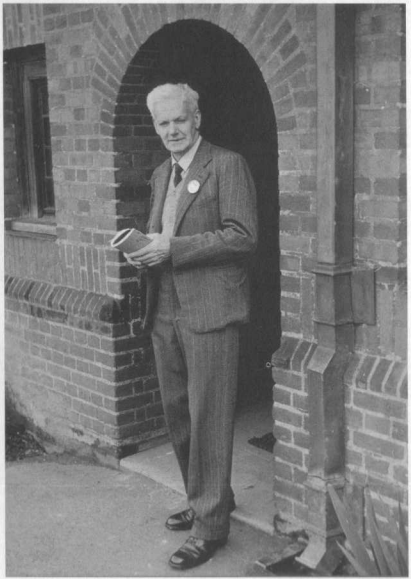
INDO-IRANIAN LANGUAGES AND PEOPLES



edited by Nicholas Sims-Williams



Harold Bailey at Queens' College some time in the fifties or sixties, showing him as most of his pupils in Cambridge remember him. Several prints of this photograph are kept in the archives of the Ancient India and Iran Trust.

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INDO-IRANIAN LANGUAGES AND PEOPLES

Edited by

NICHOLAS SIMS-WILLIAMS

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Preface

During the last ten years or so, the materials available for the study of the older Indo-Iranian languages have increased prodigiously. One thinks in particular of the sensational discoveries of birch-bark scrolls bearing Buddhist texts written in Gāndhārī in Kharoṣṭhī script and of Bactrian leather documents in cursive Greek script. At the same time, evolving techniques for the compilation, manipulation and dissemination of electronic text corpora and digital images have made it possible to exploit previously known data in new ways, whilst archaeological finds in India, Pakistan and Central Asia, including the sites of the 'Bactria-Margiana Archaeological Complex', have given rise to new hypotheses concerning the history and pre-history of the Indo-Iranian peoples.

The first object of the present volume, and of the symposium out of which it arose, was to bring together a select group of scholars, both linguists and archaeologists, to survey these exciting new developments and to assess their impact on our understanding of the history of the Indo-Iranian languages and their speakers. A second, no less important object was to pay tribute to the memory of a great pioneer in the Indo-Iranian field, Sir Harold Walter Bailey (1899-1996), who laid many of the foundations on which we are now attempting to build. Appropriately, the symposium began on 16 December 1999, the exact centenary of Sir Harold's birth, with the first 'Sir Harold Bailey Memorial Lecture', given by one of his most distinguished pupils, Professor R. E. Emmerick. It was appropriate, too, that the symposium was sponsored by two organisations with which Sir Harold was closely associated: the Ancient India and Iran Trust, an educational trust based in Cambridge, which he helped to set up and to which he bequeathed his incomparable library, and the British Academy, of which he was a Fellow for more than half a century (1944-1996). By a happy chance, the proceedings of this symposium, inaugurated on the very day of Sir Harold Bailey's centenary, have attained their definitive, printed form in the year in which the Academy celebrates its own centenary. I am sure that Sir Harold, who delighted in anniversaries and birthday parties (see below, p. 285), would have wanted to join me in taking this opportunity to wish the Academy 'many happy returns'.

Nicholas Sims-Williams
Cambridge, July 2002

Abbreviations

AAWLM = Abhandlungen der geistes- und sozialwissenschaftlichen Klasse der Akademie der Wissenschaften und der Literatur in Mainz
BEFEO = Bulletin de l'École Française d'Extrême Orient
BSO(A)S = Bulletin of the School of Oriental (and African) Studies
DAFA = Délégation Archéologique Française en Afghanistan
IF = Indogermanische Forschungen
IHQ = Indian Historical Quarterly
IIJ = Indo-Iranian Journal
JA = Journal Asiatique
JAOS = Journal of the American Oriental Society
JIABS = Journal of the International Association of Buddhist Studies
JIES = Journal of Indo-European Studies
JRAS = Journal of the Royal Asiatic Society
MSS = Münchener Studien zur Sprachwissenschaft
OLZ = Orientalisches Literaturzeitung
RA = Reallexikon der Assyriologie und Vorderasiatischen Archäologie
SPAW = Sitzungsberichte der Preußischen Akademie der Wissenschaften, Phil.-hist. Kl.
TIES = Tocharian and Indo-European Studies
WZKS = Wiener Zeitschrift für die Kunde Südasiens
ZDMG = Zeitschrift der Deutschen Morgenländischen Gesellschaft

Hunting the hapax: Sir Harold W. Bailey (1899-1996)*

RONALD E. EMMERICK

MR CHAIRMAN, ladies and gentlemen, friends and colleagues, we are gathered here tonight to celebrate the anniversary of the birthday of Harold Walter Bailey, who was born in Devizes in Wiltshire exactly one hundred years ago today on Saturday, 16 December 1899. Whether he was being born at exactly this time of day remains unknown. His mother may have told him the time of day, but it was not something he considered important enough to remember, and when in October 1977 a certain Kenneth Fretwell, who was apparently interested in astrology, wrote to him from Margate inquiring about the exact time of his birth, he replied that he did not know it and that there was no longer anyone alive who did. Fretwell, it seems, was really interested in Noel Pierce Coward (1899-1973), the famous playwright, who was born in Teddington in Middlesex on exactly the same day as Harold was born in Devizes in Wiltshire.

Apart from the fact that both had distinguished careers and were knighted, Bailey ten years earlier than Coward, they did not have much in common, although there was more than the casual observer might suspect. Even if Coward's levity might seem far removed from how we remember Bailey, he did in fact have a fine sense of humour and many of his unpublished limericks are not unlike lines that stemmed from Coward's pen. Unfortunately I cannot entertain you with them on this occasion as they concern people still with us.

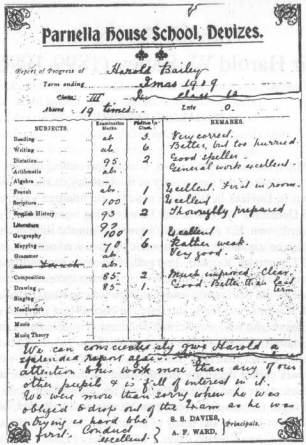
I do not propose to give you a detailed account of Bailey's life this evening. Those of you who are interested can read my recently published memoir in the *Proceedings of the British Academy* (Emmerick 1999).[1] However, it is appropri-

* The first Sir Harold Bailey Memorial Lecture delivered by the late Professor R. E. Emmerick at the University of Cambridge on 16 December 1999, the hundredth anniversary of Sir Harold's birth.

[1] I take this opportunity to correct a misprint on p. 330. Read 'Volumes 6 and 7' for 'Volumes 4 and 7' in the paragraph beginning 'At this point'. Two further tributes to Bailey have come to my notice since the publication of the memoir: P. Lecoq, 'Sir Harold W. Bailey (1899-1996)', *Studia Iranica*, 26, 1997, 117-18; R. Coleman, 'Sir Harold Bailey: A Personal Memoir', *The Cambridge Review*, November 1996, 60-62.

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ate to remind you of the salient facts, adding here and there an item not recorded elsewhere.



Parnella House School, Devizes.

Report of Progress of Harold Bailey
Term ending Xmas 1909
Class III Form 3rd class 12
Name 19 times Late 0.

SUBJECTS.	Examination Marks.	Position in Class.	REMARKS.
Reading	ab.	3.	Very correct.
Writing	ab.	6	Better, but too hurried
Dictation	95.	2.	Good speller.
Arithmetic	ab.		General work excellent.
Algebra	-		
French	ab.	1	Excellent. First in room.
Scripture	100	1	Excellent
English History	93	2	Thoroughly prepared
Literature	93		
Geography	100	1	Excellent
Mapping	98	6.	Rather weak.
Grammar	ab.		Very good.
Science Elementary	ab.		
Composition	85.	2	Much improved. Clear.
Drawing	85.	1.	Good. Better than last term.
Singing	-		
Needlework	-		
Music			
Music Theory			

We can congratulate ourselves & you Harold a splendid report again. Attention to this work more than any of our other pupils & is full of interest in it. We were more than sorry when he was obliged to drop out of the Exam as he was trying so hard to be first. Conduct excellent.

S. B. DAVIES, Principals.
A. F. WARD,

Figure 1. Harold's school report for the year 1909, as reproduced on page 18 of *The West Australian* on 8 February 1986. The observation at the bottom reads as follows: 'We can conscientiously give Harold a splendid report again . . . attention to his work more than any of our other pupils & is full of interest in it. We were more than sorry when he was obliged to drop out of the Exam as he was trying so hard to be first. Conduct excellent.' The missing portion of the text could not be reconstructed even from the original, which is now in a still poorer state than it was when this photograph was taken.

Until the age of ten Bailey attended a private school, Parnella House School in Devizes (see fig. 1), but in 1910 his parents decided to emigrate to Western Australia and take up farming. They took with them besides ten-year-old Harold also his older brother, Alec Charles (1896-1985), and his younger brother, Carl William (1900-1994) (fig. 2). It must have been quite a shock to them all to move as they did from a well-established town like Devizes with a long history to what

Bailey later called[2] 'a wild backwood of West Australia'. Even today the road the Baileys would have had to take to the nearest settlement is an unmade one. The nearest place of any size was the capital city of Perth some 260 km to the east and even that was small in those days. There was at that time no university in the whole of Western Australia.[3]



Figure 2. From left to right: Harold, his mother Emma Jane Bailey, née Reichardt (1871-1962), his elder brother Alec Charles (1896-1985) and his younger brother Carl William (1900-1994). The picture is part of a larger photograph I saw in 1999 hanging in the Perth home of Joyce Emma Raven née Bailey, Alec's elder daughter, which was taken during Harold's visit to Australia in 1963. The original negative can no longer be found. The present reproduction is based on a negative kindly provided by Dr Klazina Easton-Stepanov.

When reminiscing about his early days in Australia Bailey used to recall that for the Bailey farm, 'Glen Wood' at Nangeenan near Merredin, the nearest water supply was some kilometres away. In fact it was not long before the Baileys emigrated to Western Australia that water was first brought by pipe to the area. In the last century water used to be transported from the coastal Helena river by train to the eastern goldfields at Coolgardie and Kalgoorlie. It was an immigrant Irish engineer, Charles Yelverton O'Connor, whose vision it was to supply the goldfields with water by pipeline. He initiated the plan in 1895 but it was hotly opposed in Parliament and approval was not granted until 1898. Even after work had begun on the project sceptical critics subjected O'Connor to a vicious press campaign as a result of which O'Connor committed suicide in 1902 just a year

[2] Letter to A. S. C. Ross (30 August 1980).
[3] The University of Western Australia was founded in 1913.

before his vision was fulfilled. When this great engineering project was completed in 1903 life in this part of Australia changed dramatically since water no longer had to be transported more than 500 km by train but five million gallons were delivered daily along 557 km of pipes all the way to Kalgoorlie.

The Bailey brothers were needed to help clear the land ready for cultivation. Today the wheatfields stretch in all directions as far as the eye can see, but early this century it was necessary to start from scratch with primitive equipment just to establish a foothold. It is difficult to imagine a more unlikely place for a scholar to grow up. We can well understand how when during the war years A. Toynbee heard Bailey's account of his boyhood it captured his imagination. In his general history (Toynbee 1954: 16-17) he drew a romantic picture of Bailey studying Avestan under a haystack. The picture is not entirely accurate, as Bailey seems to have had no access[4] to books on Sanskrit, Pali or Avestan before 1919 and after that year he could not have spent much time anywhere near haystacks. That is why Bailey often showed some hesitation about drawing attention to what Toynbee wrote about him, but nevertheless it does reflect the extraordinary contrast between the environment of Bailey's early years in Australia and what really interested him already as a child.

Bailey once told me that it was especially Sir Edwin Arnold's poem *Light of Asia* that had inspired him to take up Oriental studies. Sir Edwin Arnold (1832-1904), principal of the Government Sanskrit College at Poona, had published his epic poem on the life of the Buddha already in 1879, so that Bailey's parents could have taken a copy of it with them when they emigrated to Australia. Nevertheless, it seems more likely that Bailey first read about the work in the *Harmsworth Encyclopædia* but did not gain access to a copy of it until about 1919. However that may be, it is certainly difficult to read the poem without being well acquainted with Anglo-Indian vocabulary as well as having some knowledge of Sanskrit, Pali and Hindi. Bailey rapidly acquired the necessary knowledge, apparently entirely unaided, for although it was not possible to study Sanskrit in Australia at that time, he was already writing Sanskrit poetry in difficult metres[5] before he left Australia to begin officially studying Sanskrit at Oxford.

In 1922, after two years' private tuition that enabled him to matriculate, Bailey took up classical studies at the University of Western Australia. In 1925 he completed the B.A. Honours year and in 1927 he obtained his M.A. with a thesis entitled *Religion in Euripides, a study of his religious views and their influence on his dramas*. Later in the same year he matriculated at Oxford and there, delighted at having access to what seemed like inexhaustible supplies of books on Oriental and other languages, he devoted himself with enormous enthusiasm to

[4] 'I was first able to get hold of Sanskrit texts in 1919' (letter to S. Konow 6 March 1936).

[5] 'Before going to Oxford I had tried my hand at Sanskrit verses, my greatest effort being a poem of 120 lines in the Mandakaranta metre (now I fear lost forever)!' (letter to S. Konow 6 March 1936).



Figure 3. Harold Bailey as he looked about 1926. While studying in Perth Bailey taught for a short time at Guildford Grammar School and formed a lifelong friendship with one of his pupils, Max B. Grace, who published the photograph on page 82 of his book *"Ercildoune", Guildford Reflections 1906-1925*, Perth 1992. Unfortunately Max was unable to locate the original negative.

their study. Officially he was reading for a B.A. in 'Oriental Studies (Sanskrit and Zend)', but he by no means confined himself to Sanskrit and Avestan. He evidently read widely in Pahlavi literature, and studied Khotanese and Sogdian. Within a year of his arrival in Oxford he became the first holder of the Nubar Pasha Armenian Scholarship, and he also began learning Georgian and Ossetic. He graduated with first class honours in Trinity term 1929 and in the same year was appointed lecturer in Iranian studies at the London School of Oriental Studies. However, he remained living in Oxford at his lodgings in Helen Road and at once began work on his doctoral thesis, an edition with translation and commentary of the so-called *Greater Bundahišn*, a kind of encyclopaedia of Zoroastrianism in the Middle Iranian language known as Pahlavi.

When Bailey was a student at Oxford, the professor of comparative philology[6] was G. E. K. Braunholtz (1887-1967), who advised Bailey not to come to his lectures on the grounds that they would be too elementary for him. Whether Bailey would have profited from them and perhaps even have developed a different attitude towards Indo-European I do not know. Braunholtz seems to have published scarcely anything, and I have no information regarding his teaching.

In 1937 Bailey was asked to give a paper to the Philological Society on recent developments in Indo-European and in particular on laryngeal theories, but he declined. He never adopted a position with regard to laryngeal theories and in later years admitted that he made use of reconstructions involving laryngeals only if they appeared to provide an additional argument in support of his etymology. He similarly made eclectic use of the work by Benveniste and others on the structure of the verb in Indo-European, without adhering to any particular system. This led him increasingly to postulate verbal roots without adequate justification and to assume that whatever was left over was a suffix without seeing the necessity of providing supporting evidence for both root and suffix.

I do not know whether it was while Bailey was a student at Oxford that he first took up punting, but by the time I came to study with him in Cambridge he had had much practice there. He considered himself quite an expert and enjoyed showing me some of the finer points when we used to punt down to the orchard at Grantchester for tea.

Within months of graduating from Oxford Bailey wrote three substantial articles that were published the following year (Bailey 1930a, 1930b, 1930c). These articles show clearly where his real interest lay for in them he tries to explain among other things numerous Avestan, Pahlavi, Khotanese and Sogdian words and text passages by comparing obscure words with words in related languages. However, it must be admitted that very little of what he proposed in those early articles would be accepted today. In the case of Khotanese he returned

[6] Braunholtz held the Professorship of Comparative Philology from 1925 to 1952 and was a fellow of Worcester College. He was born in Cambridge, as the first son of Eugen Gustav Wilhelm Braunholtz, University Reader, and was educated at Oundle School and Cambridge University.

subsequently to many of the same words and passages and improved on his earlier work.

In Bailey 1930b: 62 he translated—and justified with elaborate commentary—the Khotanese sentence *khvā nä vijsye välakā brrī mīrā rą aṃgā hamarā gūsīmdā bāšā* at the end of the so-called Staël-Holstein Miscellany (StH 73 *KT* 2.76) as follows: 'as plucked plants they die early, in a short while they all pass away', but by 1951 it had become, again justified with elaborate commentary, 'If I do not see you the greatly beloved, I die indeed, all my limbs are loosened' (Bailey 1951b: 45). He had made great progress during this period. Had he translated the sentence yet again, he would no doubt have improved its interpretation still further since in his *Dict.* p. 388b, he renders *vilaka-* 'small', not 'greatly'. I suppose he must have regarded *aṃgā hamarā* as what he used to call 'dyadic' since he has only the one word 'limbs' corresponding to the two Khotanese words. In the *Dict.* s.vv. *aṃga-* and *hamara-* he still attributes the same meaning 'limb' to both words. As I have shown, however, *hamara-* is not the same as *aṃga-* but means 'joint' (*Studies* 1.125). His explanation of *mīrāra-ṃ* as *mīrā* 'I shall die', 1 sg. subj. mid.[7] followed by *ra-ṃ* or alternatively *rą*, which he renders 'indeed', entails syntactic difficulties. If we had a subjunctive here we would expect it to mean 'may I die', but the following *ra* would remain inexplicable. It is an enclitic adverb meaning 'and', but it is impossible to account for that here: 'If I do not see you and I die' not only yields an implausible meaning but does not account for the subjunctive. The difficulties can be avoided simply by treating *mīrāra-ṃ* as the normal 3 pl. pres. mid. followed by the enclitic pronoun 1 sg. In the light of present knowledge the sentence should be understood as 'If I do not see you, (my) little loved one, my limbs will die, all my joints will be loosened.' Khotanese *aṃga-* 'limb' is commonly used to render Sanskrit words meaning 'body'.

In the years 1932 to 1935 Bailey published in quick succession in *BSOS* five articles called 'Iranian Studies, I-V'. The third of these (Bailey 1934a) is devoted mainly to a discussion of one of the central concepts of Zoroastrianism, that expressed by the term *spąnta-* and related words. Here he shows convincingly that the Khotanese word *śśandaā-* 'earth' is connected with the Avestan word *spąnta-*. Earlier Leumann had regarded the Khotanese word as a present participle of the Khotanese verb *śś-* 'to lie' (Leumann 1933-36: 504a) and Konow had left it without etymology in his *Saka Studies* (Konow 1932: 176b). Konow was immediately convinced by Bailey's etymology as Bailey happily pointed out in his review of *Saka Studies* (Bailey 1934b: 413). Indeed, no one has doubted the etymology since, although in a strange article J. Gonda tried to defend W. Geiger's connection of Avestan *spąnta-* with Vedic *pan-* 'to praise' while at the same time accepting Bailey's etymology (Gonda 1949). He appears to have had no understanding at all of the phonological problems involved.

[7] So still *SGS* 203.

Bailey's article was partly translated into German by H. Wißmann and included in a volume of articles concerned with the concept 'holy' (Colpe 1977). Colpe refers to Gonda's article as an 'Auseinandersetzung mit Bailey' (p. XV n. 8), also apparently unaware of the absurdity of Gonda's suggestion.

That Avestan *spəṇta-* is connected with Lithuanian *šventas* and Old Church Slavonic *svętъ* 'holy' was already clear to Bartholomae, who in his dictionary insists that the meaning 'holy' suits excellently all its occurrences in Avestan. Bailey does Bartholomae an injustice in writing that 'he seeks on the evidence of Lithuanian *šventas*, by him understood as "*heilig*", to prove that the meaning of Av. *spəṇta-* is "*heilig*" and nothing else' (Bailey 1934a: 289). Strangely enough Bailey does not propose a translation of *spəṇta-* himself in this article although he makes it clear that he regards it as meaning 'possessing supernatural power'. It seems to me that this is no different from 'holy', which is said in the *Shorter Oxford English Dictionary* to mean in a general sense—that is, not specifically in the Christian Church—'having mysterious power'. It is interesting to observe that in his latest translation (Humbach and Ichaporia 1994) of the Avestan Gathas Humbach now returns to rendering *spəṇta-* as 'holy'. In his German translation (Humbach 1959) he had rendered it as 'heilvoll', while in his English translation (Humbach 1991) he has the curious rendering 'prosperous'. In his study of the various Indo-European terms for the sacred, Benveniste points out that most religions have a term for the concept 'holy' and that if the Zoroastrians had such a term it could only have been the Avestan *spəṇta-*.[8]

Many of the renderings adopted by subsequent scholars are attempts to avoid using 'holy' on account of its Christian associations and are based on the traditional Pahlavi gloss as *abzōnīg*, which is defined by MacKenzie as 'increasing, expansive, bountiful' (MacKenzie 1971: 4), although Bailey insists that it is 'not "bountiful", nor is it simply "increaser"' (Bailey 1934b: 294) despite the fact that he had himself shown just a few lines earlier that *abzūdan* means 'to increase, make prosper'. Bailey appears to be indulging in a strange exercise in hair-splitting that leads nowhere. It is evident that for the Pahlavi translators whatever is *spəṇta-*, whatever possesses beneficent supernatural power, brings good fortune or prosperity, but that is as far as their insight into the original meaning of *spəṇta-* goes.

The really significant contribution Bailey made was to connect Khotanese *ššandaā-* 'earth' with Avestan *spəṇta-* and its congeners. The etymology may seem obvious now, but it was not made by his predecessors. Avestan *sp* may result from either Indo-European **sp* or from Indo-European **ḱu̯*, but since *spəṇta-* is connected with Lithuanian *šventas*, only the latter applies. The treatment of Indo-European **ḱu̯* in Khotanese is known from well-established words such as *biśśa-* 'all' that has always been connected with Avestan *vīspa-* and Vedic *víśva-*. Thus it must have been clear all along that the Khotanese word could derive from an Indo-European source that would have given **spanta-* in the kind of Old Iranian represented by Avestan. The problem was not a semantic one either, for the fuller form *ysamaššandaa-* was also well known. Both Leumann and Konow recognised in the first component *ysam°* the Old Iranian word *zam-* 'earth', but it was Bailey who first realised that we have here an old religious term meaning 'the holy earth', comparing the Avestan phrase *spəṇtā- ārmaiti-* 'the holy *ārmaiti-*', also used of the earth. However, his further speculation that Avestan *ārmaiti-* may be connected with Armenian *armat* 'root' and have replaced a word for 'earth' has found no followers. Bailey himself later explicitly (Bailey 1967: 136 n. 1) renounced his earlier connection of Avestan *ārmaiti-* with Armenian *armat*, but he remained convinced that *ārmaiti-* was not originally just the Avestan equivalent of Vedic *arámati-* 'right thinking'. His later theory was that it was a word meaning 'beneficent, beneficence' deriving from '**ā-ərmati-* to a base *ar-* "to acquire, get profit"'. Again, however, no-one has followed him.

As an additional note (Bailey 1935: 142) to his series of five 'Iranian Studies' articles, Bailey presents his discovery that Khotanese *ššandrāmatā-*, the Khotanese rendering in the Buddhist Suvarṇabhāsasūtra of the goddess of good fortune, Śrī, is to be identified with Avestan *spəṇtā- ārmaiti-*. This too is a discovery that remains unchallenged.

The obvious conclusion to be drawn from the fact that the Khotanese used a term such as *ššandrāmatā-* that is a univerbation of the equivalent of Avestan *spəṇtā- ārmaiti-* 'holy right thinking' is that they adopted the term from Zoroastrianism and applied it to a Buddhist context. But Bailey, rather surprisingly, took the view that this and other apparently Zoroastrian terms in Khotanese go back to an older common origin. He would wish as he puts it 'to recognise two streams from one source, the oldest Iranian mythopoesy'. This is why he tries to explain *ārmaiti-* as a conflation of two originally different words, one meaning 'beneficent, beneficence', the other 'fitting thought'.

Bailey's sole motivation for adopting this strange position appears to be the fact that although Khotanese *ysamaššandaa-* is based on an older phrase meaning 'holy earth', an equivalent Avestan phrase **zam- spəṇtā-* is nowhere attested. He argues that it 'can hardly have been important enough to Zoroaster to have given Saka *ysama-ššandai* and then disappeared'. His argument is, however, not compelling. Even the use of *spəṇtā- ārmaiti-* specifically of the earth is rare in the surviving Avestan texts. M. Boyce considers (Boyce 1983: 306) that this 'new phrase' could 'have come into being in Khotanese under the inspiration of Zoroaster's teachings'. That would certainly appear to be possible, but one wonders also whether the phrase may have not been transmitted simply by chance. Would there be any doubt about the Zoroastrian origin of Persian *gūspand* 'sheep' if the two late Avestan passages containing *gaospəṇta-* had not survived?

[8] Concerning *spəṇta-* he writes 'en iranien, sous sa forme avestique, c'est, dans les croyances mazdéennes, le meilleur équivalent de ce que nous appelons le «sacré»' and 'l'adjectif *spənta* qu'on traduit par «sanctus» a une importance fondamentale dans le vocabulaire religieux de l'Avesta' (Benveniste 1969: 2.181).

Barely seven years after Bailey's appointment in London the Chair of Sanskrit in Cambridge became vacant on the resignation of E. J. Rapson. Bailey had not yet published a book: both his Australian M.A. thesis and his Oxford DPhil. thesis remain unpublished to this day. Nevertheless, in the nine-page brochure he had printed to serve as his application he was able to list twenty-four published articles, three others that were in the press, and fifty book reviews. He was appointed to the Chair with effect from 1 October 1936 and remained in that position until his retirement in 1967. On his appointment he sold his house in Edgware as he hoped to be able to move directly into college accommodation. As that could not be arranged immediately he rented rooms at 15 King's Parade for a short period before taking up residence in Queens', where he lived until his retirement. Not long after his retirement he moved to a suite of rooms in Southacre Flats, where he remained until 1981 when he made his final move to Brooklands Avenue.

During his tenure of the Chair in Cambridge Bailey published his transcriptions of almost all the Khotanese manuscripts and fragments accessible to him that had not prevously been published and he also republished some that had. This material is incorporated in the first five of the seven volumes of his monumental series known as *Khotanese texts* published by the Cambridge University Press from 1945 onwards and in his *Khotanese Buddhist Texts*, the first edition of which was published by Taylor's Foreign Press in London in 1951 and the second by the Cambridge University Press in 1981. He also made a considerable amount of the material available in facsimile form in his *Codices Khotanenses*, Copenhagen 1938, and in four volumes of *Saka Documents* published by the Corpus Inscriptionum Iranicarum. In 1979, only twelve years after his retirement he published, again with the Cambridge University Press, his greatest *tour de force*, the *Dictionary of Khotan Saka*. To celebrate its appearance the Irani Center at Columbia University sponsored a series of lectures by Bailey in the autumn of the same year. The five lectures were published in 1982 in book form as *The Culture of the Sakas in Ancient Iranian Khotan* (Bailey 1982). Apart from chapter four, which contains excerpts from Khotanese literature in translation, the lectures are based on a selection of Khotanese vocabulary items arranged thematically.

From the time Bailey began publishing articles in learned journals and Festschriften until virtually the end of his life he continued to produce articles at an extraordinarily brisk pace. I have prepared a comprehensive bibliography of his voluminous writings that the editors of the *Indo-Iranian Journal* have agreed to publish. The articles treat mainly of etymological matters and usually have some link with Iranian or Indo-Iranian languages although they all testify to his wide-ranging knowledge.

When I was discussing recent scholarship on Avestan with Bailey early in 1970 I happened to say how impressed I was with K. Hoffmann's article in the Pagliaro Festschrift (Hoffmann 1969) and in particular his abolition of Bartholomae's entry '^{2}*gav-* V. "eilen"' (Bartholomae 1904: col. 504). Bartholomae's root was postulated for the single Avestan passage *mošu mē jauua auuaŋhe* (Yasht 5.63) 'come soon to my aid' although the phrase *jasa mē auuaŋhe* 'come to my aid' with the ordinary verb 'to come' is attested. Hoffmann gave what to me are convincing reasons for emending the text against all the manuscripts. This approach accords with what I learned during my classical studies. As Richard Bentley (1662-1742), an old Johnian, put it: *nobis et ratio et res ipsa centum codicibus potiores sunt*. To my surprise Bailey was not impressed by Hoffmann's article. He commented: 'That is an easy old game, hunting the hapax. That kind of scholarship removes all the interesting words from the dictionaries.' In the world of classical studies the pendulum has moved from excessive emendation to excessive caution. Whether to emend or not is in the last resort a matter of fine judgement. Bentley himself probably made more unsuccessful than successful emendations.

