

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: Part 2

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#### Introduction

In 1991, to celebrate the publication of the two-volume, ground-breaking Clapp-Friberg *Analytical Concordance of the Greek New Testament*, Peter Patton<sup>2</sup> 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!

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Formerly director of the University of Minnesota Center for Ancient Studies, the Minnesota Computer Center, and the University of Minnesota Supercomputer Facility.

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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# 5.5 Late Twentieth Century: Clapp-Friberg

Philip S. Clapp 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 distinguished by their unique organization, unique system of tagging, and truly exhaustive nature. These computer-generated concordances<sup>3</sup> are based on the text of the Friberg's Analytical Greek New Testament (Grand Rapids: Baker, 1981; 3rd printing 1984, with corrections), which is the text of The Greek New Testament (UBS3, 1975)<sup>4</sup> with the Friberg's system of tagging.<sup>5</sup> Every Greek word in the concordances has been assigned a tag that provides up to eight elements of grammatical information. For example, viûv is tagged N-GM-P. N means "noun"; - indicates that this form is not a pronoun; G stands for "genitive case"; M means "masculine gender"; - indicates that this form has no person; and P stands for "plural number." All instances of every Greek word are included with context. Thus each word in the UBS3 and Nestle-Aland texts has been concorded. All interrogatives in the Greek New Testament are grouped together after the last of the regular entries in the Lexical Focus volume. Additionally, the "Critical Apparatus Appendix" in this volume lists all the variant readings and their references from the apparati of the UBS3 and Nestle-Aland texts but without contexts and without tags.

These are analytical concordances. In the lexical-focus volume, entry words (i.e., lemmas, citation forms) are arranged alphabetically. Each entry word is followed by a number that indicates the total number of times any form of this word appears in the Greek New Testament. Each lemma is organized alphabetically by form, and the examples of each form are displayed in their canonical order. (When necessary to avoid ambiguity, forms are subdivided alphabetically by tags, and then the examples are displayed in their canonical order.) Each set of identical forms under a lemma is followed by a number that indicates the number of occurrences of this form. Thus the concordance indicates how many times all the forms of each lemma occur and how many times each form of each lemma occurs. In the grammatical-focus volume, entries consist of the seven major analytical divisions, which are arranged alphabetically. Individual tags

<sup>&</sup>lt;sup>3</sup> The Clapp-Friberg concordances were created by the computer program GENCORD, though a certain amount of hand tagging and a great deal of human verification also were involved.

<sup>&</sup>lt;sup>4</sup> Except for differences of punctuation, capitalization, and paragraphing, the UBS3 text is identical with the 26th edition of the Nestle-Aland text.

<sup>&</sup>lt;sup>5</sup> See Barbara and Timothy Friberg, "A Computer-Assisted Analysis of the Greek New Testament Text," in Peter C. Patton and Renee A. Holoien, eds., *Computing in the Humanities* (Lexington, Mass., and Toronto: Heath, 1981), 15–51, for an explanation of the goals, methodology, and history of the Friberg's tagged database of the Greek New Testament.

The order of lemmata is based on Bauer, Arndt, Gingrich, and Danker, A Greek-English Lexicon of the New Testament and Other Early Christian Literature, with certain exceptions.

<sup>&</sup>lt;sup>7</sup> Adjectives (and adverbs), conjunctions, determiners (or definite articles), nouns (and pronouns), prepositions, particles, and verbs.

under these divisions are arranged alphabetically, then subdivided into sets alphabetically on the basis of the preceding word (i.e., the word that bears the tag), and then the examples are displayed in their canonical order. For the first time in the history of concordance making, the Clapp-Friberg concordances make it possible to locate *every instance of every grammatical form* and *all occurrences of each inflection of each lemma in context* in the Greek New Testament.

# 6. Concordances to the English Bible

In the history of English concordances, the term *complete* has been used to mean "indexes and provides contexts for all instances of all entry words but does not index every word in the Bible," and *exhaustive* has been used to mean "indexes all instances of every word in the Bible but does not necessarily provide context for every word." Thus a *complete concordance* provides all the instances of all the words it indexes, and an *exhaustive concordance* provides all the instances of all the words in the Bible. There are many "complete concordances" that do not index every word in the Bible.

#### 6.1 Sixteenth & Seventeenth Centuries: Day, Marbecke, Newmann

John Day's The Concordance of the New Testament, most necessary to be had in the hands of all soche as delyte in the communication of any place contayned in ye New Testament, (London, c. 1540) was the first concordance to any part of the English Bible.<sup>8</sup>

John Marbecke's A Concordance, that is to saie, a worke wherein by the ordre of the letters of the A.B.C. ye maie redely find any worde conteigned in the whole Bible, so often as it is there expressed or mencioned (London, 1550) was the first concordance to the entire English Bible.<sup>9</sup>

Samuel Newman's *A Large and Complete Concordance to the Bible in English according to the Last Translation* (1643; 2nd ed., 1650; 3rd ed., 1658; 1662; repr. London, 1889) was a revision and extension of Clement Cotton's concordance (1631).<sup>10</sup>

#### 6.2 Eighteenth to Mid-Nineteenth Centuries: Cruden & Others

Alexander Cruden's A Complete Concordance of the Holy Scriptures of the Old and New Testaments, etc; to which is added a Concordance to the Books called Apocrypha

<sup>&</sup>lt;sup>8</sup> This concordance only includes the New Testament. According to the Preface, it was principally the work of John Day, editor of Foxe's *Book of Martyrs*. Thomas Gybson appears to have been the concordance's printer, though often in histories of concordances Gybson is listed as its editor.

<sup>&</sup>lt;sup>9</sup> Other smaller, less important English concordances and concordancelike works appeared about this time, including Walter Lynne's *A brief and a compendious Table, in the Manner of a Concordance* (London, 1550), which was a translation of Conrad Pellican's *Index Liborum* (Zurich, 1537); Robert F. Herrey's *Two Right Profitable and Fruitfull Concordances* (London, 1578); and Christopher Barker's *A Concordance by J. W.* (London, 1579).

<sup>&</sup>lt;sup>10</sup> This work also is known as *Concordance to the Holy Scriptures* and as *Cambridge Concordance* (1720). Other smaller, less important English concordances appeared about this time, including John Downame's summary of Cotton's work (London, 1635; 1689), Richard Bernard's *Thesaurus biblicus* (London, 1644), Robert Wickens' *A Compleat and Perfect Concordance* (Oxford, 1647; 1655), John Hart's *The Fort-Royal of Holy Scriptures* (2nd ed. rev., London, 1652; 3rd ed., Edinburgh, 1732.), Mulbing's concordance (1666), John Jackson's concordance (Cambridge, 1668), John Owen's concordance (London, 1673), Vavasor Powell's *An Useful Concordance to the Holy Bible* (London, 1685)), and Samuel Clark's concordance (1696).

(London, 1737; 3rd ed., London, 1769), became the basis for modern concordances. Although it omits proper names, some other words, and many references, Cruden's concordance remained the most complete concordance to the English Bible for 150 years. It included definitions and discourses on many terms in the concordance proper. A "Compendium of the Holy Bible" and a "Summary of the New Testament," included as appendices, summarize each chapter of the Bible.

