Introduction

WRITING IN THE SOUTHERN LEVANT has existed since the second millennium BCE. Already in the Middle and Late Bronze Ages, two distinct writing technologies are evident in Canaan: cuneiform and alphabetic. Artifacts inscribed with cuneiform, primarily in Akkadian, have been uncovered at sites such as Hazor, Taanach, Megiddo, and Aphek. And, while the corpus of such finds is not extensive—almost seventy diverse objects (e.g., tablets, seals) from Canaan and about one hundred tablets from Amarna that originated in Canaan—the existence of such a corpus suggests that cuneiform was actively studied and utilized on an administrative level in the southern Levant (Horowitz, Oshima, and Sanders 2018, 4–7; Cohen 2019, 248–252, 254). Besides cuneiform finds, fragmentary artifacts with alphabetic writing from the Middle Bronze Age through Iron Age I have been unearthed in various Canaanite locations, including Lachish, Shechem, Gezer, and Beth Shemesh. Such artifacts, inscribed with Canaanite dialect(s), demonstrate that an alphabetic writing system existed in the southern Levant, a system that has its origin in Egypt. Although alphabetic writing is attested in Canaan since the nineteenth century BCE, the number of finds inscribed with alphabetic writing is not extensive, with only around forty extant artifacts (Sass 1988, 51–52, 174–79; Finkelstein and Sass 2013). Despite the paucity of alphabetic finds from the second millennium BCE, almost all finds from ancient Israel beginning with Iron Age II are alphabetic in nature. In essence, during the last two centuries of the second millennium BCE, a transition took place in which cuneiform writing was displaced by an alphabetic writing system, which would be inherited by ancient Israel.

The writing practices of the southern Levant after the alphabetic writing system had fully taken root in the region comprise the focus of this study. Specifically, the study concerns ancient Israel's technology of writing during Iron Age II. Utilizing the Hebrew Bible as its corpus and focusing on a set of Hebrew terms that designated writing surfaces and writing instruments, this examination synthesizes the semantic data of the Bible with the archeological and art historical evidence for writing in ancient Israel. The aim of this

work is twofold: to present a lexicographical analysis of Biblical Hebrew terms related to Israel's technology of writing, and to draw conclusions on the origin of ancient Israel's writing practices. The bulk of this work (chapters 2–5) relates to the first goal; namely, to present a thorough evaluation of relevant Hebrew terms. In order to address the second goal, chapter 6 evaluates the findings of chapters 2–5 in light of ancient writing practices, especially focusing on the ties that Canaan and Israel had with ancient Egypt over the centuries. The argument ultimately put forth in chapter 6 is that Israel's most common form of writing—writing with ink on ostraca and papyrus—is Egyptian in nature and was introduced into Canaan by Egypt during the New Kingdom (1549–1069 BCE), a period when Egypt exercised political domination over the Levant.

1.1. Summary of Previous Research

When one considers the existing scholarship concerning issues of writing in ancient Israel, it quickly becomes apparent that much has been written on education, literacy, and scribes.[1] These topics have also been researched in regard to Mesopotamia, Egypt, and the Greco-Roman world.[2] While there is an abundance of works on literacy and related topics, there are few works that contain discussions of the mechanics of writing in ancient Israel. The current study seeks to fill this lacuna in research by examining Biblical Hebrew terms that designate writing surfaces and instruments in light of the archeological and art historical evidence available for the relevant lexemes. While works on Israel's writing technology seldom synthesize the semantic data of the Bible with the archeological and art historical evidence, it is worth noting those that have done this in the past as well as other works particularly relevant for this study.

Although few in number, there are some works that consider the technology of writing as it existed in ancient Israel. Driver's *Semitic Writing* (1976)

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1. Scholars writing on such topics include Carr 2005; Crenshaw 1998; Byrne 2007; G. I. Davies 1995; P. R. Davies 1998; P. R. Davies and Römer 2013; Demsky 2012; Demsky and Bar-Ilan 2004; Hess 2002, 2006; Hezser 2001; Jamieson-Drake 1991; Lemaire 1981, 1984, 1992, 2001, 2015; Na'aman 2015; Niditch 1996; Richelle 2016; Rollston 2006, 2010, 2015; Sanders 2009; Schmidt 2015; Schniedewind 2004, 2013, 2014, 2017, 2019; van der Toorn 2007; Whisenant 2015. See Quick (2014) for a summary and a critique of the main works. Work has also been done on the origin of the alphabet and the development of the Hebrew script; e.g., Cross 1989, 2003a; Driver 1976; Finkelstein and Sass 2013; Goldwasser 1991, 2016; Hackett and Aufrecht 2014; Hamilton 2006; Lemaire 2017; Naveh 1987, 2009; Rico and Attucci 2015; Sass 1988, 2005; Vanderhooft 2017.