I do not know who first coined the expression 'hunting the hapax'. It may even have been Bailey himself. I had not heard it before, have not heard it since and I have been unable to trace it. Bailey used to keep a collection of interesting quotations to do with language study. He was quite fond of the well-known one about etymologies: 'Etymologies are either obvious or wrong',[9] although I doubt whether it was the sentiment as much as the humour that appealed to him. If his list turns up among his papers it may shed light on the question of whether he himself coined the phrase 'hunting the hapax'. At any rate he himself was very fond of hapaxes and he collected them not in order to do away with them but to try to account for them as what he would call 'interesting words'. This approach has of course some justification when one is dealing with a language that is no longer spoken and that is known only as a result of studying a limited text corpus. In fact, however, Bailey's monumental *Dictionary of Khotan Saka* contains hapaxes on almost every page and many of them will not survive the test of time even though Bailey has been at great pains to defend them.

[9] I do not recall what source he had for this saying and I have not be able to find one for this formulation. After making extensive inquiries I consider it probable that it is a more concise formulation of a statement that can be traced back to Wilhelm Schulze. In his review of E. Sieg and W. Siegling's *Tocharische Sprachreste* he wrote concerning their etymologies: 'Die indogermanischen Etymologien, die durch die Kraft der Wahrheit unmittelbar überzeugend wirken, liegen auf der Straße, und sie zu finden, ist meist kein Verdienst, es sei denn, daß die Etymologie den Wortsinn feststellt oder sichert. Von den anderen aber schweigt man lieber. Verhüte der Himmel, daß die Tocharischen Sprachreste zum Steinbruch werden für die vorzeitige Geschäftigkeit unberufener Etymologen!' The review was published in *Deutsche Literaturzeitung*, 1923, cols 47-56, and reprinted on pp. 717-24 of *Kleine Schriften von Wilhelm Schulze. Zum 70. Geburtstag am 15. Dezember 1933 hrg. vom Indogermanischen Seminar der Universität Berlin* published by Vandenhoek Ruprecht in Göttingen. Two of the scholars whom I consulted—M. Mayrhofer and K. T. Schmidt—recalled Schulze's review immediately, and several others recalled having heard a version of the saying that evidently derived ultimately from Schulze.

According to the *OED* 'hapax' is short for 'hapax legomenon' and is attested in English since the mid-seventeenth century. The short form ἅπαξ 'once' was already used by the ancient Greek scholiasts, but the term ἅπαξ λεγόμενον is almost a hapax itself, ancient sources preferring ἅπαξ εἰρημένον, which is the term most widely used by German philologists.[10] Strictly speaking, 'hapax legomenon' is incorrect since what is meant is not a word 'being spoken' once as the present participle λεγόμενον suggests, but one that has only once been uttered and so only once attested in the entire extant literature. So we will consider 'hapax' to stand instead for ἅπαξ εἰρημένον.[11]

On 9 December 1937 Bailey arrived in Paris to work for about a month on the Khotanese texts in the Pelliot Collection at the Bibliothèque Nationale. This was a most exciting time for Bailey, who worked assiduously all day long transcribing the texts. At night he returned to his room in the Hôtel St. James in rue Saint-Honoré and wrote reports of his discoveries to S. Konow. By 7 January 1938 on his return to Cambridge he calculated that during his month in Paris he had transcribed sixty manuscripts 'and left three religious texts unfinished'.

Four days after his arrival in Paris on 13 December 1939 he wrote to Konow about what he regarded as a 'surprise' in P 2787, 'where', he claimed, 'we have evidently the Avestan taēra of harā bərəz-'. He was referring to the word *ttaira* in line 58, which he considered to be a hapax, the unique attestation in Khotanese of the equivalent of the Avestan word *taēra-*, to which the meaning 'mountain peak' is usually assigned.[12] The immediately following word *haraysä* he regarded as the Khotanese equivalent of Avestan *harā- bərəz-*, the antecedent of Persian *Alburz*. This too would be a hapax except that Bailey takes *haräysa* in line 26 as another spelling of the same name. The same text has *haraysa* again in line 79, but there Bailey regards it as a different word.

Owing to adverse circumstances it was not until 1954 that Bailey was able to publish the full text of P 2787 in transcription in *KT* 2.101-8. His translation and commentary appeared in Bailey 1965: 101-19. Two passages in the text have been repeatedly adduced by Bailey as evidence of the occurrence in Khotanese of the equivalent of Avestan *harā- bərəz-*, the antecedent of Persian *Alburz*. Earlier references are listed in Schmitt 1970: 209 n. 7.[13] The view is expressed also in *Dict.* s.vv. *ttaira* and *haraysä* and in Bailey 1982: 48. According to Bailey the Old Iranian tradition concerning Mount Alborz has been transferred to the Buddhist Mount Sumeru.[14]

[10] Bailey wrote ἅπαξ λεγ., e.g. *Opera minora* 1.71.

[11] I am indebted to my Hamburg colleague Klaus Alpers for drawing my attention to F. Martinazzoli, *Hapax legomenon. Parte prima (II): Il lexicon homericum di Apollonio Sofista*, especially pp. 24-5.

[12] Later Bailey proposed to connect Avestan *taēra-* 'mountain peak' with Old Indian *tīra-* '(river) bank', but Mayrhofer 1986-2001, *s.v.*, prefers derivation from *tar-* 'to cross'.

[13] To this list can be added *KT* 4.12.

[14] This view has been adopted by M. Boyce 1985: 811 and 1975: 134.

There are, however, some rather serious problems involved in Bailey's interpretation of these difficult passages. Moreover, the phonological development of *harā- bərəz-* to *haraysa-* or *haräysa-* looks very improbable. He refers to 'dialectal or archaic *ttaira-*' in the *Dict.* while in Bailey 1982: 48 he says that 'the word *ttaira* has the form of Old Iranian *taira-* (Avestan *taēra-*) and not undergone the usual change of the diphthong *-ai-* to *-ī-* in normal words'. In *KT* 4.12 he writes concerning *ttaira haraysä* 'the form of the two words does not correspond to regular Khotanese changes'.

Bailey does not mention the syntactic difficulty involved in translating *ttraikha sūmīra gārāṇä rāṃḍa ttaira haraysä baidä* (P 2787 #58) as 'upon Mount Sumeru the king of mountains the peak of the *Harā bərəz*', where he appears to see three items in apposition with *ttaira haraysä* understood as an alternative designation of Mount Sumeru.

Khotanese has a well-attested verb *harays-* 'to extend', to which a noun *haraysa-* 'expanse' would be a commonplace derivative as *nomen actionis*.[15] In Kha ii.29 #8r4 *KBT* 9 we should read *[ā]kāʃsa-maṇḍā[la vīrā haraysände* 'may they extend in the orbit of the sky' (cf. Bailey, *Dict.* s.v. *harays-*). This makes it probable that P 2787 #26 *ākāsa-maṇḍāla haräysa vī gai'sadai* should be similarly understood as 'revolving in the expanse of the orbit of the sky' rather than 'revolving on Mount Haraysa in the circle of the sky' with Bailey. It is accordingly clear that *ttraikha sūmīra gārāṇä rāṃḍa ttaira haraysä baidä* in P 2787 #58 must mean 'upon the expanse of the *ttaira* of Mount Sumeru, king of mountains'.

Strangely enough, Bailey regards the *haraysa* occurring in line 79 as neither Alborz nor *haraysa-* 'expanse' but as an adjective meaning 'extensive'. This passage too is obscure, *haraysa* being preceded on Bailey's interpretation by a hapax *äjaraista*, to which in *Dict.* 16b s.v. he assigns the meaning 'swarming with'. There seems no reason, however, why even if he is correct in assuming a hapax *äjaraista* the words *prrāṇä jsa äjaraista haraysa* should not mean 'an expanse teeming with insects'.[16] I am tempted to emend slightly to the graphically similar *prrāṇä jsa äja *maista haraysa* 'a great expanse full of insects', but this would be to replace one hapax by another.[17]

Since there is in fact no attestation of a reflex of Avestan *harā- bərəz-* either here or anywhere else in Khotanese, the question arises whether the hapax *ttaira* that immediately precedes it really is the continuation of an Old Iranian **taira-* '(mountain) peak'. A similar form *tterä* occurring in the Khotanese Jātakastava was listed by M. J. Dresden under '*ttāra-* "forehead"' (Dresden 1955: 457a), but in his 'Glossary II' he hesitantly connected it with our *ttaira* and assigned it the meaning 'peak' (p. 475a). Dresden appears to have made his suggestion because

[15] For the type see Degener 1989: 3ff.

[16] *prrāṇä* is 'insects' rather than 'beasts' with Bailey. See on *prrāṇä* Emmerick 1992: 78.

[17] *äja* < **ā-čita-* cf. OInd. *ācita-* 'covered; full'.

he was puzzled by the form *tterä* being nominative singular if it belonged to his *ttära-*. However, the word is an *i*-stem as already recognised long before by Leumann. The stem is not *ttära-*, as Dresden and Bailey[18] have it, but *ttäri-*, and the oblique stem is *tter-* as expected in Old Khotanese. A nom. sg. *tterä* in Late Khotanese would be no more unexpected than the nom. sg. *muśdä(')* in the Jātakastava from the old *i*-stem *mulysdi-* 'compassion'. It is accordingly so listed in *SGS* 290.

The Jātakastava passage is difficult, and although in his 1972 translation of the passage Bailey (Bailey 1972: 69) renders *tterä* as 'top', in his *Dict.* p. 179a he renders it 'such'. Certainly *tterä*, if it were 'top', would appear to be odd beside *braha*—if that is 'back' or the like—and *kvāysä* 'side', whereas the correlative adverb and adjective *tterä* is commonly found in conjunction with the relative *kho* as would here be the case.

Formally there are thus two ways of explaining *ttaira* by normal Khotanese words rather than as a hapax involving phonological difficulty. It can belong either to *ttäri-* 'top of the head, crown' or to *tterä* 'so great; so many'. If we have the latter, it would appear to be necessary to assume that *tterä* could be used to mean not just 'so great' as it does when correlative but also simply 'great'. The case is similar with *drrāṃ*, which means not only 'so much' but also 'very', as I showed in *Studies* 1.57. Mauro Maggi drew attention to the parallel development of Latin *tantus* to *tanto* '(so) much' in Italian (*Studies* 3.79). *ttraikha sūmīra gārḍṇä rāṃda ttaira haraysä baidä* in P 2787 #58 will in this case mean 'upon the great expanse of Mount Sumeru, king of mountains'. Here it is apropriate to mention the Late Khotanese rendering *mesta hava* 'great (is the) blessing' in Mañj 124 for Old Khotanese *ttäri hāvä* in Z 23.21.

Khotanese *ttäri-* is often rendered 'forehead' as well as 'top'. I must confess to having consistently rendered it 'forehead' myself. Both meanings are given by Bailey in his *Dict.* However, as far as I can see there is no evidence for any meaning other than 'top of the head, crown'. It corresponds in bilingual texts to Sanskrit *mūrdhan-* and *śiras-* as well as *uttamāṅga-* 'head' and to Tibetan *spyi-bo* and *spyi-gčug* 'crown' and the cognate words also mean 'top of the head' (Bailey, *KT* 6.103). It is, however, used of the head of the human body and not for the peak of a mountain. Nevertheless, in our passage Sumeru is described as the 'king of the mountains'. We may recall that in the Saṅghāṭasūtra (*Sgh* §53 p. 25) there is question of the black mountains bowing their heads before Mount Sumeru. If we see this *ttäri-* in our passage, we will understand *ttraikha sūmīra gārḍṇä rāṃda ttaira haraysä baidä* in P 2787 #58 as 'upon the expanse of the crown of Mount Sumeru, king of mountains'.

The juxtaposition in the Khotanese of the words *rāṃda* 'king' and *ttaira* makes it more likely that the latter is being used metaphorically, but in the present state of our knowledge none of the three possible interpretations can be definitively excluded. Under such circumstances the interpretation that depends upon seeing here a hapax despite the phonological difficulty involved is unlikely to carry much conviction.

[18] *Dict.* p. 134 s.v. *ttera*. 'See *ttärā-*' there is presumably a misprint for 'See *ttära-*'.

I have no doubt that it would not have pleased Bailey to see what he considered reflexes of Avestan *taēra-* and *harā- bərəz-* removed from the Khotanese tradition, not just because they were his own brainchildren, but also because originally he became interested in Khotanese in the expectancy that its study would shed light on the Zoroastrian books that had been his first love. However, his interest in Khotanese became his main passion for most of his life. As I mentioned earlier, Bailey must have begun studying Khotanese intensively already during his student days at Oxford, but it was not until the autumn of 1934 that he was able to find time to work seriously on the materials in the India Office. He moved from Oxford to London at the end of 1931 or the beginning of 1932, but 1932 was almost entirely taken up with his great trip to Iran and in 1933 he was occupied with Arabic and other matters. In September 1934 he told Konow[19] he was looking forward to working on the material and the next month he wrote[20] to him: 'You will probably be pleased to know I am spending as much free time as I have (I have 10 hours lecturing to do each week) with the Khotanese Saka at the India Office.' In 1936 when referring to his collaboration with Barr on the *Bundahišn* he wrote to Tavadia:[21] 'My Saka material is naturally far more interesting to me.' Shortly afterwards he was[22] 'wholly absorbed in writing up the Ratanbai Katrak Lectures and Saka is necessarily set aside though it is a hard task to leave it alone'. In his inaugural lecture on 'The content of Indian and Iranian studies' (Bailey 1938) held in Cambridge on 2 May 1938 Bailey merely said regarding Khotanese 'I confess to a particular attachment' to it, but when he returned home he wrote a letter to Konow that very same day discussing Khotanese words. It is perhaps worth recording here that in the surviving correspondence with Konow, which is quite voluminous and extends over many years, Bailey hardly ever writes about anything other than Khotanese.

While I am on the subject of Bailey's correspondence with his Scandinavian colleagues Konow and Morgenstierne, I would like to take the opportunity of mentioning a matter that may be of some slight sociological interest. In all his letters to Konow Bailey addresses him 'Dear Professor Konow' and ends with 'HWBailey', but in the case of Morgenstierne, who was only seven years his senior compared with Konow's 32 years' seniority, for the first four years he writes 'Dear Professor Morgenstierne', thereafter for fourteen years he writes 'Dear Morgenstierne', and only after that 'Dear Georg'. However, with rare exceptions, he always signs himself 'HWBailey'.

[19] Letter to Konow of 5 September 1934.
[20] Letter to Konow of 29 October 1934.
[21] Letter to Tavadia of 26 February 1936.
[22] Letter to Konow of 6 April 1936.

Bailey did not feel called to the pioneering life of outback Australia but he was a pioneer of the first order in the field that interested him most, for he was the first person to transcribe and interpret by far the greatest number of Khotanese texts and fragments. He left no stone unturned in his efforts to elucidate the Khotanese vocabulary. His elaborate investigations, the result of wide reading and enormous breadth of knowledge, have earned the unbounded admiration of later generations of scholars.

ABBREVIATIONS

Sigla for Khotanese texts are as recommended in Emmerick 1979 (2nd ed. 1992).

Dict.	s. Bailey 1979.
KBT	s. Bailey 1951a.
KT 1-7	s. Bailey 1945-85.
Opera Minora 1-2	s. Bailey 1981.
Sgh	s. Canevascini 1993.
SGS	s. Emmerick 1968.
Studies 1-3	s. Emmerick and Skjærvø 1982-97.

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Archaeological models and Asian Indo-Europeans

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ARCHAEOLOGICAL ATTEMPTS to discern prehistoric linguistic dispersals are packaged in a variety of models that must all rest on at least one assumption: the archaeological record in some form or another provides proxy evidence for linguistic entities or, at least, language shift. All of these models are well rehearsed in the area of Indo-European dispersals in Asia, particularly with reference to Indo-Iranian origins and migrations. These can be labelled as the continuity, discontinuity, geographical, cultural and contact models.

The continuity model

The central premise of this model is that continuity in the archaeological record indicates continuity of language; thus, wherever we fail to find any major evidence for an archaeological discontinuity, we may presume that the linguistic continuum has been unaltered. This model is one of the primary pillars of the Indigenous Indo-Aryan school, which argues that cultural continuity, from at least the origins of the Indus Civilisation if not from the inception of the Neolithic economy in South Asia, i.e. Mehrgarh at ca. 6000 B.C., indicates that the Indo-Aryan language evolved locally in northwest India (see Bryant 1999 and 2001; Elst 1999). It can also be employed to argue that Indo-Iranian origins should be sought in the continuous evolution of Central Asia from the Neolithic to the Bronze Age which culminated in the Bactria-Margiana-Archaeological Complex (BMAC) (Sarianidi 1998, 1999) or that the archaeological evidence for intrusion in Iran is insufficient to indicate anything other than an indigenous origin for the western Iranian languages (Derakhshani 1998: 11-12). Expressions of continuity, however, need not invariably be understood in terms of linguistic continuity, as some may find many of the roots of Vedic society and religion in the Indus Civilisation and still vigorously affirm an outside origin for the Indo-Aryan language (e.g. Sergent 1997: 113-28).

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The discontinuity model

This model argues that where there are apparent breaks in the archaeological record, e.g. the collapse of urbanism in the Harappan culture or among Late Bronze Age towns of the Iranian plateau, we may postulate an intrusive language. This model would comprise, among others, Sir Mortimer Wheeler's indictment of Indra that portrayed the Indo-Aryans as the destroyers of the Indus Civilisation (Wheeler 1953: 92; Piggott 1950: 285). Intrusive cultures such as the Copper Hoards (Falk 1994) might also be ascribed to this model. Discussants of Iranian origins have seen similar models with destruction layers or abandonment, e.g. Hissar IIIC, proposed as evidence for Aryan intrusions (Ghirshman 1977).

The geographical model

Here the archaeologists seeks a spatial correlation which may serve as proxy evidence for the distribution of a language. An example is the association of the Painted Grey Ware culture with the sites mentioned in the *Mahābhārata*, leading to the conclusion that this coincidence in time and space between archaeology and the later historical record indicates that we are dealing with Indo-Aryans (Gupta 1979). Another is the argument that, as any entry point into northern India should have been through the Swat Valley, the Gandhara Grave culture is consequently in the right place and at the right time to be associated with Indo-Aryan migrations (Mallory 1989: 47). For the Iranian world, we have the chronic debates about the significance of 'Grey Wares' and their correlation with the expected path of the Medes (Young 1967), the Indo-Aryans in Mitanni (Winn 1974; Kurochkin 1994) or their potential to lead us back to an earlier Indo-Iranian source (Deshayes 1969).

The cultural model

In this model archaeologists have taken their cue from linguists or cultural historians who provide a check-list of material culture or natural environmental features which must be ascribed to the language in question. Usually, the Vedas or the Avesta are sifted for diagnostic features against which the archaeological record may be tested. Typical items found in a variety of authors and for a variety of stages of Indo-Iranian evolution (e.g. Lyonnet 1994; Grantovskij 1998: 60-64; Erdosy 1995b: 10-12; Jablonskij 1994: 364-366, etc.) are listed in Table 1 below. Such criteria are employed as a litmus test for prospective archaeological cultures. For example, the horse has always been a prominent element in the assessment of the claim of any culture to be ancestral to or equivalent to the Indo-Iranians (Sharma 1995). The preparation and consumption of soma/haoma has also been a cultural diacritic that has focussed on the BMAC (Sarianidi 1998). The presumed employment of fractional burial in the Cemetery H and Swat

cultures would provide another example where a cultural reading is translated into an archaeological expectation.

Table 1. Indo-Iranian culture traits

fortified settlements
large timber-built houses (not brick)
pastoral economy with some agriculture
hand-made pottery
chariot and domestic horse
fire cult
horse cult
sun cult
soma/haoma
cremation with some inhumation

The contact model

A more subtle vector of language shift, it is argued, may be concealed in what are otherwise perceived to be exchange relations or stylistic diffusion. Hence one might suggest (in an attempt to avoid the entire concept of intrusive Aryans) that persistent trade relations between Central Asian or Mesopotamian cultures and those of the Indian subcontinent may have led to the spread of an Indo-Aryan language.

Each model has its adherents and there is clearly little consensus as to a solution. On the other hand, there probably is agreement on what type of solution does not exist. No archaeologist posits a single archaeological culture that comprises the entire area of early Indo-Iranian speech (fig. 1). This contrasts, for example, with attempts in western Europe to link the spread of the Celtic languages with Late Bronze Age or Iron Age cultural horizons from the Urnfielders, through the Hallstatt to the La Tène (fig. 2). Similarly, one would track early Germans to the Jastorf culture and its immediate predecessor and while there are multiple candidates for the earliest Slavs, they are closely related and form what appears to be a reasonably congruent sequence of archaeological cultures (Mallory 1989: 76-81).

Indo-Iranian dispersals, however, lack the 'big culture' model and have to rely on sequencing a series of independent—some would argue totally unrelated and disparate—cultures into a common linguistic trajectory. The reasons for this are readily apparent when we contemplate the scale of the linguistic problem confronting archaeologists. By the mid 1st millennium B.C. we must explain the presence of Indo-Iranian speakers stretching from the Pontic steppe (Scythians and perhaps Cimmerians, or at least their leaders), across the west Asiatic steppe (Saka) and through Central Asia (Choresmians, Bactrians etc.), Greater Iran and

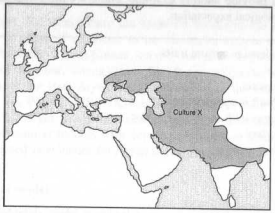


Figure 1. The 'non-solution' to the problem of Indo-Iranian dispersions. There is no single culture ('Culture X') attributed to the Indo-Iranians that embraces the total area of their earlier prehistoric distribution.

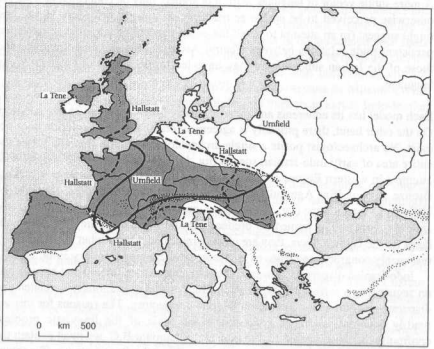


Figure 2. The dispersal of the Celts in western and central Europe offers a classic attempt to link archaeological cultures with a major linguistic entity.

the northern part of the Indian subcontinent; by this time, or if not only somewhat later, we will also require them in the Pamirs and the western and southern regions of the Tarim Basin. This is a territory that vastly exceeds any cultural area of Europe from the Neolithic period onwards; indeed it approximates the size of Europe itself (fig. 3).

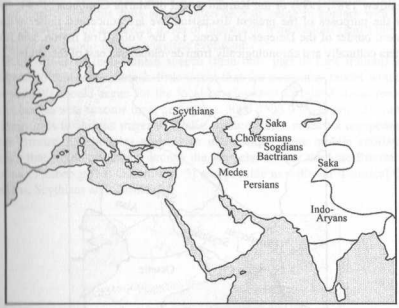


Figure 3. The Indo-Iranian 'core' area of dispersals rivals the size of Europe.

The distribution area of the Indo-Iranian languages urges us to segment our approach to their origin. From an exceedingly rough archaeological perspective, it is convenient to divide our problem of Indo-Iranian origins and dispersals into four broad geographical zones:

1 The Dnieper-Ural region.
2 The Ural-Yenisei region.
3 Central Asia.
4 Greater Iran - India. (This last zone is enormous and culturally diverse and could be further subdivided but for the sake of this discussion we will attempt to work with blocks as large as we can manage.)

On several occasions (Mallory 1994-95, 1998) I have postulated a series of fault lines which must be crossed if one wishes to construct an all-embracing solution to Indo-European dispersals. The problem of Indo-Iranian origins requires transgressing all three fault lines in order to position early Indo-Iranian speakers in the four zones indicated above.

Zone 1: The Dnieper-Ural region

The first fault line, the Danube-Dnieper line, defines the specific relationship between the Neolithic and Eneolithic steppe cultures and those of southeast Europe. The western frontier of this zone plays a critical part in any discussion of Indo-European origins whether one follows the Neolithic 'out of Anatolia' model (Renfrew 1987, 1999) or the Kurgan model of Marija Gimbutas (1994, 1997). For the purposes of the present discussion, we are concerned rather with the eastern border of the Dnieper-Ural zone, i.e. the Volga-Ural region, and how it differs culturally and chronologically from developments east of the Urals.



Figure 4. The Iranian languages of the Dnieper-Ural zone.

The primary feature of Zone 1 is that the archaeological record of this region provides us with a long sequence of development of a variety of cultures from the Mesolithic through the Neolithic and the Bronze and Iron ages. Agriculture and stockbreeding in the major river valleys from the Dnieper eastwards begin by the 5th millennium B.C. although the precise route, be it through the Balkans (Rassamakin 1999) or the Caucasus (Shnirelman 1992), remains unknown. The zone sees the emergence of both agricultural communities (primarily in the river valleys) and steppe nomadism, although the precise date of the latter's inception

is still very much in debate (cf. Rassamakin 1999; Shislina and Hiebert 1998). By the 4th millennium B.C. there appear wheeled vehicles, and the type of horse gear one might associate with spoked-wheeled vehicles, i.e. chariots, appears by ca. 2300-2000 B.C. (Anthony 1998). From a linguistic point of view, this zone provides Eastern Iranian languages (Scythian, Sarmatian, Alan, Ossetic) that need to be explained, although no earlier than the 1st millennium B.C. (fig. 4). On an earlier time frame, this zone is also often seen as being in contact with early Uralic speakers who adopted a series of loanwords from various (and again disputed) stages of Indo-Iranian linguistic evolution.

If the limits of Indo-Iranian speech (here only part of East Iranian) were confined to this zone, there is little doubt that the continuity model would be adopted. We would argue for the local development of mixed stockbreeding-agriculturists who at some time, perhaps ca. 3000-2500 B.C., provided a number of loanwords to various stages of Uralic. Subsequently, at least a component of these Bronze Age peoples adopted an increasingly more mobile subsistence system that would ultimately occupy the steppelands after the Late Bronze Age Srubna (Timber-grave) culture (fig. 5) and provide us with our historical Cimmerians, Scythians and Sarmatians.



Figure 5. The distribution of the Srubna culture mirrors that of the Eastern Iranian languages of the Dnieper-Ural zone.

Zone 2: The Ural-Yenisei region

The second fault line forms on the Ural river and the zone east of it displays both similarities and differences to Zone 1. The similarities are both archaeological and linguistic. As in Zone 1, the Later Bronze Age sees a sequence of culturally similar cultures (the Andronovo horizon) which parallel in numerous ways the settlements, economy and material culture of the Srubna culture of Zone 1 (Kuz'mina 1994). Moreover, the presumed linguistic identity of this eastern zone tends also to be Eastern Iranian, specifically Saka, which at least ethnically is commonly regarded as closely related if not equivalent to the Scythians of Zone 1; to this might be added on its southern borders: Bactrian, Choresmian, Sogdian (fig. 6). By the Iron Age, steppe nomadism of a distinct Eurasian form spans both Zone 1 and Zone 2. For those who prefer a more easterly occasion for loans between Indo-Iranian and Uralic (Napolskix 1997), the area southeast of the Urals provides an attractive alternative.

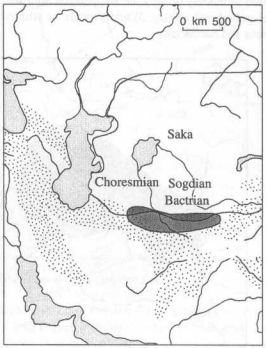


Figure 6. The Ural-Yenisei zone and its East Iranian languages. The shaded area indicates the Bactria-Margiana Archaeological Complex (BMAC) of Zone 3.

If we were to regard Zone 2 in isolation (hence again as purely East Iranian) we would find it difficult to appeal to the continuity model, at least if this model

presumed any great time depth. East of the Urals, our knowledge of cultural evolution before the Andronovo culture is much poorer than for Zone 1. The predecessors of the Andronovo culture over most of Kazakhstan are not well known and where we do have evidence, e.g. the Botay culture of the Tobol-Ishym region, we find a society almost exclusively engaged in horse hunting (possibly from the backs of tamed horses). The earliest evidence of what we would presume to be a fully established stockbreeding and agricultural economy tend to associate with remains similar to far better known steppe cultures, e.g. the Yamna culture, west of the Urals. The exception to this is the Afanasevo culture of the Altai-Yenisei region which should have begun ca. 3500 B.C. if not earlier (fig. 7). The Afanasevans replicate the fully mixed agricultural economy that we would require of any Indo-European group and they possibly had wheeled vehicles as well (Mallory and Mair 2000). They share a series of cultural traits and even physical type with steppe populations west of the Urals and they have often been presumed to have been the result of a distant migration from the European to the Asiatic steppe.

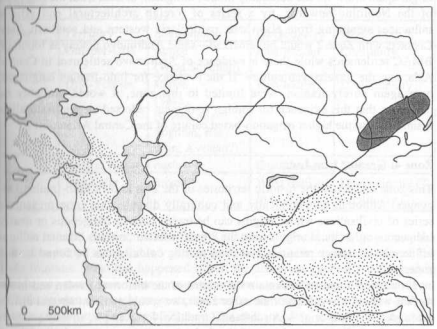


Figure 7. Location of the Afanasevo (shaded) and Andronovo (outlined) cultures.

