



SUDAN & NUBIA

The Sudan Archaeological Research Society



Bulletin No. 12

2008

111

Contents

Kirwan Memorial Lecture		
The Linguistic Position of Meroitic. New Perspectives for Understanding the Texts Claude Rilly	2	
Reports		
Pottery from the Neolithic site of es-Sour (Central Sudan) Azhari Mustafa Sadig	13	
North of the Lower Wadi Howar – A first reconnaissance in the area between Jebel Abyad and the Nile Valley Friederike Jesse	17	
Tombos and the Viceroy Inebny/Amenemnekhu W. Vivian Davies	25	
The Northern Dongola Reach Survey. Excavations at Kawa, 2007-8 Derek A. Welsby	34	
The Kushite Kiosk of Dangeil and Other Recent Discoveries Julie R. Anderson and Salah Mohamed Ahmed	40	
Excavations in Palace M 750S at Meroe Krzysztof Grzymski and Iwona Grzymska [†]	47	
The Meroitic royal city of Muweis: first steps into an urban settlement of riverine Upper Nubia Michel Baud	52	
The origin and use of ceramics on the islands of Mis and Umm Muri, in the Late Meroitic to Christian periods *Ross Thomas**	64	
The Archaeological and Cultural Survey of the Northern Dongola Reach, Western bank, from el-Khandaq to Hannek. First Season Report 20 Intisar Soghayroun Elzein	74 007	
The Wadi Halfa to Kerma Railway, Survey February 2008	79	
Derek A. Welsby		

A Chemical and Mineralogical Comparison of Nubian and Egyptian Style Ceramics and the	90
Implications for Culture Contact: Preliminary Repor	t.
Julia Carrano, Jeffrey R. Ferguson, Gary H. Girty,	
Stuart T. Smith and Carl J. Carrano	
Meroitic and Tocharian – from the point of view of a Tocharianist	99
Starostin A. Burlak	
Miscellaneous	
Obituaries -	
Osama Abdel Rahman Elnur (1942-2007) Jacques Reinold	104
Glencairn Balfour-Paul (1917-2008)	106
John Alexander	
Reviews -	
Claudia Näser and Mathias Lange (eds) 2007. Proceedings of the Second International Conference on the	107

Archaeology of the Fourth Nile Cataract. Berlin,

Jacques Reinold 2007. La nécropole néolitique

Donatella Usai and Sandro Salvatori

d'el-Kadada au Soudan central. Volume I. Les cimetières A et B (NE-36-0/3-V-2 et NE-36-0/3-V-3)

August 4th -6th, 2005. Julie R. Anderson

du kôm principal.

Front cover: Rescuing rock art from the Sudan Archaeological Research Society's concession at the Fourth Nile Cataract. This collaborative project between the British Museum, Iveco and New Holland was undertaken in November 2007 and resulted in the removal, from the SARS concession, of over 50 boulders bearing rock art or used as rock gongs. The pyramid, offering chapel and enclosure wall from site 4-F-71 were also relocated. Here the work is being filmed by a cameraman from the Italian TV news channel Rei Due (photo D. A. Welsby).

Meroitic and Tocharian – from the point of view of a Tocharianist¹

Starostin A. Burlak

Mainstream contemporary Meroitic studies are currently engaged in the search for languages related to Meroitic, which would enable us to decipher it completely. Among these are the works of Clyde A. Winters,² who postulates that Meroitic is genetically related to Tocharian A and B.

Tocharian languages are two extinct languages forming a sub-group of the Indo-European language family. In some works they are referred to as "dialects", but in spite of this they differ sufficiently to be viewed as separate languages, cf. e.g. A $\tilde{n}u \sim B$ $\tilde{n}uwe$ `new'; A $es \sim B$ $\tilde{n}use$ `shoulder'; A $es \sim B$ $\tilde{n}use$ `gift', A $\tilde{p}\tilde{n}rem? \sim B$ $\tilde{k}\tilde{u}rwe\tilde{n}e$ `stone'. The first two of these pairs demonstrate cognates; whereas the words of the third pair are formed with different suffixes from a single root; and only the words of the last pair go back to different protolanguage roots. One of the Tocharian A texts contains glosses in Tocharian B, which proves that neither of the Tocharian languages were fully understandable to the speakers of the other.

