

The AGNT Project Report—Q2 2021

As a licensee or friend of AGNT or ANLEX, we would like to update you once a quarter about our continuing work to enhance and perfect these databases and about our plans for the future.

The Project. The AGNT Project Report—Q3 2008 introduced the team, outlined ongoing tasks, and discussed potential tasks.



Concordances to the Bible: A History and Prospective

John J. Hughes and Peter C. Patton¹

Introduction

In 1991, to celebrate the publication of the two-volume, ground-breaking Clapp-Friberg *Analytical Concordance of the Greek New Testament*, Peter Patton² and I collaborated on the following article about concordances to the Bible, which appeared in the *Lexical Focus* volume. Only half of that article is included in this issue of the AGNT Project Report; the second part will appear in the Q3 2021 issue.

Peter served as the concordance project's technical mentor at the University of Minnesota during the period when every word in the Greek New Testament was tagged to create the database that the concording program GENCORD would turn into a huge ASCII version of what would become the two-volume *Analytical Concordance of the Greek New Testament*. My role in this undertaking, briefly described below and in detail in the Q2 2014 issue of this report ("Typesetting the Analytical Concordance of the Greek New Testament"), was to take GENCORD's output and typeset it—not a simple task, as the 2014 article explains!

Peter wrote the first draft of the following article. Building on that work, I did extensive additional research into the history of concordances and expanded and rewrote the article to make it more complete.

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¹ We would like to thank Steve M. Bryan (Trinity Evangelical Divinity School) for doing research that provided accurate, precise answers to over five dozen obscure questions about the history of concordances and D. A. Carson (Trinity Evangelical Divinity School) for putting us in touch with Mr. Bryan. Thanks also to Raymond B. Dillard (Westminster Theological Seminary), Wayne A. Grudem (Trinity Evangelical Divinity School), Robert H. Gundry (Westmont College, Raymond G. Harder (Azusa Pacific University), and Moisés Silva (Westminster Theological Seminary) for reading this preface and making many valuable suggestions and corrections. Modem access to the electronic card catalog at Princeton Theological Seminary's Speer Library helped us to obtain precise bibliographical information.

² Formerly director of the University of Minnesota Center for Ancient Studies, the Minnesota Computer Center, and the University of Minnesota Supercomputer Facility.

Philip Clapp's and Barbara and Timothy Friberg's *Analytical Concordance of the Greek New Testament: Lexical Focus* (Grand Rapids: Baker, 1991) and *Grammatical Focus* (Grand Rapids: Baker, 1991) are part of a long and distinguished history of Bible concordance making. This history spans nine centuries and has produced concordances to the Hebrew Bible, the Greek New Testament, and to numerous translations in a variety of languages, such as Greek, Latin, English, French, and German.

The unprecedented organization, unique system of tagging, and truly exhaustive nature of the Clapp-Friberg concordances make these one-of-a-kind works exceptionally valuable to students of New Testament Greek. To appreciate the importance of the Clapp-Friberg contribution to concordances of the Greek New Testament, it is informative to place these works in the broader context of the history of Bible concordance making in general..⁵ Readers who are not interested in the history of concordances but who are interested in a description of the Clapp-Friberg contribution should skip to section 5.5, *Late Twentieth Century: Clapp-Friberg*. In the following history, no attempt has been made to list reprints of concordances. Most major concordances went through many reprintings, until they were superseded by better works.

The following history of concordances to the Bible lists printed works only. No attempt has been made to inventory ancient, hand-written indices and concordances to the Bible. Nor does the following history include information about machine-readable biblical texts or the specialized programs that may be used to manipulate them. For information on these topics, consult John J. Hughes, *Bits, Bytes, & Biblical Studies: A Resource Guide for the Use of Computers in Biblical and Classical Studies* (Grand Rapids: Zondervan, 1987); Ian Lancashire and Willard McCarty, *The Humanities Computing Yearbook* (Oxford and New York: Oxford University Press, 1988, and subsequent vols.); and the annual summary of computer-assisted biblical research programs and resources that is provided in print form by the Computer Assisted Research Group (CARG) at the annual meeting of the American Academy of Religion/Society of Biblical Literature, under whose auspices CARG exists.

In the following history, it is important to keep the dates of four events in mind. About 1205 A.D., Stephen Langton, Archbishop of Canterbury, divided the Bible into chapters. Before Langton, there was no easy way to refer to sections of biblical books. Around 1440, Johannes Gutenberg of Mainz, Germany, invented movable, mold-cast metal type, and the first printing press to take advantage of this technology was created shortly thereafter. Before Gutenberg, there was no easy way to mass produce concordances (or any other books). In 1551 the Parisian Protestant scholar and printer Robert [I] Estienne (latinized as *Stephanus*), then living in Geneva, published the fourth edition of his Greek New Testament. This edition was the first version of the New Testament that was divided into verses. Prior to Stephanus' versification of the New Testament, there was no standardized way of referring to small, discrete units of the New

³ The Septuagint.

⁴ The Vulgate.