2. Scholars evaluating these questions include Baines 2007; Bowman and Woolf 1994; Brunner 1991; Carr 2005; Cohen 2009; Hagen 2006, 2007, 2011, 2013; Harris 1991; J. J. Janssen 1992; R. M. Janssen and J. J. Janssen 1990; Johnson and Parker 2009; McDowell 1996; 1999, 127–64; 2000; Morgan 1998; Piacentini 2002; Thomas 1992; van Egmond and van Soldt 2012; van Heel and Haring 2003; Veldhuis 1997; Visicato 2000.

discusses the various tools and writing materials of the ancient Near East and connects the textual data of the Bible with archeological and art historical evidence from the ancient Near East. King and Stager's *Life in Biblical Israel* (2001) has a succinct and helpful description of certain tools of writing in ancient Israel. Galling's "Tafel, Buch und Blatt" looks at the main terms for writing within the Bible (1971). Tov's *Scribal Practices and Approaches Reflected in the Texts Found in the Judean Desert* (2004) discusses the technology of writing in the Qumran community. Rollston's *Writing and Literacy in the World of Ancient Israel* (2010) has a section on the attested forms of writing material (e.g., stone, ostraca, papyrus). The 1986 dissertation by van der Kooij, "Early Northwest Semitic Script Traditions," closely analyzes alphabetic inscriptions in an effort to understand how the shapes of the letters were affected by the tools used to write each inscription (1986), while the collection of articles in Hoftijzer and van der Kooij's *Aramaic Texts from Deir ʿAlla* (1976) contains an analysis of the plaster of the Deir ʿAlla inscription as well as a discussion of the ink and pens used to produce the inscription. These last two works provide useful information regarding the mechanics of ancient Israel's writing technology, although they do not limit their discussion to ancient Israel.

Various works discuss individual words or a small group of words related to writing in ancient Israel. *TDOT* (1974–2006) includes semantic studies of various terms (e.g., *lûaḥ*, *ʿēṭ*, *qāne*). Noonan (2019), Muchiki (1999), and Lambdin (1953) discuss the Egyptian origins of certain writing-related Hebrew terms (e.g., *dəyô*, *qeset*, *gōmeʾ*). Hurvitz (1997; 1996) has contributed diachronic studies of terms such as *ʾiggeret*, *sēper*, and *məgillat sēper*. The commentary on Jeremiah by Lundbom (1999, 514, 776) has helpful comments on terms such as *ʿēṭ*, *ḥereṭ*, and *ṣippōren*. Hicks (1983) traces the concept of the term *delet* back to the Akkadian terms *daltu* and *lēʾu*, arguing that a scroll (*məgillā*) resembled in appearance the ancient polyptych writing boards. A brief article by Hyatt (1943) considers a number of the terms from an archeological perspective. Koller's *The Semantic Field of Cutting Tools in Biblical Hebrew* (2012) includes a section on the scribal knife (*taʿar hassōpēr*), while Millard (1997) collects and glosses many of the biblical terms related to writing. There are also websites that contain information on biblical terms related to writing. For instance, the Semantic Dictionary of Biblical Hebrew website (http://www.sdbh.org/) gathers and glosses most of the writing-related terminology. The כלי Database: Utensils in the Hebrew Bible website (http://www.otw-site.eu/en/kli-database/) also has brief articles on various terms connected to writing. Although they lack a discussion of the archeological and art historical evidence, they are helpful because they attempt to map out the meanings of terms related to writing.

Certain works discuss both general and specific aspects of the technology of writing in the ancient world. Diringer's *The Book Before Printing: Ancient,*