The self-designation of Tocharians is not exactly known. It is likely that the Tocharian A speakers called themselves "inhabitants of *ākñi ("marches")", whilst the speakers of Tocharian B named themselves "inhabitants of *kuśi (i.e. Kuča oasis)"; the name "Tocharians" was given to them by neighbouring peoples (Adams 2000). Manuscripts in these languages were found in Xingjiang (East Turkestan) along the trade route parallel to Tarim river and date back to 5th-8th centuries AD (most of them do not have a more precise dating). Texts in both Tocharian languages are mainly translations, or renderings of Indian Buddhist writings, and therefore the majority of known Tocharian vocabulary consists of words with abstract meaning which cannot be exactly specified. Most Tocharian manuscripts are heavily damaged; pages upon which more than half the original text remains are rare. This limits the possibility of using context in order to determine word meanings. Many attested Tocharian words are hapax legomena, of unknown meaning. The vocabulary of both languages is full of loan-words which are themselves not recognised and etymologised. Additionally there are many words which may be either native or loan. The usage of Tocharian data in historical and comparative studies is hindered by these factors

The Meroitic data used by Winters is 'prepared' to a great extent. As examples from original Meroitic texts show (cf. e.g. Griffith 1911), Meroitic words have a considerable length - 5-8 characters on average (some of the words were even longer in pronunciation because in the Meroitic writing system, as for example in the Indian writing systems, vowel a, apparently, was not written out, see Hintze 1973; Rilly 2007, 280-285). This can be inferred also from Meroitic proper names and titles rendered in other languages (first of all, Ancient Egyptian, Greek and Latin), cf. e.g. Nastasen (a king's name), Napata (a place-name), kandake (a title). However, the majority of words in Winters' work (cf. vocabulary in Winters 1999, 378-383) only contain two or three letters; many lexemes contain only one. This gives rise to the supposition that Winters divided some Meroitic 'words' (where 'word' is a row of characters between two word-dividing symbols) into series of shorter words.3

Such an approach is extremely doubtful from a methodological point of view. Where the morphemes used for proving the genetic relationship of languages are too short (1-2 phonemes), the probability that their resemblance is a mere coincidence increases greatly (Burlak and Starostin 2005, 90, 101). Indeed, the probability of finding, in a randomly-selected language, a chain of five phonemes (following each other in the required order) that has the required meaning is much lower than the probability of finding a chain of two phonemes having a certain meaning (or one that is comparable with it). Naturally, if words are highly likely to exhibit mere coincidences, they cannot prove the genetic relationship of languages. It arouses suspicion that the most impressive resemblance can be noticed among Meroitic and Tocharian 'one-letter' verb roots, such as e-"give" i- "go" and o- "begin". It should be noted that these "Meroitic" words (as well as all the other lexemes cited in our work), consisting of such sounds and having such meaning, were postulated by Winters, only on the assumption that the Meroitic language must be genetically related to Tocharian.

According to Winters' translation, most Meroitic lexemes have abstract meaning and such words are not likely to have plausible etymologies because semantic shifts in this lexical sphere are often rather remote and unpredictable; thus they can hardly be proven. Winters' only sources of information about Tocharian languages are works by A. J. Van Windekens on Tocharian etymology. It is well-known among Tocharianists that Van Windekens pays little attention to the specification of meaning of Tocharian words, for he considers that rough knowledge of the word's (or, more precisely, its root's) semantics would suffice to find a plausible etymology for it. This is not the case, not only because it is extremely difficult to find parallels with absolutely identical meaning for abstract words, but also because when words

¹ I am grateful to A. K. Vinogradov and C. Rilly for reviewing earlier drafts of this paper, for helpful comments and criticism and to E. Kelbert and A. Nair for correcting my English.

² Cf. Winters 1999, and earlier works of this author (Winters 1984; 1989; 1998a), that were not available to us.

 $^{^{3}}$ Cf. also the transliteration of the same Taneyidamani stela in Millet 1973.



having different meanings are compared, the probability of coincidence increases greatly (cf. Ringe 1992, 64-66; Burlak and Starostin 2005, 91-92, 106), In the latter case words which are too distant semantically to go back to the same ancestor-language antecedent can easily be considered cognates.