The models of cultural development in Zone 2 make an autochthonous origin of the Iranians there more difficult to sustain than was the case for Zone 1. Here we should require some vector that carried at least the mixed farming economy if

not a population either from Zone 1 to Zone 2 or, as we will see, from Zone 3 to Zone 2 and then on to Zone 1.

Zone 3: Central Asia

The third zone and fault line is formed by the oasis societies that emerged in Central Asia. Their trajectory is disputed but their evolution would begin with the appearance of the Neolithic economy at Jeitun ca. 6000 B.C. and rise through a series of local cultures or facies until the emergence of the historically attested Iranian-speaking centres of Choresmia and, according to some, even earlier with the archaeological expression of the culture depicted in the Avesta. The pivotal archaeological entity is the BMAC whose citadels and temples date to ca. 1900-1700 B.C. (Hiebert 1994; cf. fig. 6 above). It is in the BMAC sites that one finds a number of the items on any cultural list of Indo-Iranian traits including both the place and the apparatus for pressing soma/haoma (Sarianidi 1998).

If one needed only to explain the Iranian languages of the third zone, then one might again allow for the continuity model, mitigated, at least from the inception of the Neolithic onwards, by a series of foreign architectural and artistic influences stemming from elsewhere, particularly western and southern Asia. Contacts with Zone 2 would be remarked—some Andronovo pottery is found on BMAC settlements while there is evidence of Andronovo settlement in Central Asia, e.g. the Tazabagyab culture. If the evidence for Indo-Iranian languages, here again purely Iranian, were limited to this zone, it would probably be presumed that this evidence for foreign settlement reflected steppe pastoralists assimilating to the higher irrigation-based culture of the Central Asian oases.

Zone 4: Greater Iran-India

This zone comprises the historic territories of the best known Indo-Iranian languages. Although geographically and culturally diverse, this zone presents a series of civilisations whose origins can be traced back to indigenous or nearly indigenous agricultural origins from the 7th millennium onwards. Mutual cultural influences, exchange relations and even trading colonies can be found in this zone.

If one were required to explain the origins of the historical Iranian and Indo-Aryans without knowledge of the other zones, we would confront several different models for their origins. A substantial tradition, for example, already exists to explain the indigenous origins of the Indo-Aryans in northern India whose prehistoric predecessors would be the Indus Civilisation. Explanations of Iranian origins would be more complicated because of the existing historical records for non-Indo-European languages in the northwest (Hurrian) and southwest (Elamite) of their historical territory. But anything that provided a north-south or east-west trajectory, such as Grey Ware, would be seized upon as a possible expression of the spread of Iranian culture from within Greater Iran itself.

Having reviewed the evidence for Indo-Iranian languages in our respective zones, we can see that a myopic reading of the linguistic or cultural history of any specific zone is likely to result in a series of not only different but incompatible solutions to Indo-Iranian dispersals. A culture on the European steppe, one in a Central Asian oasis, a northwest Iranian urban site or the complexities of the Indus system do not reveal a common underlying origin. There are, to be sure, certain cultural traits such as the later dispersal of horse-riding or the chariot which can be found across these various zones (at different periods) but these are also found in the context of non-Indo-European societies as well. There is no obvious genetic relationship between the various cultures that the archaeologist can manoeuvre across his or her map to explain Indo-Iranian dispersals.

We can now review our four zones in tabular form (Table 2):

Table 2

Zone	*Territory*	*Environment*	*Language(s)*	*Model*
1	Dnieper-Ural	steppe (West Scythian)	East Iranian	Continuity
2	Ural-Yenisei	steppe (Saka) (Choresmian, Sogdian, Bactrian, Avestan?)	East Iranian	Discontinuity
3	Central Asian	oasis	East Iranian	Continuity
4	Iran-India	mixed	West Iranian, Indo-Aryan	Discontinuity (?) Continuity (?)

The evident problem here is that a continuity model stretching from the European steppe to the Indus Valley is inconceivable as an explanation for all the Indo-Iranians. What has happened is that the zones are generally combined in such a way that Zones 1 and 2 relate closely to one another while a recent model of Indo-Iranian dispersals suggests that Iranian and Indo-Aryan speakers of Zone 3 transgressed the borders of Zone 4. We then need to examine briefly these reconfigurations.

Steppe Zone 1-2: Dnieper-Yenisei

This zone comprises primarily a single linguistic entity, a major branch of Eastern Iranian. By the time of our earliest historical evidence, the area is occupied

largely by mobile pastoralists (Scythians, Saka, and whatever tribal groups from Herodotus that one may feel safe including, e.g. Issedones). The origins of these pastoralists are sought within rather than outside the steppe zone but the specific transformation that brought them into being on both sides of the Ural river is not so clear. Both the European and Asiatic steppe regions were previously occupied by Bronze Age mixed farmers (the Srubna and Andronovo horizons) whose settlements are reasonably substantial in both regions. In both cases this would argue for some form of local continuity from the local Bronze Age cultures of both regions. The emergence of strictly pastoral nomadic cultures in this region would then be ascribed to some major form of subsistence shift among the existing populations, who interacted so intensely that a common type of steppe culture, complete with a generalised set of culture traits, e.g. weapons, horse-trappings, mirrors, cauldrons, animal style art, appeared across the entire region (C'lenova 1994). Models for the development of this system are still ambiguous and offer problems of time depth. Our models could take quite various forms:

1 The Scythians arose as a newly formed mobile component of the late Srubna culture in the west while the Saka developed from terminal Andronovo populations. From a linguistic point of view, we should then have to presume that there was a linguistic continuum between the Srubna culture and the Andronovo horizon. On the basis of existing and poorly developed models, the two could have a common genetic core in the movement of Eneolithic populations from the Volga-Ural region eastwards ca. 3500 B.C. (accepting an European antecedent to the Afanasevo culture) or a much later (ca. 2000 B.C.) shift to the east.

2 The steppe Iranians arose in a confined area of our combined zone and spread through the entire zone due to their highly efficient mobile economy and a prestige package of weapons and ritual items. The cultural trajectory described by Herodotus, for example, suggests an east to west movement with steppe groups aligned domino-like and pushing into one another, e.g. Alans > Sarmatians > Scythians > Cimmerians, which might tempt one into proposing an eastern (Zone 2) origin for the East Iranians of the Eurasian steppelands.

Agricultural Zone 3-4: Central Asia-Iran-India

The central cultural phenomenon reconciling Zones 3 and 4 is the BMAC, which originates in Central Asia ca. 1900-1700 B.C. but which appears to expand its horizons into the northwest approach of the Indus system at sites such as Mehrgarh, Quetta and Sibri (fig. 8). In terms of its origins, the evidence from Margiana indicates that the BMAC emerges partly out of the Namazga V culture which came to occupy the desert oases of Margiana ca. 2200 B.C., while there is really no known predecessor of the BMAC in Bactria (Hiebert 1994, 1995). Hiebert and Lamberg-Karlovsky describe the BMAC in terms of a khanate, a non-urban state level society evidenced by fortified settlements and elaborate ritual structures. The association of the temples with the soma/haoma cult is so well known that it

does not require rehearsing here (see Sarianidi 1998). The connection with Zone 4 is seen in burials that replicate both the ritual and the small finds of the BMAC but which are situated in Baluchistan, far to the south, or the Iranian plateau. These have been interpreted as evidence of a push southward—a possible military campaign had been mooted (Hiebert 1995: 200), although more recently Hiebert has employed the analogy of the spread of Islam in Africa (Hiebert 1998). J.-F. Jarrige (1990) similarly argues for the spread of 'une élite partageant un même système de symboles' (Jarrige 1990: 164) and calls attention to the fact that, with such a widespread phenomenon, it is likely that we are dealing with an aspect of nomadism; the horse begins to appear, for example, at Pirak ca. 2000-1750 B.C. (Jarrige 1990: 166). The geographical location of the intrusive BMAC sites in the south obviously accords with Indo-Aryan rather than Iranian dispersals.

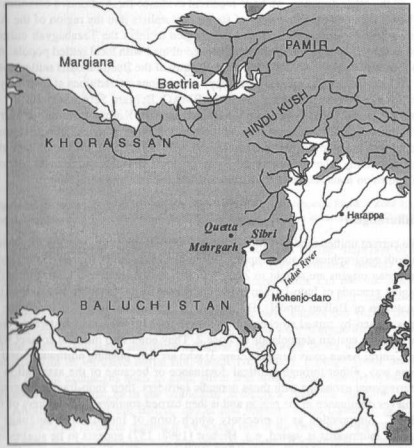


Figure 8. The spread of the BMAC (outlined area) towards the south is indicated by BMAC graves at Quetta, Mehrgarh and Sibri.

A Unified Model?

Currently the linking of all four zones requires an intense cultural and linguistic shift at the interface between Zones 2 and 3, i.e. between the eastern steppe and the Central Asian oasis zones. The interface proposed for this border sees influences and material culture moving in both directions.

The Central Asiatic sites, based as they were on irrigation agriculture and set within a system of regional exchange, should have operated at a higher level of social organisation than the steppe pastoralists. Contacts issuing from the oasis sites northwards have been attested in the form of imported pottery on Andronovo sites in northern Kazakhstan (Maljutina 1991) and the abrupt appearance of large fortified sites of the Arkhaim type has been explained by possible contacts with the BMAC (Shishlina and Hiebert 1998: 228).

In the other direction, we have recurrent evidence for Andronovo ceramics on BMAC sites and the movement of steppe pastoralists into the region of the Aral Sea where they adopted irrigation and settled to form the Tazabagyab culture, while other steppe pastoralists apparently combined with local settled populations to form the Vakhsh and Bishkent cultures north of the Bactrian oasis settlements.

It has also been suggested that steppe populations or traditions at least played an intimate role in the formation of the BMAC. Bernard Sergent (1997: 171-3) lists a series of parallels between the BMAC and the 'Kurgan tradition' of Marija Gimbutas, e.g. Kurgan horse-headed sceptres > BMAC sceptres, Kurgan domestic horse > horse in Bactria, Kurgan chariot > BMAC chariot, the use of the right-left dichotomy when assigning the burial position of males and females, deposit of bodies on mats. These comparisons are often of a very general nature.

Kulturkugeln

The current unified model of Indo-Iranian dispersals generally sees the four zones as both geographically and temporally arranged in sequence (fig. 9). Either Indo-European origins are sought in Zone 1 (Gimbutas' Kurgan model) or the initial staging grounds of Indo-Iranian evolution are set there (for those who prefer the Anatolian or Balkan model). By the 4th or 3rd millennium B.C. this zone is transgressed by mixed stockbreeding-agriculturalists who push eastwards until they fill the eastern steppelands of Zone 2. They enter into intimate contact with the Central Asian oasis farmers (Zone 3) who are then pushing northwards and in some way, either through political dominance or because of the association of interregional exchange with these nomadic intruders, their Indo-Iranian language achieves dominance in the region and is then carried southwards by bearers of the BMAC. Supposition as to precisely which form of Indo-Iranian language is carried southwards is varied, e.g. Hiebert (1998: 157) appears to be suggesting Iranian languages while Sergent (1997: 174) insists that the BMAC spread must be linked to Indo-Aryan speakers.

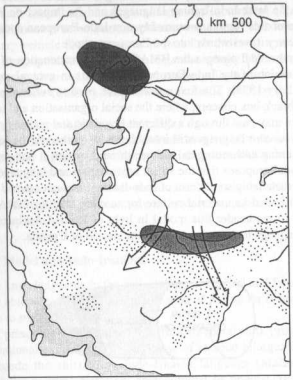


Figure 9. The unified model of Indo-Iranian origins where the proto-language forms in Zone 1, then transgresses into Zone 2, passes through the BMAC of Zone 3 to disperse in Iran and India (Zone 4).

The southward spread of the BMAC is evidenced by the dispersal of the BMAC burial rite, a certain ceramic inventory (*série récente* bowls) and a number of prestigious goods such as steatite stamp seals and flacons (Hiebert 1995: 200-201). A Europeanist examining the same evidence and mindful that this represents the best case scenario we have now, cannot but suffer from a certain sense of *déjà vu*. If a European archaeologist were to argue that the spread of the Celtic languages should be assigned to the vastly better attested Beaker culture with its intrusive burial rite, distinctive pottery, prestige goods derived from distant exchanges such as gold, silver and amber, and even the occasional presence of the horse, he or she would still be facing a 'hard sell' situation.

Another aspect of the BMAC model that requires some comment is that it only unifies the different regions if we accept one of the two following models:

1 The BMAC was originally non-Indo-European (Elamite?) and was assimilated into the early Indo-Iranian-speaking world by the southward movement of steppe tribes; or

2 The BMAC was originally (from the beginning of the Bronze Age at least) ancestral to the later Indo-Iranian languages and its impact on Zone 2 led the steppe tribes of this region, presumably non-Indo-European speakers, to adopt Iranian and carry it westwards into the European steppe.

The second model plunges the BMAC into a concatenation of problems that renders discussion of the Indo-European dispersals in general extremely problematic (Mallory 1998). The first model I have tried to summarise as a Kulturkugel, i.e. a black-box concept, where the social organisation and target language of one culture may pass through a different linguistic and archaeological entity to emerge with its own language still intact but now clothed in the material culture of the intervening archaeological culture through which it had just passed (fig. 10). This model proposes that the social organisation and language of the steppe tribes, here presumably some form of Indo-Iranian, was maintained even after the population had shed its material culture for another, here the BMAC. I have had recent cause to reconsider this model in light of Ronald Atkinson's studies of ethnic and language maintenance among the Acholi of Uganda.

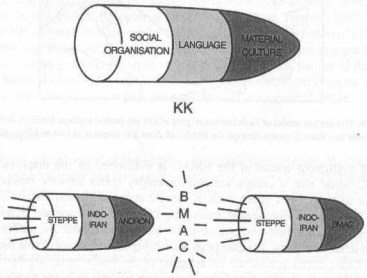


Figure 10. The Kulturkugel black-box model. According to this model the Andronovo culture might carry its social organisation and language through the BMAC but adopt the material culture of the BMAC on the way.

Atkinson (1994) describes a situation where a limited number of Luo speakers spread both their social organisation and language in northern Uganda. The language shift did involve some demographic movement of Paluo tribes northwards but the primary vehicle for language shift was that the local non-Luo tribes, the majority of the population of northern Uganda, adopted the chiefdom system which incorporated increasing numbers of village polities under a single chief.

In a recent article (Mallory, in press) I summarise some of the lessons of the Acholi case:

1 Language change follows social change.

2 The social shift to the chiefdom did not involve a crude model of elite dominance but rather the adoption of a new social system which attracted the participation of the indigenous populations.

3 There were no apparent ethnic markers involved in the shift although there were a series of regalia, e.g. drums, spears, stools, associated with the spread of the chiefdom system.

The Acholi Model and Indo-Iranians

Those more knowledgeable in the archaeology of Central and Southern Asia will no doubt be able to exploit some of the lessons of Acholi far better than I can but I would like to make a start.

The first principle, that language shift follows social shift, provides at least an intuitively rational explanation for the cause of societal bilingualism that we expect to precede the shift to an Indo-Iranian language (Mallory 1992). The problem for the cultural historian, archaeologist or linguist, is identifying the nature of the social shift(s) involved. In the Acholi case, the new chiefdoms provided a larger agglomeration of resources for redistribution, defence and exchange and hence could be seen to be attractive to native populations who wished to share in this increase. The new system also did not threaten the role of local leaders who saw their own prestige enhanced by becoming elements in a larger social entity.

Our inability to discern evidence for a major externally introduced population disruption in our Zone 4 has long been remarked upon (Erdosy 1995b; Kennedy 1995) and offers scant support for those who search for chariot-riding Aryan conquerors of Iran and India. The alternative models that have been offered have concentrated on analogies such as the spread of Islam in Africa (Hiebert 1998) or viewing Aryanhood as a primarily religious phenomenon to be taken up by local populations (Erdosy 1995a). In attempting to discuss the social advantages of Indo-European spread in western Europe, I have sought potential social explanations in the reconstructed vocabulary of the Indo-Europeans (Mallory, in press). Of greatest interest, in my opinion, are those items that concern the concepts of larger social or corporate entities such as the Paluo offered the non-Luo populations of Acholi. It is noteworthy then that Indo-Iranian offers no clear cognates of

other widespread Indo-European terms such as **déh₂mos* '(segment) of people', **pleh₁dʰuéh₁s* '(the mass of) people' and, if we exclude Persian *tōda* on semantic grounds, **teutéh₂-* 'people' (Mallory and Adams 1997: 416-17). Another useful semantic field concerns what might have been military units or sodalities. For instance, there is a possible cognate of **korios* 'army, war-band' in OPers. *kāra-* 'people, army' but no cognates of **leh₂uós* 'people (under arms)'; if one follows McCone (1987) in deriving the well-known Indo-Iranian words for the 'member of a war-band', i.e. OInd. *márya-* and Av. *mairiia-*, from **morio-* rather than **merio-*, we might have a cognate form in Old Irish *muire* 'leader, chief' (Mallory and Adams 1997: 30-31). There are some terms for social or military aggregates but not many and less, for example, than we might reconstruct for western European.

Our major and most obvious difficulty in applying the Acholi model is that in the African case, it is clearly the adoption of a higher order system of social organisation by lower order autonomous villages. We only have the archaeological evidence of both the Andronovo and the BMAC (and its predecessors) but the contrasts in social organisation hardly seem comparable to what we find in Acholi. We have no unified theory unless we can bridge Zones 2, 3 and 4 and construct that bridge out of elements of Indo-Iranian social organisation. For this reason I wish to conclude my paper by examining some of the issues concerning social organisation and Indo-Iranian expansions.

Social Organisation

In his reconstruction of Indo-European social organisation, Emile Benveniste leaned heavily on the canonical order of social tiers expressed in the Avesta (*Yasna* 31, 18) where he postulated that Indo-European society (and for our purposes, Indo-Iranian society will suffice) consisted of the following four levels:

1 'household' (**dom(h₂)-*) headed by a **dems-pot-* 'master of the house'.

2 'clan' (**u̯iḱ-*) headed by a **u̯iḱ-pot-*. In Zoroastrian tradition this numbered not less than 15 households.

3 'tribe' (**ĝen-*) (which may or may not have been headed by a **reĝs*). In Zoroastrian tradition the minimum number of households was set at 30 (Xazanov 1975: 104).

4 'country' (**dáṣu̯-*), the territorial unit and largest social collective, evidenced by Av. *daχšiiu-* and OInd. *dásyu-*.

How does the reconstructed Indo-Iranian social organisation compare with that of the BMAC? Generally, the reconstruction of social systems purely on the basis of archaeological evidence is tenuous in the extreme. Lamberg-Karlovsky (1994), however, suggests that the architectural and spatial similarities between the BMAC sites and the historically attested *qala* of the region permit us to consider the social organisation of the BMAC within the context of later historically attested societies of the same region. The *qala* was the large fortified structure

known from the Iron Age and the mediaeval period and associated with the socio-settlement complex of the khanate. According to Lamberg-Karlovsky, the BMAC reflects the earliest existence of the khanate in Central Asia. The khanates existed in a system of competition for resources and historically could be associated with both Iranian and Turkic-speaking populations. Employing Iranian terminology, Lamberg-Karlovsky suggests again a four-tiered system of social organisation:[1]

1 *huna* - the household;
2 *owlad* - sublineage;
3 *tireh* - patrilineage;
4 *tayefeh* or *il* - tribe.

We can set this system beside that of the ancient Indo-Iranians. The *huna*, with its male head, compares easily enough with Benveniste's **dom(h₂)-* 'household, nuclear family' and **dems-pot-*. The *owlad*, which represented a group of *huna* who shared a common patrilineal ancestor is hardly far removed from the concept of a clan and its clan leader that Benveniste reconstructs. The next unit, the *tireh*, is described as the basic social unit as it was the one which claimed land ownership, water rights and immediate control over population. That it derived from an ancestor removed four to seven generations suggests that it might well be comparable to what has been otherwise described as a tribe by Benveniste. The largest group identified was the *tayefeh*, which Lamberg-Karlovsky translates as 'tribe' but which, I suspect, embraces a much more extensive organisation than is usually employed among historic Indo-Europeans (certainly vastly larger than what we might term a 'tribe' in Mediaeval Ireland), with a *khan* as 'absolute ruler' derived from a 'specific ruling patrilineage'. The *khan* established the law, maintained taxation, mediated conflicts between the tribe and the outside world. Lamberg-Karlovsky cites the example of the 19th-century Tekke, the Turkoman tribe of some 380,000 people, who occupied all Margiana. The fourth tier of Benveniste's system is the Iranian *dahyu* which, as Benveniste and Darius remind us, would include truly enormous corporate entities such as Persia, Media, Armenia and Egypt (Benveniste 1973: 260). Conceptually, the *dahyu* is at least as large as what Lamberg-Karlovsky described as a *tayefeh*.

Keeping the Acholi model in mind, we can see that we are going to be in considerable difficulty postulating two roughly equivalent social systems since it is hard to see how, once in contact, the Indo-Iranian system might effect a language shift among the BMAC khanates. In literal archaeological terms, how does one translate the presence of Andronovo sherds within BMAC sites as evidence for the social assimilation of the BMAC to the Andronovan social system and language? In the Acholi case, it was the highest level that provided the stimulus to social and language shift. Are the two reconstructed superordinate positions really comparable?

[1] [Lamberg-Karlovsky's spellings based on colloquial Tajiki are retained here. Persianists will more easily recognise these words in the forms *xāna*, *awlād*, *tīra*, *tā'ifa* and *īl*. Ed.].

The highest level reconstructed to Indo-Iranian has always been problematic. Benveniste related *dahyu* to Khotanese *daha-* 'man' and hence it was originally treated as an ethnonym, the 'people' in the same way as Nadene among the Navaho and many other peoples. It has also been associated with the ethnonym Dahae which occurs in Greek sources (Parpola 1988). Benveniste explained the contrast between the Iranian use of the word as 'country' and the Indo-Aryan *dasyu* 'enemy' as follows:

> We can now understand the strange sense of Skt *dasyu*. If the word referred at first to Iranian society, the name by which this enemy people called themselves collectively took on a hostile connotation and became for the Aryas of India the term for an inferior and barbarous people. Thus the connection between the sense of *dahyu/dasyu* reflects conflicts between the Indian and Iranian peoples. (Benveniste 1973: 261)

This model has also been taken up and extended by Asko Parpola (1988) in his treatment of Indo-Aryan origins. In light of the models we have been examining for Indo-Iranian expansions, I wish to reconsider these models concerning Aryan and Dasa relations.

The Indo-European pedigree of the words built on **dăs-* is not strong and attempts to provide the word with a solid Indo-European origin have generally been rejected (see Lubotsky 2001). Alexander Lubotsky treats both Proto-Indo-Iranian **dásiu-* 'foreigner, country of foreigners' and **dāsa-* '(hostile) people', as non-Indo-European substrate terms in Indo-Iranian, but inherited from the period of Proto-Indo-Iranian. Lubotsky also suggests other terms, here loanwords into Indo-Iranian, which fill out the role of religion, e.g. **at^{h}aryan-* 'priest', **ćaryа-* 'name of a deity', **g(^{h})anda^{h}(a)ryḷb(^{h})a-* 'mythical being', **indra-* 'name of a deity', **i̯ātu-* '(black) magic', **mag^{h}a-* 'gift, offering, sacrifice', **ṝši-* 'seer', **ućig-* 'sacrificing priest' and **anću-* 'soma plant'. Lubotsky suggests that at least some of these might be explained as foreign loanwords from Central Asian societies with which the Indo-Iranians came into contact. Within the context of our archaeological models, this would involve the early Indo-Iranians adopting a portion of their most significant religious vocabulary from the BMAC. And of perhaps equal importance, this would also involve the adoption by the Proto-Indo-Iranians of their superordinate fourth social tier from the presumably non-Indo-European BMAC.

Our expectations from the model of the Kulturkugel was that it was the social organisation of the Andronovans that transformed BMAC society and effected a social and linguistic assimilation of the oasis khanates. The linguistic evidence is suggesting that the direction might be reversed or at least it was the Andronovans who adopted the highest tier of social organisation from the BMAC. According to the literature we have seen so far, this might seem to suggest that the Andronovans should have been assimilated socially and linguistically to the BMAC. It is necessary to return now to the final lesson of the Acholi model.

The spread of the chiefdom system and the Luo language was not entirely symmetrical. The Luo themselves had gained the new social order from the Bantu-speaking Banyoro to their south and indeed many Paluo in the region were assimilated into the Bantu society and adopted the Bantu language. Only those on the periphery managed to adopt the new social order without an accompanying language shift on their own part (fig. 11). But once they had acquired the chiefdom system it became the vehicle for their own linguistic expansion.

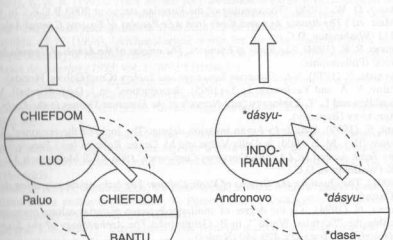


Figure 11. Peripheral social shift without language shift. The Paluo accepted the chiefdom system from the Bantu-speaking Banyoro and employed it to spread their own language. Here it is suggested that the Andronovo may have adopted the concept of the **dásyu-* from the **dāsa-*speaking BMAC to organise greater Indo-Iranian collectives.

If we are to retain the model proposed to describe interrelationships between our four zones, then the Acholi model may still be apropos. What is being suggested here is that Indo-Iranian tribes from the steppelands entered into the political sphere of the BMAC and absorbed from it a suite of religious institutions and their names as well as the concept of a superordinate tier within their social organisation. This tier, the **dásiu-*, provided a system of co-ordination between the different elements both within the BMAC and the mobile units outside. It linked oasis dwellers and steppe nomads in Central Asia and, under the hypothesis that the sites of the Arkhaim type developed under the stimulus of the BMAC, it could also bring together people practising different settlement and economic strategies on the northern steppe. What it does not do is explain specifically how

the language of the Andronovans, presuming that they spoke some form of Indo-Iranian, actually passed to the BMAC, but it does at least suggest, if only at the level of broad conceptualisation, how the BMAC and the Andronovans could have become one and the same social unit.

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From the dialects of Old Indo-Aryan to Proto-Indo-Aryan and Proto-Iranian

ASKO PARPOLA

Preliminary note

THE ARYAN OR INDO-IRANIAN LANGUAGES are divided into two basic groups, Indo-Aryan (i.e. languages nowadays mainly spoken in India in its pre-1947 sense of South Asia) and Iranian (i.e. languages nowadays mainly spoken in Iran, also rather in the historical sense of the Persian Empire, which extended to Central Asia and the Indus Valley). As argued below, this dialectal split goes back to the very emergence of Proto-Aryan from Late Proto-Indo-European, far from India and Iran (see section 2.9). Although these terms are anachronistic and even otherwise unsatisfactory, 'Proto-Indo-Aryan' (applied to the Mitanni Aryan of Syria by Thomas Burrow in 1973) and the analogical 'Proto-Iranian' will be used for extra-Indian and extra-Iranian language forms (whether real or hypothetical) that are ancestral (or, as in the case of Mitanni, parallel) to Old Indo-Aryan and Old Iranian.

I am grateful to the organisers of the symposium for this opportunity to pay respect to the memory of Sir Harold Bailey, with whom I had a cup of tea and a pleasant chat several times, mostly in 1987, when I spent one term in Cambridge. In accordance with the title suggested by the organisers, my paper originally dealt with 'Vedic and the entry of the Indo-Aryans into South Asia' (sections 1 and 3). The language of the Mitanni Aryans, which is now fairly generally admitted to represent the Indo-Aryan branch (rather than the Iranian branch or Proto-Aryan), provides one of the few means of dating (approximately) the coming of the Indo-Aryans to South Asia, and as I had some new points to present in this connection, I afterwards extended the paper to include the Mitanni Aryans and related questions concerning the formation of Proto-Indo-Aryan and Proto-Iranian (section 2). My best thanks go to Nicholas Sims-Williams for accepting this extended version of the paper in spite of its length, for several valuable comments and for editing my English; and to Alexander Lubotsky and Jorma Koivulehto for their comments on the possible Proto-Indo-European background of the Vedic suffix *-ās-as*.

For reasons of space, a large part of the original manuscript for section 2 has been cut out to be presented as a separate study elsewhere. In that paper (Parpola 2002b) I argue for the common descent of the following peoples, whom I see as representing the earliest wave of Aryans in Central and South Asia: (1) the Aryan élite superstratum which I assume to have first taken over the rule in the BMAC or 'Bactria and Margiana Archaeological Complex' and to have expanded from Afghanistan to the Indus and Ganges Valleys ca. 2100-1900 B.C.; (2) the Dāsas, Dasyus and Paṇis mentioned as their enemies by the Ṛgvedic Aryans ca. 1400 B.C.; (3) the Vrātyas of the Middle Vedic texts, whose militaristic and orgiastic cult anticipates the Śākta Tantrism of later Hinduism; (4) the earliest speakers of the Māgadhī Prakrit of eastern India; (5) the former 'Kafirs' of Nuristan in northeastern Afghanistan. An additional excuse for excluding these peoples from a paper primarily dealing with *Indo-Aryans* is that their language in my opinion originally belonged to the ancestor of the '*Iranian*' branch, where their closest relatives appear to be (6) the Scythians of the Eurasian steppes, the Sakas of Khotan and the Wakhis of the Pamirs (see section 2.10.2).