John Brown's A Concordance to the Holy Scriptures of the Old and New Testaments (London, 1811) was published in a revised and corrected edition as A Brief Concordance to the Holy Scriptures of the Old and New Testaments (New York, 1812).

John Butterworth's *A New Concordance to the Holy Scriptures*, with improvements by Adam Clark, was published in Boston and New York in 1843.

John Eadie published *An Analytical Concordance to the Holy Scriptures* (New York, 1857). This work was based on Matthew Talbot's *An Analysis of the Holy Bible*.

James Gall's *Layman's English-Greek Concordance*<sup>11</sup> (Edinburgh, 1863; repr. Grand Rapids: Baker, 1975), a bilingual, analytical concordance based on the Authorized Version, is arranged alphabetically by English word. Each English entry word is subdivided by an alphabetized, transliterated listing of the Greek words that are translated in the Authorized Version by the entry word. Each transliterated Greek word is followed by a listing, with context, of its occurrences in the Authorized Version. An index of proper names lists proper names followed by their transliterated Greek counterparts. A Greek-English dictionary lists transliterated Greek words and their glosses in the Authorized Version, as well as additional meanings, where appropriate.

## 6.3 Late Nineteenth Century: Young, Strong, & Others

The two major modern concordances of the Authorized Version, Young's and Strong's, are bilingual concordances that correlate each English word in the Authorized Version with its underlying Hebrew, Aramaic, or Greek counterpart.

Robert Young's *The Analytical Concordance to the Bible* (Edinburgh, 1879; 8th ed. rev., 1939; 21st American ed., New York: Funk & Wagnalls, 1938) correlates the Hebrew, Aramaic, and Greek words with their English glosses and provides definitions for the original language words. Young's is an analytical concordance. Each English entry word is subdivided according to the Hebrew, Aramaic, and Greek words that the entry word translates, and the examples of the entry word are listed under their appropriate Hebrew, Aramaic, and Greek counterparts. Each Hebrew, Aramaic, and Greek word is given a brief definition and a phonetic pronunciation. A concise description of every person and place mentioned in the Bible is provided, and dates are supplied for persons. Hebrew-English and Greek-English index-lexicons correlate Hebrew and Greek words with their English glosses and frequencies in the Authorized Version, so that looking up any Hebrew or Greek word shows every gloss in the Authorized Version for that word and the number of times each gloss occurs. Young's is not an exhaustive concordance, since it deliberately omits certain particles and adverbs and does not list every occurrence of "the LORD."

John Alexander Thom's *A Complete Concordance to the Revised Version of the New Testament* (New York: Charles Scribners and Sons, 1883) is patterned after Cruden's.

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<sup>&</sup>lt;sup>11</sup> Formerly published as *Bible Student's English-Greek Concordance and Greek-English Dictionary*.

<sup>&</sup>lt;sup>12</sup> The transliterated Greek words appear in their "lexical forms"; they are not inflected.

James Strong's *The Exhaustive Concordance of the Bible, together with a comparative concordance of the Authorized and Revised Versions* (London, 1890; 1st ed., 1894; 44th printing, Nashville: Abingdon, 1986)<sup>13</sup> uses a numbering system to correlate concordance entries with their Aramaic, Hebrew, and Greek counterparts, which are listed in Hebrew-English and Greek-English lexicons in the back of the concordance. A typical entry in one of the lexicons gives a word in the original language, a transliteration, information about the word's derivation, and a brief definition of the word's root but no information about the word's range of glosses in the Authorized Version or about the glosses' frequency. An additional comparative concordance, "A Comparative Concordance of the Authorized and Revised Versions," included as an appendix, shows where the Revised Version and the American Standard Version differ from the Authorized Version. Although Young's is more useful for correlating English glosses with their underlying Hebrew, Aramaic, and Greek terms, Strong's is the more popular concordance.

James Bradford Richmond Walker's *A Comprehensive Concordance to the Holy Scriptures*, with an Introduction by Marshall Curtiss Hazard (Boston and Chicago, 1894) is based on Cruden and contains an additional 50,000 references.

#### 6.4 Early Twentieth Century: Nelson, Hazard, & Others

A New Concordance of the American Revised Bible (Standard ed.) was published in New York by Thomas Nelson in 1903. In addition to concording the words in the American Standard Version, this concordance includes over 10,000 references to the Authorized Version, as well as a subject index and a pronouncing dictionary of proper names.

Marshall Curtiss Hazard's *Complete Concordance to the American Standard Version of the Holy Bible* appeared in 1922 (New York: Nelson). Hazard's work omits certain prepositions, pronouns, and conjunctions. It includes definitions of many words, especially Hebrew names.

Newton Wayland Thompson's *Verbal concordance to the New Testament (Rheims version)* was published by the John Murphy Company in Baltimore in 1928.

Newton Wayland Thompson's and Raymond Stock's *Concordance to the Bible* (*Douay version*) was published by the Herder Book Company in St. Louis in 1942.

#### 6.5 The 1950s: Gant, Ellison

William John Gant edited the *Concordance of the Bible in the Moffatt Translation* (London: Hodder and Stoughton, 1950).

John W. Ellison's *Nelson's Complete Concordance of the Revised Standard Version of the Bible* (New York, 1957; 2nd, Nashville: Nelson, 1984) is a computer-generated<sup>14</sup>

<sup>13</sup> Apparently, Strong's concordance was completed and copyrighted in 1890 but not printed until 1894. Perhaps the intervening four years were spent typesetting, proofing, and correcting the typeset materials.

<sup>&</sup>lt;sup>14</sup> UNIVAC I, one of the first commercial computers, was used to produce this concordance. UNIVAC I was the computer Walter Cronkite, Charles Collingwood, and CBS used on television (in what started out as a public-relations stunt) to predict the 1952 presidential election race between Dwight D. Eisenhower and Adlai E. Stevenson. This was the first time a computer had ever been used this way. By 9:00 P.M., with only seven percent of the voting results fed into the machine, UNIVAC I correctly predicted a landslide victory for Eisenhower, complete with victories in several Southern states, a scenario that flew in the face of political prognostications and analyses. When 100 percent of the votes had been counted, UNIVAC I

concordance that appeared five years after the Revised Standard Version was published. This work omits the most common articles and some prepositions, pronouns, and conjunctions. The Apocryphal books are not concorded.

# 6.6 The 1960s & 1970s: Elder, Speer, Hartdegen, & Others

Edith Grace Elder's *Concordance to the New English Bible, New Testament* appeared in 1964 (Grand Rapids: Zondervan). This work only concords words that either are not in the KJV or that occur in different verses in the NEB. Thus Elder's work is a supplement to concordances to the KJV.

Jack Atkeson Speer's *The Living Bible Concordance* (Poolesville, MD: Poolesville Presbyterian Church, 1973) is a computer-generated concordance to *The Living Bible*. Two appendices list references to articles, prepositions, and other common words and the references to numerals.