Medieval, and Oriental (1953) has a discussion of the technology of writing in the ancient Near East as well as in ancient Greece and Rome; McLean's *An Introduction to Greek Epigraphy of the Hellenistic and Roman Periods from Alexander the Great down to the Reign of Constantine (323 B.C.–A.D. 337)* has a helpful synopsis of the production of lapidary inscriptions in ancient Greece (2002, 1–23). Avrin's *Scribes, Script, and Books* (1991) presents a nice survey of the writing materials and tools used by various cultures in the ancient world. Ellison's 2002 dissertation, "A Paleographic Study of the Alphabetic Cuneiform Texts from Ras Shamra/Ugarit," contains helpful information on the metal styli of Ugarit. Various articles discuss the writing instruments of the ancient Near East (Taylor 2011; Bülow-Jacobsen 2009; Vernus 2002; Black and Tait 2000; Gunter 2000; Pearce 2000; Wente 2000; Whitt 2000; Breasted 1905). Dougherty (1928) considers the use of parchment and papyrus in Mesopotamia, while other articles focus on ancient writing boards (Warnock and Pendleton 1991; Payton 1991; Wiseman 1955). Moore's master's thesis, entitled "Writing Religion: A Study on the Scribes, Materials and Methods Used in the Writing of the Hebrew Prophecies," contains a helpful chapter that collects writing-related lexemes of the Bible and focuses on the use of writing boards in the ancient Near East (Moore 2011, 32–66). Pritchard's *The Ancient Near East in Pictures Relating to the Old Testament* (1974) contains many pictures of actual finds from the ancient Near East. Ashton's *Scribal Habits in the Ancient Near East* (2008) is focused on the technical side of writing in the ancient world. It covers practically all issues concerning the mechanics of writing, including details of layout conventions of inscriptions as well as dimensions of pens, scrolls, and tablets.

Several works focus on the utilization of papyrus in the ancient Near East. Černý's very brief book, *Paper and Books in Ancient Egypt* (1952), discusses the technology of making and using papyrus as a writing material; the book also presents information about writing tools. Bierbrier's edited volume, *Papyrus: Structure and Usage* (1986), consists of studies devoted to close analysis of the papyrus used during different periods in Egyptian history. Lewis's *Papyrus in Classical Antiquity* (1974) focuses on two main topics—the preparation of papyrus and its widespread use in the ancient world. Various scholars have addressed the question of whether biblical texts were written on leather or papyrus. Some scholars have argued that leather was used as early as the First Temple period (Demsky 2007, 238; Hicks 1983, 60–61). Other scholars, however, hold that biblical texts were initially written on papyrus and then on leather during and after the Persian Period (Haran 1982, 1983; Lemaire 1992, 1003; Whitt 2000, 2393).

Other works discuss the artifacts related to the technology of writing. For instance, Nicholson and Shaw's *Ancient Egyptian Materials and Technology* (2000) and Moorey's *Ancient Mesopotamian Materials and Industries: The Archeological Evidence* (1999) contain discussions of Egyptian and

Mesopotamian artifacts used to produce writing implements. Also, one must not forget to mention the collections of the actual inscriptions from the land of Israel and Transjordan; Aḥituv (2008), Dobbs-Allsopp et al. (2005), and Cross (2003b) provide such collections, while shorter works also collect the inscriptions (Finkelstein and Sass 2013; Lemaire 2015). All these works have contributed to examining the Biblical Hebrew terms belonging to the semantic field of writing tools and materials.

1.2. Methodology

The methodology utilized in this study resembles that of Koller (2012); it employs comparative Semitics, archaeology, and lexical semantics. While the former two tools are used to arrive at specific information such as definitions of words and actual finds, the latter tool provides a theoretical framework for the interpretation of the data gathered.

The discussion of each Hebrew term consists of several components. First, the etymological origin of each term is discussed. Each term's Semitic cognates or possible loan vectors are considered, and new suggestions are made wherever necessary. In discussing loanwords, an attempt is made to determine when such words were borrowed into Canaanite or Hebrew. After looking at questions of etymology, the study moves on to analyze the biblical texts containing each term. These biblical texts are closely studied in order to glean information on the meaning of each lexeme. The appearance of the relevant terms in the Dead Sea Scrolls and in Ben Sira is also considered in this study in order to trace the continued use of the terms from Iron Age II to the Hellenistic Period and to acquire any additional semantic information regarding each term. Additionally, in discussing the terms that are actually loanwords, the use of such words in the original language is evaluated in order to supplement the biblical data.

Besides examining the etymology of the relevant words as well as their use in the Bible and extrabiblical texts, the current study also considers the pertinent data available in the early translations of the Bible. The Old Greek translation is examined in order to see how each relevant Hebrew term was translated into Greek; the Targums and the Peshitta are also consulted for a number of infrequently occurring lexemes whose meanings are difficult to ascertain from relevant etymological data and from the translation of these lexemes in the Septuagint.[3] In discussing the Greek translation of relevant Hebrew lexemes,

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3. Data regarding the translation of Hebrew terms in the Targums and the Peshitta are taken from the *Comprehensive Aramaic Lexicon* website (*CAL*) and from Sokoloff's *A Syriac Lexicon* (2009). For citations from the Targums, I use the three-volume set *The Bible in Aramaic Based on*

I will use the designations "Septuagint" and "Old Greek translation" to refer to the original Greek translation of the Hebrew Bible.

