Rome?* Gregory Woolf (2009: 61) writes that "there was no real fragmentation of writing practices, no specialized literacies and the practices of writing… moved easily between different genres of text. Roman writing practices, in brief, were joined up".

Bodel (2024: 10) notes that "[Woolf's] view goes too far: It is not clear, for example, that those who knew only 'lapidary letters' could also read cursive

script." Nevertheless, "The debate about ancient literacy productively broadened the discussion of Greek and Roman writing practices to include many types of documentary writing preserved in forms and on objects not traditionally considered in discussions of the epigraphic habit but regularly cataloged and studied by epigraphers (as well as, in many cases, papyrologists): graffiti, waxed writing tablets, inked wooden leaves, ostraca, tokens, kiln dockets, stamps, and all the objects comprised in the category of inscribed *instrumentum domesticum*" (ibid., 11).

There is some wisdom in these observations. Presently, an in-depth exploration of various literacies is a *desideratum* in Northwest Semitic epigraphy, in general, and Judean (and Israelite) epigraphy, in particular. However, multiplying the number of sub-literacies may or may not be a good idea. Here again, we cannot use the situation in Rome or Greece to predict the situation in ancient Judah or Israel; scholars need to examine the documentation, especially in Old Hebrew, on its own merits. But it seems reasonable to assume that such an examination will, at the very least, broaden our perspective by directing our attention to less-studied inscription types and leading us to pose new questions about all the inscriptions.

Until now, scholars have looked into several aspects of the epigraphic record for evidence of different literacies in ancient Judah (see notably Schniedewind 2019; 2024), all of which merit further consideration. The relations between the inscriptions and their media, literary genres, and the quality of the handwriting are especially important. The first aspect has already been mentioned in relation to Mandell's discussion of craft-literacy. To illustrate the other two, it will suffice to indicate some questions worth exploring further. For example, do the attestations of epistolary literacy allow us to infer the presence of literary literacy? In other words, were the persons who wrote letters in Old Hebrew also able, be it only theoretically, to write literary texts? Can we assess from the quality of handwriting one's ability to write long literary texts? Let's consider what Na'aman (2015: 65) writes about Horvat ʿUza:

> In particular in the late seventh through early sixth centuries when alphabetical writing spread throughout all districts of the kingdom, scribes might have obtained a higher level of education. This conclusion might be inferred from the discovery of the sapiential composition at Horvat ʿUza, which was probably composed by a local scribe and reflects a high degree of literacy. The same able scribe probably produced some of the ostraca discovered in the gate area, but it is only this unique composition that indicates his scribal skill. Otherwise, we would assume that a clerk who lacks high scribal education wrote the ostraca.

Given the skills required to write a letter, are there really additional scribal techniques necessary for producing an elaborate literary text, whether a poem or a narrative? The ability to form longer sentences, more varied sentences, or more poetic texts all require literary skills that are more cognitive than scribal. Perhaps it was necessary to learn to write a much wider array of words and attend to the related orthographical difficulties. I believe we will need to elucidate such problems in the future.

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