Given such presumptions, it is unsurprising that Winters could observe resemblances between Meroitic and Tocharian data. In fact, they may seem numerous and striking, cf. such "common roots" as Mer. art "praise" ~ Toch. A ārt-, B ārtt- "praise, love",4 Mer. e "give" ~ Toch. A e-, B ai- "id.", Mer. i- "go" ~ Toch. AB i- "id.", Mer. yt "is (sic!) capable (of)" ~ Toch. AB yāt- "be capable of", Mer. w- "to guide, to conduct" ~ Toch. A wā(w)-, B wāyā- "lead, guide, drive", Mer. o "start, begin, commence" ~ Toch. A o(n)-, B aun-"begin; strike", Mer. ri "abandon, leave, send off" ~ Toch. AB ri-n- "renounce, give up", Mer. kl- "bear, endure, tolerate" ~ Toch. AB käl-"endure, bear", Mer. 50 "is alive, lives" ~ Toch. A śo-, B śau- "live", Mer. te 2 person pronoun ~ Toch. A tu, B tuwe "thou", Mer. nm "to bend, to incline" ~ Toch. AB näm-"id.". Additionally, the kingdom's name, Kush, resembles the name of the Kuča Oasis (Toch. B *kuśi), as well as the name of Tocharian money, kushans (Toch. B kuśāne*) and the name of one of the Kushite kings, Taharqo, resembles the name of Tocharians.

In order to avoid one's hypothesis becoming a circular argument, it is necessary to take care that its consequences do not disagree, not only with each other, but with all that is known so far about Meroites and Tocharians.

Even if we assume that the correspondences found by Winters are not mere coincidence, his hypothesis contains several contradictions of which the main one is chronological. The first dated Meroitic texts (pilgrims' graffiti from the Amun temples at Kawa and Dokki Gel) can be dated to the beginning of the 2nd century BC (Rilly 2003, 46-48), which is more than 500 years earlier than the first Tocharian texts. Further, inhabitants of the Kushite kingdom (which flourished in the 8th - mid 7th century BC) are most likely to be native, not foreign, for as archaeological data shows their burial customs continue earlier traditions traced back to the Kerma Culture. "According to the most recent archaeological work carried out by the University of Geneva, Kerma was founded around 2400 BC and did not undergo any dramatic ethnic or cultural changes until its final phase. Therefore the origin of Meroitic can now be placed very probably around this date, or even a little earlier" (Rilly 2004).

It is not known exactly when Tocharians appeared in Xingjiang, but in any case, there must be a considerable amount of time between attested Meroites and Tocharians. Consequently, the difference between Meroitic and Tocharian

must be significant - not only in the lexical sphere, but also in grammar and phonology, where regular phonetic correspondences must be observed. According to Winters' hypothesis, phonetic correspondences between Tocharian and Meroitic appear to be trivial (cf. examples above). When corresponding phonemes are not identical, it is almost always a simplification: thus, Meroitic velars and uvulars correspond to Tocharian k (both Tocharian languages lack uvulars and other velars), Tocharian long and short a corresponds to the only Meroitic a, for example, cf. Mer. lok "(from) [a]far" ~ Toch. A lok, B lauke "far (off); away" (k corresponds to k) and Mer. ah "to learn" ~ Toch. AB ākl-"learn" (h corresponds to k), Mer. $ah \sim \text{Toch. AB } \bar{a}kl$ - (a corresponds to ā) and Mer. atr "hero" ~ Toch. A atär "id." (a corresponds to a). At the same time similar lexemes are numerous, including such rather non-basic words as "hero".

Such a picture is not likely to be observed when we are dealing with distant genetic relationship. Rather, we should expect, firstly, several phonetic correspondences to be distributions (of the type of "X yields Y, on condition P, but Z, on condition Q"), and secondly shared lexical items to be more numerous in basic vocabulary (i.e. words such as "go", "sun", "hand") than in cultural lexical sphere. Moreover, words having concrete meanings (such as "give") should be more semantically similar than abstract words (like "endure, tolerate"), because abstract meanings undergo changes and shifts more easily and frequently than concrete ones and even when languages are undoubtedly related, the examples of cognates having absolutely identical abstract meanings are rather rare.