⁵ Some of the best sources of information on this topic are David M. Scholer, *A Basic Bibliographic Guide for New Testament Exegesis* (Grand Rapids: Eerdmans, 1971; 2nd ed., 1973), 26–30; Stanley B. Marrow, *Basic Tools of Biblical Exegesis* (Rome: Biblical Institute Press, 1976), 61–68; Joseph D. Allison, *Bible Study Resource Guide* (Nashville: Nelson, 1982), 74–90; *Catholic Encyclopedia*, IV, *s.v.* "Concordances of the Bible" (John F. Fenlon); John McClintock and James Strong, *Cyclopedia of Biblical, Theological, and Ecclesiastical Literature*, II, *s.v.* "Concordance"; *ISBE*, II, *s.v.* "Concordance" (James Orr); *The Jewish Encyclopedia*, IV, *s.v.* "Concordance" (W. Baher); *LTK*, II, *s.v.* "Bibelkonkordanz" (J. Schmid); F. W. Danker, *Multipurpose Tools for Bible Study* (St. Louis: Concordia, 3rd ed., 1970), 1–10; *NISBE*, I, *s.v.* "Concordances" (P. R. McReynolds); *RGG*, I, *s.v.* "Bibelkonkordanz" (F. Hesse); *Sch.-Herz.*, III, *s.v.* "Concordances"; *The Universal Jewish Encyclopedia*, III, *s.v.* "Concordances" (I. Markon); *Zondervan Pictorial Encyclopedia of the Bible*, I, *s.v.* "Concordance" (W. M. Smith). **Note**: The two best sources of information on the history of concordances are Fenlon's article in the *Catholic Encyclopedia* and the article on concordances in the *New Schaff-Herzog Encyclopedia of Religious Knowledge*.

Testament. In 1571 the modern, chapter-based versification scheme for the Hebrew Bible first appeared. Before then, there was no commonly agreed upon, standardized way of referring to small, discrete units of the Hebrew Bible.

1. Creating Concordances by Computer

This section lists computer programs that may be used to produce concordances. Rather than segregate computer-generated concordances into a separate section in the following overview of the history of concordances, computer-generated concordances are listed chronologically, according to text (e.g., Greek New Testament).

If a literary text in any language is available in machine-readable form (i.e., a form that may be read by a computer), then it is possible to perform any number of data-processing tasks on such a text, for example, concordance making. There are a number of computer programs designed for concording texts and producing printed concordances. These programs include *BIBCON* (University of Wisconsin), *COCOA*, *Davidson Program*, *COGS-3* (University of Toronto), *Concord* (Edinburgh University), *GENCORD* (University of Minnesota), *GRAMCORD*, *JeudeMo* (University of Montreal), *KLIC*, *KWIC*, *KWICIndx*, *KWIC-MAGIC*, *KWICMerge* (University of Nebraska-Lincoln), *LEXICO* (University of Wisconsin), *Micro-Concord*, *Misek-Falkoff System*, *Oxford Concordance Program* (*OCP*—Oxford University), *PRORA*, *ptx*, *SearchString*, *Text Analyzer*, *UNICORN*, *WATCON*, and *WordCruncher* (aka *BYU Concordance Program*). The *Micro-OCP*, *WordCruncher*, *KWIC*, *KWICIndx*, *KWIC-*

⁶ See, for example, Delores M. Burton, "Automated Concordances and Word Indices: Machine Decisions and Editorial Revisions," CHum 15 (1982): 195-218; idem, "Automated Concordances and Word Indices: The Early Sixties and the Early Centers," CHum 15 (1981): 139-54; idem, "Automated Concordances and Word Indices: The Fifties," CHum 15 (1981): 1–14; idem, "Automated Concordances and Word Indices: The Process, the Programs, and the Products," CHum 15 (1981): 139-54; idem. "Some Uses of a Grammatical Concordance." CHum 2 (1968): 145–54; Joseph G. Devine, "Computer-Generated Concordances and Related Techniques in the Study of Theology," in E. A. Bowels, ed., Computers in Humanistic Research (Englewood Cliffs, NJ: Prentice-Hall, 1967), 170–78; J. E. G. Dixon, "Concordances KWIC and Complete: An Appraisal," ALLC Bull 6 (1968): 28-33; T. H. Howard-Hill, Literary Concordances: A Complete Handbook for the Preparation of Manual and Computer Concordances (Oxford: Pergamon, 1979); Susan Hockey, A Guide to Computer Applications in the Humanities (Baltimore: The Johns Hopkins University Press, 1980), 41-78; D. J. Koubourlis, "From a Word-Form Concordance to a Dictionary-Form Concordance," in J. L. Mitchell, ed., Computers in the Humanities (Edinburgh: Edinburgh University Press, 1974), 225-33; R. L. Oakman, Computer Methods for Literary Research, rev. ed. (Athens, GA: University of Georgia Press, 1984), 69-87; idem, "Concordances from Computers: A Review Article," in J. Katz, ed., Proof: The Yearbook of American Bibliographical and Textual Studies, 3rd ed. (Columbia, SC: University of South Carolina Press, 1973), 411–26; idem, "The Present State of Computerized Collation: A Review Article," *Proof* 2 (1972): 335-48; S. M. Parrish, "Concordance-Making by Computer: Its Past, Future, Techniques, and Applications," in Brockport Proceedings, 16-33; M. J. Preston and S. S. Coleman, "Some Considerations Concerning Encoding and Concording Texts," CHum 12 (1978): 1-12; Joseph Raben, "The Death of the Handmade Concordance," Scholarly Publishing 1 (1969): 61-69; Romaine O. Smith, Jr., "GENEDEX: GENeral InDEXer of Words with Content," CSHVB 3 (1970): 50-53.

⁷ Ian Lancashire and Willard McCarty's *The Humanities Computing Yearbook* (Oxford and New York, 1988, and subsequent vols.), 317–24, provides information about many of the following programs.

⁸ GENCORD is the program used to produce the Clapp-Friberg concordances.