1. HISTORICAL LAYERS OF EARLY OLD INDO-ARYAN

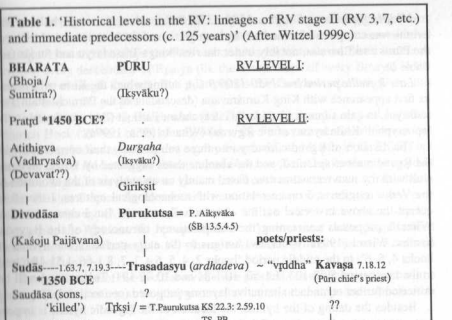
Old Indo-Aryan, or Sanskrit in its broader sense, refers to the oldest textually attested forms of Indo-Aryan, i.e. the Aryan speech of India in the sense of South Asia. On a very general level, two successive phases of Old Indo-Aryan are distinguished: (1) Vedic Sanskrit, attested roughly from 1500 to 400 B.C., and (2) Classical Sanskrit, normatively defined by Pāṇini in his grammar ca. 400 B.C., which is also the approximate date for the oldest layers of the Sanskrit Epics, the earliest literature in Classical Sanskrit.

1.1. Vedic

1.1.1. Old Vedic = Ṛgvedic

Old Vedic, or the language of the Ṛgveda, is datable to Late Bronze Age, which in South Asia ends about 1150-1050 B.C. (for this date, cf. Allchin 1995: 39, 330; Erdosy 1995a: 80, 83f.). This is because in contrast to the Atharvaveda, the Ṛgveda does not seem to contain any reference to iron but only to copper or bronze (cf. Rau 1974: 19-25; Schlerath 1997: 819; Witzel 1995a: 98). Michael Witzel, who has studied the formation of the Vedic corpus intensively in recent years, correlates the transition to the post-Ṛgvedic Khila hymns and the Atharvaveda with the transition from the Bronze to the Iron Age ca. 1150 B.C. and takes this as the starting point for a retrospective chronological calculation of the dates of kings and other people mentioned in the Ṛgvedic hymns (see his genealogical chart of early Vedic kings reproduced opposite as Table 1).

Table 1. 'Historical levels in the RV: lineages of RV stage II (RV 3, 7, etc.) and immediate predecessors (c. 125 years)' (After Witzel 1999c)



On this basis, and also taking into consideration Ṛgvedic references to tribal history, Witzel (1995ab; 1999ab) proposes dating the Ṛgvedic hymns to ca. 1700-1200 B.C., distinguishing three sub-periods:

Early Ṛgvedic period (ca. 1700-1500 B.C.), associated with the Vedic tribes Yadu and Turvaśa, and Anu and Druhyu. These tribes 'are regarded as settled in the Panjab at the time of the arrival of the Pūrus and Bharatas' (Witzel 1995b: 328).

Middle Ṛgvedic period (ca. 1500-1350 B.C.), when the main bulk of the hymns was composed, focused on the immigration of the closely related tribes of the Pūrus and Bharatas, notably under the rival kings Trasadasyu and Sudās (see Table 1).

Late Ṛgvedic period (ca. 1350-1200 B.C.), during which the Kuru tribe makes its first appearance with King Kuruśravaṇa (descendant of the Pūru chieftain Trasadasyu), to gain supremacy under his descendant Parikṣit (first mentioned in the 'apocryphal' Khila hymns of the Ṛgveda) (Witzel 1995a; 1999a).

The division of Ṛgvedic history into three sub-periods, their correlation with the Ṛgvedic tribes specified, and the absolute dates suggested by Witzel all agree well with my own reconstruction, based mainly on an analysis of the evolution of the Vedic religion and on correlation with archaeological cultures. I therefore accept the above historical outline as essentially correct. But I cannot endorse Witzel's proposals concerning the compositional chronology of the Ṛgvedic hymns. Witzel (1999a: overview) assigns to the early period 'some hymns of books 4, 5, 6', to the middle period 'books 2, 4, 5, 6 + 3, 7, 8.1-66, 1.51-191' and to the late period 8.67-103, 1.1-50, 10.1-84 and 10.85-191. This scheme will be criticised further on and an alternative layering proposed (see section 1.4).

Besides the dating of the hymns, the location of the Ṛgvedic hymns is important, not least for discussions of their linguistic substrata, where I find reason for strong disagreement with Witzel (see section 3.2). The river names and other geographic references clearly suggest that the Ṛgvedic tribes lived mainly in the Panjab and the surrounding areas from Afghanistan in the west to the upper reaches of the Ganges river in the east (cf. Zimmer 1879: 3-48; Hopkins 1896: 87f.; Witzel 1995a: 93; Scharfe 1996: 356-63). As Witzel has emphasised, the majority of the Ṛgvedic hymns centre on the immigration of the Pūru and Bharata tribes into the Panjab, particularly at the time of the rival kings Trasadasyu and Sudās; the latter eventually wins the famous 'battle of the ten kings' (ṚV 7,18) on the river Paruṣṇī, identified by Yāska with Irāvatī, the modern Ravi, one of the main tributaries of the Indus (cf. Zimmer 1879: 11).

1.1.2. Excursus: King Divodāsa's birth on the Sarasvatī of Arachosia

King Sudās belongs to the main (second) period of the Ṛgveda. But although he fought in the Panjab, either he himself or his father Divodāsa seems to have arrived there from Afghanistan. Because this fact is important for the reconstruction of the history of the Ṛgveda and the immigration of the Indo-Aryans into South Asia (cf. sections 2.4; 2.6; 2.7 and 2.10.2), it is useful briefly to mention the principal evidence for this.

The first three stanzas of ṚV 6,61 make it clear that King Divodāsa was born in Arachosia, in southern Afghanistan. Here River Sarasvatī is said to have given the powerful Divodāsa as a son to Vadhryaśva, who worshipped her with offerings. Sarasvatī has seized from the [inimical] Paṇi [who is rich but does not offer Soma to Indra] his numerous cattle (lit. 'enjoyment'); like a root-digging (boar) (cf. Hoffmann 1976: 387), she breaks through the back of the mountains with her roaring waves and she slays the Pārāvatas; she is asked to throw down the *deva*-revilers, every descendant of Bṛsaya (lit. the descendants of every Bṛsaya) in the possession of magic (*māyā*). The poet praises the Goddess who has given this riverine tract to his people.

As shown by Alfred Hillebrandt (1927: I, 510-515) and accepted by Hans Henrich Hock (1999b: 165f.) among others, the Sarasvatī mentioned here is not the stream in India (as maintained e.g. by Macdonell and Keith 1912: I, 363) but the river called *Haraxᵛaitī* in Avestan and *Harauvatiš* in Old Persian, situated in southern Afghanistan which was known (in Greek) as the province of Arachosia in the Persian Empire. In Alexander's time, the satrap of Arachosia was a man called Βαρσαέντης (Arrian, Anabasis 3,8,3; 3,21,1), whose name resembles Bṛsaya, while the Pārāvata (lit. 'people from afar') correspond to the people called Παροπῆται, whom Ptolemy (6,17) places in Areia (the province next to Arachosia in Afghanistan).

The implication of the two Sarasvatīs was pointed out by Thomas Burrow in a passage worth quoting at length because it contains other important conclusions as well:

> The colonization of North-West India by the Indo-Aryans was an extensive operation, lasting over generations, which could only have been carried out on the strength of an extensive population base immediately outside the sub-continent. That is to say that before these migrations Proto-Indoaryans must have been in occupation of large tracts of eastern Iran and western Afghanistan (such as Bactria, Areia (Haraiva), Arachosia, and Drangiana), which only at a later period came into the possession of the Iranians. One would also not expect that the migrations into India left these countries empty of Proto-Indoaryans, but rather that this was a movement of the surplus population, so that when the Iranians took control of this territory they would find the Proto-Indoaryans settled there, and that in due course of time the latter would be absorbed into and merged with the later-coming Iranians.
>
> A slight trace of the earlier home of the Indo-Iranians has been preserved in some river names which were transferred by them from the old to the new country. This is how the relationship between the the Indian *Sarasvatī* and Iranian *Haraᵡᵛaitī* is to be explained. There is not, as Bartholomae suggests, a common inheritance from Proto-Aryan *sarasvatī* here, since ... this region was not the home of the Proto-Aryans. On the contrary *Sarasvatī* is in the first place the Proto-Indoaryan name of the river in Iran [i.e. in Arachosia], which after the migration was transferred to the river in India. The Iranian name is a loanword from Proto-Indoaryan, with the substitution of *h-* for *s-*, occurring also in *hindu-* ... Another case is the river name *sarayu-*, which was transferred first from Iran *(haraiva-/harôyû-)* to a river in North-West India, and then again from there to a tributary of the Ganges in eastern India. (Burrow 1973: 126)

Whether Vadhryaśva is the same person as Atithigva, and Divodāsa the son of Vadhryaśva the same as Divodāsa the father of Sudās, as assumed by Witzel (1995b: 319; see Table 1), is not absolutely certain but very likely (cf. Macdonell and Keith 1912: I, 363f.; appendix A in Witzel 1995b: 343-52).

1.1.3. Middle Vedic

The *Middle Vedic period (ca. 1200-600 B.C.)* is datable to early Iron Age and mostly pre-urban times. Linguistically and textually four successive subperiods can be distinguished according to literary categories, though roughly we may speak of 'the Brāhmaṇa period':

— mantra collections (Paippalāda- and Śaunaka-Atharvaveda; the Khila hymns of the Ṛgveda; the Mantra portions of the Black Yajurveda Saṃhitās; and the Kauthuma and Jaiminīya Saṃhitās of the Sāmaveda);

— prose portions of the Saṃhitās of the Black Yajurveda (Saṃhitās of the Kaṭha, Kapiṣṭhala-Kaṭha, Maitrāyaṇīya and Taittirīya schools);

— older Brāhmaṇa texts;

— younger Brāhmaṇa texts, Āraṇyakas and older Upaniṣads (the last mentioned being the Jaiminīya-Upaniṣad-Brāhmaṇa, the Bṛhad-Āraṇyaka-Upaniṣad and the Chāndogya-Upaniṣad); and

— the oldest Sūtra texts (especially the Baudhāyana- and the Vādhūla-Śrautasūtra).

The earliest post-Ṛgvedic texts appear to have been composed in the western half of the north Indian plains, from where the Vedic Aryans had been moving both eastwards into the Gangetic Valley and southwards, up to the Vindhya mountains. The 'Kurukṣetra' in the Gaṅgā-Yamunā Doab, the domicile of the powerful Kuru tribe, was the centre of 'orthodox Vedic culture' in the Middle Vedic period. The formation of the Vedic canon in the Middle Vedic period is a 'historical' process and as such outside the scope of this paper. It is also a very complex event, and I can do no better than refer the reader to the extensive, detailed and insightful synthesis of Michael Witzel (1997a; for the geographical location of the invidividual Vedic schools and texts, see Witzel 1987; 1989: 110-17; 1995a: 93f.).

1.1.4. Late Vedic

Late Vedic is the language of the '*Sūtra period*' *(ca. 600-400 B.C.)*, when most of the Śrautasūtras and Gṛhyasūtras were composed. However, the creation of the latest parts of the Vedic literature including the Dharmasūtras and e.g. the Vaikhānasa-Śrautasūtra continued a good deal after 400 B.C.

It is only in the Sūtra period that the Vedic culture appears to have started moving to south India, where the Old Tamil texts dated to the early centuries of the Christian era refer to the performance of Vedic sacrifices (cf. Parpola 1984, with further references; 2002a).

1.2. Epic and Classical Sanskrit

Pāṇini composed his monumental grammar of Sanskrit in the northern Indus Valley around 400 B.C. (cf. Cardona 1976; Scharfe 1977: 88). Among the earliest extensive texts in Classical Sanskrit is Patañjali's 'Great commentary' on Pāṇini's grammar, datable to ca. 150 B.C. The Mahābhārata began to come into being about 400 B.C., although it is difficult to distinguish with certainty between the different layers of this enormous epic (of some 75,000 verses) that continued to grow until about 400 A.D. Epic Sanskrit is an early variety of Classical Sanskrit which often though not consistently deviates from Pāṇini's rules. (See Brockington 1998.)

I see the origin of Epic/Classical Sanskrit as a central problem in research relating to the entry of Indo-Aryan speakers into India. It is clear that Epic Sanskrit goes back to bardic traditions that predate even the earliest parts of the Mahābhārata. Specimens of such 'proto-epic' poetry are preserved in verses quoted in the Middle Vedic and early Buddhist texts, where they are called either *gāthā* or *śloka* (see Horsch 1966; cf. Weber 1891; Renou 1954; Witzel 1989: 127f.; and below, section 1.5.2). Although Epic Sanskrit naturally has been much influenced by Vedic Sanskrit, it has some well known dialectal features which show that it entered South Asia separately from Old Vedic.

1.3. Dialectal features of Vedic

There are numerous dialectal features in Vedic as well as Old and Middle Indo-Aryan in general; recent publications on this topic include the large volume edited by Colette Caillat (1989), containing among other useful papers an extensive survey of the Vedic dialects by Michael Witzel (1989); the comprehensive survey of Middle Indo-Aryan by Oskar von Hinüber (1986; cf. also Norman 1995 and Caillat 1997); and several studies by Georges-Jean Pinault (esp. 1998; see section 1.4.4). In the following, I would like to focus on just a couple of well-known features that allow important conclusions.

1.3.1. Rhotacism

The original dialect of the main bulk of the Ṛgveda (Middle Ṛgvedic in the above scheme) had some systematic innovations not shared by Classical Sanskrit. Very important among these is rhotacism, by which term we here mean the merger of the Proto-Indo-European liquids **l* and **r* so that PIE **l* was systematically replaced with **r* and only this latter phoneme remains. This rhotacism has taken place also in Avestan and Old Persian. Epic/Classical Sanskrit, on the other hand,

has in many words preserved the original PIE **l*, and there are traces of its preservation in some Iranian dialects as well (cf. e.g. Ossetic *læsæg* 'salmon'; Mayrhofer 1989: 10) and in Nuristani (cf. Nelson 1986). These dialects must have separated from Proto-Aryan before it innovated with rhotacism.

However, words which retain the original PIE **l* start to be introduced into the Ṛgvedic language in its Late period, obviously from a language that had preserved it. In the youngest parts of the Ṛgveda, *l* is eight times as frequent as in the oldest parts, where it is actually found in very few words, while in Epic and Classical Sanskrit *l* is on average three times as frequent as in the entire Vedic literature. Many authorities have long ascribed this state of affairs to the mixing of two basic dialects in Old Indo-Aryan. (See Wackernagel 1896: I, xiv, xix and 209-21; Renou 1957: 4 and 51 n. 49; Debrunner 1957: 116-22.)

For example, the word *śloka-*, a key term of the Epic tradition, preserves the original **l* of the Proto-Indo-European root **ḱleu-* 'to hear' (Pokorny 1959: 605-7; *LIV* 297-8). The word *ślóka-* is found in the old family books (ṚV 2-7) only 9 times, but 17 times in the other, younger books (cf. Grassmann 1996: 1432; Lubotsky 1997: II, 1425), while the root is only found in the form *śru-*, which along with its derivatives occurs many hundreds of times in the Ṛgveda (cf. Grassmann 1996: 1419-22, 1425-32; Lubotsky 1997: II, 1419-25). It is not possible to derive words such as *śloka* from the Ṛgvedic language, which lacked the phoneme *l* altogether. I would like to repeat the following conclusion drawn by Emeneau to underline its importance:

> The Ṛgvedic dialect, then, is clearly not the direct ancestor of classical Sanskrit. There must have been, even on this much evidence, several closely related dialects in the period of the Ṛgveda composition, one of which is the basic dialect of this text, another of which is basically the ancestor of the classical language of some centuries later. (Emeneau 1966: 127)

1.3.2. The double plural suffix -ās-as

In the case of rhotacism a phonological feature is involved. Similar dialectal differences between the Vedic and Classical Sanskrit prevail in morphology as well:

> [I]t is also clear that the Ṛgvedic linguistic norm, even apart from hymns that represent something very close to the classical language, was a mixed dialect, and that one of the elements in the mixture was something near to classical Sanskrit. Only such a hypothesis will explain such mixtures as those of *-āsas* and *-ās*, of *-ebhis* and *-āis* [in the instrumental plural of the Indo-European *o*-stems], of the instr. sg. endings *-ā* and *-ena* of IE *o*-stems, of the neuter plurals of Indo-European *o*-stems in *-ā* and *-āni*, and so on ... the Ṛgvedic language represents a mixture [of dialects] ...; one very like, or even identical with, the ancestor of classical Sanskrit probably formed one very important element in the mixture. (Emeneau 1966: 127)

I take up for a closer examination just the two alternative nominative plurals of the masculine *-a*-stems, *-ās* and *-āsas* (in the pause form, *-āḥ* and *-āsaḥ*). Vedic *-āsas* corresponds to Avestan *-āŋhō* and Median or Old Persian *-āha* and can therefore be reconstructed for Proto-Aryan.

It has been suggested that Proto-Aryan may have introduced the double plural ending **-ās-as* only in the masculine *-a*-stems in order to keep their nominative plural separate from the nominative plural **-ās* of the feminine *-ā*-stems. (Secondarily, the suffix *-āsas* is applied in the Veda to a few feminine *-ā*-stems; see Lanman 1878: 362.) In Avestan, however, *-å* < **-ās* (cf. the sandhi form *-åṣ-ca*) is found only in the nominative plural of the feminine *-ā*-stems, the nominative plural of the masculine *-a*-stems being distinguished from it by the ending *-å (-ā-ca)*, which has a counterpart in Saka, too, and may go back to a Proto-Indo-European collective suffix **-ā* (thus Hoffmann 1975: 70, who compares the Latin form *loca* from *locus*; Hoffmann actually ascribes this to Sogdian too, but Nicholas Sims-Williams points out that, unlike Khotanese Saka, Sogdian cannot in fact distinguish between the results of **-ā* [> Khotanese *-a*] and **-āh* [> Khotanese *-e*]: both give *-a*).

Another explanation for Proto-Aryan *-āsas* is the analogy of the **-i-* and **-u*-stems, which have manifold relationships with the **-a*-stems and in which the nominative plural was likewise bisyllabic, *-ay-as* and *-av-as*. (Cf. Debrunner and Wackernagel 1930: III, 101f.)

Excursus: The Proto-Indo-European background of -ās-as

It is possible that Proto-Aryan **-ās-as* continues Proto-Indo-European **-ōs-es*, for there is evidence for a fully parallel double suffix in Proto-Germanic as well. Gothic *-ōs* (*dagōs* 'days') and Old Norse *-ar* (*dagar*) can be derived from Proto-Germanic **-ōz*, which in its turn is the regular development of PIE **-ōs*, as PIE post-vocalic word-final **-s* became voiced **-z* in Proto-Germanic. But such West Germanic forms as Old Saxon *dagōs* and Old English *dómas* presuppose a Proto-Germanic reconstruction **-ōs*, which cannot be reconciled with the above explanation of the East and North Germanic forms. The Old Saxon and Old English forms imply that their *-s* comes from a non-final **s* in Proto-Germanic. Proto-Germanic **-ōsez* (in words having the accent on the thematic vowel) or **-ōzez* (in words with the accent on the root) from PIE **-ōs-es* would provide an explanation, as the vowel **-e-* of these assumed Proto-Germanic suffixes would have been dropped in the prehistory of all Germanic languages. Gothic *-ōs*, on the other hand, could as well go back to Proto-Germanic **-ōsez* or **-ōzez* and Old Norse *-ar* to **-ōzez*. (See Bammesberger 1990: 43f.)

Thus it seems that Proto-Germanic and Proto-Aryan both had the same innovation. However, it may have taken place separately in these two branches, which seem to have emerged far from each other and are not otherwise closely related. There is a general agreement that PIE **-ōs* is the original nominative (and vocative) plural marker of the masculine **-o*-stems, and that it goes back to the combination of the thematic vowel **-o-* with the nominative plural marker **-es*. This original suffix **-ōs*, however, seems to have

been preserved only in few languages: besides the Aryan branch, it is known just from the Oscan-Umbrian sub-branch of Italic and from Old Irish; in Hittite the *-a*-stems (PIE **-o*-stems) form their nominative plural with *-aš* or *-ēš*, the latter being thought to be a transfer of the corresponding suffix of the *-i*-stems (*-ēš* from PIE **-ey-es*). Because the contraction of *o + e* into *ō* in the suffix **-ōs* resulted in the plural suffix **-es* becoming blurred in the **-o*-stems (in contrast to the consonantal and **-i-* and **-u*-stems) in Proto-Indo-European, there seems to have arisen a need to innovate and replace **-ōs* with a clearer nominative plural suffix. While this was done by adding the suffix **-es* to the original suffix **-ōs* and making this case end as in other stems, another early solution was to replace it altogether with the pronominal masculine nominative plural suffix **-oi*: this suffix is reflected in Celtic (which also had **-ōsī*), Latin, Greek, Phrygian, Baltic, Slavonic, and Tocharian, possibly also in Albanian and Hieroglyphic Luwian. (Schmitt-Brandt 1998: 206-9; cf. also Debrunner and Wackernagel 1930: III, 101f.; Szemerényi 1989: 194, 196; Beekes 1995: 191f.)

Returning to Indo-Aryan, the double plural suffix *-āsas* 'contrasts with *-ās*, which latter is found also in the Ṛgveda and is the only form in the classical language. It has been demonstrated that, in the Ṛgveda, *-āsas* is the form proper to its dialect, from metrical considerations, viz. that written *-ās* many times has to be read *-āsas* to mend defective meter, while *-āsas* never has to be read *-ās*' (Emeneau 1966: 126f.; for the evidence, see Lanman 1878: 345f.).

Emeneau clearly suggests that *-āsas* originally was the proper suffix of the nominative plural of the masculine *-a*-stems in the Ṛgvedic dialect. However, this need not have been so; the Ṛgvedic dialect could have possessed both *-āsas* and *-ās* from early on, making use as it does of their metrically convenient difference in the number of syllables; in fact both forms frequently occur side by side and often replace each other in parallel verses: ṚV 5,59,6a *té ájyeṣṭhā ákaniṣṭhāsa(ḥ)*; 5,60,5a *ájyeṣṭhāso ákaniṣṭhāsa eté* (cf. Lanman 1878: 344f.; Debrunner and Wackernagel 1930: III, 100).

But although *-āsas* disappeared from the literary texts rather quickly, did it continue to be used in the spoken language of the Ṛgvedic people? It survives in the later Middle Indo-Aryan dialects (Pāli and Aśoka's inscriptions) as *-āse*; and this is not an isolated phenomenon, for several other features not found in Classical Sanskrit connect later Prakrits with the language of the Ṛgveda (thus e.g. Ṛgvedic *-ebhis* as the instrumental plural of the *-a*-stems becomes *-ehi* in Middle Indo-Aryan [cf. Hinüber 1986: 145], while Classical Sanskrit has only *-ais*). T. Y. Elizarenkova (1989), while drawing this conclusion, suggests on the basis of some further evidence that the Ṛgvedic poets used different language in the hymns and in their everyday speech, which early on started to exhibit Prakritic features.

This question has been studied also by Colette Caillat in an article entitled 'Vedic and Early Middle Indo-Aryan' (1997): 'Since the time of Franke and others, it has generally been accepted that not a few features of Middle Indo-Aryan (MIA) are inherited from some form of Vedic rather than classical Sanskrit dialect(s)'. (Caillat 1997: 15)

Among other things, she discusses (pp. 18-21) the MIA suffix *-āse* 'generally assumed to be "Eastern" (because of the final *-e* continuing Sanskrit *-aḥ* in the East)', a conclusion which in Caillat's opinion is 'not really warranted', because 'manuscript tampering cannot be excluded' and in several cases the Sinhalese tradition has *-āso*, either as a variant reading or (once) as the sole reading against the *-āse* of the Burmese tradition (p. 18).

> The Pāli commentators and grammarians seem to hesitate about the function of the final *-se*: should it be viewed as the nom. pl. marker ... or as an invariant particle ... liable to be added, for the sake of euphony ..., whether to the verb in the 1 pl. (*karomase*) or to the noun in the nom. pl. (*gatāse*)? (Caillat 1997: 19)

Analysing the oldest Pāli texts, Caillat (p. 19) finds eight substantives with *-āse*. There is, however, a much larger number of verbal adjectives, which often function as predicates, being sometimes paired with finite verbs, as in the following old *triṣṭubh-jagatī* formula, which recurs in many texts:

> *ye keci buddhaṃ saraṇaṃ gatāse / na te gamissanti apāya(-bhūmi)ṃ //.*

But the phrase *viyāpaṭāse* in the 'eastern' pillar edict of Aśoka at Delhi-Topra should be interpreted differently, from *viyapaṭā (ā)se*, where *āse* would be an old preterite akin to *āsi*.

> Thus it would appear that the Pāli nom. pl. *-āse* could have been of mixed origin. This would explain why it retains only part of the Vedic characteristics. On the one hand, the *gatāse* type might have been in use anciently in the East, and was apparently not confined to verse. On the other hand, it seems that literary texts blend the (more colloquial?) *gatāse* and the (more artificial?) *brāhmaṇāse* types. Despite the conventional character of the Pāli usage and many uncertainties, the above investigation again shows the existing gap between Old Indo-Aryan (OIA) and the language of the oldest MIA documents known to us. (Caillat 1997: 20-21.)

Witzel (1989: 212f.) points out that *-āse* is found in Prakrit only in Pāli *gāthās* and twice in the Delhi Topra inscription of Aśoka; everywhere else in Prakrit we find the suffix *-ā* from *-ās*, since Ardha-Māgadhī *-ao* seems to be a new formation on the analogy of the consonant stems (cf. Hinüber 1986: 144 [and Caillat 1997: 18 n. 18]), and the Apabhraṃśa vocative plural *-aho* is explained from the stem *-a-* + the vocative interjection *bho* (cf. Hinüber 1986: 146). According to Witzel, *-āse* has acquired the Eastern nom. pl. *-e* (cf. also Hinüber 1986: 144); he concludes that it is either a fairly late development or that 'perhaps it was indeed the famous "first wave" of Indo-Aryan immigration into the East which had perpetuated the spread of the Ṛgvedic usage *-āsaḥ* in the East, where it remained in use, while the Kuru-Pañcāla form *-āḥ* gained prominence in the rest of the Middle Indian dialects' (Witzel 1989: 213 n. 281; see fig. 1 below).

In my view, Vedic *-āsaḥ* may have spread to the east with the Kāṇvas (the Kāṇva school moved rather far east to Kosala, cf. Witzel 1989: 113), and the Kāṇvas are connected with the Yadu-Turvaśa tribes, the 'early' Ṛgvedic tribes. But theirs would not have been the 'first wave' of Aryan immigrants to the east: the 'Pre-Māgadhī' (with *-az > -e) may have come there with the Dāsas (on whom cf. section 2.10.2).

In any case, the ancestor of Epic or Classical Sanskrit did not possess the suffix *-āsas, but only the suffix *-ās*: this must have been the main factor contributing to the rapidity with which the suffix *-āsas* was ousted by the suffix *-ās* in the texts. While the numerical ratio between *-āsas* and *-ās* in the Ṛgveda on the average is 1 : 2, in the youngest parts of the Ṛgveda *-āsas* is already rare. In the verses of the (Śaunaka) Atharvaveda which are not mere variants of Ṛgvedic verses, *-ās* occurs 24 times more often than *-āsas*, while in the prose portions of the Taittirīya Saṃhitā only *-ās* is found. (Cf. Lanman 1878: 344), xiv; Debrunner and Wackernagel 1930: III, 100.)

1.4. The textual layers of the Ṛgveda

1.4.1. The suffixes -ās *and* -āsas

In his discussion of the double plural suffix, Witzel states:

> The Ṛgvedic nom. pl. *-āsaḥ* is found in Old Avestan as *-åŋhō* [recte *-å̊ŋhō* (ed.)], and in Mede as *-āha* (as represented in the O. Pers. inscriptions: *aniyāha bagāha*). The extension by *-as is, therefore, an Indo-Ir. development (*-āsas) which had (partially) affected some of the tribes but not all, notably not those of a later wave of immigrants (e.g., Y. Avestan, O. Pers., Post-Ṛgvedic). While the innovation *-āsaḥ* is found in the RV, the older form *-āḥ* is found exclusively in post-RV texts (except for archaism and quotations from the RV/*mantra* language). (Witzel 1989: 212)
>
> [Nicholas Sims-Williams points out that in fact *-å̊ŋhō* is Younger Avestan as well as Old Avestan; that Old Persian *-āha* is 'Median' is controversial and unprovable.]

