Writing Systems*

In 1964 the UBS published a collection of Bible Translator articles on writing systems and orthographies. In the volume William Smalley lamented the lack of a definitive book on the subject: “A definitive book will have to describe the phonological systems of representative languages, show how their writing systems fit them, show where the problems lie, describe the difficulties which people have in learning to read them, and then show the ways in which changes in the writing system have been made in adapting it to new languages with different phonological systems.” (Smalley 2)

It would be hard to point to a single work that covers in depth all the areas Smalley mentioned. But much more is now available on the subject, both theoretical studies and descriptions of real-world experience and experimental research.

A volume that comes close to the requirements of “definitive” is The World’s Writing Systems, edited by Daniels & Bright (1996). This is not just a catalogue and description of the world’s scripts; the individual writers discuss how the writing system represents the language(s)—that is, how the system actually works. The book includes sections on the adaptation of scripts, the invention of scripts in modern times, and sociolinguistics, including a short chapter by Allan Gleason on Christian missionary activities.

Types of Writing Systems: One of the volume’s distinctive contributions is Daniels’ typology of writing systems, which fills in points on the continuum between the broad classifications of logographic and phonographic. He lists six types: 1. logosyllabary—the characters of a script denote words or morphemes as well as some syllables (Chinese); 2. syllabary—the characters denote syllables (Cree); 3. abjad (consonantal)—the characters denote mainly consonants (Arabic); 4. alphabet—the characters denote consonants and vowels (Greek); 5. abugida—the character denotes a consonant with a specific vowel, and other vowels are denoted by a consistent change in the consonant symbols (Indic); and 6. featural—the shapes of the characters correlate with distinctive features of the segments of the language (Korean).

Other typologies have been proposed to avoid the misleading term “logographic”: Jaffré recognizes two basic principles—phonographic and semiographic—which come into play to different degrees in different systems. Thus, “there is not an infinite number of possibilities but...everything oscillates between syllables and phonemes on the one hand and morphemes and lexemes on the other.” (15)

For Unger & DeFrancis, pure logographic and phonographic systems are extremes that do not describe the writing systems for natural languages. Their unitary view finds systems clustering at the middle of the continuum: “The gross visual differences between alphabetic scripts and those that incorporate Chinese characters, though obvious, are ultimately trivial. They do not reveal a fundamental dichotomy but...everything oscillates between syllables and phonemes on the one hand and morphemes and lexemes on the other.”

*Coulmas (37) distinguishes among the terms writing systems—representations of linguistic units at different structural levels: word, syllable, phoneme; script—the visible marks that put the system into operation: e.g., the Roman script; and orthography—the standardization of writing practice in a particular language. Some writers tend to use these terms fairly interchangeably.
rather mask an essential unity that embraces all writing systems.” (55)

McCarthy makes yet a different division, distinguishing alphabetic, which is analytic, from syllabic, which is wholistic.

Whatever the typological scheme, it is widely recognized that most systems are mixed, representing the language on more than one level.

Linguistics and Psychology: Writing systems can both reflect and change our sense of language. Alphabetic systems have been blamed for the dominance of the phoneme in modern linguistics, which in turn commonly posited that the phonemes of a language were psychological realities for its speakers. But recently, many experiments have shown that for pre- or nonliterate people it is the syllable that is the smallest analyzed segment of language (see especially The Linguistics of Literacy, Part II). Daniels notes that writing systems created by the linguistically unsophisticated have been syllabaries, paralleling this perception of language. (Miller is a significant dissenting voice here.)

Thus, the decline of the rule of the phoneme has been one of the most significant changes affecting views of “ideal” writing systems since Orthography Studies was published. While a good writing system was considered one that reflected a language’s phonological system, the trend now is to see writing related to language as a whole, as a system for making language (not speech) visible.

Psychological experimentation has tended to support the change, although it has produced mixed results in attempting to answer the question whether different types of systems are processed in different ways in the brain. Alphabetic systems have typically been associated with a greater degree of phonological processing, while morphemic systems involve more visual processing (where words are perceived as wholes).

However, it seems that different systems may activate different levels of processing (Willows), and similar ones (Cossu, Unger & DeFrancis). Hu & Catts’ experiments suggest that phonological processing takes place with both alphabetic and morphemic orthographies. Phonological retrieval is related to recognition of familiar words, while phonological memory and awareness are involved in decoding unfamiliar words.