⁹ GRAMCORD is an IBM-PC-compatible program designed for concording grammatical constructions from a grammatically tagged version of the Greek New Testament. Hughes, *Bits, Bytes, & Biblical Studies*, 556–64, hereafter *BBBS*.

¹⁰ BBBS, 267–69.

¹¹ Ibid., 269–70.

¹² Ibid., 270–73; John J. Hughes, "WordCruncher: High-Powered Text-Retrieval Program," *Bits & Bytes Review* 1, no. 3 (1987): 1–8.

¹³ John J. Hughes, "Mainframe Power in a Microcomputer Text Analysis Program," Bits & Bytes Review 2, no. 1

MAGIC, and *KWICMerge* run on IBM PC-compatible computers and can be used to produce partial or complete concordances from all or some of a text or series of texts.

Concordance programs are a specialized type of text-retrieval program that concord words in context according to user-specified collating (alphabet) and sort sequences. ¹⁴ These programs allow users to study lexical, grammatical, morphological, and other linguistic features in a specified context of the concorded document or simply to locate words and word combinations. Concordance programs allow users to sort and manipulate texts in ways that are difficult or impossible to do with printed concordances. Concordance programs can be used to create different types of concordances. Keyword-in-context (KWIC) is the most common type. Other types include keyword-out-of-context (KWOC) and keyletter-in-context (KLIC), as well as reverse concordances.

A number of major concordances of biblical and nonbiblical materials have been produced from computer-readable texts. Computers allow users to make more complete and more accurate concordances much more quickly than otherwise would be feasible. And computers make it possible to index special language features and to concord them separately, as the Fribergs have done in their grammatically tagged Greek New Testament, which is the basis of the two Clapp-Friberg concordances. The following summary of the history of concordances will indicate which concordances were computer-generated.

2. Concordances to the Vulgate

Antony of Padua (b. A,D, 1195, d. 1231), a Portuguese Franciscan friar, may have been the first person to use *concordance* in the title of a work based on the Vulgate. Instead of being a concordance in the conventional sense of the term, however, Antony's *Concordantiae Morales*¹⁵ appears to have been a book of morals.¹⁶

2.1 Thirteenth & Fourteenth Centuries: Hugo, Conrad

Hugo de Sancto Caro, ¹⁷ a Dominican monk at the monastery of St. James in Paris, ¹⁸ was the first person to use *concordance* in its current sense in the title of a work. Hugo's alphabetized word list of the Vulgate was called the *Concordantiae S. Jacobi* (1230)¹⁹ and was named after the monastery where Hugo lived and worked. In Hugo's day the Bible had not yet been divided into verses. ²⁰ For the purpose of making his concordance, Hugo divided each chapter of the

¹⁴ É.g., alphabetical, reverse-alphabetical, ascending-frequency order, descending-frequency order.

^{(1988): 13–18.}

Translated into English as *Moral Concordances* by J. M. Neale (London, 1856).

¹⁶ Anthony was well known for his sermons against the vices of usury and avarice, and his preaching met with success among the heretics of France and northern Italy. Antony was canonized in 1232 and declared a Doctor of the Church in 1946. His feast day is June 13. He is associated with the return of lost property and is seen as a patron of the poor and as a protector of the pregnant and of travellers.

¹⁷ Sometimes spelled Hugues and Charo and de Saint-Cher.

¹⁸ Hugo later became the first Dominican cardinal.

¹⁹ Also known as the *Concordantiae breves*, because it did not provide the text of the passages it cited.

 $^{^{20}}$ Stephen Langton (d. 1228), Archbishop of Canterbury, is credited with having divided the Bible into chapters (c. 1205). With minor modifications, his is the scheme in common use today. Prior to 1551, the Hebrew Bible was divided into $p\bar{a}r\bar{a}\bar{s}\bar{o}t$, sections based on meaning that date back to the Mishna (c. A,D, 200) and, in a different form, back to the Qumran materials. These sections ($p\bar{a}r\bar{a}\bar{s}\bar{o}t$) were divided into larger units known as $p^et\hat{u}h\hat{o}t$, that is, "open," and into smaller units known as $s^et\hat{u}m\hat{o}t$, that is, "closed." The larger sections came to be marked by a peh in the text (e.g., Gen. 1:6–8) and the smaller by a $s\bar{a}mek$ (e.g., Gen. 3:16). Additionally, the Hebrew Bible was divided into units for liturgical purposes. In Palestine the Torah was divided into $154 s^ed\bar{a}rim$ and read in a 3-year cycle. In

Bible into seven equal parts, which were designated by letters (e.g., A, B, C). No context was provided for the words. Hugo's work was a word list that indicated the chapter and section in a chapter in which words appeared; it did not provide the text of the passages cited. From 1250 to 1252 three English Dominicans²¹ in the same monastery added a context for each word, thus turning Hugo's alphabetized word list into a true concordance. They published their improved version of Hugo's work as *Concordantiae S. Jacobi, Anglicanae* or *Maximae*, to indicate that contexts were provided for each entry. Arlot²² of Prato, a Tuscan and minister general of the Franciscans, improved Hugo's concordance (c. 1285). Hugo's concordance was first printed in 1479.²³

Conrad of Halberstadt reworked and shortened Hugo's concordance (c. 1310), and, according to tradition, added the indeclinable words. Conrad's was the first *printed* concordance (Strasburg, 1470; 2nd ed., 1475).²⁴

2.2 Fifteenth Century: John of Ragusa, Brant

John of Ragusa,²⁵ who was engaged in disputes with Bohemians about the meaning of *nisi* and with Greeks about the meanings of *ex* and *per*, commissioned his Scottish chaplain, Walter Jonas, to concord these and other particles. Jonas worked three years on this task, organizing his work according to the books of the Bible, not alphabetically. Two other persons completed Jonas' work and alphabetized the results (*c*. 1435). John of Segovia,²⁶ archdeacon of Villaviciesa,²⁷ wrote the preface.²⁸

Sebastian Brant's *Concordantiae maiores bibliae tam dictionum declinabilium quam indeclinabilium* (Basel, 1496) added John of Ragusa's work on the indeclinable words of Scripture to Conrad of Halberstadt's concordance as an appendix.