Nelson's Complete Concordance of the New American Bible appeared in 1977 (Nashville: Nelson). Stephen J. Hartdegen was the general editor. This computergenerated concordance includes word frequencies.

Lester T. Whitelocke's *An Analytical Concordance of the Books of the Apocrypha* appeared in 1978 (Washington, D.C.: University Press of America). Entries are in English. Corresponding Greek words are listed in transliterated form under each entry word. References are provided with contexts.

Clinton Morrison's An Analytical Concordance to the Revised Standard Version of the New Testament (Philadelphia: Westminster Press, 1979) is a bilingual concordance that is patterned after Young's. Greek words that are translated freely in the RSV are flagged with the word "idiomatically," and a more literal meaning is supplied in brackets. RSV words that aid in translation but that are not themselves direct translations of a Greek word are flagged with the word "contextually." Like Young's concordance, Morrison's work includes an index-lexicon that is arranged alphabetically by Greek term, under which each RSV gloss on that term is listed and the number of times the gloss occurs in the RSV.

### 6.7 The 1980s: Thomas, Metzger, Whitaker, & Others

New American Standard Exhaustive Concordance of the Bible, edited by Robert L. Thomas (Nashville: Holman, 1981), is a bilingual, computer-generated concordance that is patterned after Strong's. Each citation is followed by a Strong's number that refers either to the Hebrew-English lexicon or to the Greek-English lexicon, which are included as appendices. The words in each lexicon are numbered according to Strong's numbers. Each Hebrew, Aramaic, or Greek word is followed by its transliteration. Hebrew and Aramaic transliterations are followed by a page-quadrant number that refers to the page (and quadrant on the page) in Brown, Driver, Briggs, A Hebrew and English Lexicon of the Old Testament, where the Hebrew or Aramaic word is discussed. The page-quadrant number of the Hebrew word is followed by a derivation number that indicates the word in the lexicon from which the current word is derived. This is followed by a brief definition

was off by only one percent.

<sup>&</sup>lt;sup>15</sup> Unfortunately, Greek words are not similarly keyed to the standard Greek lexicon—Bauer, Arndt, Gingrich, and Danker, *A Greek-English Lexicon of the New Testament and Other Early Christian Literature*.

and an alphabetized list, with frequencies, of the NASB glosses on the Hebrew or Aramaic word. The Greek-English lexicon lists either in Greek or by number the word from which an entry word is derived. This listing is by word if the entry word is derived from a word not used in the New Testament and by number if the entry word is derived from a word found in the New Testament or from Hebrew. (In the former case, a brief definition is provided.) This is followed by a brief definition and an alphabetized list, with frequencies, of the NASB glosses on the Greek word. Providing glosses and their frequencies makes these lexicons more like Young's index-lexicon than like Strong's "root-definition" dictionaries. Two additional appendices list the variations in chapters and verses between the Hebrew Bible and the English translations and the differences in versification between the Greek New Testament and the English translations. Another appendix provides a concordance to instances in the NASB where numbers are written as numerals and not spelled out. Despite its title, this concordance is not exhaustive; it omits certain articles, propositions, pronouns, and conjunctions.

The Complete Concordance to the Bible: New King James Version (Nashville: Nelson, 1983) is a computer-generated concordance to the New King James Version of the Bible.

A Concordance to the Apocrypha/Deuterocanonical Books of the Revised Standard Version, with a foreword by Bruce M. Metzger, appeared in 1983 (Grand Rapids: Eerdmans). This computer-generated concordance was produced by the team at the Centre: Informatique et Bible at the Abbaye de Maredsous (Belgium)—see below. Entries are in English and arranged alphabetically. No corresponding Hebrew or Greek terms are provided. The concordance uses two numbers for each entry word to indicate how many times the entry word occurs in the RSV Apocrypha and what percentage this is of the total words used in the Apocrypha.

Richard E. Whitaker's *The Eerdman's Analytical Concordance to the Revised Standard Version* (Grand Rapids: Eerdmans, 1988), with James E. Goehring, is a multilingual, computer-generated concordance of the RSV that includes the Apocrypha. All forms of each English entry word are listed under the entry word. Corresponding Hebrew, Greek, or Latin (2 Esdras) words are given and indexed separately. Proper names are treated separately.

# 6.8 The 1990s: Goodrick and Kohlenberger, Kohlenberger

The *NIV Complete Concordance*, edited by Edward W. Goodrick and John R. Kohlenberger III (Grand Rapids: Zondervan, 1981), was the first of four computergenerated concordances to the *New International Version* of the Bible to be produced by The NIV Concordance Project. <sup>16</sup> This complete concordance lists every occurrence of every entry word. An appendix lists approximately 950 words that were not concorded. Each entry word in the concordance proper is followed by a list of related NIV words. Related words include words that are related by inflection and by root. For example, the related-word list for the entry word *run* includes *running*, *runner*, and *overran*.

The *NIV Exhaustive Concordance*, edited by Edward W. Goodrick and John R. Kohlenberger III (Grand Rapids: Zondervan, 1990), is the fourth computer-generated

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<sup>&</sup>lt;sup>16</sup> The NIV Handy Concordance (Grand Rapids: Zondervan, 1982), the NIV "Micro" Concordance (Grand Rapids: Zondervan, 1982)—published only as part of the NIV Bible—and the NIV Exhaustive Concordance (Grand Rapids: Zondervan, 1990) are the other three.

concordance to the New International Version of the Bible to be produced by The NIV Concordance Project. This bilingual concordance combines the best features of Young's and Strong's concordances. Like Strong's, it is truly an exhaustive concordance and includes a numbering system that correlates each English gloss with its underlying Hebrew, Aramaic, or Greek word. Like Young's, its Hebrew-English, Aramaic-English, and Greek-English indices list every Hebrew, Aramaic, and Greek word with their English glosses and frequencies, rather than provide a definition of the original-language root word. This index-lexicon versus root-definition format better conveys the notion that a word's "literal meaning" is simply the way it is used in a given context and is not the definition of the word's root. Each entry word in the concordance proper is followed by a frequency number and a list of related NIV words. Related words include words that are related by inflection and by root. For example, the related-word list for the entry word run includes running, runner, and overran. Each citation is followed by a "Goodrich/Kohlenberger" (G/K) number that relates the word in the citation to the Hebrew-English, Aramaic-English, or Greek-English indices. Two sets of indices (G/Kto-Strong and Strong-to-G/K) correlate the G/K numbers with Strong's numbers. This concordance indicates if a gloss is an "aid in translation" for the cited term or if a gloss is not part of the Greek or Hebrew but was supplied for clarity in translation. Two tables list spelling differences and word differences between Anglicized and North American editions of the concordance. An index of articles, conjunctions, particles, prepositions, and pronouns lists all the occurrences of each of these words but without context. Another appendix provides a concordance to instances in the NIV where numbers are written as numerals and not spelled out. Additionally, this concordance includes over 1,500 words from the Authorized Version that are referenced to their NIV counterparts. The G/K numbering system is an improvement over Strong's in four ways. (1) Strong's system only correlates the words of the Authorized Version with the original languages. (2) Strong failed to distinguish many homographs (especially Hebrew ones)—words that are spelled alike but that have different meanings (e.g., Eng. "bow"). (3) Strong did not distinguish between Aramaic and Hebrew words in his numbering system, but all modern grammars and lexica do. (4) Despite its numerous corrections and revisions, Strong's system still contains many typographical and factual errors.