The editors of Scripts & Literacy, which deals with psychological processes, conclude: “Some of the chapters point out similarities among different scripts and reading processes, while others point out differences...In reading text, however, scriptal differences tend to disappear. Readers, in whatever script, may resort to phonetic coding to store linguistic items in working memory during comprehension.” (14-15)

The relevance of these studies for literacy is explored in a number of the collections in the bibliography (Scripts and Literacy, Linguistics of Literacy, Literacy and Language Analysis).

Social and Cultural Factors: Linguists may have talked about “good” writing systems as those that reflect phonological systems, but those who have worked with developing them know very well that cultural considerations often override linguistic and psychological considerations. The authors of articles in Orthography Studies were more aware than most of the cultural considerations—in the time since then such an awareness has become much more widespread.

The importance of sociolinguistics in creating writing systems is stated emphatically by Fishman. Issues of acceptance, impact, dislocation, manipulation, exploitation, or redistribution of power, must all be weighed with an awareness of the interdependency of the writing system and social processes. (Advances, xv)

Examples of the importance of cultural factors can be found in Eira (Hmong), Fouser (Korean), Rice (North Slavey), and Trix (Albanian), among many others.

Optimal Writing System? “[...I]t was once generally held that all writing systems represent some stage in a progression toward the ideal writing system, the alphabet. The accepted view today is that all writing systems represent relatively optimal solutions to a large and unique set of constraints, including the structure of the language represented, the functions that the system serves, and the balance of advantages to the reader as opposed to the writer.” (Olson)

Rogers pursues the notion that the typology of the language is related to the typology of the optimal writing system (as others have also noted): Alphabetic systems work well for languages with a high degree of fusion; morphemic systems work well for languages with a high degree of homophony (and others would add, monosyllabic words/morphemes); syllabic systems work well for languages with a small number of syllable types, where morpheme and syllable boundaries coincide. He concludes that “An ideal system would allow experienced readers to read morphemically, the most efficient way for them; yet, it would allow them to sound out unfamiliar words, as well as helping learners acquire reading and writing skills efficiently. Unfortunately, these goals are at odds with each other.” (35)

An optimal system achieves the best balance between the two.

Practical Studies: A number of articles in the bibliography
describe general issues in creating writing systems or issues that have arisen in specific projects: Baker (general strategies), Priestly (general problems), Bird (representing tone), Wiesemann (constructing a syllabary), Harper (Inuktitut), Costello & Sulavan (Katu), Halwachs (Romany), Weber (Quechua), and Rice (North Slavey).

Bibliography: In addition to the items in the brief bibliography and the longer bibliography online (www.ubs-translations.org), there are many publications on orthography in the SIL bibliography (www.sil.org). In the three-volume Bibliography on Writing, the editor notes that the study of writing systems branches out in many disciplinary directions—orthography, literacy, linguistics of writing, psychology of reading and writing, script reform, sociology of writing, to name only a few. The volumes in question contain about 27,500 items, covering some 60 years. I haven’t discussed works that deal with differences between speech and writing, and the consequences of literacy. A good overview is Jahandarie, who critically reviews the theories of Parry and Lord, Havelock, Innis, McLuhan, Ong, Goody, and Olson, and adduces other types of evidence—linguistic, psychological, historical, and anthropological—bearing on their theories. — SL

Bibliography


d’écriture


Recent Publications

Inclusion of an item in TIC Talk does not necessarily mean we recommend it, or that we have seen it, though in most cases we have. It means that the article or book (sometimes by title alone) looks as if it might be of interest to our readers. Names in bold indicate people who are in some way related to UBS. Other bolding is for quick location of the general topic.