Babylonia the Torah was divided into fifty-three or fifty-four sections ($p\bar{a}r\bar{a}s\bar{b}t$). In the fourteenth century Rabbi Solomon ben Ishmael divided the Hebrew Bible into chapters on the basis of a Vulgate manuscript, and this division appears in printed editions of the Hebrew Bible from Bomberg's First Rabbinic Bible of 1516–17 to the present day. Although the division of the Hebrew Bible into verses goes as far back as the Talmud (where verses are marked by a Sop Pasuq) and, possibly, to the period of the Mishna (and, possibly, to the period of the scribes), the Palestinian and Babylonian versification schemes differ greatly. The modern, chapter-based versification scheme did not appear until 1563 for the Psalter and 1571 for the whole Hebrew Bible. Prior to 1551, the New Testament was not divided into verses. In that year the Parisian Protestant scholar and printer Robert Stephanus, then living in Geneva, published the fourth edition of his Greek New Testament. This edition was the first version of the New Testament that was divided into verses. Stephanus' is the versification scheme used today. It is sometimes stated that Stephanus versified the New Testament while riding on horseback from Paris to Lyons. But according to Bruce M. Metzger (*The Text of the New Testament*, 2nd ed. [New York: Oxford University Press, 1968], 104), the Latin phrase *inter equitandum*, from which this inference has been drawn, more likely implies that Stephanus versified the New Testament while resting at inns along the road.

- ²¹ John of Darlington, Richard of Stavenesby, and Hugh of Croydon.
- ²² Sometimes spelled Arlotto.

- ²⁴ The larger work from which the editions of 1470 and 1475 were extracted was published in Nuremberg in 1485.
 - ²⁵ Sometimes referred to as John Stoicowic, also spelled Stoikowitz.
 - ²⁶ Sometimes spelled Socubia.
 - ²⁷ In the diocese of Oviedo.
- ²⁸ Sometimes John of Segovia is incorrectly referred to as the editor of this concordance, which actually is the work of John of Ragusa and Walter Jonas.

²³ In the West, Johannes Gutenberg of Mainz, Germany, invented movable, mold-cast metal type around 1440. Laurens Coster (d. c. 1440) of the Netherlands may have invented movable type around 1430, but each of his letters was cut by hand, not mold-cast. In the East, the Chinese printer Pi' Sheng (c. 1045) made the first known movable type, using separate pieces of clay for each character. Gutenberg had the first printing press to use movable type (c. 1450).

2.3 Sixteenth-Seventeenth Centuries: Stephanus, Plantinus, Mintert

Brant's work became the basis for Robert Stephanus'²⁹ Concordantiae bibliorum utriusque Testamenti (Geneva, 1555). Stephanus greatly improved Brant's concordance by adding verse references and proper names, by interspersing the indeclinable words throughout the concordance as part of the overall alphabetical structure (rather than leaving them as an appendix), and by supplying omissions.

Stephanus' concordance served as the basis for Plantinus' *Concordantiae bibliorum juxta recognitionem Clementinam* (Antwerp, 1599), F. Lucae Brugensis' *Concordantiae Sacr. Bibl. Vugat.* (Antwerp, 1617; Paris, 1683), and the *Repertorium Biblicum . . . studio . . . Patrum Ordinis S. Benedicti, Monasterii Wessofontani* (Augsburg, 1751), published by the Benedictine monks in Wessobrunn.

Until Peter Mintert's *Lexicon Graeco-Latinum*, New Testament only (Frankfurt, 1728), no concordance to the Vulgate provided the original Hebrew or Greek words. Despite its title, Mintert's work is a concordance, as well as a lexicon. It gives the Latin equivalent of Greek words. Additionally, it provides the Hebrew equivalent of Septuagintal words.

2.4 Nineteenth Century: Dutripon & Others

The most important derivative of Stephanus' work was François Pascal Dutripon's *Concordantiae bibliorum sacrorum Vulgatae editionis*, 2 vols. (Paris, 1838; 7th ed., 1880). By providing ample contexts, this work established itself as the best concordance to the Vulgate.

Other noteworthy concordances to the Vulgate are V. Coornaert's Concordantiae Librorum Veteris et Novi Testamenti . . . juxta Vulgatam Editionem (Bruges, 1892), H. de Raze's Concordantiarum S. Scripturae Manuale, 13th ed. (Paris, 1895), and the Concordantiarum Universae Scripturae Sacrae Thesaurus (Paris, 1902), created by Fathers Peultier, Étienne, and Gantois.

3. Concordances to the Hebrew Bible

3.1 Fifteenth Century: Kalonymus

Rabbi Isaac Nathan ben Kalonymus of Arles in Provence, France, used Hugo de Sancto Caro's work as a foundation for a concordance to the Hebrew Bible, *Concordantiae Bibliorum hebraicae innumeris locis emendatae, recognitae auctae*, (1438–48; 1st ed., Venice, 1523; translated into Latin, 1556–59). This concordance was designed to help rabbis in their anti-Christian polemics. Kalonymus' work omitted proper names and indeclinable particles.