The Meroitic language, according to Winters' interpretation, appears to be more closely related to Tocharian A than to Tocharian B, cf. Mer. el "gift" ~ Toch. A el "id." (but B āyor), Mer. atr "hero" ~ Toch. A atär "id." (but B etre), Mer. ntk "the lord" ~ Toch. A natäk "id.", Mer. yo "and" ~ Toch. A yo "id." (Tocharian B has no cognates to the last two lexemes). But, for chronological and geographical reasons, Meroitic can hardly be more closely related to one of the Tocharian languages than to the other. The fact is that Tocharian languages exhibit more than 80% of cognates in basic vocabulary and therefore the divergence of Proto-Tocharian into Tocharian A and Tocharian B must be dated not earlier than 7th century BC (Burlak 2000, 9).6 Thus, each Tocharian language evolved independently for not more than 1.5 millennia. This is in full accordance with the level of difference between them not only in vocabulary but also in phonetics and grammar; all scholars agree that Tocharian

⁴ Forms and meanings of Tocharian words and stems here and below are given (where it is possible) according to the dictionary (Adams 1999), because in Winters' paper, under discussion, the forms and meanings of Tocharian words are not cited.

⁵ In fact, this word means "strength", "power" or the like (C. Rilly, pers. comm.).

⁶ The divergence of Proto-Tocharian into Tocharian A and Tocharian B was dated with the help of lexicostatistical method by S. A. Starostin (Starostin 2000); this method is greatly perfected "glottochronology" by M. Swadesh, and, in contrast to the latter, shows highly plausible results for the languages and families in which these results can be tested independently.

A and Tocharian B are closely related and form a sub-group. Moreover, it is not excluded that the divergence of Proto-Tocharian should occur even somewhat later, namely, not much later than Buddhism reached Xingjiang (i.e. approximately 5th century BC). This is ascertained by the adoption of Buddhist loanwords in Tocharian: the earliest of them undergo the same changes as Proto-Indo-European words do, but their Proto-Tocharian prototypes cannot be reconstructed, cf., e.g., A pättâ(ñkāt), B pa(ñākte) 'Buddha(-thegod)' (< Sanskrit buddha- 'Buddha'), where Sanskrit u yields (as well as Indo-Eur. *u) Proto-Tocharian "schwa" (> A ä, B a), but for all this Tocharian A form can only go back to Proto-Toch. *p' ttâ, while Tocharian B form continues Proto-Toch. *p' t (this corresponds to possible different interpretation of final -a(h) in loanwords from Sanskrit).

If Meroitic were more closely related to one of the Tocharian languages than to the other, it then would have separated from this Tocharian somewhere between Kush and Xingjiang, some time after the divergence of Proto-Tocharian, i.e. after 7th - 5th century BC: thus, not longer than three to five centuries before Meroitic was written. This period is only enough for them to have become different dialects, not different languages. Meroitic should thus be practically identical to one of the Tocharian languages, in details of phonetics, morphology, syntax and even phraseology, i.e. a transliterated text in Meroitic should be intelligible, without special training, to any Tocharianist, but, obviously, this is not the case. Meroitic has quite a number of words, grammar rules and even phonemes with no direct parallels in Tocharian. Thus, if Meroitic transliteration is correct (and Winters seems to agree with this), Meroitic has such sounds as d, b, $h[\gamma]$, $h[\gamma^w]$ (cf. Griffith 1911, 10; Rilly 1999), which are absent in Tocharian languages. At the same time, it has fewer vowels, only six (a, e, i, u, o and schwa (cf. Hintze 1973, 322; Rilly 2007, 398-401), whilst in both Tocharian languages, there is additionally ā and Tocharian B has, besides this, diphthongs (at least, ai and au, but more probably, also ei, oi, eu, ou). Meroitic, as Winters assumes, has possessive markers in substantives, e.g.: -n/-ne "his", -to "your", while both Tocharian languages lack such markers. According to Winters (Winters 1999, 159), Meroitic uses the following prefixes: p-, the prefix of reinforcement (it looks like Coptic article, cf., e.g., Copt. pbok "the slave", paibōk "this slave", pesbōk "her slave"), the imperfect prefix b- and the intensive prefix a-. The latter, alone, resembles Tocharian, to some extent: in Tocharian languages, some types of stems may attach a prefix A a(n)- ~ B e(n)-, which can look like a- (\hat{a} -, and also y- and o-). This prefix is usually described as "intensive" (cf. Adams 1999, 82; Van Windekens 1976, 154), but more thorough examination of words formed by it shows that, rather, it had locative meaning, cf., e.g., A apärkär "for a long time" (< pärkär "long"), ykon "by day, during the day" (< kom "day; sun"), osem "at night" (< wse "night"), B aplac (adv.) "in conversation" (< place "conversation"), enwetstste (adv.) "anew" (< nuwe "new").