On this basis, Witzel assigns the double suffix *-āsas* to the tribes of Yadu-Turvaśa and Anu-Druhyu = the first wave immigrants (see fig. 1a), and the simple suffix *-ās* to the Pūru and Bharata tribes = the second (later) wave of immigrants to the Panjab (cf. Witzel 1989: 212, 233-4, 238). Witzel further seems to have reasoned that the simple plural suffix *-ās* belonged to the language of the Pūrus and the Bharatas as it was their descendants who founded the Kuru kingdom and the language of the Kurus had only the suffix *-ās* in the following Middle Vedic period (see fig. 1b).

But although historically the immigration of the Yadu-Turvaśa and Anu-Druhyu tribes into the Panjab preceded that of the Pūrus and Bharatas, the great majority of the Ṛgvedic hymns and consequently also their dialect do not reflect the language of those tribes who had come earlier. Witzel himself assigns only a

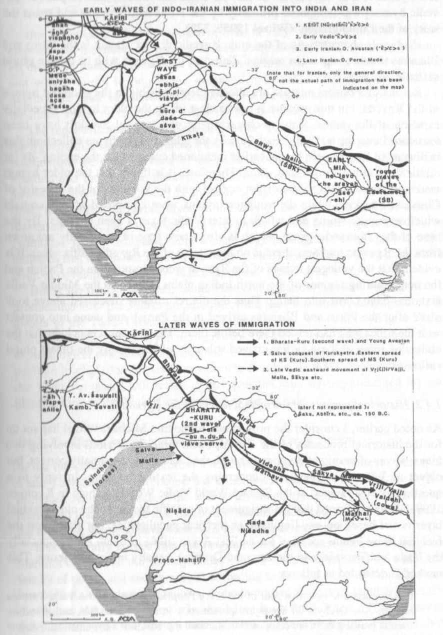


Figure 1. Michael Witzel's attribution of dialectal features of Old Vedic to the first (fig. 1a) and second wave (fig. 1b) of Indo-Aryan immigrants to the Panjab. (After Witzel 1989: 233-4.) This view is criticised here.

few hymns to this 'first layer' of his. He observes: 'clearly this corpus [of Ṛg-vedic hymns] was composed primarily by the Pūrus and Bharatas and spans the story of their immigration' (Witzel 1995b: 328).

If *-āsas* is characteristic of the main Ṛgvedic dialect, then it is the Pūrus and Bharatas to whom the main original dialect of the Ṛgveda with its double plural suffix *-āsas* belongs.

Results of a dialect mixture are already clearly visible in the youngest hymns of the Ṛgveda, but this mixture is not so clear yet in the older hymns, especially as some of the dialect features characteristic of Classical Sanskrit have been introduced into the text only much later by the editors of the hymn collection; this is illustrated for example by the earlier mentioned cases where the ending *-ās* for metrical reasons is to be read *-āsas*. Therefore, it is likely that the older hymns were composed relatively free from contact with the speakers of the ancestor of Classical Sanskrit, while the youngest hymns were composed after a contact which was quite strong and which in later Vedic texts is even stronger. By the time of the Yajurvedic prose, which is also a new type of text totally unknown from the Ṛgvedic tradition, there is no more trace of the Ṛgvedic suffix *-āsas*. It is evident that the youngest hymns of the Ṛgveda were composed in the Panjab and the neighbouring regions of the north Indian plains, where all the Middle Vedic texts too have come into being. Thus the dialect mixture discussed above took place after the Pūrus and Bharatas arrived in the Panjab and came into contact with the tribes who had settled there before them. Thus we must conclude that the dialect of some of these earlier arrived tribes should have only the oldest plural suffix *-ās*.

1.4.2. Historical periods versus textual layers in the Ṛgveda

As noted earlier, I consider the provisional frame that Michael Witzel has set up for the historical processes of the Ṛgveda (with three sub-periods involving two major waves of immigration, together with their dating) as essentially correct, but object to Witzel's suggestions concerning the textual layering. In reply to a question by Jost Gippert at the Second World Vedic Workshop held in Kyoto in 1999, Witzel confirmed that his assignment of specific hymns to the oldest textual layer is not based on any linguistic or metrical peculiarities, but simply on the fact that those hymns speak of the earliest Aryan tribes in South Asia (especially the Yadu and Turvaśa, and the Anu and Druhyu), usually in positive terms. This method is defended as follows:

> It is important to note that four of the 'Five Peoples' of the RV, the Yadu-Turvaśa and the Anu-Druhyu, do not figure prominently in most of the RV, and if so, the stanzas praising them are composed in standard Ṛgvedic, not a hypothetical *l*-dialect represented in eastern MIA. Only the newcomers, the Pūru and their original sub-tribe, the Bharata, play a major role; most of the books 2-7 have been composed when the Pūru-Bharatas were about to enter or had just entered the Panjab. Whatever had been composed before must have been recast in Pūru-Bharata style (or has been lost). (Witzel 1997b: 263)

But as the early tribes are spoken of even in very 'young' hymns, an arbitrary element will inevitably be present in such assignments. The procedure becomes all the more unacceptable when subjective estimations—as to which hymns do and which do not belong to the oldest textual layer—are made the basis for judging the value of loanword occurrences and reconstructing the prehistory of the Indus Valley on that basis (Witzel 1999bcd; see section 3.2).

The representation of Proto-Indo-European **l* and the suffixes *-ās* and *-āsas* in the Ṛgveda thus show that although the 'youngest' hymns of the Ṛgveda are most recent from the point of view of the *textual history*, i.e. the time of their composition and inclusion in the text collection, from the point of view of *dialect formation* involving the entry of Indo-Aryan speakers in South Asia at different times they reflect an earlier layer. In the case of the particular linguistic details discussed above, the earlier layer of previously arrived tribes represented by the 'youngest' hymns exhibits a more archaic stage of language development, which indicates that the dialect(s) involved had separated from Proto-Aryan at an earlier point of development than the dialect(s) of the 'older' hymns.

But is the dialect ancestral to the Epic and Classical Sanskrit (which rises to prominence after the dialect mixture following the Pūru-Bharata immigration) the dialect of the Yadu-Turvaśa and Anu-Druhyu tribes, which according to Witzel represent the first Indo-Aryan immigration? On the basis of textual, religious and archaeological evidence, I am inclined to answer this question negatively and to posit an immigration of Aryan speakers to South Asia that is earlier than that of the Yadu-Turvaśa. I will return to this question after having presented my own identification of the Yadu-Turvaśa layer in the Ṛgveda.

1.4.3. The Kāṇva hymns and the 'early wave' of Ṛgvedic Aryans

In the quotation cited in section 1.4.2, Witzel thinks that whatever poetry the Yadu-Turvaśa tribes composed has either been recast in Pūru-Bharata style or been lost. Although much of the Yadu-Turvaśa poetry is likely to have been both recast and lost, I believe that much of it has also survived: a considerable part of the recasting seems to have been done in its own original style.

It is generally agreed that the original core, the oldest part, of the Ṛgveda-Saṃhitā consists in the 'family books', ṚV 2-7, each composed by a particular family of poets, and each arranged according to the addressee deities and metres in a uniform way. In my opinion it is the hymns of these poet families (including the hymns ascribed to them in books 1 [the latter half], 9 and 10) that represent the Pūru-Bharata tribes of the 'second wave'. The Atri family of book 5, however, has a special relationship with the Kāṇva family of book 8, as well with the Anu tribe that is often mentioned with the Turvaśa and Yadu (cf. Oldenberg

1888: 213f., 220f.). Like the Kāṇvas (see below), the Atris also resided in the northwest: it is only in the Atri hymn ṚV 5,53,9 that the Kābul and Kurum Rivers are mentioned, along with other rivers of northwest Pakistan and Afghanistan (cf. Hopkins 1896: 88). The relationship between these two singer families is underlined by a linguistic isogloss: the Atris of the 5th book use no infinitives formed with the suffix *-tu-* and the Kāṇvas have at least no infinitives in *-tum* and *-tavái* (cf. Wackernagel 1896: I, xiii; Renou 1957: 4; Scharfe 1996: 361 n. 14). This isogloss differs from Classical Sanskrit, which has only one infinitive, in *-tum*.

The first major addition to the core of the family books is book 8 or the 'Kāṇva book': the hymns of this book are ascribed to the descendants of Káṇva (chiefly the hymns 1-66) and of Áṅgiras; also the first half (hymns 1-50) of book 1 belongs to the Kaṇva family. It is the Kāṇvas that of all singer families of the Ṛgveda have especially close relations with the Turvaśa and Yadu tribes (cf. Zimmer 1879: 122-4; Oldenberg 1888: 220f.; Hoffmann 1975: 49). Yet, because so many of them are clearly later than most of the family book hymns, the early claims for a higher antiquity for the Kāṇva hymns have generally been discarded. Nevertheless, it is the tradition as a whole, not the actual hymns, that is important in this context, as was seen by Maurice Bloomfield:

> The hymns themselves allude in clearest language to songs of old that were composed by the Rishis of the past. The later poets undertake to compare, more or less boastfully or complacently, their own compositions with those of the ancient masters ... Such reports are significant because they show that the Vedic poets were aware of the fact that Rig-Vedic composition stretched over a long period, preceding their own time. The suggestion has also been made that hymns which refer to themselves as 'new', as 'having been patterned after old', as 'having been made in the manner in which Atri, Kaṇva, Jamadagni, and other worthies made their hymns', are of recent origin. In the light of the materials which are worked up in this book [i.e., the repetitive formulaic expressions in the Ṛgveda], I have grown more sceptical as to our judgement in these matters ... it is very often easy to point out signs of relative lateness, but I have yet to find any hymns in the collection which show positive signs of coming from the archetype period, that is to say, from the period when hymns of this sort were first composed ... In any case they one and all abound in repetitions. Many hymns of the pragātha collection of Kaṇva and the numerous Kaṇvids are most certainly late clap-trap, but the important role which these hymns play in the Sāma-Veda canon should warn us from condemning the rather banal compositions of the eighth book, because this involves the condemnation of the Sāma-Veda to a late date. (Bloomfield 1916: 20-21; cf. ibid. 639-40)

The Kāṇva hymns differ from the 'family books' in many respects. For one thing, the hymns are arranged in a different way; the hymns are predominantly in the *pragātha* and *gāyatrī* metres, and have a strophic structure, consisting of distichs (*pragāthas*) or tristichs (*gāyatrī*). This same strophic structure is found in book 9, which was put together after the 8th book had been added to the Ṛgveda, and which contains the hymns addressed to the Purifying Soma collected from

books 2-8. Together the Kāṇva hymns and book 9 constitute the earliest version of the Sāmaveda, being meant to be sung by the Udgātṛ priest, while the family books were meant to be recited by the Hotṛ, the priest who originally poured the offering libation into fire. The 'Sāmavedic' character of these hymns is visible from the occurrence of the root *gā-* 'to sing' and its derivatives (in addition to *gāyatrī*, *pragātha*, *udgātṛ* already mentioned, cf. also *gāyatra-*, the name of the most important melody or *sāman-*, as well as *sāma-ga-* 'Sāman singer' (cf. ṚV 8,98,1 *indrāya sāma gāyata* ...). (Cf. Oldenberg 1884.)

Alfred Hillebrandt (1927: I, 448ff.) has noted that poets of the Kāṇva family criticise the habit of other priestly families who make offerings of plain Soma (to Vāyu and Indra) without mixing it with milk or curds, with honey or with barley, so as to make it sweet. The recipients of the Soma mixed with milk or curds are Mitra and Varuṇa, while the Soma mixed with honey is offered to the Aśvins and the Soma mixed with barley to Indra and his team of horses or to the demon Marka (death).

E. W. Hopkins (1896) published a long list of words that occur in the 8th book but not elsewhere in the Ṛgveda (pp. 29-52); and similar lists of words occurring in addition to the 8th book only in books I, IX and X (pp. 52-70). He noted that the differences are not just lexical, but include also cultural and geographic background and proper names (pp. 84-8): in contrast to the family books, the Kāṇva hymns repeatedly refer to sheep and agriculture, including ploughing. The only Ṛgvedic reference to the Swat River (*suvāstu-* 'providing good habitation') is in the Kāṇva hymn ṚV 8,19,37b. Karl Hoffmann (1975: 16) observed that besides other linguistic peculiarities the 8th book has an unusually high number of words with retroflex consonants, including the name of its eponym, Kaṇva. Besides, four out of the five occurrences of the word *uṣṭra-* 'camel' are found in the 8th book (the fifth being in the late hymn ṚV 1,138,2), praising gifts of 'a hundred camels' etc. that various kings have presented to the singers. This as well as the names of the royal givers have suggested the neighbourhood of Central Asia and Iranian speakers: Caidyá Kaśú (*kaśú-* is a hapax in Indo-Aryan, while *kasu-* 'small' is common in the Avesta), Pṛthuśrávas Kānīté (cf. the Scythian names Κανίτης, Κάνιτος), Dāsá Balbūthá and Tárukṣa, Tiríndira and Párśu (cf. Old Persian *Pārsa-* < **Pārśva-* 'Persian') (Hoffmann 1975: 9); see section 2.4.

The evidence suggests that the core area of the Yadu-Turvaśa and the Kāṇva family was the Swat Valley. But some of them must have moved early on to the plains, as they are found later rather far east and south. Reference has already been made to the Kāṇva school in Kosala in the Brāhmaṇa period, and Hartmut Scharfe (1996: 361 n. 14) points out that 'a short-lived Kāṇva dynasty succeeded the Suṅgas in Magadha in the middle of the first century B.C.'. The Yādva 'descendant of Yadu', mentioned in ṚV 7,19,8 (along with Turvaśa an enemy of King Atithigva) and in 8,6,46, can be compared to the epic Yādava clan of Mathurā.

1.4.4. The Kāṇvas and the Mitanni Aryans

Georges-Jean Pinault (1998) in a penetrating article has revealed a most important fact concerning the Kāṇva hymns: they alone in the Ṛgveda provide exact parallels to the Mitanni Aryan proper names from the Near East (ca. 1500-1300 B.C.). Eight Mitanni Aryan bahuvrīhi proper names end in *-att(h)i* 'having X as his guest': Biriatti /Priyātt(h)i-/, Mittaratti /Mitrātt(h)i-/, Aśuratti /Asurātt(h)i-/, Mariatti /Maryātt(h)i-/, Šuriatti /Sūryātt(h)i-/, Intaratti /Indrātt(h)i-/, Paratti /Prātt(h)i-/ and Šūatti /Suvatt(h)i-/. The Kāṇva tradition of the Ṛgveda knows five parallel proper names ending in *-atithi* 'guest': Méḍhyātithi-, Méḍhātithi-, Nīpātithi-, Mitrātithi- and Devātithi- (cf. Pinault 1998: 453-5). Pinault refutes earlier etymologies for *atithi-* as inadequate. He determines the semantic meaning ('who stays nearby, who is placed next to [the house of the host]') from an analysis of Ṛgvedic and Homeric verses that describe the attitudes towards, and the treatment of, the guest. The new Indo-European etymology proposed suggests, according to Pinault (1998: 473), three possible developments in Indo-Iranian:

PIE $*h_2o\text{-}th_2\text{-}ti$ > Proto-Aryan $*á^{th}ti$- >

(1) $*á^{h}ti$- > Proto-Iranian = Avestan *asti-*

(2) Proto-Indo-Aryan **áthiti-*, but as a second member of a compound dialectally either (2a) **-atti-*, which corresponds to the overall language of the Ṛgveda, or (2b) **-atthi-*, which reflects a deviant Vedic dialect and explains the formation of the Vedic word *átithi-*.

The connection detected by Pinault between the Kāṇva hymns and Mitanni Aryan strongly supports the hypothesis that the Kāṇva hymns represent the traditional poetry of the Yadu-Turvaśa tribes and therewith the 'first wave' of Ṛgvedic Indo-Aryans in South Asia.

At the end of the treaty made in 1380 B.C. between the Hittite king Šuppiluliuma and his later vassal, the future Mitanni king Šatiwāja, deities are invoked to see that the treaty is not breached and to punish those who break it. After one hundred and four Hittite and Hurrian divities, four Aryan divinities are invoked: Mitra and Varuṇa, Indra and the Nāsatyas. Paul Thieme (1960) has pointed out that these same divinities are mentioned in the same order in ṚV 10,125,1: *ahám mitrā́váruṇobhā́ bibharmy ahám indrāgnī́ ahám aśvínobhā́*; the only difference is that instead of Indra in the treaty, Indra-and-Agni are mentioned here, and that the divine charioteer twins are mentioned by a different name. The name Nāsatya 'rescuer, savior' is very commonly used in the Ṛgveda (cf. Zeller 1990: 5f., 172); the Avesta (Vidēvdāt 10,9; 19,43) knows (along with Indra and Saurva = Post-Ṛgvedic Śarva = Rudra) a single Nąŋhaiθiia as a deity condemned by Zarathushtra (cf. Thieme 1960: 315).

The speaker in the above-quoted hymn ṚV 10,125 is the Goddess Vāc 'Voice, Speech'; in the Brāhmaṇa texts she is identified with the goddess Sarasvatī and the goddess Sāvitrī, the daughter of the sun, and functions as a goddess of fertility and victory, much like the later Hindu goddess Durgā and the Old Iranian goddess Anāhitā (see Parpola 1999). In the Ṛgveda, however, Vāc appears personified as a goddess only in the 'late' books 1 and 10, with the exception that she is praised as the 'mistress of the gods' (*rā́ṣṭrī devā́nām*) in the 8th book (ṚV 8,100,10-11), another connection with the Kāṇvas.

There is another important point that connects this Mitanni treaty with the Kāṇvas and the 'late' books of the Ṛgveda. Among the singer families of the Ṛgveda, it is especially the Kāṇvas and the Atris—and the Vasiṣṭhas of the 7th book, whose special deity is Varuṇa, also mentioned in the Mitanni treaty—that worship the Aśvins. The Ṛgveda contains altogether 54 complete hymns addressed to the Aśvins; 16 of them are found in the 1st book, 12 in the 8th book, 6 in the 5th book and 5 in the late 10th book; of the family books, the 7th book has 8 complete Aśvin hymns, but the other family books only very few: there is 1 hymn in the 2nd book, 1 in the 3rd book, 3 in the 4th book and 2 in the sixth book (cf. Zeller 1990: 1; also 163f. for a detailed listing of hymns, verses and references). Even the Yādavas of Mathurā have preserved their worship of the Aśvins (associated in the Veda with day and night) in their special deities Baladeva and Kṛṣṇa —brothers of whom one is white and the other black—associated with the horse chariot in the Epic team of Arjuna 'White' and his charioteer Kṛṣṇa 'Black' (cf. Parpola 2002a).

1.5. Epic Sanskrit and the Atharva- and Yajurveda

1.5.1. The relationship between the Ṛgveda and the Atharvaveda

We have concluded above that the archaic Old Indo-Aryan dialect encountered by the immigrating Pūru and Bharata tribes in the Panjab was ancestral to Epic and Classical Sanskrit, and, secondly, that it was not the language of the Yadu, Turvaśa and Anu. These Indo-Aryan tribes had arrived earlier and stayed in the northwest, in and around the Swat Valley, although some of them had proceeded further south and east.

There is general agreement that the latest part of the Ṛgveda is the 10th book. Linguistically the 10th book provides the clearest evidence of the dialect mixing that took place after the Pūru-Bharata tribes had settled in the Panjab and had been subjected to the substratum influence of the language of its previous inhabitants. At the same time as the features characteristic of the later Epic and Classical Sanskrit (including *l*) enter the Ṛgvedic language, religious themes and cultural concepts that are notably different from the Ṛgvedic tradition make their first appearance; the riddles (*brahmodya*) and 'speculative hymns' including the 'creation hymn' (ṚV 1,129), the 'Puruṣa hymn' about the 'primeval man' whose sacrifice and dismemberment brings into being the cosmos and human society divided into four classes (ṚV 10,90), the 'marriage hymn' (ṚV 10,85) with its first clear

references to calendrical asterisms and the 'funeral hymns' (ṚV 10,14-16), can be mentioned as well known examples.

It is also generally agreed that these latest hymns of the Ṛgveda are the earliest specimens of a great mass of oral traditions that was collected—most probably in the eastern Panjab, in Kurukṣetra—in the extensive Atharvaveda-Saṃhitā during the immediately following Mantra Period (cf. Gonda 1975: 28f.; above, section 1.1.3). The contents of the Atharvavedic hymns, however, cover a much wider range of non-Ṛgvedic material than the early samples in ṚV 10: in particular, they contain much 'magical' material ('medical' and love charms, sorcery and so on) and rituals connected with kingship and war. (Cf. Bloomfield 1899: 46ff.; Witzel 1997b: 275-83.)

The Atharvaveda is in a 'later language', closer to the language of the Brāhmaṇa and Sūtra texts and to Classical Sanskrit. But, as Bloomfield rightly stresses,

> For reasons that are nearly always one-sided and subjective, sometimes patently erroneous, the language of the popular or Atharvanic hymns is generally regarded as chronologically later than that of the hieratic hymns [of the main bulk of the Ṛgveda] ... many linguistic forms that are looked upon as indications of late date are in reality as old, sometimes older, than the entire individual period of the Aryan language in India ... A given form is not necessarily of recent origin because it begins to crop out in the tenth book of the RV., appears still more frequently in the popular Vedic collection of the AV., and is the regular form of the post-mantric language; nor, consequently, are hymns necessarily late because they abound in words or forms that are strangers to the diction of the hieratic hymns. (Bloomfield 1899: 46)

Examples of linguistic archaisms in the language of the Atharvaveda (and the late hymns of the ṚV) contrasting with the language of the family books of the Ṛgveda are:

AV *r*, *l* vs. ṚV *ṛ*;
AV *-ās* vs. ṚV *-ās*, *-ās-as*;
the instrumental plural AV *-ais* vs. ṚV *-ebhis*;
the dual AV *-au* vs. ṚV *-ā*;
AV *pánthānam*, *pánthānas* vs. ṚV *pánthām*, *pánthās*;
the gerund *-tvā* vs. ṚV *-tvī*;
AV *sarva-* vs. ṚV *viśva-*;
AV *svap-* vs. ṚV *sas-*
(cf. Bloomfield 1899: 46ff.; Lanman 1878: 340f.; 349f.; 441f.; Tikkanen 1987: 252).

Some linguistic forms characteristic to the language of the Atharvaveda and differing from the language of the Ṛgveda anticipate Middle Indo-Aryan:

AV *karomi*, *kuru* vs. ṚV *kṛṇomi*, *kṛdhi*;
AV *puruṣa-*, *pūruṣa-* vs. ṚV **pūṛṣa-*;
AV *kim* vs. ṚV *kad*
(cf. Bloomfield 1899: 46; Wackernagel 1896: I, xxviii; Renou 1957: 7, 13).

This suggests that the language of the Atharvaveda had already for some time been subjected to the substratum influence of languages spoken by the earlier population of the Indus Valley, particularly Dravidian (cf. section 3.2).

In addition, many words which are common in the ṚV occur either not at all or very rarely in the AV (cf. Wackernagel 1896: I, xxviii; Renou 1957: 13), while the AV in its turn has a considerable number of words not found in the ṚV (cf. Renou 1956: 32-4). In spite of numerous recent publications on the Atharvaveda, especially the Paippalāda recension, Renou's note (1956: 32 n. 1) about the lack of a satisfactory linguistic study of the Atharvaveda is still valid.

For quite some time, the Atharvavedic tradition was not fully accepted into the Vedic fold, which elaborated the 'classical' Śrauta ritual of the 'threefold knowledge' of the Ṛgveda, Sāmaveda and Yajurveda during the Mantra Period. Its representatives therefore had to struggle to conform and to get accepted; in the late redaction of the AV, 'popular' linguistic forms originally belonging to the Atharvavedic dialect and found in the parallel passages of the late books of the Ṛgveda are replaced by the corresponding 'hieratic' forms. (Cf. Bloomfield 1899: 46ff.; Witzel 1997b: 266ff.)

That the Atharvavedic hymns originate from a tradition different from that of books 2-9 of the Ṛgveda is betrayed by the innumerable prosodic mistakes committed by their authors in trying to apply the Ṛgvedic meters (cf. Bloomfield 1899: 42f.). About the antiquity of the main metre of the Atharvaveda, which approaches the Epic *śloka*, Bloomfield states:

> The Atharvanic and Gṛhya anuṣṭubh may be designated as the popular anuṣṭubh in distinction from the hieratic anuṣṭubh of the soma-hymns in the RV.: a hymn like RV. 10.85 is, of course, in popular anuṣṭubh. Considering the absolute quantitative freedom of the eight-syllable line of the Younger Avesta, we have reason to assume that the popular and freer anuṣṭubh is structurally and chronologically earlier than the better regulated hieratic (somic) anuṣṭubh. (Bloomfield 1899: 41)
>
> [Nicholas Sims-Williams notes that the eight-syllable line of the Younger Avesta is not universally accepted, though he himself is inclined to accept it. On the metrics of the Avesta, see especially Lazard 1984.]

1.5.2. The Yajurveda, the royal rituals, and the proto-epic ślokas

Part of the Atharvaveda is in prose, a new mode of literary expression which becomes predominant in the Brāhmaṇa texts, starting with the Saṃhitās of the Yajurveda. These Middle Vedic texts codify and explain the Vedic ritual corpus, which incorporated many sacrificial rites that had not originally been part of the Ṛgvedic Soma cult. Royal rites (*rāja-karmāṇi*) to be performed by the priest of the royal house (*purohita*) occupy a very prominent position in the Atharvaveda, and Bloomfield (1899: 74) already saw in such Atharvavedic rites the source of the royal sacrifices of the Śrauta ritual, in particular the horse sacrifice (Aśva-

medha), the royal consecration (Rājasūya), the Vājapeya (involving a chariot drive) and the Sautrāmaṇī. These rituals which had been performed in South Asia before the arrival of the Aryans associated with the family books of the Ṛgveda and the Soma cult were however presented as 'variants' of the Soma sacrifice, which was now made an essential part of them, and all ritual acts were given a Ṛgvedic stamp by assigning a Ṛgvedic mantra to be pronounced at their performance. This resulted in a situation in which

> the Ṛgveda, in a way, occupies an anomalous position: though chronologically older and the source of most of the formulas contained in the Yajurveda, it was peripheral to what became the main tradition of ritualism into which it was intercalated only at a later date. (Gonda 1975: 88)

Evidently the Ṛgvedic mantras originally accompanied the Soma cult, while the royal rituals and other Yajurvedic cults were accompanied by *yajus* formulae in prose (see Oldenberg 1917).

One important theme in the 'proto-epic' *gāthās* and *ślokas* of the Middle Vedic texts is the praise of particular kings (cf. Horsch 1966: 251-84); in this they continue the *dānastutis* of the Ṛgveda, mostly found in the eighth or Kāṇva book; the late books 1 and 10 and the Atri book 5 also stand out (cf. Patel 1929: 12-28). Their ritual context can be seen from the following description given of the horse sacrifice in the Śatapatha-Brāhmaṇa (13,1,5,1-6; cf. also Horsch 1966: 420ff.):

> 1. ... when a man attains to distinction, the lute is played to him. Two ... lute-players sing (and play) for a year; for that—to wit, the lute—is a form (attribute) of distinction: it is distinction they thus confer upon him. ... 3. One of those who sing is a Brāhmaṇa, and the other a Rājanya; for the Brāhmaṇa means priestly office, and the Rājanya noble rank: thus his distinction (social position) comes to be guarded on either side by the priesthood and the nobility. ... 5. The Brāhmaṇa sings by day, and the Rājanya at night ... 6. 'Such sacrifices he offered, — such gifts he gave!' such (are the topics about which) the Brāhmaṇa sings ... 'Such war he waged, — such battle he won!' such (are the topics about which) the Rājanya sings ... Three stanzas the one sings, and three stanzas the other ... To both of them he presents a hundred [cows]. (Transl. Eggeling 1900: V, 285-7)

This practice of singing praise songs of three stanzas is undoubtedly connected with the 'Sāmavedic' practice of singing songs in tristichs, initiated in the Kāṇva hymns of the Ṛgveda (see above, section 1.4.3).