3.2 Seventeenth & Eighteenth Centuries: Calasio, Buxtorf, & Others

In his *Concordantiae sacrorum bibliorum Hebraicorum*, 4 vols. (Rome, 1621–22), Mario di Calasio, ³² a Franciscan friar, corrected and enlarged Kalonymus' work by adding a concordance

²⁹ I.e., Robert Estienne.

³⁰ Sometimes spelled Cornaert.

³¹ Other early Hebrew concordances include Rabbi Anschel (Cracow, 1534); Crinesius, *Concordantiae Ebraicae* (Wittenberg, 1627); Layman, *Concordantiae Ebraeo-sacrae* (1681); and Trostius, *Concordantiae Chaldaicae* (Wittenberg, 1617).

³² Sometimes spelled Marius de Calasio.

to the Aramaic parts of the Bible, along with lists of proper names and places. Kalonymus and Calasio arranged their concordances according to Hebrew roots, with derivative forms following their order of appearance in the books of the Bible, rather than following a grammatical order.

Johann Buxtorf, the Elder of Basel and a learned Hebraist, edited and improved Calasio's concordance. Buxtorf's *Concordantia bibliorum Hebraicae* . . . *et* . . . *Chaldaicae* (Basel, 1632), published by his son, offered the following improvements over the concordances of Kalonymus and Calasio: a grammatical classification of verbs and nouns, more correct printing, more correctly discerned roots, additional words and passages, more accurate meanings, and an appendix of all the Aramaic words in the Hebrew Bible. It omitted particles, which later were supplied in Christian Nolde's *Concor. particularum Ebr.-Chald*. (Copenhagen, 1679).³³ References in Buxtorf's concordance are made by Hebrew letters and relate to rabbinical divisions of the Old Testament. Buxtorf's work became the basis of two major Old Testament concordances—Fürst's and Mandelkern's—as well as the foundation for John Taylor's *The Hebrew Concordance adapted to the English Bible, disposed after the manner of Buxtorf*, 2 vols. (London, 1754–57), which includes lexical information. Bernhard Baer edited Buxtorf's work in two parts (Berlin, 1862)³⁴ and added certain particles.

3.3 Mid-Nineteenth Century: Fürst, Wigram, Pick

Julius Fürst's *Librorum sacrorum Veteris Testamenti concordantiae hebraicae* (Leipzig, 1840) is characterized by a corrected text, vowel points, a more nearly perfect listing of derivative forms, information about the rabbinical understanding of the text, the Septuagintal glosses on the Hebrew text, philological and archaeological information, and illustrations from an Aramaic paraphrase, the Vulgate, and three Greek versions. Every word is defined in Hebrew and Latin. In effect, then, Fürst's work includes a brief Hebrew lexicon. Fürst excluded proper nouns, pronouns, and most of the indeclinable particles. B. Davidson published Fürst's work in English as *Concordance of the Hebrew and Chaldaic Scriptures* (London, 1876). For a long time, Fürst's concordance was the standard.

George V. Wigram's *The Englishman's Hebrew and Chaldee Concordance of the Old Testament: Being an Attempt at a Verbal Connexion Between the Original and the English Translation* (London, 1843; 5th ed., 1860) is arranged according to the Hebrew word order.³⁵ Each Hebrew entry word is followed by its transliterated form and all its occurrences in context in the Authorized Version. Verbs are subdivided by form, and verbal entries are listed under their appropriate forms. A Hebrew-English index correlates each Hebrew word with its English glosses and the page number in the concordance where the Hebrew word and all its occurrences in context may be found. An English-Hebrew index correlates each English word in the Authorized Version with the Hebrew word(s) it translates and provides the page number in the concordance where the Hebrew word(s) and all its occurrences in context may be found. This concordance contains (as an appendix) the first complete list of Hebrew proper names ever published. Names are listed alphabetically by Hebrew word, followed by a transliteration, followed by the English translation. References without context are provided. An index lists the proper names alphabetically in English and indicates the page and column number where their

The introduction to this work includes a fascinating explanation of how a bilingual concordance was created

and checked for accuracy in the precomputer age.

³³ Sim. Bened. Tympe added Joh. Michaelis' and Christian Koerber's work on particles to Nolde's concordance (Jena, 1734).

³⁴ Sometimes the date is given as 1847, 1861, and 1867.

^{.....}

Hebrew counterparts may be found. The concordance concludes with a table that lists the chapter-verse variations between the Hebrew Bible and the Authorized Version.

Aaron Pick's *English and Hebrew Bible Student's Concordance* (London, 1845) is an alphabetical arrangement of the words of the English Bible followed by their Hebrew equivalents and the passages in which the Hebrew equivalents occur.

3.4 Late Nineteenth Century: Mandelkern

Solomon Mandelkern's *Veteris Testamenti concordantiae Hebraicae atque Chaldaicae*, 2 vols. (Leipzig, 1896; 2nd ed., Berlin, 1925; 3rd ed., Jerusalem and Tel-Aviv, 1959; rev. 1967; repr. Graz, Austria: Akademische Druck, 1975) is one of the standard concordances to the Hebrew Bible. Mandelkern corrected most of the errors of his predecessors (including Fürst), supplied omitted references, placed entries under their proper roots, corrected grammatical confusions, and added many words. His work includes *hapax legomena*, particles, and all pronouns and proper names. Each entry word is followed by a definition in Latin.