Both Tocharian languages possessed a homonymous, negative prefix, besides this prefix (Adams 1999, 83), and also an imperative prefix AB *pä*-, having no parallels in Meroitic. The basic word order postulated by Winters for Meroitic is SOV (subject – object – verb). Both Tocharian languages (as well as other ancient Indo-European languages) have free word order, slightly preferring SOV. Thus, the phonetics and grammar of the Meroitic language (according to Winters' interpretation) appear to differ considerably from both Tocharian languages.

Moreover, there is no archaeological evidence for population movement in the 1st millennium BC in the areas in question. Although Meroites were ethnically heterogeneous ("native inhabitants of the Nile valley, similar or even identical to pre-dynastic Egyptians..., Negroids coming from south and dominating in southern regions, Kushites, and perhaps not numerous Libyans from the west" (Zavadovskij and Katznelson 1980, 21), no evident cultural change that could correlate with the change of native local language into foreign, "quasi-Tocharian" is observed in archaeological data.

Even if we assume that the moment of emergence of Meroitic coincided with the first inscriptions written in it, the Meroitic language would still be more similar to Proto-Tocharian than to any attested Tocharian language, since the period between Meroitic and Proto-Tocharian is only three to five centuries, whilst the period between Meroitic and Tocharian A or Tocharian B is much longer, at least eight centuries. Winters' own data contradicts this. In general, it seems that Winters did not use any Proto-Tocharian evidence in his work, although by 1999 there had been several works on Proto-Tocharian reconstruction published (cf., e.g., Anreiter 1984; Pinault 1989; Hilmarsson 1986; Adams 1988; Ringe 1996). Moreover, Winters, apparently, did not even take into consideration the possibility of comparing Meroitic not with attested Tocharian A and B, but with their reconstructed ancestor.

Tocharian languages form a sub-group within the Indo-European language family. Thus, any language akin to Tocharian must be akin to other Indo-European languages. Moreover, the Meroitic language, having been spoken in Kingdom of Kush in the first half of the 2nd millennium BC, could have been an intermediary between Proto-Indo-European (diverged approximately in 4th millennium BC) and Proto-Tocharian which appeared in Xingjiang, obviously, not later than in the middle of the 1st millennium BC. Winters' hypothesis does not conform to these considerations: there are far less correspondences among the words he "discovered", with other Indo-European languages, than with Tocharian. Thus, the words "give" (Toch. A e-, B ai-), "begin" (Toch. A o(n)-, B aun-), "learn" (Toch. AB ākl-) and "hero" (Toch. A atär, B etre) are attested only in Tocharian and have no plausible Indo-European etymology. Such a picture could be observed if Meroitic and Tocharian (more precisely: Tocharian A) were not akin, but in contact with each other and Meroitic had borrowed all the words men-



tioned by Winters from Tocharian A. This does not accord with Winters' ideas, for he assumes that there are good reasons "to compare Meroitic successfully with Tocharian" (Winters 1999, 357) (he means precisely historical-linguistic comparison, aimed at establishing genetic relations between languages compared: as he writes in the same paragraph, "the comparative method is used by the linguist to determine the relatedness of languages" (*ibid.*)).

Hence it follows that there is an intrinsic contradiction in Winters' hypothesis: Meroitic appears to be very closely related to Tocharian A and at the same time demonstrates almost no resemblance to other Indo-European languages (which are obviously related to Tocharian A, which can be easily traced back). It appears that Meroitic must have been singled out not **earlier** than the 7th-5th centuries BC (in order to have so many lexical resemblances with Tocharian A), but not **later** than end of the 3rd – beginning of 2nd millennium BC (in order not to contradict the archaeological data), and the latter date if far earlier than the former!

Now let us examine the results more closely of Winters' comparison between Meroitic and Tocharian. Winters' description of Meroitic draws a sharp distinction between this language and others, including the Indo-European family (in particular Tocharian).

It arouses suspicion when Winters postulates that verb markers of IInd person plural and IIInd person singular are homonymous, cf. e qe-t "he gives renewal" (e qe "give renewal") and e-t "you give" (e "give"). Furthermore, it is not explained how the author manages to choose the correct meaning in any given case. One and the same meaning can be expressed simultaneously by several different morphemes, cf. i-n "he goes" (i "go, goes, leave"), but e qe-t "he gives renewal" (e qe "give renewal"). The rules explaining how to make a choice between proposed variants are absent in Winters' work.