In gathering the linguistic data available in the Greek translation of the Hebrew Bible, I utilized several resources to check how the Septuagint renders the writing-related terms in Greek. Specifically, I made use of Accordance Bible Software, the Rahlfs and Hanhart abridged critical edition of the Septuagint (2006), the Göttingen Septuagint (1926–), the Cambridge Septuagint (1906–1940), Holmes and Parsons Septuagint (1798–1827), and Field's edition of the Hexapla (1875). Every occurrence of each term was initially checked in Rahlfs and Hanhart 2006, and I used Accordance Bible Software to assist me in checking the translation of every lexeme. These two resources are the basis for the statistical data that I provide regarding the Greek translation of the relevant words. I understand, however, that the different manuscripts of the Septuagint have variant readings. For this reason, although the statistical data is based on one edition (Rahlfs and Hanhart 2006), I have also incorporated into this discussion all relevant data available in the main critical editions of the Septuagint. Accordingly, with the exception of a few high-frequency terms (e.g., *'eben*, *maṭṭe*, *'ēṣ*), all occurrences of the relevant words were also checked in the Göttingen Septuagint series (1926–); in cases where the Göttingen Septuagint lacked a corresponding volume, the Cambridge Septuagint (1906–1940) and the Holmes and Parsons edition (1798–1827) were utilized. In my discussion of the Greek data, I note every time there is a variant reading for a particular lexeme, and I also refer to the hexaplaric versions and other Greek recensions of the pertinent passages. All references to variant readings are taken from the aforementioned resources, while references to hexaplaric versions or other Greek recensions are taken from the Göttingen Septuagint series (1926–) and, in a few cases, from Field's edition of the Hexapla (1875). Whenever material relating to hexaplaric versions or Greek recensions is relevant, I cite individual volumes in the discussions of the terms.

While I have sought to present a comprehensive picture regarding the translation of the relevant Hebrew terms into Greek, I understand that the Old Greek translation has a complex transmission history that includes various revisions of the Greek text to make it more like the Hebrew text (Tov 2012, 127–47). Nevertheless, it is fruitful to utilize the data available in the Old Greek translation, as well as its revisions, because these sources reveal how the Hebrew words were understood by the Greek translators of the biblical text. Even those revisions that corrected the Greek text according to their Hebrew source disclose how

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Old Manuscripts and Printed Texts by Sperber (2004), *Targum de Salmos* by Merino (1982), and *The Text of the Targum of Job* by Stec (1994); for citations from the Peshiṭta, I use the *The Old Testament in Syriac According to the Peshiṭta Version* by ter Haar Romeny and van Peursen (1972–2019).

the Greek translators understood the Hebrew text. For this reason, it is worthwhile to examine how Hebrew writing-related lexemes were translated into Greek. I am aware, however, that using the Septuagint to determine meanings of Hebrew words (especially those that occur infrequently) may be problematic. First of all, the *Vorlage* of the Septuagint cannot be checked to confirm that a particular Hebrew term stands behind a particular Greek term. When the Greek translation differs slightly from the Masoretic Text, the difference may be the result of a paraphrastic translation on the part of the Greek translator, or it may reflect a difference in the Hebrew *Vorlage* that lies behind the Greek translation. Secondly, it is also possible that the translator's choice to use a particular Greek word stems not from accurate knowledge of the word, but from inference regarding the word's meaning in view of the surrounding context. Suffice it to say that the Septuagint should be used with caution in determining meanings of Hebrew terms. For this reason, the evidence from the Septuagint is utilized in this study as supporting evidence, not as the main argument.

In addition to evaluating the relevant lexemes in regard to their etymology, their biblical and extrabiblical usage, and their rendering in ancient Bible translations, I also make an attempt in the examination of each term to link the textual data of the Bible with archeological and art historical evidence. The discussion of this evidence is not restricted to the finds of ancient Israel. The finds of the ancient Near East from Mesopotamia to Egypt—as well as those of the ancient Mediterranean world—are also utilized to arrive at a better understanding of the terms related to writing in the Bible.

Because this work focuses specifically on lexemes designating writing surfaces and the instruments utilized to produce writing, many writing-related terms are not examined in the study. For instance, Hebrew verbs for writing as well as terms denoting scribes and various types of documents are not considered. While chapters 2–5 comprise the bulk of the discussion regarding the meanings of the relevant writing-related lexemes, concise definitions of the terms discussed can be found at the end of chapter 2 (2.8) and at the end of the main sections of chapter 3 (3.1.5, 3.2.7), chapter 4 (4.2.6), and chapter 5 (5.2.4, 5.3.6).