3.5 Mid-Twentieth Century: Lowenstamm, Lisowsky and Rost

The first volume of the projected six-volume *Thesaurus of the Language of the Bible:* Complete Concordance, Hebrew Bible Dictionary, Hebrew-English Bible Dictionary, edited by Samuel E. Lowenstamm in cooperation with Joseph Blau, began to appear in Jerusalem in 1957 (Bible Concordance Press). This work combines a Hebrew concordance with a lexicon to *Biblia Hebraica Stuttgartensia*. Entries are arranged alphabetically, not by root. An English summary follows each Hebrew entry.

Gerhard Lisowsky and Leonhard Rost's *Konkordanz zum Hebräischen Alten Testament* (Stuttgart: Württembergische Bibelanstalt, 1958, 1966) is a photographic reproduction of Lisowsky's legible, handwritten, vocalized (but not cantillated) concordance pages. Each entry word is followed by a brief definition in German, English, and Latin. References to certain prepositions, particles, interjections, and numerals are incomplete. Complete references to proper names are provided but without context.

3.6 1980s: Even-Shoshan, Werkgroep Informatica, Wachsman

Abraham Even-Shoshan's A New Hebrew Concordance of the Old Testament Using the Hebrew and Aramaic Text is one of the standard concordances to the Hebrew Bible. This exhaustive concordance to the Hebrew Bible appeared in Jerusalem in 1977 (3 vols. in 4 vols.). A one-volume edition was published by Baker Book House in Grand Rapids in 1989 (2nd ed., 1990) with verse references in English and an excellent introductory booklet by John H. Sailhamer. All examples of every word are given with context, except for common words, such as prepositions and articles, for which a few examples each are given with context and the remainder by reference only. Words are fully pointed but not cantillated. This concordance, which is based on the Koren edition of the Hebrew Bible, ³⁶ lists all words (except verbal forms) alphabetically by their simplest form, not by root. Verbal forms are listed alphabetically by root (qal infinitive absolute). Each listing for each verbal root includes a list of derivative verbal and substantive forms. The examples under each entry in the concordance are ordered by grammatical form, and each example under each entry word is numbered, thus making it easy to

³⁶ The Koren text is virtually identical with *Biblia Hebraica Stuttgartensia* and with *Biblia Hebraica*. The Koren text includes a list of textual variations between it and other texts.

determine word frequencies. Grammatical forms under an entry are arranged from simplest to most complex. Each time a new grammatical form begins under an entry, an example of the form is printed to the right of the example's number. If an entry word is an example of *Ketib/Qere*, the *Qere* is listed, followed in parentheses by the unpointed *Ketib*. If a nonentry word is an example of *Ketib/Qere*, the *Qere* is listed, followed by a small circle to indicate the *Ketib*. The meanings of an entry word are given in modern Hebrew immediately following the word's listing. Following each definition is a list by number of the examples for the entry word that match the definition. This allows users to see semantic groupings, even if they do not read modern Hebrew. After the list of definitions, the concordance gives synonyms for the entry word, thus making it easy to study a word in its lexical field. After the list of synonyms, the concordance lists all the common and uncommon phrases that include the entry word. Each phrase is followed by the references where it occurs. This makes it easy to locate all the occurrences of common and uncommon phrases.

The Werkgroep Informatica at the Free University of Amsterdam, under the leadership of Dr. Eep Talstra and Dr. Ferenc Postma, is producing a machine-readable version of the Hebrew Bible that is tagged at the morphological, lexical, and grammatical levels.³⁷ This project is known by the acronym OTIK—Old Testament in the Computer. In the process of creating their tagged text, the OTIK, in cooperation with the CIB (see below) and other groups of scholars, is producing the "Instrumenta Biblica" series. The first volume in this series is *Exodus: Materials* in Automatic Text Processing (1983), by Ferenc Postma, Eep Talstra, and Marc Vervenne. There are two parts to this volume: I. Morphological, Syntactical and Literary Case Studies and II. Concordance. The volumes in the "Instrumenta Biblica" series are the results of applying computer technology to the field of biblical research. Each volume will be divided into two parts, and each volume will cover a single book of the Hebrew Bible. Part I of each volume will cover a book's morphological, syntactical, and literary-critical data and will include a general linguistic study of classical Hebrew that features linguistic and literary phenomena that are identified in the analysis. Part II of each volume will consist of a partial concordance of the book under study and will contain an alphabetical arrangement of lexical entries, together with their frequency, reference, and context. The purpose of this part of each volume is to present a catalog of a book's vocabulary.

H. Wachsman's *The Complete Practical Concordance to the Holy Scriptures* (2 vols.) appeared in 1989 (Jerusalem and New York: Feldhaim). This is a Hebrew concordance to the Hebrew Bible.

4. Concordances to the Septuagint

According to tradition (related by Sixtus Senensis), the Basilian monk Euthalius of Rhodes prepared the first concordance to the entire Septuagint (c. 1300).

4.1 Seventeenth & Eighteenth Centuries: Kircher, Trommen

Conrad Kircher's ³⁸ Concordantiae Veteris Testamenti Graecae Hebraeis vocibus respondentes, 2 vols. (Frankfurt, 1607) was the first printed concordance to the Septuagint. Kircher's concordance is arranged according to the order of the Hebrew words, with corresponding Greek words following the Hebrew words. His second volume lists Greek words and their location in the first volume and includes citations from the Apocrypha.

³⁷ BBBS, 505–9.

³⁸ Kircher, who was from Augsburg, was a pastor at Donauwörth.