Bible Translation

GENERAL

Tell Me the Word Easy to Understand—Textual Criticism and Bible Translation—In Honor of Young-Jin Min. 2000. Wang Tai-il, ed. Christian Literature Society of Korea. This first volume in a two-volume festschrift honoring Young-Jin Min (of the Korean Bible Society and UBS Committee on Scholarly Editions) carries a number of the essays in both English and Korean: In the section “The Method and Practices of Textual Criticism” are articles by A. Schenker and B. Aland. On OT textual research, M. Jinbachian on differences between MT and LXX; In section 2, “The Theory and Practices of Bible Translation,” are articles by P. Noss on Bible translation history and prospects, A. Mojola on the place of Bible translation within translation studies, and P. Bonilla on the use of scholarly editions in preparing study Bibles. Section 3, “Bible Translation and the Dead Sea Scrolls,” has an article by H. Scanlin on the impact of the DSS on Bible translation. The articles in Vol. 2, “Explain the Meaning of What We Read—Exegesis and Bible Translation,” with sections on reading and interpretation, translation and exegesis, and Bible translation and the Korean Bible, are all in Korean.


Bible Translation in East Africa: 1844 to 1998. A General Survey. Bible Societies of Kenya, Tanzania and Uganda. M. surveys Bible translation in Kenya, Tanzania, and Uganda, discussing all languages in which at least a portion of the Bible has been translated, setting the discussion in the context of the church’s mission and growth, and describing the linguistic situations in each country.

John J. Pilch. 2000. “Improving Bible Translations: The Example of Sickness and Healing.” Biblical Theology Bulletin 30:129-34. Some basic definitions developed by medical anthropology for such terms as sickness, illness, disease, heal and healer are valuable for Bible translators, and show how inappropriate and anachronistic some translations of texts involving sickness and healing are. P. emphasizes the importance of understanding ancient concepts of sickness and health before translating such texts.


ANCIENT

Der Septuaginta-Psalter und seine Tochterübersetzungen. Symposium in Göttingen. 2000. A. Aejmelaeus and U. Quast, eds. Vandenhoeck & Ruprecht. Daughter translations of the LXX that are discussed in separate essays are the Latin, Sahidic, Coptic, Ethiopic, Syrohexapla, Armenian, and Georgian. There are also a number of articles on the relationship between the Dead Sea Scrolls and the LXX (E. Ulrich, P. Flint), as well as a study of the relationship between original and translation (A. van der Kooij).

Karen H. Jobes and Moises Silva. 2000. Invitation to the Septuagint. Baker; Paternoster. Some of the topics covered in this introduction: History of the origin and transmission of the LXX, the nature of the translation and its language, the use of the LXX in textual criticism, the LXX and the NT, and the current state of LXX studies. Appendixes provide a list of major LXX organizations & research projects, reference works, a glossary, and a list of differences in versification between the LXX and English versions.

Johan Lust. “A Lexicon of Symmachus’ Special Vocabulary in His Translation of the Psalms.” TC: A Journal of Biblical Textual Criticism. Symmachus’ version of the Old Testament, one of the three Greek translations Origen used in his Hexapla alongside the Hebrew Bible and the LXX, is preserved only in manuscript fragments, most of which are from the Psalms. L. offers a comprehen-
sive lexicon of Symmachus in the Psalms. Each entry displays the word under review in context in Symmachus’ translation of the Psalms, along with the reading of the Septuagint for comparison. Other occurrences of the word in Symmachus, Aquila, or Theodotion are listed in the footnotes.

Seppo Sipilä. 1999. Between Literalness and Freedom: Translation Technique in the Septuagint of Joshua and Judges regarding the clause connections introduced by $\text{\textit{\textbackslash}}$ and $\text{\textit{\textbackslash}}$. Finnish Exegetical Society in Helsinki; Vandenhoeck & Ruprecht. In this dissertation, S. studies the LXX renderings of all clause-initial occurrences of $\text{\textit{\textbackslash}}$ and $\text{\textit{\textbackslash}}$ in Joshua and Judges to draw conclusions about the nature of the translations.

Albert Pietersma. 2000. A New English Translation of the Septuagint and the Other Greek Translations Traditionally Included under That Title. The Psalms. Oxford University Press. This is the first book of the NETS to appear. A preface to the reader explains the rationale of the project and its approach to translation, with another note from the translator of Psalms. The translation is based on the NRSV to allow the English reader a sense of the differences between the Hebrew and Greek by comparing the two English versions.

Alain Georges Martin. 1999. “La traduction de $\text{\textit{\textbackslash}}$ en Syriaque.” Filologia Neotestamentaria 12:25-54. M. attempts to discern the reasons for the Syriac choice of several different words to translate $\text{\textit{\textbackslash}}$, whether theological, cultural, or linguistic.