The NRSV Concordance Unabridged, edited by John R. Kohlenberger III (Grand Rapids: Zondervan, 1991), is an exhaustive concordance to the New Revised Standard Version of the Bible, including the Apocryphal/Deuterocanonical books. Each entry word is followed by its frequency count and by a list of related English words. Related words include words that are related by inflection and by root. For example, the related-word list for the entry word run includes running, runner, and overran. If a person or place is known by another name, its other name is listed after it in square braces with an equal sign preceding the name. For example, Simon would be followed by "[=Peter]." In the case of hundreds of entry words, a second-level heading lists phrases that include the entry word. These phrases are listed in descending order of frequency. A letter is assigned to each phrase. Corresponding letters beside concorded examples indicate which examples match which phrase. For example, the entry word son includes son of man in the second-level heading. Son of man is assigned a letter. By matching its letter with the corresponding letter beside the concorded examples under the entry word, users can locate all examples of "son of man." Additionally, this concordance includes over 1,100

words from the Authorized Version that are referenced to their NRSV counterparts. There are three indices. An index of articles, conjunctions, particles, prepositions, and pronouns lists all the occurrences of each of these words but without context. An index to the NRSV footnotes lists without context the alternate readings found in the NRSV footnotes. If an entry word in the concordance proper appears in the index to the NRSV footnotes, the entry word is followed by a double dagger. A topical index, developed by Verlyn Verbrugge on the basis of the topical reference system found in Zondervan's *NIV Topical Study Bible*, is the last of the indices.

# 7. Modern Multilingual Concordance Projects

#### 7.1 Concordantia Polyglotta: Poswick

The Centre: Informatique et Bible (CIB), under the direction of Fr. R.-Ferdinand Poswick at the Abbaye de Maredsous (Belgium), is engaged in a monumental, multilingual, computer-assisted concordance-making project. The primary goal of the CIB is to produce the *Concordantia Polyglotta*, an exhaustive, comparative, analytical, multilingual index of the primary biblical texts (Masoretic, Septuagint, Greek New Testament), selected Latin, <sup>17</sup> French, <sup>18</sup> and English translations, <sup>19</sup> and all the Hebrew manuscripts of the Book of Ben Sira. <sup>20</sup> When completed, the *Concordantia Polyglotta* will be a completely cross-referenced parallel concordance of the various texts and translations and will display the translation correspondences among the different versions. Just as Hatch and Redpath's concordance to the Septuagint shows the Hebrew words that underlie their Greek translations, and just as Young's and Strong's concordances and the concordances to the NASB and NIV translations indicate the Aramaic, Hebrew, and Greek words that underlie the English translation values of the Authorized Version, NASB, and NIV, so the Concordantia Polyglotta, in a vastly more complex and sophisticated manner, will show the lexical correspondences among twelve versions. The completed Concordantia Polyglotta is expected to consist of five 1,200page volumes. While working toward the production of the Concordantia Polyglotta, the CIB has produced a number of print works, including Concordance de la Bible de Jerusalem (Paris: Brepols, 1982) and A Concordance of the Apocrypha/Deuterocanonical Books of the Revised Standard Version (Grand Rapids: Eerdmans, 1983).

# 7.2 The Computer Bible: Baird and Freedman

The Computer Bible, edited by J. Arthur Baird and David Noel Freedman, is a series of computer-generated, printed biblical research tools (published in Wooster, Ohio, by Biblical Research Associates), especially designed for literary-critical and linguistic-grammatical studies. <sup>21</sup> More than twenty volumes have been published. <sup>22</sup>

<sup>&</sup>lt;sup>17</sup> Vulgate.

<sup>&</sup>lt;sup>18</sup> La Bible de Jerusalem, La Sainte Bible, Maredsous ed.

<sup>&</sup>lt;sup>19</sup> The 1975 Scofield text of Louis Segond's 1944 ed., TOB (Alliance Biblique Universelle's 1977 French translation), and RSV (3 versions).

<sup>&</sup>lt;sup>20</sup> BBBS, 519–24.

<sup>&</sup>lt;sup>21</sup> Ibid., 491, 492, 499.

<sup>&</sup>lt;sup>22</sup> These include Francis I. Andersen and A. Dean Forbes, *A Linguistic Concordance of Ruth & Jonah: Hebrew Vocabulary & Idiom* (1976); idem, *A Linguistic Concordance of Jeremiah: Hebrew Vocabulary &* 

Although these books represent a wide variety of analytical approaches, each volume includes four or more levels of investigation, and each of these levels is based on a concordance or concordancelike concept. First, each volume includes a traditional keyword-in-context (KWIC) concordance in the original language for a biblical book or group of books.

Second, the volumes include morphological and syntactical concordances, reverse concordances, and tools for discourse analysis. For example, Ray Martin's Syntactical and Critical Concordance to the Greek Text of Baruch and the Epistle of Jeremiah (1977) includes a syntactical concordance, a forward index, and word counts. Martin's goal is to develop computer-aided Septuagintal analytical tools that will result in the publication of works on LXX grammar and syntax and in the production of a Septuagintal lexicon based on standard Greek texts.

Third, the volumes include concordances in which textual information is coordinated with hypothetical structures for the purpose of content analysis, for example, form criticism and audience criticism. The painstaking work of Francis Anderson and Dean Forbes on the Masoretic text falls between these second and third levels. When the implications of their linguistic research are applied to understanding the meaning of the text, Anderson and Forbes' work may fall into the third category. For example, their A Linguistic Concordance of Ruth and Jonah: Hebrew Vocabulary and Idiom (1976), which is printed in computer-generated, pointed Hebrew, was produced by using the analytic, large-scale data-processing power of computers to abstract the skeleton of Hebrew grammar from the body of the text. Anderson and Forbes' research is concentrated at the "atomic" level of the Hebrew language (as might be expected from two former physicists who now are linguists and Bible scholars) and reveals the deficiencies of earlier grammatical studies (e.g., Davidson, BDB).

Fourth, the volumes include concordance derivatives, that is, tools for the study of text structure. For example, some of the volumes include tools for structural exeges is and for investigating literary architecture. H. Van Dyke Parunak's Linguistic Density Plots in Zechariah (1979) is an example of such an approach. Parunak has developed a computerbased method for discovering linguistic patterns that is based on the repetition of sequences of one or more "cue" words. As scholars look beyond discourse structure and structural exegesis and toward the literary architecture of biblical texts, Parunak's methods will find extensive application.