The narrative poetry of the epics and Purāṇas can likewise be traced back to royal rituals described in the Middle Vedic texts (on the following, see also Horsch 1966: 20ff). When the sacrificial horse is set free to run around for one year, and the royal sacrificer and the priests have seated themselves on golden seats,

> the Adhvaryu calls upon (the Hotṛ), saying, 'Hotṛ, recount the beings: raise thou this Sacrificer above the beings!' Thus called upon, the Hotṛ, being about to tell the Pāriplava Legend, addresses (the Adhvaryu), 'Adhvaryu!' — '*Havai hotar!*' replies the Adhvaryu. 3. 'King Manu Vaivasvata', he says; — 'his people are Men, and they are staying here'; — householders, unlearned in the scriptures, have come thither: it is these he instructs; — 'The Ṛk (verses) are the Veda: this it is'; thus saying, let him go over a hymn of the Ṛk, as if reciting it. Masters of lute-players have come thither: these he calls upon, 'Masters of lute-players', he says, 'sing ye of this Sacrificer along with righteous kings of yore!' and they accordingly sing of him; and in thus singing of him, they make him share the same world with the righteous kings of yore. (ŚB 13,4,3,2-3, transl. Eggeling 1900: V, 361-3)

On the following mornings, there is a similar procedure, but the contents vary as follows (ŚB 13,4,3,2-14):

king	*people*	*representatives*	*knowledge (Veda)*
1. Manu Vaivasvata	men	unlearned householders	the Ṛk verses
2. Yama Vaivasvata	the fathers	old men	the Yajus formulae
3. Varuṇa Āditya	the gandharvas	handsome youths	the Atharvans
4. Soma Vaiṣṇava	the apsaras	handsome maidens	the Aṅgiras
5. Arbuda Kādraveya	the snakes	snakes and snake-charmers	Sarpa-vidyā
6. Kubera Vaiśravaṇa	the rakṣas	evil-doers, robbers	Devajana-vidyā
7. Asita Dhānva	the asura	*kusīdinaḥ*	magic (*māyā*)
8. Matsya Sāmmada	the water-dwellers	fish and fishermen	itihāsa
9. Tārkṣya Vaipaśyata	the birds	birds and bird-catchers	purāṇa
10. Dharma Indra	the gods	learned *śrotriyas* (theologians)	the Sāman chants

Every morning, the Hotar priest after his own short presentation calls on 'the masters of lute-players', or rather, 'harp-players with their retinue' (*vīṇāgaṇakinaḥ*), who 'sing of this sacrificer along with the righteous kings of yore'. The same ten-day cycle 'revolves', i.e. is repeated again and again for a year, as long as the sacrificial horse roams around, and includes performances of magic tricks, etc.

As can be seen, the *pāriplava* legend of the horse sacrifice implies recitation of what is virtually epic and Purāṇic poetry to uneducated masses during great, long-lasting royal rituals, with the purport of firmly establishing the king's legitimacy and popularity among his people. In the beginning of the Mahābhārata, it is told that the epic was first recited at the King Janamejaya's snake sacrifice (*sarpa-sattra*): this sacrifice has a counterpart in the mythical *sarpa-sattra* described in Middle Vedic texts (PB 25,15 and BaudhŚS 17,18).

It is often suggested that the silence of the Ṛgveda about magic, sorcery and many other Atharvavedic topics is due to social differentiation, which kept the priestly religion apart from the 'popular' cults of the lower classes. Such a social stratification no doubt came into being in the course of repeated immigrations of small but powerful groups that gradually subdued earlier populations, not without keeping themselves aloof. But the royal rites of the Atharvaveda alone prove that

it is not just a question of lower class religion. There are slight but clear dialectal differences in addition to religious divergences which point to a separate origin of the Atharvavedic traditions. To account for them, we have to posit an Indo-Aryan immigration to South Asia that preceded the coming of the 'Ṛgvedic' Aryans, even the earliest wave of the Yadu and Turvaśa tribes identified here with the poetic tradition of the Kāṇvas.

Above, several waves of Indo-Aryan speaking immigrants to South Asia have been distinguished on the basis of language, textual characteristics and religion. In the following section an attempt is made to trace these in the archaeological record, which has the potential of providing a more exact frame for historical reconstruction.

2. ARYAN LANGUAGES AND ARCHAEOLOGY

2.1. Languages and peoples and archaeological cultures

All human communities have spoken some (majority) language and made use of animals and artefacts, which within one and the same community have some uniformity. We usually have in historical sources some direct indication of the time and place when and where a given ancient language was spoken, while the temporal and geographical horizons of distinct archaeological cultures can be defined much more exactly. In addition, the position of each language with respect to other languages before and after, and synchronically far and near, is defined by its genetic relationships with related languages and areal contacts with unrelated languages indicated by structural influences and loanwords. Similar vectors exist for the archaeological cultures: each of them has developed out of something and eventually develops into something else, receiving and giving influences from and to other cultures far and near.

I trust that if we aim at a 'total reconstruction', trying to correlate all known archaeological cultures of a large enough region with all languages that could have been spoken there, it is possible to establish relatively reliable correlations between these two different kinds of evidence. There usually are some equations where the various parameters overlap to such a degree that a certain conclusion is possible or even unavoidable; these starting points will at once yield certain corollaries within the framework of operation, and these again will define new ones. The main criterion will be how well each piece of the puzzle fits in the total web of relationships. (On this 'total relationship principle' cf. Mallory 1998.)

Pitfalls exist, of course: we probably do not know all the languages and cultures involved, for example; and several languages may have been used by people representing one archaeological culture, or vice versa. People representing one archaeological culture may also change their language, adopting a new one, but this takes place only when new people—not necessarily very many—move in, which usually leaves some traces in the archaeological record. In spite of the unavoidably hypothetical nature of the results—which can and must be constantly checked and revised to accord with new evidence—attempting to correlate the textual-linguistic and archaeological data seems to me a useful exercise, because the two kinds of record have preserved different aspects of the past and can supplement each other: for 'pots and pans' cannot tell what language their users spoke, but once that language has been identified, it will obtain a more precise distribution in time and space from the mute artefacts.

In the following, I start from the 'safest', i.e. latest, identifications in South Asia and the neighbouring regions, and work backwards in time to the Bactria and Margiana Archaeological Complex (BMAC, ca. 2100-1500 B.C.), the 'filter' through which the earliest Aryan speakers coming from the pastoral-nomadic cultures of the Eurasian steppes seem to have successively passed on their way to Iran and India.

2.2. Painted Grey Ware—Middle Vedic

A luxury ceramic called Painted Grey Ware (PGW)—an élite ware that constitutes only a small percentage of the total pottery of this culture—characterises the relatively uniform archaeological culture of the Panjab, Haryana and Uttar Pradesh between ca. 1100/900 and 400 B.C. (On the PGW and its dating, see Tripathi 1976; Ghosh 1989: I, 107f.; Erdosy 1995a: 80, 83f.) Geographically and temporally the distribution of the PGW without doubt provides the best imaginable archaeological match for the Vedic culture in its core area during the Middle Vedic period. With good reasons, this equation is widely accepted. Both iron and horse are mentioned in Middle Vedic texts and they are present in the culture characterised by the PGW as well.

2.2.1. Origins of the PGW and the Kuru dynasty

The Kuru tribe may owe its supremacy in the Middle Vedic period not only to the strength of the Ṛgvedic Pūrus and Bharatas whose line it continues but also to new Late/Post-Ṛgvedic immigrants, who were not numerous enough to make any noticeable linguistic impact. It appears likely that the PGW culture got both its iron and its grey ware from the probably Iranian-speaking immigrants who arrived in southern Central Asia ca. 1100 B.C. At Pirak III in Pakistani Baluchistan there is evidence around 1100 B.C. of the intrusive appearance of iron in association with a new type of wheel-made grey ware and other artefacts with parallels in southern Central Asia (late phase of the Yaz I complex, see section 2.4), including Afghanistan (especially Tillya Tepe), and in Sind (Jhangar and Chanhu-daro) (cf. Jarrige and Santoni 1979: I, 373-398; Parpola 1988: 264f.).

The name Kuru first appears in the late Ṛgvedic hymn 10,32,9, where King Kuruśravaṇa is said to be a descendant of Trasadasyu, the well-known Pūru king.

But according to Mahābhārata 1,89,42, the eponymous founder of the Kuru kingdom is the son of Saṃvaraṇa and of Tapatī, the daughter of the sun-god (*tataḥ saṃvaraṇāt saurī suṣuve tapatī kurum / rājatve taṃ prajāḥ sarvā dharmajña iti vavrire*: the second line is folk-etymologically based on the name Saṃvaraṇa). Kuru's parents here are almost certainly of Iranian origin: Saṃvaraṇa can be compared with Younger Avestan Hąm.varəti 'valour, bravery' (personified as a divinity), while Tapatī compares with the goddess who according to Herodotus (4,59) is called Ταβιτί (usually connected with the (Indo-)Iranian root *tap-* 'to burn', as well as Ossetic *tævd* and Modern Persian *taft* 'hot'; this etymology, however, is criticised by Vasmer 1971: I, 119). Herodotus also states that Ταβιτί is the chief object of worship by the Scythians, and identifies her with Hestia, the Greek goddess of the family hearth and domestic fire. Hence it may not be a mere coincidence that the name of the Kuru dynasty resembles the name of the founder of the Persian Empire, Kuruš 'Cyrus' (a comparison which has been made several times; cf. Hoffmann 1975: 13).

2.3. Late West Iranian Buff Ware—the Medes and the Persians

The Medes and Persians are first mentioned in Assyrian sources in texts from 843-836 B.C. (Cf. Diakonoff 1985: 61ff.) Cuyler Young (1985) connects these tribes with the Late West Iranian Buff Ware (ca. 900-700 B.C.) and traces this ceramic back to southern Central Asia, where it first appears around 1100 B.C. This date approximately coincides with the appearance of the proper name Kuru in the Veda (see section 2.2.1).

[Roman Ghirshman (1977: 49f.) proposed that the Medes and Persians came from the north over the Caucasus, as the Scythians did according to Herodotus (1,103-4; 4,11-12), but this hypothesis is not considered very convincing; cf. Sundermann 1979: 598; Diakonoff 1985: 50ff.; Francfort 1989: I, 437f.]

2.4. Yaz I and Chust—early Iranians in Central Asia

The roots of the Medes and Persians are thus traced to southern Central Asia of the late second millennium B.C. From ca. 1500 B.C. to 1000 B.C., practically the whole of southern Central Asia was occupied by the Yaz I related cultural complex. The type-site Yaz I in Margiana (Merv) is related to Anau IVA and other sites in the Kopet Dagh region, Kuchuk Tepe I-II in Uzbekistan on the Amu Darya, Tillya Tepe I-III in northeast Afghanistan, Mundigak V in southwestern Afghanistan and Pirak IB-III in Pakistani Baluchistan. The Yaz I complex is characterised by hand-made pottery, mostly plain, but sometimes painted in red or violet with geometric motifs, especially hanging trianges. This new type of ceramics, which is related to that of the Chust culture in Ferghana (on which see Zadneprovskij 1993), largely replaced the previous 'Namazga VI' type wheel-turned pottery that had prevailed during the first half of the second millennium

B.C. in southern Central Asia; the proportion of the earlier wheel-made pottery increases from 6% to 14% towards the end of the Yaz I period. Terracotta figurines of horse riders appear at Pirak IA-IB-II, and knife and arrowhead types have parallels in the northern steppe zone. The economy of southern Central Asia however remains essentially similar to that of the preceding Bronze Age, i.e. agriculturally based. The immigrating nomads have become sedentary.

Some lexical items and proper names in Ṛgvedic hymns composed in the northwest suggest the presence of Iranian speakers in the neighbourhood at the time of their composition, ca. 14th century B.C. (see section 1.4.3; cf. also Witzel 1980). On the basis of its distribution and date, the Yaz I complex is therefore likely to reflect the coming of the majority of the Iranian tribes to or towards their present habitats. The name of the Pashtuns and their language *Paštο* is probably derived from **Parsa-* or **Parsu-* and can be connected with the Παράσιοι placed in Afghanistan by Ptolemy (cf. Skjærvø 1989: 384) and with the Pārśu of ṚV 8,6,46 (cf. Hoffmann 1975: 9), perhaps even with Pārśva in Pārśvanātha, the name of the 23rd Tīrthankara of the Jainas (ca. 700 B.C.). This Iranian identification of the Yaz I complex is supported by the striking fact that not a single burial has been discovered from this area between ca. 1500-330 B.C., in contrast to Chorasmia and the Chust culture of Ferghana, where graves belonging to the same period are known. Henri-Paul Francfort (1989: I, 437) has interpreted this as an indication that the sedentary population started practising the funerary rites of exposure described in the Avesta, while the nomadic Saka continued practising inhumation. (On Yaz I, see Francfort 1989: I, 430-438.)

If the Yaz I complex is equated with the Iranians, it implies the arrival of Iranian mounted horsemen in southern Central Asia around 1500 B.C. This date is so close to the violent beginning of the Ghalegay V phase in Swat ca. 1400 B.C. (see section 2.6) and to the estimated arrival of the Pūru-Bharata wave of Ṛgvedic tribes in the Panjāb, also ca. 1400 B.C. (see section 1.1.1), that a causal relationship is likely. Actually, L. H. Gray (1927: 439) proposed that the *ahura*-worshipping Iranians drove the *deva*-worshipping Indo-Aryans out of their former habitat in southern Central Asia to India. Gray's hypothesis, however, was rejected by Burrow (1973: 133), because the destruction of the Indus Civilisation, which he (mistakenly) ascribed to the Ṛgvedic Aryans, took place already ca. 1900 B.C., much too early for any Iranian involvement. In ṚV 6,61 (see section 1.1.2) the poet praises Arachosia as a wonderful place which he does not want to leave (verse 14). The country of Hapta Hindu (i.e. the Panjāb), on the other hand, is presented as a less inviting place associated with excessive heat in Vīdēvdāt 1,19. The hypothesis that Iranian horsemen forced the second wave of Ṛgvedic Aryans to move to India is in agreement with the fact that riding is known to the Ṛgveda, including the Atri book (5,61,2-3), but is mentioned only very few times and has obviously not surpassed chariotry in prestige nor become a common means of moving around by this time (see Falk 1994).

2.5. Cemetery H—Preform of Atharvavedic

After this excursus on archaeological evidence for the presence of the early Iranians in Iran, in southern Central Asia, and South Asia, we continue with archaeology and the Indo-Aryans. Most parts of the area occupied by the PGW in the Middle Vedic period (see section 2.2) belonged earlier to the Cemetery H culture, dated to ca. 1900-1300 B.C.

The urban phase of the Harappan culture that had been dominating the Indus Valley since ca. 2600 B.C. came to an end by ca. 1900 B.C. In the Panjab and Haryana it was smoothly succeeded by a village culture named after 'Cemetery H' at Harappa, where a new type of burial was introduced. While many Harappan traditions continued without any break, city life vanished, and with it the Indus script. There was however a fundamental change in funerary customs, as extended inhumation in graves was replaced by cremation followed by deposition of the ashes in funerary urns.

The funerary urns of Cemetery H are painted with partly old, partly new motifs associated with the fate of the dead. Thus we find a peacock carrying the dead person to the stars of the sky, the deceased being depicted as lying horizontally on the bird's back or in its stomach. While the peacock is prominent in the Mature Harappan painted pottery, it is never before depicted like this as a soul-carrier.

The changes in Harappan culture that are manifest at Cemetery H suggest outside influence and the agency of sufficiently powerful immigrants, though they need not have been very numerous. The origin of these immigrants remains problematic, because the neighbouring Bactria and Margiana Archaeological Complex (BMAC) in Afghanistan (see section 2.10), which spread to Sind ca. 2000-1900 B.C., practised only inhumation. Stuart Piggott (1950: 230-35) made comparisons with the Late/Post-Harappan Jhukar culture in Sind and the Kulli culture of Baluchistan. Pottery said to be similar to both Cemetery H and Jhukar type pottery has been discovered at the Kuzali phase of the BMAC in southern Uzbekistan (Askarov 1984: 94-5), datable to ca. 1700 B.C. (see section 2.10.3). Cremation as the principal mode of disposing of the dead was introduced in northern Bactria by newcomers from the northern steppes representing the Fedorovo variety of the Andronovo cultural complex; this took place immediately after the Kuzali phase, during the Molali and Bustan phases at the end of the Bronze Age (cf. Avanesova 1995).

In any case, the Cemetery H culture persists over a vast area of the northwestern plains until about 1300 B.C. Six centuries is a long enough period for the non-Aryan language of the Harappans (see section 3.2) to have largely shifted into the Old Indo-Aryan ancestral to Classical Sanskrit, i.e. early 'Atharvavedic'. The end of the Cemetery H culture around 1300 B.C. coincides with the date proposed by Witzel for the Late Ṛgvedic period (ca. 1350-1200 B.C.), by which time the dialect mixing discussed earlier had taken place. This period would effect the

transition to the Middle Vedic period, equated above with the PGW culture, which starts ca. 1100 B.C. The oldest Yajurvedic texts, associated with the Kaṭha and Kapiṣṭhala-Kaṭha schools, were composed around the 10th century B.C.: this took place in the Panjab, where the Greek texts place the tribes of Καθαῖοι and Καμβισθόλοι. The formation of the Yajurvedic ritual presupposes a longer foregoing development in this region; it is likely to have started from ca. 1600 B.C., when contacts with the Ghalegay IV culture of Swat begin (see section 2.6).

2.6. Gandhara Graves—Ṛgvedic Kāṇvas and Atris

The periodisation of the cultures in the Swat Valley is based on the layers in the rock shelter of Ghalegay. (Cf. Stacul 1987: 29f.) The earliest period, Ghalegay I (ca. 3000-2500 B.C.), represents the Northern Neolithic culture known from the surrounding areas and especially from Kashmir, with links to China. The Ghalegay II period (ca. 2500-2000 B.C.) is characterised by Kot Diji style pottery, which attests to the presence of Harappans belonging to the not fully urbanised branch which occupied the northernmost Indus Valley. Scarcity of structural remains and domestic articles has suggested that they did not settle permanently in Swat, but came there temporarily to log pine trees for the big cities in the south. After the disintegration of the Indus Civilisation, the local Neolithic people took over the Swat Valley again for some centuries (Ghalegay III, ca. 2000-1700 B.C.). (Cf. Stacul 1987: 115-20.)

The next period, Ghalegay IV (ca. 1700-1400 B.C.), marks the arrival of a new, intrusive culture, called Gandhara Grave culture. (This term includes the fairly similar next phase too). It is among the first in South Asia to have clear evidence for the domesticated horse, in motifs on painted pottery as well as in bone finds. The black-grey, burnished pottery introduced from the beginning of this phase is widespread throughout Swat, and its affinities are with the late phase of the BMAC culture widespread in the surrounding areas at this time (see sections 2.10.5); the graves have been compared with the graveyards of Bishkent and Vakhsh in south Tajikistan (cf. Mandel'štam 1968; Müller-Karpe 1983: 117-19; Lyonnet 1994: 430f.). A little later, from around 1600 B.C., red pottery with motifs such as the peacock and three-branched fig tree appear alongside the grey-burnished ware, attesting to lively contacts with the Cemetery H culture of the Panjab plains. The earlier Northern Neolithic also continues to form a component of the population of Swat during this period. (Cf. Stacul 1987: 120-26.)

The next phase, Ghalegay V (ca. 1400-800 B.C.), is introduced with some violence, evidenced by human skulls and other disconnected skeletal remains scattered at random without any traces of burial in a thick barren layer separating phases IV and V at Bir-koṭ-ghwaṇḍai. (Cf. Stacul 1987: 126.) A new type of grey vase with a characteristic button base is introduced in both Swat and Dir; it has 'strong stylistic and typological analogies with northwest Iran during the period of Hasanlu V' (Tusa 1979: 691).

Languages of the Dardic or 'mountain tribe' group of Neo-Indo-Aryan are spoken in the northwest more or less in the area once occupied by the Gandhara Grave culture plus Kashmir. In their relative isolation in the mountainous periphery they have remained little disturbed and have preserved many archaisms. Particularly significant are the traces of the gerund formed with the suffix *-tvī* (cf. Buddruss 1973: 45), which in Old Indo-Aryan is attested in the Ṛgveda alone; also in Middle Indo-Aryan the only Prakrit in which this particular gerund is reflected belongs to this area in the northwest, namely, Gāndhārī with its *-ti* gerund (cf. Hinüber 1986: 199f.). In the Ṛgveda, the gerund in *-tvī* occurs 37 times, being more than half as frequent again as *-tvā*—the form that prevails in Classical Sanskrit—which occurs 23 times in the ṚV and with which *-tvī* has been replaced in all the ṚV stanzas repeated in the AV. The gerund in *-tvī* occurs in all books of the ṚV. (Cf. Tikkanen 1987: 81f.)

This linguistic feature suggests that a considerable number of Ṛgvedic Aryans probably came to South Asia via the northwest. The date for the violent beginning of the Ghalegay V phase, around 1400 B.C., neatly agrees with that calculated for the immigration of the Pūru and Bharata tribes. If these tribes moved to the Panjab via Swat, they could not have stayed there a long time, as King Divodāsa was born in Arachosia, but his son Sudās already fought in the Panjab. (See section 1.1.2.) However, some of the newcomers—the Atris—apparently stayed back there, while the others continued to the plains. It seems that the Kāṇvas of the 8th (and 1st) book are a similar residue of the first wave of the earlier arrived Yadu and Turvaśa tribes, who can thus be connected with the Ghalegay IV period.

Gandhara graves are rectangular pits, often surrounded by a ring of stones. About two thirds of them are interment burials and about one third cremation burials. The oldest graves predominantly consist of urn burials, agreeing with the funerary customs of the Cemetery H culture in the Panjab; the latest phase consists predominantly of inhumations, while in the middle phase both types are about equal in number. (Cf. Müller-Karpe 1983: 29-51.) The funerary customs of the Gandhara Graves can be correlated with those of the Veda. I must postpone an elaboration of this point to another publication, and refer the reader to the comparisons made by Müller-Karpe (1983: 96-113). Just one very general statement: the Ṛgveda knows both inhumation and cremation.

The last phase of the Ghalegay V period belongs to the Iron Age and contains also wheel-turned red and grey ceramic with remarkably thin walls. (Cf. Müller-Karpe 1983: 73f.) This last-mentioned ceramic is very likely connected with the introduction of iron and the Painted Grey Ware to the plains of the Panjab and the Doab in the immediately post-Ṛgvedic period (cf. section 2.2.1). The passage from Ṛgvedic to Middle Vedic is reflected in a few links between the Ghalegay V and PGW cultures. From the PGW layers at Ahicchatra come cremation urns with perforations near the neck, resembling the perforated 'eyes' and 'mouth' on the 'face-urns' of Ghalegay V; and terracotta human figurines of the Ghalegay V type have been found from the PGW layer at Jakheran, U.P. (Cf. Agrawal 1982: 250; Parpola 1988: 248.)

2.7. Button-Base Ware of NW Iran—Māzandarān Daēvayasnas

We have seen above that the main wave of the Ṛgvedic Indo-Aryans (represented by the family books 1-7) in all likelihood originated from the regions immediately to the west of the Indus Valley, such as Arachosia (see section 1.1.2), and that this wave is very probably represented in the Ghalegay V culture of the Swat Valley, with strong parallels in pottery with the Button Base Ware of the Hasanlu V period (ca. 1500-1000 B.C.) in northwestern Iran (see section 2.6). There is again reason to quote Burrow:

> The Avesta has no ethnic term to denote the Proto-Indoaryans, which is not surprising since both they and the Iranians called themselves Aryans and spoke closely related languages. The opposition between the two sides is always spoken of in religious terms between the Mazdayasnas, worshippers of Ahura Mazdā and followers of Zoroaster on the one hand, and the Daēvayasnas ... on the other... Opposition to *daēvas* and *daēvayasnas* is ascribed in the Yašts even to ancient and legendary kings such as Yima ... In spite of the efforts at conversion on the part of the Mazdayasnians the worship of the *daēvas* continued to exist for a considerable period, much as later the Mazdayasnian religion itself continued to exist in Islamic times ...
>
> The Avestan evidence so far discussed concerning the Proto-Indoaryans has dealt with eastern Iran, but in view of the appearance of Proto-Indoaryans in the Near East, one would expect that they had also a base, or bases, in western Iran from which the invasion of the Hurrian country was mounted, just as their migration to India depended on their base in eastern Iran. The geographical horizon of the Avesta is almost exclusively eastern Iranian, but it does have some references which indicate the presence of Proto-Indoaryans in northern central Iran, bringing them within striking distance of the Near East. These are the references which occur from time to time in the Avesta to the Māzanian *daēvas*. The adjective in question (*māzainya-*) is derived from **māzana-*, the name of a country which happens not to occur as such in the Avesta, but whose location is indicated by the fact that it has always been known to be connected with the country later known as Māzandarān, i.e. the territory between the southern shore of the Caspian sea and the Alburz mountain range. In later tradition this figures prominently as a region hostile to the Iranians and as a notorious home of Dēvs. The presence of *daēvas* in Māzana indicates the presence of *daēva*-worshippers, and since we have seen that the *daēva*-worshippers were the Proto-Indoaryans, we can conclude that the Avestan references to Māzanian *daēvas* indicate their presence also in this region. (Burrow 1973: 133-134)

Burrow's conclusion is uncertain, however, for the Zoroastrian equation of *māzaniia-* with Māzandarān is much later and there is no indication in the Avesta that it is a geographical term (cf. Gnoli 1980: 44-50; Skjærvø 1995: 165).

2.8. Mitanni—Proto-Indo-Aryans of the 'Kāṇva wave'

2.8.1. The Indo-Aryan affinity of the Mitanni rulers' language

That Mitanni Aryan belongs to the 'Indo-Aryan' branch—as argued by Paul Thieme (1960), Manfred Mayrhofer (1966; 1974) and Thomas Burrow (1973)—has not been seriously doubted in recent years except by Hans Henrich Hock (1999a: 2f.). Hock observes that the strongest argument for this hypothesis is the numeral *aika-* 'one' (in Kikkuli's Hittite manual for training chariot horses) vs. reflexes of **aiva-* in all known Iranian languages. Hock's claim that even this is no conclusive proof, because lost Iranian languages might have had **aika-*, and that Mitanni Aryan may equally well represent Proto-Aryan does not seem reasonable. In any case, the 'Indo-Aryan' affinity has been strengthened by Pinault (1998), whose study furthermore relates the Mitanni Aryan specifically to the 'Kāṇva wave' of the Ṛgveda (see section 1.4.4).

2.8.2. Mitanni Aryan iconography and Vedic chariotry

The Kāṇva and Mitanni worship of the Nāsatyas, the divine charioteers, agrees with the Mitanni Aryans' fame as masters of chariotry. It is well established that the name of the Mitanni king in the treaty with Šuppiluliuma is probably to be read /Sāti-vāja-/, which compares with Vedic *vāja-sāti-* 'winning of *vāja*' and related phrases, while three successive Nuzi kings seem to bear related names: /Sāta-vāja-, Vāja-sāta-, Sāta-vāja-/ (cf. Mayrhofer 1974: 25-8). The Vedic texts describe in quite some detail the chariot race, whose prize is called *vāja-* (on this term see now Hintze 2000: 67f., 85-119); in the following I shall try to show that this source material has not been exhausted for the elucidation of the Mitanni evidence and vice versa, thus supplying new evidence for the Indo-Aryan affinity of the Mitanni.

The turning pillar of the Vedic chariot race is called *kāṣṭhā-*, *sthūṇā-* or *stambha-* (Sparreboom 1983: 41). According to Baudhāyana-Śrautasūtra 11,7, it has to be made *antaḥ-pakṣas-*, which Sparreboom (1983: 42, 59 and 81 n. 27) translates 'winged', literally '(placed) between (two) wings', connecting it with the epithet of the chariot-horses in the mantra TS 7,4,20g, *ví-pakṣas-*: the correct translation 'having bird's wings' was suggested for *ví-pakṣas-* in ṚV 1,6,2 by Johanna Narten (1960: 133 n. 38), likewise 'having a bird's flight' for *ví-patman-* in ṚV 1,180,2. The horses of the Aśvins, too, are winged (*patatrín-*), and almost always fly, being called freely either *áśva-* 'horse' or *ví-* 'bird' (Zeller 1990: 108). This calls for comparison with the winged horses on Near Eastern seals of the second half of the second millennium B.C. (cf. Collon 1987: 66f.). Particularly important, however, is the seal of the Mitanni king Sauštattar from ca. 1420 B.C. (fig. 2). Sauštattar was an ancestor of King Sāti-vāja. Here we see a pillar ending in a spoked wheel that is flanked by bird-wings.

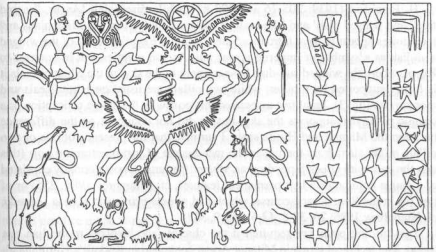


Figure 2. Impression of the seal of 'Sauštattar, son of Parsatattar, King of Mitanni' (*Sa-uš-ta-at-tar DUMU Par-sa-ta-tar LUGAL Ma-i-ta-ni*) from ca. 1420 B.C., preserved on clay tablets found at Nuzi and Tell Brak respectively. See Wilhelm 1994: 287, 294; Stein 1994: 297 with fig. 2. (After D. Stein.)

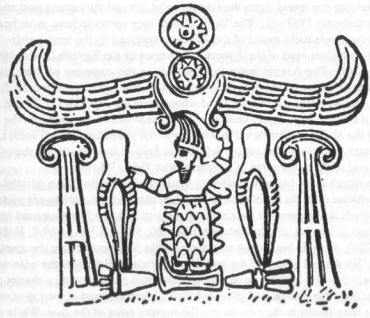


Figure 3. Hittite royal name on a stamp seal, showing the winged sun-disk supported by two pillars. (After Frankfort 1939: 275, text-fig. 89.)