**MODERN**


David Koudougueret. 2000. Poétique et traduction biblique. Les récits de la Genèse dans le système littéraire sango. Research School of Asian African and American Studies. Describes and analyzes the rhetorical structures of Genesis and Sango stories, and discusses the problem of reproducing formal features in translation, stressing the need to find forms that fulfil equivalent functions, and to create a translation that is in harmony with the literary conventions of the receptor language. See Paul Ellingworth’s review, TBT 52/1 (2001), 148-149.

**Bible**

**GENERAL**


du Cerf. A wide-ranging collection of articles by B. published between 1984 and 1994: unity and diversity of early Judaism, text of the Jewish Bible, French Bible to the end of the 16th c., origin and influence of the Vatable Bible, criticism and prophecy in Spinoza, Simon and Bossuet, literary and textual criticism, critique of Pinget’s Apocrypha, the intersection of textual and literary history in the relationship of LXX and MT, Christian biblical criticism and Jewish commentators, canon criticism, canonicity of the Song of Songs, the long dormancy of the DSS, and early traditions of the text divisions of the Torah.


Evolution of the Synagogue: Problems and Progress. 1999. H.C. Kee and L.H. Cohick, eds. Trinity Press. Nine papers investigate the literary and archaeological evidence for the evolution of the synagogue. The contributions are presented in two parts: (1) those concerned with the development of the synagogue in Ancient Israel and (2) analyses of the diverse evidence from synagogues in the dispersion, especially Syria and Asia Minor. Also included is an examination of the literary and traditional evidence from historical, rabbinic, and early Christian sources.


Biblical Languages

Hebrew


Reinier de Blois. 2000. Towards a New Dictionary of Biblical Hebrew Based on Semantic Domains. Vrije Universiteit. De Blois’s dissertation outlines the project of creating a semantic domain lexicon for BH. An appendix gives an extended sample of such a lexicon, demonstrating the methods described in the dissertation. This description lays the groundwork for the UBS semantic dictionary of BH project, directed by de Blois.

Antonella Benigni. 1999. “The Biblical Hebrew Particle *$* from a Discourse Analysis Perspective.” Zeitschrift für Althebraistik 12/2:126-45. From her study of the function of kî in prose (1 Samuel, Esther) and poetic texts (Job and Song of Deborah), B. concludes that kî appears to be a macro-syntactic sign whose role is to mark textual level shifts and breaks in the text, whether it has an explanatory function or introduces objective clauses.

Cynthia Miller. 1999. “The Pragmatics of $\\text{waw}$ as a Discourse Marker in Biblical Hebrew Dialogue.” Zeitschrift für Althebraistik 12/2:165-91. Speech-initial $\\text{waw}$ functions on a macro-structural level as a pragmatic indicator of the contextual coordinates of discourse. There are three contexts in which it occurs, each with a distinct discourse-pragmatic function: 1) it introduces a dispreferred response to a previous quotation; 2) it links two nonadjacent speeches by the same speaker; 3) it functions within a narrative trope. (From pub. abstr.)

S. argues that when waw has a meaning it is the logical “&” and there is no need to multiply meanings. The factors that produce multiple translations of waw are other elements of the sentence, such as word order.

A.J.C. Verheij. 2000. *Bits, Bytes, and Binyanim: A quantitative study of verbal lexeme formations in the Hebrew Bible*. Peeters. Using various quantitative methods, V. analyzes the verbal vocabulary of the Hebrew Bible in the electronic text developed at the Werkgroep Informatica (Department of Biblical Studies, Vrije Universiteit, Amsterdam), focusing on morphological characteristics as well as on some basic semantic and syntactic features. He argues that the qal should be regarded as the default binyan of the Hebrew Bible, and that the piel acts to some extent as a rival to the qal. Transitivity emerges as the most important feature in describing the binyanim.

**Greek**


Danker’s broad knowledge of Greco-Roman literature, papyri and epigraphs expands the view of the world of the NT in this edition. Perhaps the most important lexical innovation is the addition of extended definitions for Greek terms.