Idiom (1978); R. A. Martin, Syntactical and Critical Concordance to the Greek Text of Baruch and the Epistle of Jeremiah (1977); Raymond Martin and Sylvio Scorza, Syntactical Concordance to the Correlated Greek and Hebrew Text of Ruth (1988); idem, Concordance to the Correlated Greek and Hebrew Text of Ruth, Part II: The Greek and Hebrew Syntactical Concordance (1990); Yehuda T. Radday, An Analytical Linguistic Concordance to the Book of Isaiah (1971); idem, An Analytical Linguistic Keywork-in-context Concordance to the Books of Haggai, Zechariah, and Malachi (1973); idem, An Analytical Linguistic Key-word-in-context Concordance to the Book of Judges (1977); Yehuda T. Radday and G. M. Leb, An Analytical Linguistic Key-word-in-context Concordance to Esther, Ruth, Canticles, Ecclesiastes, Lamentations (1978); idem, An Analytical Linguistic key-word-in-context Concordance to the Book of Genesis (1979); Yehuda T. Radday and Yaakov Levi, An Analytical Linguistic Key-word-in-context Concordance to the Book of Exodus (1985).

# 8. Concordances to Extrabiblical Jewish and Greek Writings

For sake of completeness in this preface about the history of concordances to the Bible, this section lists concordances to extrabiblical Jewish and Greek writings that generally are considered important for biblical studies.

#### 8.1 Writings in Hebrew, Aramaic, Syriac, and Other Languages

Chayim Yehoshua Kasovski's Thesaurus Thosephthae: Concordantiae Verborum Quae in Sex Thosephthae Ordinibus Reperiuntur, 6 vols. (Jerusalem: Hierosolymis, 1932–61), is a concordance to the Targums.<sup>23</sup>

Chaim Kosovski's 'Osar hat-targûm: Qôngordansyā' lĕtargûm 'Ongĕlôs (Jerusalem, 1940) is a concordance to Targum Onkelos. 24

Chaim Yehoshua Kasowski's Thesaurus Talmudis: Concordantiae Verborum, Quae in Talmude Babilonico Reperiunter (Jerusalem: n.p., 1954–) is a concordance to the Babylonian Talmud that was completed in 46 volumes by Chaim's son Binjamin.<sup>25</sup>

G. Douglas Young's Concordance of Ugaritic (Rome: Pontificium Institutum Biblicum, 1956) is a concordance to the Ugaritic literature.<sup>26</sup>

Michel Wilmet's Concordance du Nouveau Testament sahidique, a concordance to the Sahidic New Testament, was published in Louvain by Secretariat du CorpusSCO from 1957–59.<sup>27</sup> Rene Draguet's *Index copte et grec-copte de la Concordance du* Nouveau Testament sahidique (Louvain: Secretariat du CorpusSCO, 1960) is an index to Wilmet's work.

Lazarus Goldschmidt's Subject Concordance to the Babylonian Talmud, edited by Rafael Edelmann, was published by Ejnar Munksgaard in Copenhagen in 1959.<sup>28</sup>

Karl Georg Kuhn's Konkordanz zu den Qumrantexten (Göttingen: Vandenhoeck & Ruprecht, 1960) is a concordance to the nonbiblical Dead Sea Scrolls and fragments that had been published up to 1960, including the Damascus Document.<sup>29</sup> Entries are arranged alphabetically by Hebrew word, and brief contexts are provided. Corrections and additions are listed in Karl Georg Kuhn's "Nachträge zur 'Konkordanz zu den Qumrantexten'," Revue de Qumran 4 (1963): 163-234.

<sup>25</sup> The two Talmuds, Palestinian (aka Jerusalem) and Babylonian, consist of the Mishna (oral teaching of the Jews) and the Gemara (discussions of the Mishna). Both Talmuds date from the fifth century A.D., though they embody material that goes back much earlier. The Babylonian Talmud was not completed until after the fifth century. The Palestinian is the earlier and shorter of the two works.

<sup>&</sup>lt;sup>23</sup> Targum means "interpretation" and is the name given to Aramaic translations and paraphrases of the Hebrew Bible that were made when Hebrew was no longer the common language of Jews. The Targums grew out of the oral explanations added to Hebrew lectionary readings in synagogue worship. The earliest written Targums (Onkelos on the Pentateuch and Jonathan on the Prophets) were in use in the third century A.D.

24 See footnote 66.

<sup>&</sup>lt;sup>26</sup> Ugaritic writings date from the fourteenth and thirteenth centuries B.C.

<sup>&</sup>lt;sup>27</sup> Sahidic was one of the principal dialects of Coptic. The Bible was translated into Sahidic as early as the second or third century A.D.

<sup>&</sup>lt;sup>28</sup> See footnote 68.

<sup>&</sup>lt;sup>29</sup> The Jewish community at Qumran existed from c. 125 B.C. to c. A.D. 70.

Chaim Yehoshua Kosowski's *Thesaurus Mishnae: Concordantiae Verborum Quae in Sex Mishnae Ordinibus Reperiunter*, 4 vols. (2nd ed., rev. by Moshe Kosowski, Jerusalem: Massadah, 1967) is a concordance to the Mishna.<sup>30</sup>

Biniamin Kosowsky's *Otzar Leshon Hatanna'im: Thesaurus "Sifrei" Concordantiae Verborum Quae in "Sifrei" Numeri et Deuteronomium Reperiuntur* (Jerusalem: Bet ha-Midrash le-Rabanim ba-Amerikah, 1970) is a concordance to the midrashim on Numbers and Deuteronomy.<sup>31</sup>

Richard E. Whitaker's *A Concordance of the Ugaritic Literature* was published by the Harvard University Press in Cambridge, Massachusetts, in 1972.<sup>32</sup>

Walter Emanuel Aufrecht's A Synoptic Concordance of Aramaic Inscriptions (according to H. Donner & W. Roellig), a computer-generated concordance to the Aramaic inscriptions, <sup>33</sup> was published by Scholars Press in Missoula, Montana, in 1975. <sup>34</sup>

Michael M. Winter's *A Concordance to the Peshitta Version of Ben Sira* (Leiden: Brill, 1976) lists words alphabetically by root.<sup>35</sup> Derivative forms are grouped under their root. Latin and English glosses are provided for each entry.

J. B. van Zijl's *A Concordance to the Targum of Isaiah* was published by Scholars Press in Missoula, Montana, in 1979.<sup>36</sup>

The first three volumes of Moshe Kosovsky's *Concordance to the Talmud Yerushalm:* (*Palestinian Talmud*) were published in Jerusalem in 1984 by the Israel Academy of Sciences and Humanities and Jewish Theological Seminary of America.<sup>37</sup> This computer-generated concordance to the Palestinian Talmud is projected to be ten volumes when completed.

E. G. Clark *et al.*'s *Targum Pseudo-Jonathan of the Pentateuch: Text and Concordance* (Hoboken, NJ: KTAV, 1984) includes a computer-generated concordance to Targum Pseudo-Jonathan of the Pentateuch.<sup>38</sup> Entries are arranged alphabetically by root. Proper names are concorded separately. The concordance includes a word-frequency list arranged by frequency.