H. Frankfort (1939: 205-16 and 273-83), while discussing 'Assur, "sacred tree" and winged disk' and 'the seals of Mitanni', noted that the Mitannians and the Hittites appear to have introduced the originally Egyptian motif of the winged sun-disk as a symbol of imperial power into Asiatic glyptics, but in contrast to Egypt, where the winged sun-disk hovers freely in the sky, in the Mitanni seals it is firmly supported by a pillar, while two pillars are usual on Hittite seals and monuments (fig. 3). Frankfort associated this post with the Vedic conception of a cosmic pillar that supports the sky, but he did not comment on the difference between the Mitanni and Hittite seals. I surmise that the presence of one or two pillars might stem from the use in the race-course of just one turning post (this was the case with Greek hippodromes, where 'the turning post normally consisted of a single column or a less permanent feature', cf. Humphrey 1986: 255) or of two (as in the Roman race-course, which had a *meta prima* and a *meta secunda*, cf. Humphrey 1986: 26, 37-8, 42-6, 255-9, 323).

Two turning posts are required if the chariot race involves more than one round. The technical terms in Mitanni Aryan contained in Kikkuli's Hittite handbook for training chariot horses include the word *wa-ar-ta-an-na /vartana-/* 'round' as the second member of compounds with *a-i-ka- /aika-/* 'one', *ti-e-ra-/tri-/* 'three', *pa-an-za- /pañca-/* 'five', *ša-at-ta- /satta-/* or */sapta-/* 'seven', and *na-a- /nava-/* 'nine'. (Cf. Mayrhofer 1974: 14f.) The Vedic chariot race, however, involved just one round, from the starting point, around the turning post and back (cf. Sparreboom 1983: 41). The Vedic chariot race seems to have as its heavenly model the single daily round of the Aśvins, expressed by the term *vartís-* 'going around', which is used of the Aśvins in 24 verses of the Ṛgveda (Zeller 1990: 46 with n. 311). The Aśvins make these rounds in the company of their sister or wife, the daughter of the sun, who brings the first light to the world; for this reason, the Aśvins use a chariot all of whose parts are triple (ṚV 1,34 and Zeller 1990: 100-108). The 'triple' chariot of the Aśvins can be compared to the troika used at the Vedic chariot races: in addition to the yoked pair of two horses, there is an extra horse that runs on the left side to help in turning around the pillar at the far end of the race course. (Cf. Sparreboom 1983: 36f.)

The wheel at the top of the pillar in Sauštattar's seal also has a parallel in the Vedic chariot race. At the Vājapeya sacrifice, the king, on starting his victorious race (which is compared to the course of the sun and which is supposed to bring the victor to heaven, cf. Sparreboom 1983: 20, 58; and ṚV 1,169,2, Hoffmann 1975: 223), ascends his chariot near the *cātvāla* pit, pronouncing the mantra TS 1,7,8a: 'By the instigation of the god Savitar, through Bṛhaspati the *vāja*-winner, may I win the *vāja*.' At the same time the Brahman priest mounts a chariot-wheel made of *udumbara* wood and provided with 17 spokes, fixed at the top of an axle that has been raised in the *cātvāla* pit, the starting point of the race. While ascending the wheel, the Brahman utters the mantra TS 1,7,8b: 'By the instigation of the god Savitar, through the *vāja*-winner Bṛhaspati, may I climb to the highest vault'. (Cf. BaudhŚS 11,7; Sparreboom 1983: 38f.) While the charioteers run the race, the Brahman performs and wins it symbolically: he sings the *vāja*-winners' Sāman and a ritual assistant turns him around clockwise three times (*pradakṣiṇam āvartayati*, Āpastamba-Śrautasūtra 18,4,10; Sparreboom 1983: 46f.). This ritual probably lies behind the Indian conception of the *cakravartin* 'ruler of the universe', literally 'possessing the turning of the wheel' (cf. Sparreboom 1983: 157f.; Scharfe 1989: 51-5). It seems to survive in the Buddha's 'turning of the wheel of universal law', *dharmacakrapravartana*; the notion of *dharma* is also present in the horse race, where the king's horse is yoked with the mantra TS 1,7,7e invoking the god Savitar to impel the *dharma* for the king.

According to Baudhāyana-Śrautasūtra 11,7, the turning pillar is a *sthūṇā* made of *udumbara* wood. The pillar in the sitting shed of the sacrificial place is also called *audumbarī sthūṇā*, and it should be *vi-śākhā-*, 'having branches that spread in different directions, branched, forked'; this may indicate how the turning pillar was in practice made *ví-pakṣas-* 'bird-winged'. That it had the same symbolism is suggested by the fact that in the Epic, Viśākha- is another name for the war-god Skanda (or for his son; cf. Hopkins 1915: 227). Possibly the large bearded male figure with bird's wings in the Mitanni King Sauštattar's seal represents the king himself as an incarnation of the victorious war-god Viśākha- (corresponding to the male aspect of the Near Eastern goddess of victory, Ištar-Šawuška, cf. Stein 1994: 297). The Vedic *audumbarī* pillar with spread branches is to be worshipped with the mantra PB 1,4,9 *ṛtadhāmāsi svarjyotiḥ*, 'You are the abode of the universal law, whose light is the sun' (LŚS 2,2,20 = DŚS 4,2,11). Artatama = /Ṛtádhāmā/ is attested as the name of a Mitanni king, a contemporary of Pharaoh Thutmosis IV of Egypt (1400-1390 B.C.), probably the son of King Sauštattar and the great-grandfather of Sātí-vāja (cf. Mayrhofer 1974: 22f.; Wilhelm 1994: 294f.).

2.8.3. Two new Indo-Aryan etymologies for Mitanni royal names

Mayrhofer (1974: 25f.) argues that the most genuine form of the royal name Sauštattar is to be read *Šaušsatattar*. This form has so far remained unexplained. Mayrhofer mentions, however, **Su-sthātar-* 'provided with good horse drivers' as the most likely proposal, noting that such a compound would be semantically suitable as the name of a nobleman; the problem is that this compound is not attested in Vedic or Avestan. Sauštattar's father's name is most probably to be read as *Parsatattar*, which Mayrhofer suspects to represent a protoform of *puraḥsthātár-* 'one who stands in front, leader', attested in ṚV 8,46,13. As Sauštattar's descendants' names are all connected with Vedic chariotry, I would like to propose rather **Savya-sthātar-* 'one who stands on the left (in the chariot), car-fighter' (as opposed to the charioteer, who stands on the right in the chariot, cf. TB 1,7,9,1 *dvau savyeṣṭha-sārathī*): parallels found in Vedic texts are *savya-ṣṭhá-* in AV 8,8,23, *savye-ṣṭhá-* in TB (see above) and *savya-ṣṭhá-* in ŚB 5,2,4,9; 5,3,1,8; 5,4,3,17-18 (cf. Sparreboom 1983: 162; and Mayrhofer 1996: II, 716,

where these compounds are mentioned, but without reference to the name of the Mitanni king, so I assume that this proposal has not been made before).

Sauštattar's father's name could be **Pra-sthātar-* 'pre-eminent charioteer-fighter'. Compare *prati-prasthātar-*, which denotes a priest of the Vedic Śrauta ritual working as a pair of the main Yajurveda priest who is called *adhvar-yú-*, literally 'connected with the road(s)', the word *adhvará-* denoting 'ritual' but originally 'road, path'; the term *adhvaryu-* may originally have meant 'charioteer', the one who keeps the chariot on the road. The sacrifice is early on often equated with the chariot (cf. Sparreboom 1983: 24ff.) and the divine sacrificial priest Agni is called *rathír adhvarāṇāṃ* 'charioteer of the rites' (TS 2,5,9,2-3; 5,4,10,1; ŚB 1,4,2,11; cf. Sparreboom 1983: 17). The 'adhvaryu-pair' (= Adhvaryu and Pratiprasthātar, defined as 'the two leaders/conductors of the sacrifice', *adhvarasya netārau*, by Bhaṭṭa Bhāskara in his commentary) is equated with the two Aśvins, the divine charioteers, in the 'five-hotar' formula (TĀ 3,3 *agnír hótā / aśvínādhvaryú / tváṣṭāgnīṭ / mitrá upavaktā*). Cf. further *prājitar-* 'charioteer' in Bṛhatkathāślokasaṃgraha 10,39; Sparreboom 1983: 163), consisting of *pra-* 'fore- (= leading, pre-eminent)' and **ājitar-* 'race-driver', which is not independently attested but may be assumed on the basis of the phrase commonly used in Brāhmaṇa texts *ājím aj-* 'to drive a chariot race'.

2.8.4. Mitanni and archaeological cultures

The beginning of Aryan rule in Mitanni can be narrowed to the 16th century B.C. (cf. Mayrhofer 1966: 26ff.). Cuyler Young (1985) has plausibly linked the arrival of the Mitanni Aryans in Syria with the sudden appearance of Early West Iranian Grey Ware in great quantities all along the Elburz mountains, in Azerbaijan and around Lake Urmia around 1500 B.C. Young sees this intrusive ceramic as an evolved form of the Gurgan Grey Ware of the Tepe Hissar IIIC horizon, which continued in an impoverished form at Tureng Tepe until ca. 1600 B.C. (Cf. Parpola 1998: 127f.)

This reconstruction tallies with the Kāṇva connection of the Mitanni Aryans, which relates them to the Ghalegay IV culture in Swat dated to ca. 1700-1400 B.C. (see section 2.6). The Ghalegay IV culture in turn is connected with the Vakhsh-Bishkent cemeteries in south Tajikistan and with the last, Takhirbaj/Kuzali-Mollali-Bustan phase of the BMAC culture, ca. 1750-1500 B.C. (see section 2.10.5).

Young's reconstruction provides a chronologically and typologically acceptable link between the Mitanni Aryans and the Gurgan Grey Ware in the southeast corner of the Caspian Sea. Roman Ghirshman (1977: 6-12) connected the Mitanni Aryans with the Tepe Hissar IIIC phase of the Gurgan Grey Ware, now dated to ca. 1900-1750 B.C. The large number of bronze weapons suggests that this rich culture was ruled by a warring aristocracy. On the basis of an alabaster cylinder seal depicting a horse-drawn chariot found at Tepe Hissar IIIB and trumpets

made of precious metal which were used for giving signals while training chariot horses and directing chariots in battles, Ghirshman (1977: 14-19, 27-32) suggested that Gurgan was the home of the 'Proto-Indo-Aryans', who had come there from the north, who domesticated the strong horse native to the Turkoman steppes and who were the first to yoke the horse to a war chariot. Ghirshman (1977: 32-44) further pointed out that the Tepe Hissar IIIC phase of the Gurgan Grey Ware culture is closely related to the approximately contemporary cultures to the east of Gurgan, in southern Turkmenistan and Bactria, interpreting this as evidence for the movement of the 'Proto-Indo-Aryans' to South Asia.

However, later research has suggested that the Tepe Hissar IIIC culture of Gurgan came from Margiana and Bactria rather than vice verse (see section 2.10.3) and that the horse was domesticated and yoked to a war chariot in the steppes of the southern Urals rather than in Gurgan. Before discussing the Bactria and Margiana Archaeological Complex or BMAC (in section 2.10), it is necessary to deal with the problem of the original homeland of the Aryan speakers and the birth of the horse-drawn war chariot.

2.9. Emergence of the Aryan branch in the Eurasian steppes

The following brief overview will be limited to a summary of some main conclusions drawn by Carpelan and Parpola (2001); for the individual cultures involved cf. also Mallory and Adams 1997. The dates given are based on calibrated radiocarbon measurements whenever these are available.

2.9.1. Poltavka and Abashevo—Early Proto-Aryan

In all likelihood, the unified Indo-European proto-language was spoken in the Srednij Stog culture (ca. 4500-3600 B.C., according to calibrated radiocarbon datings) in the Ukraine (this conclusion was reached already in J. P. Mallory's fundamental study of 1989). Its successor in the Ukraine and southern Russia, the Pit Grave (Yamnaya) culture (ca. 3600-2500/2200 B.C.), was probably the community from whose Late Central Proto-Indo-European language descend the Graeco-Armenian and Aryan branches. A language ancestral to Graeco-Armenian is likely to have been spoken in the Catacomb Grave culture (ca. 2500/2200-1900 B.C.) in the Pontic steppes, while the speech of the eastern descendants of the Pit Grave culture evolved into Proto-Aryan. According to the testimony of the numerous and partly very early Aryan loanwords in the Uralic (Finno-Ugric) languages spoken in the forest zone of eastern Europe (see now especially Koivulehto 2001), the Aryan proto-language was dialectally differentiated from the start. It appears that the Poltavka culture (ca. 2500/2200-1900 B.C.) in the treeless steppe between the Volga and Ural rivers was ancestral to the 'Iranian' branch, while the Abashevo culture (ca. 2300-1900 B.C.) in the forest steppe from the upper Don to

mid-Volga and Kama rivers and further to the southern Urals was ancestral to the 'Indo-Aryan' branch.

The Indo-Aryan affinity of the Abashevo culture is strongly suggested by a new etymology for the word **śi(k)śta* 'beeswax' in the Finno-Ugric languages Mordvin, Mari, Udmurt and Komi spoken in the area of the rivers Oka, (mid-) Volga and Kama in central Russia. This area occupied by the Abashevo culture has throughout history been famous for its honey-forests abounding in oak and lime trees, which did not extend eastwards to Siberia, and Proto-Finno-Ugric has long been considered to have **mete* 'honey' and **mekše* 'bee' as loanwords from Early Proto-Aryan **medhu* and **mekš(i)-*. Proto-Volga-Permic **śi(k)śta* 'beeswax' has an exact counterpart in Indo-Aryan *śiṣṭa-* 'id.' (cf. especially *madhuśiṣṭa-* in Rāmāyaṇa 5,60,10), past participle of the root *śiṣ-* 'to leave (over)', which is not found in any Iranian language; even within Indo-Aryan, it appears to belong not to the Ṛgvedic but to the Atharvavedic dialect. (Cf. Carpelan and Parpola 2001.)

The Abashevo culture (see Prjaxin and Xalikov 1987) seems to have expanded from the upper Don to areas previously occupied by the Volosovo culture (ca. 3900-2400 B.C.), which was probably Proto-Finno-Ugric-speaking, and then by the Fatyanovo-Balanovo culture (ca. 2500-1800 B.C.), where the élite probably spoke Proto-Baltic and the majority Finno-Ugric; from the earliest historical times (ca. AD 550) Finno-Ugric languages of the Volgaic and Permic branch have been spoken in these regions, so the Aryan élite of the Abashevo culture were linguistically absorbed into the Finno-Ugric majority. Bilingualism, however, seems to have continued for several centuries after 1900 B.C. in the Kama basin (the homeland of the Ugric branch of Uralic) and in western Siberia (the area of the Samoyed branch of Uralic), where the Abashevo culture and its metallurgical tradition may have been continued by the 'Sejma-Turbino intercultural phenomenon' (ca. 1900-1500 B.C.) that started to exploit the copper deposits of the Sayan and Altai mountains, and traded metals to Estonia and Finland.

2.9.2. Sintashta-Arkaim—Late Proto-Aryan

In spite of some dialectal differences, Proto-Aryan seems to have continued as a linguistic unity until the end of the Sintashta-Arkaim culture (ca. 2100-1900 B.C.): both the Poltavka and the Abashevo cultures contributed to the emergence of this rich culture in the southern Urals (see Gening et al. 1992; Zdanovič 1995; 1997). The aristocratic graves of the Sintashta-Arkaim culture have yielded the earliest known horse-drawn chariots (see Anthony and Vinogradov 1995; Anthony 1998), which now quickly spread west (to eastern and central Europe and Mycenaean Greece, cf. Kuz'mina 1994b), east (to Siberia, cf. Kuz'mina 1994a) and south (to southern Central Asia and beyond, cf. sections 2.8.2 and 2.8.4).

2.9.3. Andronovo and Timber Grave—The split of Proto-Aryan

The final split of Proto-Aryan seems to have taken place ca. 1900 B.C. with the Ural river as the borderline. The more conservative 'Proto-Indo-Aryan' came to be spoken east of the Ural river, in the Andronovo cultural complex (ca. 1900-1300 B.C.), which spread widely throughout the Asiatic steppes of Siberia and Central Asia. (On the Andronovo cultural complex, see Avanesova 1991; Kuz'mina 1994a.) 'Proto-Iranian' was at first spoken mainly west of the Ural river, in the early Timber Grave (Srubnaya) cultures (ca. 1900-1500 B.C.) of the east European steppe and forest steppe. These two closely related cultural complexes were thus separated for several centuries, until ca. 1500 B.C.

2.9.4. Timber Grave & Valikovaja—Proto-Iranian

E. N. Chernykh (1992: 241) has associated the wide spread of ceramics decorated by attaching 'rollers' or 'little walls' to the body of the pot (*valikovaja keramika*) with the expansion of Indo-Iranian speakers. In my opinion this spread, which started around 1500 B.C., should rather be interpreted as mirroring the migrations of the 'Proto-Iranians', who spread eastwards to Siberia and southwards to Central Asia, into areas until then occupied by 'Proto-Indo-Aryan' speakers (cf. Parpola 1998: 134). This type of ceramic is thought to have developed from the Early Timber Grave variant called *mnogovalikovaja* found mainly in the Ukraine. In Central Asia the *valikovaja keramika* is found in the intrusive Yaz I culture, which also introduced there mounted nomadism (evidenced by terracotta statuettes of eagle-headed riders) as well as a new mode of disposal of the dead, possibly by exposure. (No graves dating between ca. 1500 and 330 B.C. have been found in Central Asia; see section 2.4.) The spread of the *valikovaja keramika*, which coincides with the emergence of the classical Timber Ware culture in eastern Europe is a prelude to the astounding cultural unification of the Eurasian steppes from the Danube to Inner and East Asia that was completed by ca. 1000 B.C. Thereafter, for more than a millennium, the predominant language of this huge area was Scythian/Saka in its various dialects.

The classical Timber Grave culture (ca. 1500-1000 B.C.) came into being as a result of the expansion of the Early Timber Grave cultures, which were the immediate successors of the Poltavka culture of the Volga steppes. This expansion went west and northwest, to areas previously occupied by the Catacomb Grave and Corded Ware cultures (cf. Klochko 1994: 163). The substratum influence of these new areas could explain important sound changes which distinguish the Iranian branch from the Indo-Aryan branch. The people using Corded Ware in this area probably spoke a language ancestral to later Baltic and Slavic languages. This substratum language may have caused the deaspiration of voiced aspirated stops, an isogloss linking Iranian with Balto-Slavic and Germanic (cf. Kortlandt 1978: 115; Lubotsky 2001). Lexical contacts between Iranian and Balto-Slavic

languages also seem to go back to Proto-Slavic and Pre-Scythian times (see Zalizniak 1962; 1963; Ivanov 1996). The change of Proto-Indo-European *-t^{e}t-/*-d^{e}d- into *-st-/*-zd- is another isogloss uniting Iranian with Balto-Slavic—and in this case also Greek—while in Proto-Indo-Aryan the result was *-tt-/*-dd-.

2.9.5. The Graeco-Armenian and pan-Iranian sound change *s > h

Around 1900 B.C., the Early Timber Grave culture expanded to areas formerly occupied by the Catacomb Grave culture, whose carriers were probably linguistically related to the later Greeks and Armenians. I would like to suggest that the substratum influence of this area lies behind another sound change distinguishing Iranian languages from Indo-Aryan, namely the change *$s > h$, mainly intervocalically and word-initially before a vowel. This change is also characteristic of Greek and Armenian; in Greek it had taken place by ca. 1500 B.C. when Mycenean Greek is attested (cf. Rix 1992: 76-81). This isogloss connecting Iranian, Greek and Armenian has been considered by Vittore Pisani and Roberto Gusmani to be due to prehistoric contact between these languages (cf. Gusmani 1972: 22f.; cf. also Rix 1992: 8). If it was initiated by a Pre-Proto-Armenian-related substratum in the second quarter of the second millennium B.C., it may have spread to all Proto-Iranian dialects and have still been in operation around 1500 B.C., when the ancestors of the later East and West Iranians are assumed to have arrived in Central Asia and the Indo-Iranian borderlands.

For some time it has been widely thought that this pan-Iranian sound change was much later, dating from the beginning of the first millennium B.C., because 'the name of Susa (presumably in the form *Sūša[n]*) was certainly taken over by the Persians in Persis, and it is only after this takeover that the change /s/ > /h/ has caused the name of the country "Elam" to appear in Old Persian as <U-v-j-> /(H)ūža/' (Mayrhofer 1989: 7 [translated], with reference to Szemerényi 1966; 1968). However,

> the Achaemenid Elamite spelling of the town Susa is *šu-šá-(an)* and this name is rendered in Old Persian as *ç-u-š-a*, a spelling which Szemerényi has to explain as due to a second borrowing from Elamite. It is implausible that one and the same Elamite name should have given rise in Old Persian both to *u-v-j-* and to *ç-u-š-a-*. More convincing is, therefore, the view of F. de Blois that the name of the land of Elam, OP */Hūja-/*, and the one of the Elamite capital, OP */çūša/*, are two different names. (Hintze 1998: 146)

Almut Hintze (1998: 145f.) further rightly points out that Avestan *Haraxᵛaitī-* and Old Persian *Harauvatiš* versus Vedic *Sárasvatī-*, and Younger Avestan and Old Persian *Hindu-* versus Vedic *Síndhu-* (and possibly a few other similar cases) imply that the sound change of *$s > h$* was still productive when the Iranians arrived in the neighbourhood of these rivers in the Indo-Iranian borderlands. Here Hintze leans on the authority of Karl Hoffmann, who in 1940 concluded that, as this sound change is pan-Iranian and therefore relatively old, the Iranians must have been acquainted with India rather early, about the time of the Ṛgveda (cf. Hoffmann 1975: 14 n. 1). Because also the Iranian languages of the northern steppes including Scythian have undergone this sound change, which could not have been operative for very many centuries, it must have come to Central Asia with the ancestors of all West and East Iranian languages presently spoken in Central Asia and Iran, i.e. most probably around 1500 B.C., when the Yaz I culture appears (cf. Hintze 1998: 149; section 2.4). (For the Neo-Assyrian text K. 252, which would seem to be in conflict with this dating of the sound change, see Hintze 1998: 147f. and below, section 2.10.4).

2.10. The BMAC—transformation of steppe Aryans

2.10.1. The Oxus Civilisation alias BMAC

Afghanistan and the surrounding areas, through which the Ṛgvedic Aryans must have passed on their way to South Asia, were previously a blank on the archaeological map as far as the Bronze Age is concerned. The excavations of the past few decades, however, have brought to light what its principal excavator Viktor Sarianidi (1986 and 1998a, with further references) has chosen to call 'the Bactria and Margiana Archaeological Complex' = BMAC; an alternative name coined by Henri-Paul Francfort is 'the Oxus Civilisation'. I find it useful to make a distinction between the early phases before the assumed presence of people representing the northern steppe cultures, and will use the term 'Oxus Civilisation' when speaking of these early phases, and 'BMAC' when speaking of the later phases that appear to have had a mainly Aryan-speaking ruling élite. (Hiebert 1994 excludes the post-'urban' phase from the BMAC, and deals with the peak and later 'urban' phases as a single period.) The core area of this archaeological complex are the oases of Bactria (Daulatabad, Dashly and Farukhabad in northern Afghanistan, Sapalli and Dzharkutan in southern Uzbekistan) and Margiana (Namazga, Taip, Gonur, Togolok and Kelleli in southern Turkmenistan). The following developmental phases can be discerned (cf. Hiebert 1994: 29-87; Francfort 1989; 2001; Baghestani 1997: 143-5):

Ca. 2500-2400 B.C. = the formative phase: The 'Oxus Civilisation' came into being around 2500 B.C. under the influence of the Namazga IV culture of southwestern Turkmenistan, the Proto-Elamite culture of Iran (cf. Lamberg-Karlovsky 1986), the Early and Mature Harappan cultures of Baluchistan and the Indus Valley, as well as the Kelteminar and Afanasevo cultures of the steppes to the north.

Ca. 2400-2100 B.C. (Early Namazga V Period) = the 'early urban' phase: The 'Oxus Civilisation' acquired amongst other things a distinctive iconography and seal type (compartmented metal stamp seal) under the strong influence of southeast Iran (Tepe Yahya, Shahdad and Shahr-i Sokhta), Baluchistan (Shahi Tump) and southwest Turkmenistan (Altyn Depe). After the Indus Civilisation

founded the settlement of Shortughai in Badakhshan in eastern Bactria, its influence increased.

Ca. 2100-1900 B.C. (Late Namazga V period) = the 'peak urban' phase: The BMAC is particularly rich and dynamic during this and the following phases. The grave goods include a large number of different weapons including swords, hatchets and maces, and impressive symbols of power such as beautifully decorated ritual axes and long stone sceptres. Horses are depicted on axe- and mace-heads, but as these are without archaeological context they may date from the 'late urban' phase. Wine cups of gold and silver depict men drinking wine, ploughing with teams of oxen, hunting game and driving ox-pulled wagons. (Cf. Amiet 1986: 201f., 326ff.) The BMAC had contact with people coming from the northern steppes. The BMAC's expansion through smaller groups to Gurgan in northern Iran, to Shahdad in Kerman, to Seistan and to Pakistani Baluchistan is attested by the import of the entire cultural complex including burials into these areas, while the unidirectionality of this movement is suggested by the absence of goods imported from these regions to Bactria and Margiana (cf. Hiebert and Lamberg-Karlovsky 1992; Hiebert 1995). There is evidence of lively interaction with the late Mature phase of the Indus Civilisation (cf. Jarrige and Quivron 1999; Parpola 2001). See section 2.10.2.

Ca. 1900-1750 B.C. = the 'late urban' phase: This phase is distinguished from the preceding mainly through the presence of the horse and the camel. The BMAC appears to have gained great mobility, and to have spread widely both west and east. It was in trading contact with the Assyrians of Cappadocia and Syria, and typical BMAC seals have been found as far east as the Ordos region in China. Residues of drinks in cultic vessels provide interesting clues to religion. See sections 2.10.3-4.

Ca. 1750-1500 B.C. = the impoverished 'post-urban' phase of the BMAC: The rich mature 'urban' phase of the BMAC came to a sudden end ca. 1750 B.C. It was followed by what is called the Takhirbaj period in Margiana, the Kuzali, Mollali and Bustan periods in northern Bactria, and the Namazga VI period in the Kopet Dagh region. In this impoverished phase, the small finds distinctive of the mature phase of the BMAC such as seals and axe-heads disappear and architecture is continued only to a limited extent. See section 2.10.5.

It is a fact that neither Andronovo pottery nor barrows typical of the steppe culture are found south of the line defined by the Kopet Dagh, Hindukush and Pamir mountains. (Cf. Francfort 2001.) Yet Aryan languages originally spoken in the northern steppes had found their way to Syria and South Asia by the middle of the second millennium. The expansion of the BMAC towards these directions in the west (Gurgan) and in the east (the Bolan Pass from Baluchistan to the Indus Valley) provides an archaeological counterpart to this linguistic spread from the steppes. This implies that an élite of Aryan-speaking pastoralist-warriors coming from the steppes took over the rule of the BMAC, apparently relatively peacefully, thus providing it with an effective hierarchical leadership; this in turn

gives a plausible explanation for the increased dynamism and aggressiveness of the BMAC in the 'urban' phase. Apart from the increase in weapons and luxury objects, and the introduction of the horse and camel, no major change takes place in comparison to the earlier phase of the Oxus Civilisation. Much the same thing happened in the Mitanni kingdom, where the majority of the population remained Hurrian-speaking: the new Aryan rulers adopted the local culture wholesale, while introducing the horse-drawn chariots and making Mitanni one of the strongest powers in the Near East. (Cf. Parpola 1988; Mallory 1998.)

2.10.2. The BMAC ca. 2100-1900 B.C.—The Dāsas

Although I now think that the Ṛgvedic king Divodāsa's battles against the Dāsas, Dasyus and Paṇis took place only around 1400 B.C., in eastern Afghanistan (on the way from Seistan to Swat), I continue to identify the earliest Aryan rulers of the BMAC (in the 'early urban' phase) with the Dāsas (cf. Parpola 1988: 216ff.). This is argued more extensively in another publication (Parpola 2002b), along with presentation of more material on the ethnic identity of the Dāsas, which has now become clearer to me: they appear to be a vanguard of the 'Iranian' branch related to the later Scythians, the Khotanese Saka and the Wakhis of the Pamirs, and to have come from the lower Volga steppes (cf. the preliminary note, section 2.9.1 and below). I base this conclusion partly on L. T. P'jankova's identification of the earliest steppe ceramics recovered from the floors of the central part of the fortress of Togolok 1 in Margiana as related to the Poltavka and early Timber Grave ceramics of the lower Volga and the northern Caspian Sea regions (cf. P'jankova 1993a: 115-17; Parpola 1998: 123f.; Hiebert 1994: 69).