Winters postulates a rather large sphere of meaning for many words, e.g.: tk "to be, to investigate, to move, to reflect", kak "to know, to understand, to shout, to send", mi "rain, libations, imbibition, to drink". The apparent parameters are too loose for really attested lexemes. Moreover, when words having such "wide" meanings are compared, it increases the possibility of finding in any randomly selected language (e.g. Tocharian) a word (having comparable sound form) the meaning of which would, by chance, coincide with a part of the meaning of the Meroitic word in question.

Within Winters' hypothesis, there are many synonyms in Meroitic: ye and yt "is capable", ph and pk "to aim, to take aim", qe and ib "make", tk (a homonym to tk "to be, etc.", cited above) and tq "set in motion" and especially "quasisynonyms", i.e. words with partly identical meanings, cf. ar "to bring out, produce, beget, arise" and el "to produce, to call", kak "to know, to understand, to shout to send" and qn "knows, understands", art "praise" and pal "praise, extol". There are still more words with partial resemblance in form

and meaning, e.g.:

ah "to learn" and ak "completes (sic!), to learn, to teach, complement, supplement",

wt "put, place, sit" and wd "put, place, set",

hr "bear, endure, tolerate; scatter", hl "bear, endure, tolerate" and kl "bear, endure, tolerate",

ib "make", *im* "reach, do, make, act, attach" and *y* "to make, to bring, to form",

tem "rebirth, beget, be born reborn", tene "the rebirth, to the rebirth", tī "the rebirth" and tone "the rebirth".

Evidently words in these groups exhibit no regular correlations. Winters' hypothesis, therefore, forces the assumption that Meroitic has (and uses widely) such a method of word-formation as arbitrary sound changes, which is not attested in any real language. Furthermore, some of these words (according to the rules of regular phonetic correspondences assumed by Winters) appear to be cognates of several Tocharian words at once, cf., e.g., Mer. hl and Mer. kl "bear, endure, tolerate" ~ Toch. AB käl- "endure, bear". It is "a common error in proposals of D<istant> G<enetic> R<elationship>" of languages: "a single form/etymon in one language cannot simultaneously be cognate with multiple forms in another language" (Campbell 2003, 280), for if it were the case, this word would simultaneously go back to two different protolanguage words. The only possibility is that both different Meroitic words are etymologically related, "in effect, meaning only one cognation set" (ibid.). This situation cannot be so, because it forces one to assume, that in Meroitic, words can arise (by means of irregular phonetic changes!), having just the same meanings as words already existing in the language.

The resulting translation of Taneyidamani's inscription looks rather odd. This long (161 lines) text, according to Winters' translation, consists of varying repeatition of the statement, that Taneyidamani is the refuge of all, the promise of success, rebirth and future renewal. It seems more likely, however, that such a long inscription of a ruler should contain a detailed account of his deeds: his conquests, his frontier defences, towns erected and/or temples, rich sacrifices and so on (cf., e.g., the inscriptions of Ancient Persian king Darius, or Napatan royal texts written in Egyptian, see (FHN II 1996).7 Endless repetition of almost identical extolments is typical of hymns in honour of gods (cf., e.g., most Vedic hymns). The text's composition also appears strange: each line is a separate statement (sometimes two), without any semantic connection to neighbouring statements; and such means of text-connectedness, as conjunctions and anaphoric pronouns (notably well attested in Tocharian languages), are almost totally absent.

⁷ As C. Rilly reports (pers. comm.), Taneyidamani's stela indeed describes military campaigns, the crushing of rebellions and the consecration of temples and offerings, see further Rilly, this volume, 2-12.

Thus, we can see that neither Winters' data, nor his results allow the admittance of a close genetic relationship between Meroitic and Tocharian.

Bibliography.