Bernard Grossfield's *Concordance of the First Targum to the Book of Esther* was published by Scholars Press in Chico, California, in 1984.<sup>39</sup>

The Aramaic Computer Project, sponsored by The Way International, published *The Concordance to the Peshitta Version of the Aramaic New Testament* (New Knoxville,

<sup>33</sup> John C. Hurd, of the University of Toronto, did the programming.

 $<sup>^{30}</sup>$  The Mishnah, which means "repetition, instruction," refers to an exegetical method and to a written work. As a written work, the authoritative version of the Mishnah was compiled by Rabbi Judah ha-Nasi (A.D. c. 135-c. 220) and consists almost entirely of Halachic (legal) material that is arranged under six topics.

<sup>31</sup> The Midrashim, which means "investigations," refers to an exegetical method and to a body of commentarylike written works. As a body of written works, the Midrashim date from the second century A.D., though as an oral corpus, the Midrashim originated in the period of the Soferim (scribes). According to Jewish tradition, Ezra was the first scribe.

<sup>&</sup>lt;sup>32</sup> See footnote 69.

<sup>&</sup>lt;sup>34</sup> Aramaic inscriptions date from the ninth century B.C. to the first century A.D. and later.

<sup>&</sup>lt;sup>35</sup> The Peshitta ("simple") version of the Bible, the official text of Syriac-speaking Christians, dates from the early fifth century.

<sup>&</sup>lt;sup>36</sup> See footnote 66.

<sup>&</sup>lt;sup>37</sup> See footnote 68.

<sup>&</sup>lt;sup>38</sup> Second or third century A.D.

<sup>&</sup>lt;sup>39</sup> See footnote 66.

OH: American Christian Press, 1985). This is an analytical concordance to the Peshitta.<sup>40</sup> Additionally, Johann Cook at the University of Stellenbosch, under the auspices of the International Organization for the Study of the Old Testament (IOSOT), is developing a computer-generated Syriac concordance that will complement the Peshitta Institute's forthcoming *Vetus Testamentum Syriac*.<sup>41</sup>

Graham I. Davies' *Ancient Hebrew Inscriptions: Corpus and Concordance* (Cambridge: Cambridge University Press, 1991) includes a computer-generated KWIC concordance of Hebrew inscriptions (including seals and seal impressions, etc.) from before 200 B.C.

#### 8.2 Writings in Greek

Christian Abraham Wahl's Clavis librorum Veteris Testamenti apocryphorum philologica (Leipzig, 1853; repr. Graz, Austria: Akademische Druck, 1972) is a concordance to the Apocrypha. Entries are arranged alphabetically by Greek word. No context is provided. Definitions in Latin are given, as well as information about derivation and root. Johannes Baptista Bauer's "Index Verborum in Libris Pseudepigraphis Usurpatorum" (included in the Graz, Austria, 1972 reprint of Wahl's work) is a set of book-by-book indices of the Greek words in 1 Enoch, Psalms of Solomon, Apocalypse of Moses, Paralipomena Jeremiah, Apocalypse of Baruch, Testament of Abraham (A and B), Testament of Job, Testament of Solomon, Apocalypse of Esdras, and the Apocalypse of Sedrach. Also see Johannes Baptist Bauer's Clavis Apocryphorum supplementum: complectens voces versionis Germanicae libri Henoch Slavici, libri Jubilaeorum, Odarum Salomonis (Graz, Austria: im Eigenverlag des Instituts für Okumenische Theologie und Patrologie an der Universitat Graz, 1980), which was issued as a supplement to Wahl's Clavis librorum Veteris Testamenti apocryphorum philologica.

Albert-Marie Denis' *Concordance de l'Apocalypse grecque de Baruch* (Louvain: Universit, catholique de Louvain, Institut Orientaliste, 1970) is a concordance to the Apocalypse of Baruch.<sup>43</sup>

Dieter Georgi's and John Strugnell's *Concordance to the Corpus Hermeticum*, *Tractate One: the Poimandres*, a concordance to the Poimandres, the first treatise of the Hermetic writings, was published by the Boston Theological Institute in Cambridge, Massachusetts, in 1971. 44

Karl Heinrich Rengstorf et al.'s A Complete Concordance to Josephus, 4 vols. (Leiden: Brill, 1973–83) is a complete concordance to the writings of Flavius Josephus. Some particles, articles, and conjunctions are not concorded, e.g., γέ, δέ, καί, μέν, μή, ὁ, ἡ, τό, οὐ, τέ, αὐτός, αὐτοῦ and ἑαυτοῦ. Propositions, conjunctions, pronouns, numbers, and particles are listed without contexts. Abraham Schalit's Namenwörterbuch

<sup>&</sup>lt;sup>40</sup> C. second to fifth century A.D.

<sup>&</sup>lt;sup>41</sup> See his "The Development of a Base for the Peshitta Version of the Old Testament," *Bible and Computer: The Text* (Paris and Geneva, 1986), 165–77.

<sup>&</sup>lt;sup>42</sup> Most of the Apocrypha date from *c*. 200 B.C.–A.D. 70.

<sup>&</sup>lt;sup>43</sup> See footnote 85.

<sup>&</sup>lt;sup>44</sup> The Poimandres, "The Shepherd of Men," was written in Greek in Egypt not long after A.D. 100.

<sup>&</sup>lt;sup>45</sup> Josephus' dates are *c*. A.D. 37–*c*. 100.

zu Flavius Josephus (Leiden: Brill, 1968), a supplement volume to Rengstorf's work, includes personal and geographical names.

Günter Mayer's *Index Philoneus* (Berlin and New York: de Gruyter, 1974) is an index to Philo's writings. <sup>46</sup> Entries are arranged alphabetically by Greek word. No context is provided. Certain common articles, particles, prepositions, conjunctions, and pronouns are omitted.

Albert-Marie Denis' *Concordance grecque des pseud, pigraphes d'Ancien Testament* (Louvain-la-Neuve: Universit, Catholique de Louvain, Institut Orientaliste, 1987) is a concordance to the Greek pseudepigraphical writings.<sup>47</sup>

# 9. Concordances to Early Christian Writings

For sake of completeness in this preface about the history of concordances to the Bible, this section lists concordances to early Christian writings, since these writings are so closely related to the text of the Bible, especially the New Testament.

# 9.1 Apostolic Fathers: Goodspeed, Kraft, & Others

There are two indices to the works of the Apostolic Fathers: <sup>48</sup> Goodspeed's and Kraft's. Kraft's is the better of the two. Edgar J. Goodspeed's *Index Patristicus sive Clavis Patrum Apostolicorum Operum* (Leipzig, 1907) is an index to the Epistles (1 and 2) of Clement, Barnabas, and Ignatius of Antioch; the Letter to Diognetus; the Martyrdom of Polycarp; the Shepherd of Hermas; and the *Didache*. Entries are arranged alphabetically by Greek word. No context is provided.

Henricus Kraft's *Clavis Patrum Apostolicorum* (Münich: Kösel Verlag, 1963) is a concordance to the *Didache*, the Epistle of Barnabas, the Epistles (1 and 2) of Clement, the letters of Ignatius, the Epistle of Polycarp, and the Shepherd of Hermas. Entries are arranged alphabetically by Greek word, and short contexts are provided. Brief Latin and German definitions are supplied.