Abraham van der Trommen's ³⁹ Concordantiae Graecae Versionis . . . LXX interpretum, 2 vols. (Amsterdam and Utrecht, 1718; 2nd ed., Amsterdam, 1742) was the second printed concordance to the Septuagint and remained the standard until Hatch and Redpath's appeared (see below). Trommen's concordance, which incorporates the readings from Aquila, Theodotion, and Symmachus, follows the order of the Greek words and provides a Latin translation for each word. Each Greek entry word is followed by a listing, with context, of its occurrences in the Septuagint. A Greek-Hebrew index correlates each Greek word with the Hebrew word it translates, provides a Latin translation, and indicates where the word is listed in the concordance. A second index is a lexicon to Origen's Hexapla.

4.2 Late Nineteenth Century: Morrish, Hatch and Redpath

George Morrish's *A Handy Concordance of the Septuagint* (London, 1887) provides references but no context. This work was reprinted by Samuel Bagster and Sons Limited (London, 1970, 1971, 1974) and by Zondervan (Grand Rapids, 1976). The 1974 and 1976 editions omit *Handy* from the title. The concordance includes various readings from Codices Vaticanus, Alexandrinus, Sinaiticus, and Ephraemi and an appendix of words from Origen's Hexapla.

All concordances to the Septuagint were superseded by Edwin Hatch and Henry A. Redpath's A Concordance to the Septuagint and the Other Greek Versions of the Old Testament, Including the Apocryphal Books (Oxford, 1897, 3 vols. pub. in 2 vols.; repr. Graz, Austria: Akademische Druck, 1954). This work, which remains the standard concordance to the Septuagint, provides the Hebrew counterpart for every Greek word in each passage cited under each heading in the concordance. A "Supplement," now bound with the two volumes, includes a concordance to Greek proper names, a concordance to the parts of the Greek Ecclesiasticus (Ben Sira) "where corresponding Hebrew equivalents can be given," additional Hexaplaric material, and a Hebrew index to the entire concordance.

5. Concordances to the Greek New Testament

5.1 Sixteenth to Eighteenth Centuries: Betulius, Stephanus, Schmid, Williams

Xystus Betulius' (i.e., Sixtus Birken's) ⁴¹ Συμφωνία ἢ σύλλεξις τῆς διαθήκης τῆς καινῆς—Symphonia sive Novi Testamenti concordantiae Graecae (Basel, 1546) was the first concordance to the Greek New Testament.

Robert Stephanus'⁴² improvement of Betulius' work was completed and published by Robert's son Henri Stephanus⁴³ as the *Concordantiae Graeco-Latinae Testamenti Novi* (Paris, 1594; 2nd ed., Geneva, 1624). Although Stephanus' concordance was better than Betuleius', it was not particularly accurate. It confused similar forms, omitted forms, and included false roots.

Although Erasmus Schmid's⁴⁴ ταμιεῖον τῶν τῆς καινῆς διαθήκης λέξων *sive* Concordantiae omnium vocum Novi Testamenti, 2 vols. (Wittenberg, 1638; Glasgow, 1819) omitted some hapax legomena and inconsistently listed root forms of verbs, this ground-breaking

³⁹ Sometimes spelled Tromme and Trommius and Trommii and Tromm. He was a minister at Groningen.

⁴⁰ Sometimes spelled Xysti Betuleii and Betulejus.

⁴¹ The author's true name. Sometimes spelled Birck. He was librarian at the city library in Augsburg.

⁴² I.e., Robert Estienne.

⁴³ I.e., Henri Estienne. Robert died in 1559.

⁴⁴ Sometimes spelled Erasmi Schmidii.

work, subsequently republished as *Novi Testamenti Iesu Christi Graeci, hoc est, originalis linguae TAMEION, aliis concordantiae* (Leipzig, 1717), formed the basis for all subsequent concordances of the Greek New Testament.

John Williams' *A Concordance to the Greek Testament* (London, 1767) includes the English translation of each word, the principal Hebrew roots corresponding to the Greek words of the Septuagint, short critical notes, and an index.

5.2 Mid-to-Late Nineteenth Century: Wigram, Bruder, Schmoller

George V. Wigram's The Englishman's Greek Concordance of the New Testament: Being an Attempt at a Verbal Connexion Between the Greek and English Texts (London, 1839; 9th ed., 1903) is arranged according to the Greek word order. The concordance begins with a brief lexicon of most of the words in the Greek New Testament, including, in some cases, information about derivation. In the concordance proper, each Greek entry word is followed by its transliterated form and all its occurrences in context in the Authorized Version. An index of proper names gives all the occurrences of all proper names in context. An English-Greek index correlates each English word in the Authorized Version with the Greek word(s) it translates and provides the page number in the concordance where the Greek word(s) and all its occurrences in context may be found. A Greek-English index correlates each Greek word with its English glosses and the page number in the concordance where the Greek word and all its occurrences in context may be found. An appendix lists all the occurrences, without context, of ἀλλά, αὐτός, and $\gamma \dot{\alpha} \rho$ that are not provided with context in the concordance proper. A concordance of various readings arranges the variants from Griesbach, Lachmann, Tischendorf, Tregelles, Alford, Wordsworth, Westcott-Hort, and "The Revisers" alphabetically by Greek word. Ralph D. Winter's The Word Study Concordance (South Pasadena: William Carey Library, 1978) adds Strong's numbers and other numbers that refer to additional language-study aids, as well as an alpha-numeric index, a word-family index, and cross-reference headings, to Wigram's work.