**OT**

*Eerdmans Commentaries on the Dead Sea Scrolls*. 2001. M. Abegg and P. Flint, eds. Eerdmans. The projected sixteen volumes of this series will present translations, critical notes, and line-by-line commentary for every translatable manuscript found at Qumran. The first to be published is *Liturgical Works*, by James Davila. Beginning with a general introduction to the Qumran library and Jewish liturgical traditions, D. situates the liturgical texts found at Qumran in their historical context, shows how they draw on and develop traditions from the Hebrew Bible, and explores their significance as background to Jewish liturgy and mysticism, and Christian origins.


Robert Alter. 2000. “The Double Canonicity of the Hebrew Bible.” In his *Canon and Creativity: Modern Writing and the Authority of Scripture*. Yale University Press. The writings of the Hebrew Bible are canonical in two senses—religious and literary. In the rest of this collection of lectures, A. explores the dynamics of canonicity with respect to the Hebrew Bible in its use by poets and fiction writers.

D. Andrew Kille. 2000. *Psychological Biblical Criticism*. Fortress. In the Guides to Biblical Scholarship—OT series, this is an introduction to psychological interpretations of the OT, using Genesis 3 as a case study approached from Freudian, Jungian, and developmental psychologies.

**NT**


Doubleday. C. draws on recent archaeological finds to describe the social customs, political forces, and religious beliefs and practices of the period. Examining new translations and interpretations of ancient texts against this background, he offers a look at the philosophical foundations of the ideas Jesus promulgated. He describes Jesus’ role as a rabbi or “master” of Jewish oral traditions, teacher of the Kabbalah, and practitioner of a Galilean form of Judaism that emphasized direct communication with God.

Paula Fredriksen. 1999. *Jesus of Nazareth, King of the Jews: A Jewish Life and the Emergence of Christianity*. Knopf. F. investigates the Jewish and pagan religious worlds of Mediterranean antiquity, Galilean and Judean politics, and the ancient narratives of Paul’s letters, the gospels, the Dead Sea Scrolls, and Josephus’ histories.

**Critical Edition of Q.** 2000. J. Robinson, et al., eds. Fortress. Published as a Hermeneia supplement, this edition includes an introduction, the text of Q, translations of Q in English, German, and French, the Greek text with the parallels from Matthew, Luke, Mark, and Thomas. The volume is the work of the International Q Project.


Kim Haines-Eitzen. 2000. *Guardians of Letters: Literacy, Power, and the Transmitters of Early Christian Literature.* Oxford University Press. H.-E. examines early papyri to learn about the identity of early Christian scribes and their role in the transmission of texts. She concludes that in contrast to Graeco-Roman scribes, these were practising Christians with a vested interest in selecting, correcting and transmitting particular texts.

Alan Millard. 2000. *Reading and Writing in the Time of Jesus*. Sheffield Academic Press. Based on his survey of texts in first-century CE Palestine, M. argues that reading and writing were neither rare nor entirely elitist, that some people in all levels of society might have read and written, with the result that some of Jesus’s hearers could have written down the words they heard him speak.

D. Moody Smith. 2000. “When Did the Gospels Become Scripture?” *Journal of Biblical Literature* 119/1:3-20. In this 1999 SBL presidential address, S. questions the assumption that the NT writers did not think of themselves as writing scripture, and argues on the basis of their form and content that at least the gospels of Matthew and Luke were written to function as scripture for the growing Christian communities.

David Trobisch. 2000. *The First Edition of the New Testament*. Oxford University Press. T. argues that the NT is not the product of a centuries-long process of development, but was published as early as the second century C.E. and intended by its editors to be read as a whole. T. claims that this bible achieved wide circulation and formed the basis of all surviving manuscripts of the NT. (Translation of *Die Endredaktion des Neuen Testaments: Eine Untersuchung zur Entstehung der christlichen Bibel*, 1996)

Lee M. McDonald and Stanley E. Porter. 2000. *Early Christianity & Its Sacred Literature*. Hendrickson. This examination of the sacred literature of early Christianity introduces the literature and world of early Christians. Besides exploring issues such as the relationship between history and faith, the place of critical methodology, the transmission of the NT writings, the book also looks at writings, personalities, and issues outside the NT.

Robert A. Briggs. 1999. *Jewish Temple Imagery in the Book of Revelation*. Peter Lang. B. examines temple motifs in the book of Revelation. Working from a backgrounds perspective, he traces various temple themes through the OT, demonstrates how they were utilized in Revelation, and explores the concept of temple in a number of noncanonical Jewish writings, assessing the degree to which sources other than the OT influenced temple symbolism in Revelation.