- Adams D. Q. 1988. Tocharian bistorical phonology and morphology. New Haven.
- Adams, D. Q. 1999. A dictionary of Tocharian B. Amsterdam Atlanta.
 Adams, D. Q. 2000. 'Some observations of peoples, places, and languages in the Tarim basin in the first millennium AD', Tocharian and Indo-European studies. Vol. 9. Copenhagen.
- Anreiter, P. P. 1984. Bemerkungen zu den Reflexen indogermanischer Dentale im Tocharischen. Innsbruck.
- Burlak, S. A. 2000. Бурлак, С.А. История тохарских языков в свете данных глоттохронологии // Проблемы изучения дальнего родства языков на рубеже третьего тысячелетия. Доклады и тезисы международной конференции. М., 2000. (Burlak, S. A. 'Istoriya toxarskix yazykov v svete dannyx glottoxronologii', Problemy izucheniya dal'nego rodstva yazykov na rubezhe tret'ego tysyacheletiya. Doklady i tezisy mezhdunarodnoj konferentsii. M., 2000.)
- Burlak, S. A. and S. A. Starostin 2005. Бурлак, С. А., Старостин С.А. Сравнительно-историческое языкознание. М., 2005. (Burlak, S. A. and S. A. Starostin. Sravnitel'no-istoricheskoe yazykoznanie. М., 2005.)
- Campbell, L. 2003. 'How to show languages are related: Methods for distant genetic relationship' in B. D. Joseph and R. D. Janda (eds), The bandbook of bistorical linguistics. Malden, Oxford, Melbourne, Berlin.
- FHN II 1996 Eide T., T. Hägg, R. H. Pierce and L. Török (eds), Fontes Historiae Nubiorum: II. From the Mid-Fifth to the First Century B.C. Textual Sources for the History of the Middle Nile Between the 8th Century BC and the 6th AD. Bergen.
- Griffith, F. Ll. 1911. Karanòg: The Meroitic inscriptions of Shablûl and Karanòg. Philadelphia.
- Hilmarsson, J. G. 1986. Studies in Tocharian phonology, morphology and etymology with the special emphasis on the o-vocalism. Revkjavik.
- Hintze, F. 1973. 'Some Problems of Meroitic Philology', Internationale Tagung für meroitistische Forschungen in Berlin 1971. Berlin, 321-336.
- Millet, N. 1973. 'A Possible Phonetic Alternation in Meroitic', Meroitica 1: Sudan im Altertum. Berlin, 307-319.
- Pinault, G.-J. 1989. 'Introduction au tokharien', LALIES. Actes des sessions de linguistique et de littérature, 7. Paris, 5-224.
- Rilly, C. 1999. 'Une nouvelle lecture du signe meroïtique Q', Göttinger Miszellen, 169, 101-110.
- Rilly, C. 2003. 'Les graffiti archaiques de Doukki Gel et l'apparition de l'ecriture meroitique', Meroitic Newsletter 30, 41-55, pls IX-XIII (figs 1-8).
- Rilly, C. 2004. 'The linguistic position of Meroitic', Arkamani (Sudan electronic Journal of Archaeology and Anthropology) (March).
- Rilly, C. 2007. La langue du royaume de Meroe. Un panorama de la plus ancienne culture d'Afrique subsaharienne. Paris.
- Ringe, D. A. Jr. 1992. On calculating the factor of chance in language comparison. Philadelphia.
- Ringe, D. A. Jr. 1996. On the chronology of sound changes in Tocharian. New Haven.
- Starostin S. A. 2000. 'Comparative-historical linguistics and lexicostatistics', in C. Renfrew, A. McMahon and L. Trask (eds), Time Depth in Historical Linguistics. Oxford.
- Trigger, B. G. 1973. 'Meroitic language studies: strategies and goals', Meroitica 1: Sudan im Altertum. Berlin, 243-272.
- van Windekens, A. J. 1976. Le tokharien confronté avec les autres langues indo-européennes. Vol. I, Louvain.

- Winters, C. A. 1984. 'A note on Tokharian and Meroitic', Meroitic Newsletter 23, 18-21.
- Winters, C. A. 1989. 'Cheikh Anta Diop et le dechiffrement de l'ecriture Meroitique', Revue Martinigues de Sciences Humaines et de Litterature, 8. 149-152.
- Winters, C. A. 1998. 'Meroitic funerary text. Part I', InScription Journal of Ancient Egypt 1 (1), 29-33.
- Winters C. A. 1998a. 'Meroitic funerary text: Stelae and funerary tables', InScription - Journal of Ancient Egypt 1 (2), 41-55.
- Winters C. A. 1999. 'Inscriptions of Tañyidamani', Nubica et Aethiopica IV/V. Warszawa, 355-387.
- Zavadovskij, Y. N. and I. S. Katznelson 1980 Завадовский Ю.Н., Кациельсон И.С. Мероитский язык. М., "Наука", 1980. (Zavadovskij Yu. N., Katsnel'son I. S. Meroitskij yazyk. M., "Nauka", 1980.)