P. Bouet *et al.*'s *Cyprien: Trait,s Concordance* (Hildersheim, Zurich, New York: Olms-Weidmann, 1986) is a concordance to Cyprian.<sup>49</sup>

#### 9.2 Justin Martyr: Goodspeed

Edgar J. Goodspeed's *Index Apologeticus sive Clavis Iustini Martyris Operum Aliorumique Apologetarum Pristinorum* (Leipzig: J. C. Hinrichs Buchhandlung, 1912) is an index to Justin's works, <sup>50</sup> though it also includes Quadratus, Aristides, Tatian, Melito, and Athenagoras. Entries are arranged alphabetically by Greek word. No context is provided.

<sup>&</sup>lt;sup>46</sup> Philo's dates are *c*. 20 B.C.–*c*. A.D. 50.

<sup>&</sup>lt;sup>47</sup> The Greek pseudepigrapha—writings ascribed to someone other than their true author to enhance their authority—were Jewish works, written in Greek, during the centuries immediately before and after the time of Christ.

<sup>&</sup>lt;sup>48</sup> Second century A.D.

<sup>&</sup>lt;sup>49</sup> Cyprian died in A.D. 258

<sup>&</sup>lt;sup>50</sup> Justin's dates are c. A.D. 100-c. 165.

#### 10. The Concordance Maker's Question and Problem

In his introduction to John Eadie's condensed edition (1860) of Cruden's *Complete Concordance*, David King, minister of Greyfriar's Church, Glasgow, posed a question that concordance makers must answer and explained a major problem that concordance makers face.

The question may reasonably be proposed, Why add another to the many works of the kind already published! In reply, the following explanations are subjoined. A perfectly complete concordance would be one by which any passage of the Bible might be found by any word which the passage sought for contained. But such a concordance, though perfect in completeness, would be so large and unwieldy, as in a great measure to defeat its own utility. Accordingly, Cruden omits many of the minuter words from his columns of reference, and not unfrequently words of considerable consequence to the passages which contain them. The London edition of 1836 is before me, and selecting a passage at random, I find that the 17th verse of the 49th Psalm is vainly sought by any of the words printed in italics. "For when he dieth he shall carry nothing away: his glory shall not descend after him." In like manner, John xxi. 13; "Jesus then cometh, and taketh bread and giveth them, and fish likewise." Many such examples will present themselves in the familiar use of his concordance. No doubt the passages may generally be found without difficulty by means of some other term embodied in them or their immediate context; but that just shows what I am now wishing to establish, that Cruden himself very properly proceeds, to a great extent, on the principle of harmless abbreviation. In the desire, however, to make his concordance what it professes to be, "complete," he has crowded many pages with vocables of inferior moment, by which, it may be safely averred, the portions of scripture where they appear are seldom, if ever, consulted. In all ordinary cases, then, these supernumerary references obstruct instead of promoting a prompt and ready access to the passages desired. Might not an important service, then, be rendered to scriptural knowledge by reducing Cruden's work as much as possible in its dimension.

King's question—"Why add another to the many works of the kind already published?"—and the concordance maker's problem—completeness versus usefulness—must be addressed by everyone who proposes to make a new concordance. As we have seen, the Clapp-Friberg concordances are distinguished by their unique organization, unique system of tagging, and truly exhaustive nature. Although their exhaustive nature makes them large volumes, it also makes it possible to locate any passage on the basis of the occurrence of any word in that passage. Furthermore, because they are exhaustive volumes, because they are analytically arranged, and because each Greek word is tagged, these are the only concordances that make it possible to locate every instance of every grammatical form and all occurrences of each inflection of each lemma in the Greek New Testament.

## 11. Looking Back and Looking Ahead

According to tradition, Hugo de Sancto Caro used 500 monks to develop the first concordance to the Bible. Working part time, Cruden spent fifteen years completing his concordance. To Robert Young is reputed to have spent forty years compiling his concordance, which supposedly took three years to typeset. And James Strong is said to have spent thirty-five years creating his concordance. 252

Thomas Nelson's Complete Concordance of the Revised Standard Version of the Bible required 1,000 hours of UNIVAC I computer time. The New American Standard Exhaustive Concordance of the Bible took seventy people more than ten years to complete. Although computers were used to concord the English words, all the match-up between Hebrew and Greek words and their English glosses was done by hand. This involved matching more than 400,000 separate entries. The NIV Exhaustive Concordance took a team of six persons, including two computer analysts, seven years to complete. The computer-assisted process that matched English glosses with the underlying Hebrew and Greek words, and the associated proofreading, took six of the seven years. This process required more than 10 million editorial decisions. The concordance was typeset in ten weeks.

Barbara and Timothy Friberg's lexical-focus and grammatical-focus concordances took nineteen minutes to produce on the University of Minnesota Computer Center's Control Data Corporation Cyber 74, using Richard Hotchkiss' *GENCORD* concording program. In 1983 it took two minutes to execute this task on the university's Cray-1 supercomputer, and in 1986 this job was performed in just twenty seconds on the university's Cray-2.

The sequence of hundreds of man-years (Hugo), about ten man-years (Cruden), 1,000 computer hours (UNIVAC I), 19 minutes (Cyber 74), 2 minutes (Cray-1), 20 seconds (Cray-2) could be projected to a few seconds (Cray-3–1989) and then to a few tenths of a second (Cray-4 or SSI-1–1991 or 1992). This sequence suggests much more than that substituting technological sophistication for human labor significantly reduces production time while dramatically enhancing accuracy and completeness. More importantly, the sequence reflects a difference in degree so large that it becomes a difference of kind.

<sup>&</sup>lt;sup>51</sup> Although it is difficult to find precise information on this topic, it seems that Cruden spent about eighteen months completing the first edition of his concordance, although Edith Oliver, *The Eccentric Life of Alexander Cruden* (London, 1934), 58, says Cruden completed the task in one year.

<sup>&</sup>lt;sup>52</sup> Unfortunately, it is difficult to obtain precise, reliable information about the length of time it took Cruden, Young, and Strong to produce their concordances.

<sup>&</sup>lt;sup>53</sup> This concordance does not match English glosses with the underlying Greek and Hebrew words. The 1,000 hours of computer time does not include the additional thousands of hours spent preparing the database for the computer, proofing the results of the computer's operations, and making corrections.

<sup>&</sup>lt;sup>54</sup> The actual amount of computer time required to produce the English KWIC of the *New American Standard Exhaustive Concordance of the Bible* is not indicated in the preface to this work.

<sup>&</sup>lt;sup>55</sup> The actual amount of computer time required to produce the English KWIC of the *NIV Exhaustive Concordance* is not indicated in the preface to this work.

<sup>&</sup>lt;sup>56</sup> The nineteen minutes of computer time does not include the additional thousands of hours spent preparing the database for the computer, tagging the database, proofing the results of the computer's operations, and making corrections.