**TEXT CRITICISM**

entry program for BHQ, briefly describes the project and the contents and format planned for the printed version.


Translation, Linguistics, Culture


Ethnologue: Languages of the World, 14th ed. 2000. B. Grimes, ed. SIL International. The 14th edition of Ethnologue is available on CD-ROM as a hyperlinked, searchable data archive. It includes hyperlinks among the Ethnologue, Language Name Index (41,000+ alternate names and dialect names) and Language Family Index (109 language family trees), as well as the language maps. More information can be found at the SIL web site http://www.sil.org.

The Linguashere Register of the World’s Languages and Speech Communities. 1999. D. Dalby, ed. Linguasphere Press for the Observatoire Linguistique. In two volumes. Vol. I: Index to some 80,000 names and variant names of languages and speech communities. Vol. II: classification of over 30,000 languages and dialects spoken during the 20th century. Language communities are ranked according to the estimated number of speakers.


Adrian Pilkington. 2000. Poetic Effects: A relevance theory perspective. Benjamins. A pragmatic account of the effects achieved by the poetic use of rhetorical tropes and schemes, developing work on stylistic effects in relevance theory.

Sophia S.A. Marmaridou. 2000. Pragmatic Meaning and Cognition. John Benjamins. M. seeks to close the gap between cognitive and sociolinguistic theories of the construction of meaning, arguing that linguistically expressed sociocultural meaning is internalized and becomes part of the cognitive resources drawn upon for understanding language. Using an experiential approach, she analyzes deixis, presupposition, speech acts, and implicature as manifestations of pragmatic meaning, within the framework of experiential realism.

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**WEB NOTES**

**Web Resources for Braille...**

...forwarded from the Canadian Bible Society

  Provides excellent explanations of many aspects of braille including: Grade 1 Braille (no contractions—not so common, mainly for learners); Grade 2 Braille (with contractions—most commonly used form). **Braille Bibles** were pioneers in the invention and implementation of contractions in order to speed up the reading process, and cut down on number of pages needed. This has tremendous implications for reducing the cost of each copy of the Bible in braille, which can almost fill an entire room if done at the Grade 1 level.

- Homepage for “WinBraille” (Contains orientation material): [http://www.indexbraille.com/index.htm](http://www.indexbraille.com/index.htm). This website also has information on embossers (which create braille pages).
  - Downloading WinBraille: [http://www.indexbraille.com/wbreg2.htm](http://www.indexbraille.com/wbreg2.htm)
  - Using WinBraille for the first time: [http://www.indexbraille.com/1st_time.htm](http://www.indexbraille.com/1st_time.htm)

- Some Braille Fonts for use in MS Word and other word processors. Many embossers (braille printers) emboss (print braille) directly from MS Word using these fonts. [http://www.rnib.org.uk/wesupply/archive/welcome.htm](http://www.rnib.org.uk/wesupply/archive/welcome.htm) [http://192.188.148.10/Education/fonts.html](http://192.188.148.10/Education/fonts.html) [http://perso.wanadoo.fr/dephitro/brailf1.htm](http://perso.wanadoo.fr/dephitro/brailf1.htm)

- A website that explains the process of translating college level text into braille. This gives useful perspectives on what it would take to translate Bible and Helps into braille. [http://www.dinf.org/csun_98/csun98_168.htm](http://www.dinf.org/csun_98/csun98_168.htm)

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**UBS Translation Site**

A number of interesting new items have been posted to the UBS translation intranet site. They include: *Relevant Ramblings* (first electronic issue!); TAZI-handbook (revised edition); news items on AMRETCON and ASPRETCON; Draft Chapters of the New Handbook on TAPOT. Don’t forget to check regularly what’s new on the UBS-translations Intranet by clicking on: [http://intranet.biblesocieties.org](http://intranet.biblesocieties.org) and proceeding to ‘Translation and CAP services’. Also, in the public section of [ubs-translations.org](http://ubs-translations.org) you will find new bibliographies posted—background bibliographies for recent TIC Talk subjects: Canon, LXX, and Language Death, and now, Writing Systems. The Bible translation bibliography has been updated to include all but the most recent *Bible Translator* abstracts.