Karl Hermann Bruder's TAMIEION ΤΩΝ ΤΗΣ ΚΑΙΝΗΣ ΔΙΑΘΗΚΗΣ ΛΕΞΕΩΝ sive Concordantiae omnium vocum Novi Testamenti Graeci (Leipzig, 1842; 4th rev. ed., Leipzig, 1888), which is based on the textus receptus, was not superseded until the work of Moulton and Geden (see below). The 1888 edition of Bruder's work included the readings of Tischendorf, Tregelles, and Westcott-Hort.

Alfred Schmoller's *Handkonkordanz zum griechischen Neuen Testament* (Stuttgart, 1869; 14th ed., 1968) is arranged alphabetically, and the Latin equivalent from the Vulgate is given for each Greek word. This is not a complete concordance; not every instance of every entry word is provided. Incomplete entries are so marked. The fourteenth edition is based on the fifteenth and sixteenth editions of the Nestle-Aland text.

Charles F. Hudson's *A Critical Greek and English Concordance of the New Testament* (Boston: Hosea L. Hastings, 1870), produced under the direction of Horace L. Hastings, was revised, completed, and republished by Ezra Abbot (London, 1892, 8th ed.). This indexlike work lists all the passages where each Greek word occurs but provides no context.

Ethelbert W. Bullinger published his *A Critical Lexicon and Concordance to the English and Greek New Testament* (London, 1877; 5th ed., 1908).

Friedrich Zimmer's Concordantiae supplementariae omnium vocum Novi Testamenti Graeci et classibus secundum terminationes distributarum et derivatarum cum nativis verbis collocatarum compositae a F. Z. appeared in Gotha in 1882.

5.3 Late Nineteenth Century: Moulton and Geden

William F. Moulton and Albert S. Geden's Concordance to the Greek Testament According to the Texts of Westcott and Hort, Tischendorf and the English Revisers has been the standard concordance to the Greek New Testament since the publication of its first edition (Edinburgh and New York, 1897; 5th ed. [rev. H. K. Moulton], Edinburgh: T&T Clark, 1978). This work is based on the Greek text of Westcott and Hort (1881 ed.), which was compared with the texts of Tischendorf (1875 ed.) and the English Revisers. Symbols are used to mark New Testament words that occur in the Septuagint and New Testament words that do not appear in classical Greek. Direct quotations from the Old Testament are quoted with the Hebrew text following the Greek. The particles $\kappa\alpha i$ and $\delta \epsilon$ were not concorded.

5.4 Mid-to-Late Twentieth Century: Smith, Stegenga, Bauer, Aland, Santos

Jacob Brubaker Smith's *Greek-English Concordance to the New Testament* (Scottsdale, PA: Herald Press, 1955), which is based on the *textus receptus* (the Stephanus text of 1550) and the Authorized Version, lists 5,524 Greek words and their translations and the frequency of these glosses in the Authorized Version. An English-Greek index lists the English words in the Authorized Version and the Greek words they translate.

J. Stegenga's *The Greek-English Analytical Concordance of the Greek-English New Testament* (Jackson, MS: Hellenes, 1963), which also is based on the *textus receptus* and the Authorized Version, lists and parses all Greek forms, gives their roots, and provides the Authorized Version's translation for each form. No context is given.

Gertrud Bauer's Konkordanz der nichtflektierten griechischen Worter im bohairischen Neuen Testament, a concordance to the Greek words in the text of the Boharic New Testament, was published in Wiesbaden by Harrassowitz in 1975.

The Institut für Neutestamentliche Textforschung at Münster, under the direction of Kurt Aland, has produced two computer-generated concordances to the Greek New Testament: Vollständige Konkordanz zum griechischen Neuen Testament, 2 vols. (Münster, 1978, 1983) and Computer Concordance to the Novum Testamentum Graece of Nestle-Aland, 26th Edition and to the Greek New Testament, 3d Edition (1st ed., 1977; 2nd ed., 1985; 3rd ed., 1987). 45 The first work, ⁴⁶ compiled under the direction of Kurt Aland in cooperation with H. Riesenfeld, H.-U. Rosenbaum, Chr. Hannick, and B. Bonsack, is an exhaustive concordance that consists of two volumes: Volume I. Gesamtwortbestand and Volume II. Spezialübersichten. Volume 1, edited by Kurt Aland, includes the complete vocabulary of the Greek New Testament with contexts. Volume 2, edited by H. Bachmann and W. A. Slaby, includes a reverse dictionary, statistical vocabulary surveys, and a list of all nominal and verb forms. This two-volume set is based on "all modern text editions" from Tischendorf to the present, including the Textus Receptus, and readings from all these critical editions are provided for every entry. Every occurrence of every Greek word is included with context, and verb entries list the prepositions that can be prefixed to the verb. Because of the excessive size (1,909 pages) and prohibitive cost (\$875.00 U.S.) of the Vollständige Konkordanz, the Institut created the Computer Concordance (1,016 pages, \$72.00 U.S.), a complete concordance that is based on the Nestle-Aland text, 26th edition, and the Greek New Testament, 3rd edition (corrected). The Computer Concordance is designed to bridge the

⁴⁵ The German title is *Konkordance zum Novum Testamentum Graece von Nestle-Aland, 26. Auflage, und zum Greek New Testament, 3d edition.* See *BBBS*, 568–69.

⁴⁶ Although this is one of the most impressive productions of its kind, it has been criticized and supplemented by F. Neirynck's *N.T. Vocabulary: A Companion Guide to the Concordance* (1984).

The three-volume *A Comparative Greek Concordance of the Synoptic Gospels*, compiled by Elmar Camillo dos Santos and edited by Robert Lisle Lindsey and James Leonard Burnham, was published in Jerusalem by Dugith in 1989.

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