#### 12. Why Another Printed Concordance?

If tomorrow's professional personal computer or workstation will have the power of yesterday's Cray-1, we can look at David King's question ("Why add another to the many works of the kind already published?") from the perspective of the concording power of personal computers. Already, rather than refer to printed concordances of biblical and other works, scholars are able to use computers and concording software <sup>57</sup> to develop partial or complete concordances for any range of machine-readable text. This illustrates the space-time trade-off that faster computers cause. As computer speeds increase, it becomes more practical to recompute a solution, rather than refer to the published or electronic results of a previous computation.

Although these capabilities are available, not all scholars have the hardware, software, machine-readable texts, and expertise to produce partial or complete concordances "on the fly," that is, to recompute a solution. In such cases, scholars need access to printed concordances. Furthermore, it is often more convenient to refer to a printed work than to its electronic counterpart. And because printed works are "static" and publicly accessible, they can function as standards of reference in ways that their electronic counterparts and information that is computed "on the fly" cannot. Thus, for the foreseeable future, there always will be a place for the printed concordance.

We take this opportunity to welcome the appearance of Philip Clapp and Barbara and Timothy Friberg's *Analytical Concordance of the Greek New Testament: Lexical Focus* and *Grammatical Focus*. We believe that these volumes will have a long, fruitful, and distinguished life in the hands of students and scholars of the Greek New Testament.

#### 13. Firsts in the History of Concordance Making

This section lists the most important "firsts" in the history of concordance making.

- 1225 (c.)—first use of *concordance* in the title of a work based on the Vulgate, *Concordantiae Morales*, a book of morals, Antony of Padua.
- 1230—first use of *concordance* in its current sense, in the title of an alphabetized word list to the Vulgate, *Concordantiae S. Jacobi*, Hugo de Sancto Caro, Paris.
- 1230—first concordance to the Vulgate, *Concordantiae S. Jacobi*, Hugo de Sancto Caro, Paris.
- 1300 (c.)—first concordance to the entire Septuagint, Euthalius of Rhodes.
- 1470—first printed concordance, to the Vulgate, Conrad of Halberstadt.
- 1523—first printed concordance to the Hebrew Bible, Rabbi Isaac Nathan ben Kalonymus of Arles, Provence, France.
- 1540 (c.)—first concordance to any part of the English Bible, John Day, *The Concordance of the New Testament, most necessary to be had in the hands of all soche as delyte in the communication of any place contayned in ye New Testament*, London.

<sup>&</sup>lt;sup>57</sup> See section 1, Creating Concordances by Computer, for a listing of some of the programs available for concording machine-readable texts.

- 1546—first concordance to the Greek New Testament, Xystus Betulius, Συμφωνία ἢ σύλλεξις τῆς διαθήκης τῆς καινῆς—Symphonia sive Novi Testamenti concordantiae Graecae, Basel.
- 1550—first concordance to the entire English Bible, John Marbecke, A Concordance, that is to saie, a worke wherein by the ordre of the letters of the A.B.C. ye maie redely find any worde conteigned in the whole Bible, so often as it is there expressed or mencioned, London.
- 1551—first version of the New Testament that was divided into verses, Robert [I] Estienne, Paris and Geneva, in the fourth edition of his Greek New Testament.
- 1571—first version of the Hebrew Bible with chapter-based versification.
- 1607—first printed concordance to the Septuagint, Conrad Kircher, Concordantiae Veteris Testamenti Graecae Hebraeis vocibus respondentes, Frankfurt.
- 1728—first concordance to the Vulgate to provide the original Hebrew and Greek words, Peter Mintert, *Lexicon Graeco-Latinum*, New Testament only, Frankfurt.
- 1843—first complete list of Hebrew proper names published, George V. Wigram, 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.
- 1894—first exhaustive concordance to the Authorized Version, James Strong's The Exhaustive Concordance of the Bible, together with a comparative concordance of the Authorized and Revised Versions, London.
- 1991—first concordance to make it possible to locate every instance of every grammatical form and all occurrences of each inflection of each lemma in context in the Greek New Testament, Clapp-Friberg, Grand Rapids.

#### 14. Standard Concordances for Biblical Studies

This section lists, by category, standard concordances for biblical studies, including concordances to nonbiblical works that by language or content or both are directly related to the study of the biblical text. All works that could be considered standards are listed for each category. Exhaustive concordances are given preference over complete concordances, later works are given preference over earlier works, and concordances to critical editions of texts are given preference over concordances to noncritical editions of the same texts. Works to individual books are omitted in this listing. In each category, publications are listed from most recent to least recent.

#### 14.1 Vulgate

François Pascal Dutripon, *Concordantiae bibliorum sacrorum Vulgatae editionis*, 2 vols. (Paris, 1838; 7th ed., 1880).

#### 14.2 Hebrew Bible

Abraham Even-Shoshan, *A New Hebrew Concordance of the Old Testament Using the Hebrew and Aramaic Text* (Grand Rapids: Baker, 1989; 2nd ed., 1990).

Solomon Mandelkern, *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).

#### 14.3 Septuagint

Edwin Hatch, Henry A. Redpath, 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).

#### **14.4 Greek New Testament**

Philip S. Clapp, Barbara and Timothy Friberg, *Analytical Concordance of the Greek New Testament: Lexical Focus* (Grand Rapids: Baker, 1991).

Philip S. Clapp, Barbara and Timothy Friberg, *Analytical Concordance of the Greek New Testament: Grammatical Focus* (Grand Rapids: Baker, 1991).

Kurt Aland, *Vollständige Konkordanz zum griechischen Neuen Testament*, 2 vols. (Münster: Institut für Neutestamentliche Textforschung, 1978, 1983).

Kurt Aland, Computer Concordance to the Novum Testamentum Graece of Nestle-Aland, 26th Edition and to the Greek New Testament, 3d Edition (Münster: Institut für Neutestamentliche Textforschung, 1st ed., 1977; 2nd ed., 1985; 3rd ed., 1987).

William F. Moulton, Albert S. Geden's *Concordance to the Greek Testament According to the Texts of Westcott and Hort, Tischendorf and the English Revisers* (Edinburgh and New York, 1897; 5th ed. [rev. H. K. Moulton], Edinburgh: T. & T. Clark, 1978).

#### 14.5 English Versions

#### 14.5.1 King James Version

James Strong, *The Exhaustive Concordance of the Bible, together with a comparative concordance of the Authorized and Revised Versions* (London, 1890; 1st ed., 1894; 44th printing, Nashville: Abingdon, 1986).

Robert Young's *The Analytical Concordance to the Bible* (Edinburgh, 1879; 8th ed. rev., 1939; 21st American ed., New York: Funk & Wagnalls, 1938).

#### 14.5.2 New King James Version

The Complete Concordance to the Bible: New King James Version (Nashville: Nelson, 1983).

#### 14.5.3 American Standard Version

Marshall Curtiss Hazard, Complete Concordance to the American Standard Version of the Holy Bible (New York: Nelson, 1922).

#### 14.5.4 Revised Standard Version

Richard E. Whitaker, James E. Goehring, *The Eerdman's Analytical Concordance to the Revised Standard Version* (Grand Rapids: Eerdmans, 1988).

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