The ethnic names Dāsa (in the Ṛgveda) and Daha (in Old Iranian sources) have an appellative counterpart only in Khotanese Saka (*daha* 'man', this meaning being often the basis of ethnic names) and its cognates in Wakhi and possibly Ossetic: these are all East Iranian languages (cf. Bailey 1960). The Dāsa language however seems to have separated from (Pre-)Proto-Iranian so early that many of the characteristically 'Iranian' linguistic features had not yet come into being: the ethnic name itself shows that it has escaped the change **s* > *h*, dated above to ca. 1700-1500 B.C. (see section 2.9.5). Further, I present evidence suggesting that the Dāsas were ancestors of the later 'Kafirs' of Nuristan (on whom see Jettmar 1975; Edelberg and Jones 1979; Nelson 1986; Degener 2002); the Dāsas also seem to have been the 'Proto-Māgadhī'-speaking originators of the 'proto-Śākta-Tantric' rituals that are associated with warring bands called Vrātyas in Vedic texts. (On this latter point, see now Parpola 1999; on the Vrātyas, see Falk 1986.)

2.10.3. The BMAC ca. 1900-1750 B.C.—Indo-Aryans with Surā *and* *Sauma *cults*

By the 'late urban' phase the BMAC appears to have gained great mobility and to have spread widely both west and east. Probably a fresh wave of Aryans coming

from the north took over the rule of the BMAC. So far only camel and donkey bones have been securely identified in the context of the BMAC in Margiana (cf. Hiebert 1994: 135), but bones of both the horse and the donkey come from northern Bactria (cf. Askarov 1993: 69). The domesticated horse belonged to the equipment of the Andronovo pastoralists attested in southern Central Asia at this time by their ceramics. The horse and the camel are represented in the beautiful weapon-sceptres of the BMAC. Along with the camel, the horse also appears as a new motif on a number of stamp and cylinder seals from Margiana (cf. Sarianidi 1998b: 47 and nos. 1395, 1397-9, 1401, 1441-2, 1444-5, 1482). The two-wheeled horse-drawn chariot is depicted on a cylinder seal at Tepe Hissar in Gurgan, where the BMAC expands ca. 1900 B.C., and its use in battle is suggested by the BMAC metal trumpets (cf. Ghirshman 1977).

Ceramics of the 'Neo-Petrovka' variant of the Andronovo culture have recently been found at several places in Tajikistan: at the metallurgists' settlement of Tugai near Samarkand (Sarazm III or IV period, ca. 2300-1700 B.C.), at the nearby Zardcha Khalifa burial (with Sintashta-Arkaim type cheek-pieces for the horse) in the upper reaches of Zeravshan and at the necropolis of Dzharkutan. In all these cases their context is the Sapalli phase of the northern Bactrian variant of the BMAC culture (cf. Masson 1999 and Kuz'mina 1999, both citing primary reports unaccessible to me).

Among the most significant finds of the BMAC in northern Bactria are the *maṇḍala*-like square fortress-palace of Sapalli-Tepa, which greatly resembles its parallel at Dashly-3 in southern Bactria; the fire-temple of Dzharkutan; and the remains of grapes/raisins and jujube fruits (still locally used for the fermentation of alcoholic drinks) found in jars given as grave goods. (Cf. Askarov 1993.) Significantly, three different names of the jujube are mentioned in the Brāhmaṇa texts, always in the context of the Sautrāmaṇī ritual, in which the cultic drink is *surā*. The beer-like *surā* is associated with the demon Namuci, while Indra became sick from drinking it (cf. e.g. ŚB 5,5,4,10; 12,7,1,3; 12,7,2,9; 12,9,1,8). Ceramics of the slightly later Kuzali phase of the BMAC in northern Bactria have been compared with the Cemetery H culture of the Panjab, which seems to represent the 'Atharvavedic' tradition of Indo-Aryan (cf. section 2.5).

There appears to have been a cultic difference in the BMAC variant of Margiana. In spite of the negative results of tests (cf. Nyberg 1995: 400 and my strong reservations in Parpola 1998a: 126f.), there seems to be evidence for the ritual use of the ephedra plant in Margiana in the form of stems and pollen grains preserved in layers of organic remains from the bottom of ceramic vessels. In one vessel, seven successive layers could be analysed, and the earliest layers contained besides ephedra also hemp. These vessels come from rooms in the centre of the fortresses of Gonur-1 and Togolok-21 which are set apart by several peculiar features suggesting a cultic preparation of liquids. (Cf. Meyer-Melikyan and Avetov in Sarianidi 1998a; Sarianidi 1998a: 95-8; also Hiebert 1994: 123-6; Parpola 1988: 236f.). Plants of the genus *ephedra* are the strongest candidates for

being the original **sauma* plant of the Indo-Iranians, the *soma* of the Veda and the *haoma* of the Avesta (cf. Falk 1989; Nyberg 1995).

The Ṛgvedic hymns repeatedly emphasise that their enemies, the Dāsas, did not press Soma or worship Indra. If the Dāsas were the élite of the foregoing 'peak urban' phase of the BMAC and they were related to the later Scythians, as I think they were, perhaps the hemp found in the earliest layers of the cultic vessel along with the ephedra is a survival from the preceding period. The Scythians drank wine (Herodotus 4,66 and 70), but they also used hemp (κάνναβις), throwing it upon hot stones so that it gave out a vapour: this hemp-vapour served the Scythians instead of a water-bath (Herodotus 4,74-5).

Graves of the Loulan alias Qäwrighul culture of the Tarim Basin in eastern Sinkiang (ca. 2000-1700 B.C.) have yielded well preserved mummies now kept at the Urumchi Museum. Most of these mummies were accompanied by carefully bundled twiglets of ephedra; they were usually placed in pouches formed by tying up a part of the mummy's shroud. (Cf. Parpola 1998a: 127; Barber 1999: 159). Elizabeth Barber (1999: 148-67) has argued that these earliest cultivators of the Tarim Basin oases came along the northern edge of Tien Shan from the BMAC. Additional evidence for this, which she does not mention, is the compartmented metal seal discovered by Sir Aurel Stein at Kucha in the Tarim Basin, where Stein also came across a Harappan type 'etched' carnelian bead; the Kucha seal has a close parallel at Gonur-1 in Margiana and at Shahdad in Kerman, Iran (cf. Baghestani 1997: 8, 146 and 365f., no. 606).

The extraordinary mobility of the BMAC people towards the east along the later Silk Road is attested by the compartmented metal seals purchased in large numbers by Christian missionaries in the 1930s in the Ordos region of China. While nothing comparable is found in the local Chinese cultures, the motifs of the Ordos seals have close parallels among the BMAC seals; the connection with China is supported by the discovery of silk remains in the BMAC graves of Sapalli-Tepa in Uzbekistan (cf. Amiet 1977: 119f.; 1986: 192, 199, 320, figs. 187-8; Biscione 1985; Parpola 1988: 234, 292; Baghestani 1997: 6-8, 145f., 400-403). It is no wonder that the BMAC art became one of the important bases of the Eurasian animal style (cf. Brentjes 1982: 59f.).

2.10.4. BMAC contacts with Assyria and the abstract deities

The Proto-Indo-Aryan takeover of the Mitanni kingdom at the end of the 'post-urban' period of the BMAC in the 16th century B.C. (cf. section 2.10.5) was preceded by intensive economic and cultural contacts of the BMAC with the Assyrians in Cappadocia and Syria during the 'late urban' phase. According to the cuneiform archives found at an Assyrian trading colony near Kültepe in Cappadocia, these Assyrian merchants imported tin from the east, possibly from northwestern Afghanistan, and textiles from the south (Syria), bartering these goods for silver and gold in Anatolia. This trade, which flourished for seventy

years in 1920-1850 B.C., affected all areas involved and the contacts are reflected in the seals of the various regions (cf. Collon 1987: 41ff.). From about 1850 B.C. Syria was in close contact with Egypt, and many Egyptian motifs started to appear in Syrian glyptics, among them the 'twist' and the winged solar disk. (Cf. Collon 1987: 52ff.) In Margiana,

> foreign contacts led to the development of stamp-cylinders for sealing, alongside the local two-sided stamp-seals ... That contact with the sealing practices of the west existed is demonstrated by the discovery of two seal impressions on a potsherd from Taip-depe (599-600): these are patently inspired by contemporary Syrian seals ... precisely at a period when Assyria was involved in a flourishing trade with Turkey via Syria and was receiving tin from the east. (Collon 1987: 142)

At present nearly a hundred cylinder seals are known from the BMAC (see Sarianidi 1998b: 260-73, 320-23), though only those from Margiana come from excavated contexts, i.e. the 'late urban' period (ca. 1900-1750 B.C.). While certain motifs of the BMAC seals undoubtedly come from Syria (see also Amiet 1986: 190), at least one new motif on Syrian seals undoubtedly comes from Bactria and Margiana: this is the two-humped Bactrian camel, which, along with the horse, is a new motif in the 'late urban' phase of the BMAC as well (cf. Collon 1987: 161 no. 738; Parpola 1988: 233 n. 274; Sarianidi 1998b: 41f.; nos. 108-11, 888, 916, 919, 1633-5, 1770).

The iconographic motifs of the seals are important religious symbols and their adoption implies ideological convergence. The Assyrians with whom the BMAC people were in contact from the 20th century B.C. onwards later became vassals of the Mitanni Aryans; one may therefore expect a strong Assyrian influence on the religion of the BMAC and the Mitanni Aryans (using Mitanni-style seals). When the Assyrians regained their power after the decline of the Mitanni, their national god Aššur was represented in art by the winged solar disk, which had been a central symbol in Mitanni glyptics as well. In Mitanni glyptics the winged solar disk is often associated not only with a supporting pillar, which can be connected with the cosmic pillar as well as with the turning pillar of the horse race (which has a heavenly model) (see section 2.8.2), but also with the 'tree of life', as often in Middle and Neo-Assyrian seals (cf. Frankfort 1939: 205ff.; Collon 1987: 65f.). Frankfort (1939: 204f.) inquired into the meaning of 'the highly artificial "sacred tree" which usually appears as the source of power round which the figures are symmetrically grouped' and noted that 'it occupies—alone [on a particular seal] and together with the king [on another seal]—the place taken by a god [on a third seal]', concluding that it was 'likely that the "sacred tree" on Assyrian seals represents the national god, Assur'.

This 'Tree of Life' has indeed turned out to be a key to the Assyrian religion. Its symbolism was preserved up to mediaeval times in Jewish mysticism:

> The Tree of Life of Kabbalah is a multi-layered symbol in which the metaphysic structure of the universe (macrocosm) and the model of the perfect man (microcosm) converge as the 'image' of God. It is composed of ten divine powers called sefirot ('[primordial] numbers', lit., 'countings'), defined as aspects or attributes of God and systematically associated with parts of his 'body', so as to constitute an anthropomorphic whole. It thus effectively depicts God as the 'sum total' of his divine powers, 'gods' ... the tree with its entire associated doctrinal apparatus can be shown to be based on a Mesopotamian model perfected in Assyria in the second millennium B.C. That this model could be made an integral part of Jewish religious thought underlines the basic similarity of the Assyrian and biblical concepts of God. (S. Parpola 1997: xxiii)

The *sefirot* numbers correspond to the sacred numbers connected with the great gods of the Mesopotamian pantheon, yielding a powerful 'magic diagram' (see S. Parpola 1993). The cuneiform texts present also the 'great gods' of the Babylonian pantheon as functions, powers and attributes of the Babylonian national god Marduk: as his 'kingship, might, wisdom, victory, strength, counsel, judgement' etc. (cf. S. Parpola 1997: lxxxii n. 23).

> Of course, in a religion of this type, the borderline between the surface level (polytheism) and the deeper level (monotheism) is subtle, and the distinction between the two was certainly often lost in practice. Examples are not lacking in Assyrian texts and iconography where Aššur appears as if he were just one god among many—granted, the most exalted one, but still on the same level with other gods. In the prophecies, state cult, and royal inscriptions, however, he is always strictly set apart from his emanations. In accordance with his special status, he is represented as a winged disk hovering over the 'Tree of Life'. His fundamental unity with his powers is, however, made clear by his seal, where he is said to 'hold a cosmic bond binding together the great heavens and the Igigi and Anunnaki gods'. (S. Parpola 1997: xxv)

In Achaemenid art, the winged solar disk, one of the principal symbols of Aššur, is taken over by Ahura Mazdā. The conception of Ahura Mazdā as a monotheistic god with the 'holy immortals' representing his qualities or powers is also strikingly similar to that of Aššur. This conception was not a creation of Zarathushtra; as Mary Boyce puts it, 'the mould was already old in which Zoroaster cast his new doctrines':

> That divine attributes should be isolated, and then invoked and worshipped as independent beings, was a characteristic of the pagan Iranian religion, as we have seen in the case of Mithra, surrounded as he is by Friendship, Obedience, Justice, Courage and Divine Grace. (Boyce 1979: 23)

The 'holy immortals' of Zarathushtra correspond to the Ādityas of the Veda: these 'personalized powers ... represented the principles on which human action depended' (Brereton 1981: ix). Two of the Ādityas, Mitra and Varuṇa ('Alliance' and 'Commandment' according to Brereton 1981), are invoked in the Mitanni treaty. In addition, the Ādityas comprised such abstract deities as Aryaman 'Civility', Bhaga 'Fortune', Aṃśa 'Share' and Dakṣa 'Ability'; and, according to Karl Hoffmann (1992: 715-32), also Amartya Gaya 'Immortal Life' (cf. ṚV 10,64),

which has a counterpart in the Iranian Gayōmart 'mortal life', from whom mankind was born.

The worship of deities called Asura 'Lord' (= Agni) and *Mazdhā 'Wisdom' by the Mitanni Aryans (ca. 1500-1300 B.C.) and by the Ṛgvedic Aryans of the oldest layer (ca. 1700-1500 B.C.: the Yadu and Turvaśa tribes associated with the Kāṇvas) respectively is proved by the proper names *Aśuratti = / Asurātthi /* 'who has the Lord as his guest' (Mitanni Aryan from Alalaḫ) and Ṛgvedic (Kāṇva) *Médhātithi* 'who has the (god) Wisdom as his guest' (cf. Pinault 1998: 453f.). On the other hand, such personalised principles governing the human social life are completely missing from the catalogue of Scythian deities supplied by Herodotus (4,59). I would like to propose that these abstract deities involving a highly sophisticated conception of divinity were adopted into the 'Proto-Indo-Aryan' pantheon of the BMAC from the Assyrians, whose religion is based on the millennial tradition of the Mesopotamian city civilisation. In Assyria, the worship of Aššur as a monotheistic God was associated with mysticism and an ecstatic cult with prophecies; these can be traced back to the religion of the Sumerians and Akkadians in the third millennium B.C. (See S. Parpola 1997.) Even the choice of the word *asura* 'lord' as the designation of the highest divinity may have been influenced by its similarity to the name of Aššur.

In this connection I would like to take up a piece of evidence, which has been quoted as being in conflict with the early dating of the Iranian sound change **s > h* (see section 2.9.5). A Neo-Assyrian ritual text (III R 66 = K. 252 published with a Dutch translation and notes by Frankena 1953: 1-22) and possibly dating from the time of Sargon II (who ruled 721-705 B.C.) mentions, beside Elamite gods, a divine name or two not otherwise known in the Assyrian and Babylonian pantheon, namely $^{p}as\text{-}sa\text{-}ra$ $^{p}ma\text{-}za\text{-}áš$ */Assara Mazaš/*, interpreted as rendering *Ahura Mazdā*. The dating is complicated by the fact that the text with its list of gods is an update of a tradition reaching back to the Middle Assyrian period (ca. 1500-1000 B.C.). As Hintze (1998: 147f.) points out, the text is intriguing, as it 'might attest an unchanged intervocalic *s* in Iranian' and provide 'a *terminus ante quem* for the life time of the prophet'. However, she admits that the Gathas attest to the completion of the sound change **s > h* by Zarathushtra's time, and that 'it may be equally possible that the god name *Ahura Mazdā* existed in the pre-Zoroastrian Proto-Iranian religion as the name of one among several Asuras': she quotes Johanna Narten (1982: 66), who has shown that the Avestan invocation *mazdåscā ahurå̊ŋhō* 'the Mazdā and the (other) Ahuras' was used secondarily as a petrified formula already at the time when Zarathushtra composed his Gathas.

But when did Zarathushtra compose his Gathas? The 'Proto-Indo-Aryan' poetry must have continued also west of the Hindukush after the separation of the Ṛgvedic Aryans proper, changing its language into Old Iranian after the coming of the Iranians to these regions (cf. Burrow 1973 quoted in section 1.1.2); this is suggested by the fact that comparison with the Avestan Gathas makes it possible to reconstruct the original wording of Ṛgvedic hymns that were altered by later

diasceuasts in South Asia (cf. Pirart 1989). It is a fact that the Ṛgveda and the Avesta share many poetic phrases (cf. Schlerath 1968; Gercenberg 1972: 90-127).

One formulaic phrase used by Zarathushtra in Yasna 44 ('O Lord, what I ask you, answer me truly') resembles an Assyrian extispicy formula ('O Sun, great lord, what I ask you, answer me with a true yes'). Zarathushtra could have learnt such a formula—and the esoteric monotheistic religion of the Assyrians that he tried to restore among the Iranians—if he was among the Median princes who were brought up by the Assyrians to train them for state service as high officials and to brainwash them to loyalty to Assyria. (S. Parpola, forthcoming; cf. Panaino 2000: 41.) If this indeed was the case, it would most probably have taken place in the eight century B.C. If one compares Old Avestan linguistically with Old Ṛgvedic (ca. 1350 B.C.) on the one hand and with Old Persian (ca. 520 B.C.) on the other, this seems a reasonable dating.

2.10.5. The BMAC ca. 1750-1500 B.C.—the Ṛgvedic Aryans

The desiccation that occurred around ca. 1750 B.C. must have been a major cause of the collapse of the BMAC at the beginning of its 'post-urban' phase, but the arrival of a new wave of Indo-Aryan speaking steppe nomads is likely to have contributed to this development (cf. also Biscione 1977):

> At Gonur south, the building complex appears to have been abandoned suddenly at the end of [the 'urban' phase of] the BMAC. Valuable grinding stones are found in the upper levels, unbaked ceramics lay near pottery kilns, and storage areas have large *khoms* still in place. Similar situations appear to be the case at Togolok 1 and Togolok 21, where there is no occupation following the Period 2 ... occupations. (Hiebert 1994: 129)

In Margiana, the steppe contacts of this phase have shifted to the northwest, the ceramics indicating the presence of Andronovo pastoralists coming from the Tazabagyab culture of Chorasmia (cf. Hiebert 1994: 70). In Tajikistan, Uzbekistan and northern Afghanistan, imported steppe ceramics represent the Fedorovo variant of the Andronovo cultures (cf. Kuz'mina, in press).

The date 1750 B.C. is close to that posited for the first wave of Ṛgvedic Aryans, most likely represented by the Vakhsh/Bishkent culture of Tajikistan (cf. P'jankova 1986) and the Ghalegay IV culture of Swat (ca. 1700-1400 B.C., see sections 2.6; 2.10.3). Some of the Ṛgvedic Aryans are likely to have belonged to the newly arrived Andronovians, who probably also pressed *Sauma, and worshipped especially Indra, a less 'civilised' god of war, while the Ādityas and the Aśvins probably came from the religion of the 'late urban' phase of the BMAC.

The impoverished phase of the BMAC continued until ca. 1500 B.C., when the arrival of (in all likelihood Iranian-speaking) mounted pastoralists initiated the Yaz I culture (see sections 2.4 and 2.9.4-5) and probably caused Divodāsa and

other Ṛgvedic kings of the 'second wave' to move to India (see sections 1.1.3; 2.4; 2.6).

3. NON-ARYAN LINGUISTIC SUBSTRATA IN VEDIC

3.1. The language of the Oxus Civilisation

Alexander Lubotsky (2001) has collected 'all Sanskrit etyma which have Iranian correspondences, but lack clear cognates outside Indo-Iranian', numbering in all 'some 120'. Lubotsky concludes that some of these words may have been borrowed from Uralic languages but that the major portion is likely to come from the language of the BMAC, which he considers non-Indo-European. One criterion is the non-PIE word structure that many of these loanwords have, being trisyllabic with long middle syllable.

According to Lubotsky, 'the Indo-Aryans were presumably the first who came in contact with foreign tribes' in Central Asia 'and sometimes "passed on" loanwords to the Iranians.' Lubotsky also points out that these Indo-Iranian loanwords that are likely to have been borrowed mainly from the language of the BMAC are phonologically and morphologically similar to many loanwords found in Sanskrit alone. This 'indicates that, to put it carefully, a substratum of Indo-Iranian and a substratum of Indo-Aryan represent the same language, or, at any rate, two dialects of the same language'. While I subscribe to this important conclusion, I do not think the explanation offered by Lubotsky is the only possible one to account for this fact. Lubotsky finds himself bound to assume that 'the language of the original population of the towns of Central Asia, where Indo-Iranians must have arrived in the second millennium BCE, on the one hand, and the language spoken in Punjab, the homeland of the Indo-Aryans, on the other, were intimately related'. In my opinion, it is also possible that Indo-Aryan has simply preserved many more Central Asian loanwords than Iranian, which according to the model proposed earlier in this paper and also by Lubotsky himself, largely received them secondarily from Indo-Aryan, i.e. that branch of Indo-Aryan which remained in Central Asia, Iran and Afghanistan.

While I find it quite likely that the Proto-Indo-Aryans still had contact with the original language of the BMAC (i.e. the language of the 'Oxus Civilisation' as defined above in 2.10.1), it may have become largely assimilated into Indo-Aryan by the time the Iranian speakers arrived. It seems probable to me, however, that most of the BMAC loanwords came to Indo-Aryan (including Vedic as well as Classical Sanskrit) from the language of the Dāsas, the Aryan elite of the earliest 'mature' phase of the BMAC (cf. section 2.10.2).

I would like to draw attention to one peculiarity of the hypothetical 'Oxus' language not specifically mentioned by Lubotsky. The vocalic *ṛ* occurs in the first syllable, even when it is accented, in several of Lubotsky's loanwords, such as *ṛbíśa-* n. 'oven' and *śṛgā́lá-* m. 'jackal' (with Lubotsky's trisyllabic structure with long middle syllable), **gṛda-* 'penis' (in which Lubotsky draws attention to the two unaspirated voiced stops in the same syllable, a root structure impossible for an Indo-European word) and **ṛ́ṣī-* 'seer' (with aberrant initial accentuation in Sanskrit *ṛ́ṣi-* noted by Lubotsky).

Moreover, the initial syllable containing *ṛ* is characteristic of a large number of proper names recorded by the Ṛgveda for the Dāsas, Dasyus and Paṇis: Dḫbhīka, Śḫbinda, Bṣaya (with the dental *s* after *ṛ*, as also in *bṛsī-* v.l. *bṛ́ṣī-* f. 'roll of twisted grass, cushion, seat of a religious student or an ascetic'), Bṛbú (cf. *bṛ́būka-* 'thick'?), **Pṛṇí* (the assumed protoform of Paṇí), Pipru Mṛgaya (Lubotsky lists **mṛgá-* as a likely loan-word).

Bṣaya and Dḫbhīka are particularly important, because they can be located in the regions west of the Indus Valley with the help of Greek sources: Bṣaya = Βαρσαέντης (see section 1.1.2); Dḫbhīka = Δερβικες, who according to Strabo (11,8,8; 11,9,1) lived as nomads east of the Caspian Sea (they slaughtered people even for slight offences and worshipped Mother Earth with sacrifices of male victims, 11,11,8), to be compared also to Avestan Driβika (Vidēvdāt 1,8), the name of an inimical people in the country of Harōiva (cf. Parpola 1988: 257f.).

This vocalic *ṛ* in the first syllable need not be interpreted with its Vedic phonetic value. It could stand for example for *ĕr* (cf. Δερβικες!) or for *ŏr*, with short vowels that do not exist in Vedic (Bertil Tikkanen, personal communication).

Another peculiarity in the above BMAC/Dāsa words is the phoneme *b* (cf. *ṛbíśa-*, Śḫbinda, Bṛbú), which in Indo-Aryan rarely goes back to Proto-Indo-European **b* but occurs in many words of probably foreign origin (cf. Wackernagel 1896: I, 181-4). Among these words are further Dāsa names, Balbūthā and Ilībíśa. These again have the phoneme *l* not found in the main dialect of the Ṛgveda. Both *b* and *l* occur in *kílbiṣa-* 'injury, transgression; injustice, sin, guilt', which Watkins (1995: 398f.) has shown to be a borrowing from the Dāsa language (cf. ṚV 5,34,4 and 6), originally denoting some hostile behaviour or action taken over from the enemy language.

A few other probable BMAC loanwords outside the Indo-Iranian material discussed by Lubotsky may also be mentioned. The following words have the trisyllabic structure with long middle syllable as well as the phoneme *l*:

kā́lāla- m. 'potter' (VS), *kaulālá-* m. 'potter' (VS, ŠB), n. 'potter's ware' (ĀśvGS); this word is also found in the northwest, in the Dardic languages Pashai and Kashmiri, as well as in Iranian Parachi (cf. *CDIAL* 3341). The potter was not an Ārya but a Śūdra and vessels turned on a wheel belonged to demons (*asuryà-*); all clay vessels needed in the Vedic ritual had to be made by hand only by an Ārya (cf. Rau 1972: 13).

palā́lī- f. 'stalk, straw' (AV), *pálāla-* n. 'stalk, straw' (Manu), 'millet straw' (Suśruta), widely attested in Middle and Neo-Indo-Aryan (cf. *CDIAL* 7958).

kīlā́la- 'some kind of milk product' (Kuiper 1991: 14) (ṚV 10,91,14 *kīlālapá-*; seven times in the AV), Classical Sanskrit *kīlāṭa-* (Suśruta); of modern lan-

guages, the word is found almost exclusively in Kafiri and Dardic, where it mostly means 'fresh cheese'; otherwise it survives only in Sindhi *kiroṭu*, *kiṛūṭu* 'cheese made from skimmed milk' (see *CDIAL* 3181; Fussman 1972: II, 175-7). Although the word is found also in Burushaski as *kīlāy* (and is therefore often considered to be a loanword from Burushaski, e.g. by Witzel 1999d) and in Dravidian (Tamil *kiḻāṉ* 'curds', etc., see *DEDR* 1580), an 'Oxus' origin seems preferable to me.

3.2. The language of the Indus Civilisation

In 1991 F. B. J. Kuiper published a useful booklet on the 'foreign' linguistic and cultural elements in the Ṛgveda, culminating in a list of 383 'foreign words' (pp. 90-93). Rahul Peter Das (1995) has published a long and useful review, though it is unjust in being one-sidedly negative (cf. also Kuiper 1995).

Basing himself on Kuiper's work, Michael Witzel (1999b; d) argues that the great majority of the foreign words in the Ṛgveda is derived from Austro-Asiatic, more precisely from a hypothetical language that he calls 'Para-Munda'. According to Witzel, the amount of 'Para-Munda' loanwords in the Ṛgveda, borrowed when the Ṛgvedic Aryans arrived in the Panjab, indicates that it was the language of the Indus Civilisation. However, hardly a single concrete etymology presented has a wider support; one of Witzel's main sources is Kuiper's *Proto-Munda words in Sanskrit* (1948), denounced by most experts including Kuiper himself (he did not even refer to it in Kuiper 1991); general comparisons of Ṛgvedic words beginning with *ka-*, *ku-* etc. with hypothetical Austro-Asiatic prefixes of the same shape do not qualify as any sort of proof. Witzel's hypothesis of an Austro-Asiatic homeland in the Panjab is aptly criticised by George van Driem:

> The Punjab is not only far away from the geographical centre of gravity of modern Austro-Asiatic language communities, the Punjab in the far northwest is beyond the range of any modern or historically attested Austro-Asiatic language community. (Driem 1999: 74)

According to Driem, the Austro-Asiatic homeland lay in the northeast, along the Brahmaputra and around the Bay of Bengal.

In his recent M.A. thesis (1998), Bryan Wells claims that there are fundamental differences between Indus inscriptions coming from the Panjab and Sindh. Partly on this basis, Witzel suggests that the Indus people spoke two different languages, 'Para-Munda' in the Panjab and Dravidian in Sindh. This is hardly correct, however, for from the identity of the sign sequences at Harappa and at Mohenjo-daro it is quite certain that the vast majority of the Indus inscriptions in the Indus Valley has only one language.

Elsewhere I have argued at great length that the written and majority language of the Indus Civilisation belonged to the Dravidian family (Parpola 1994) and there is no need for repetition here. (For a recent critical assessment of the question 'Dravidian substratum influence or convergence?', see Hock 1996.) Witzel attempts to discredit the presence of Dravidian speakers in the Panjab by claiming that there are no Dravidian loanwords in the earliest of his three textual layers of the Ṛgveda; Dravidian loanwords appear only in the second and third layer. (In his detailed examination of the material, however, he himself admits that the likelihood of one Dravidian loanword even in this small layer is great: this is *ukha-* 'hip' in ṚV 4,19,9: cf. *DEDR* 564.) I hope to have shown (in section 1.4) that Witzel's 'earliest layer' has no real foundation, and that the latest hymns of the Ṛgveda actually reflect the earliest layer of Vedic Aryans in South Asia.

A large part of the 'foreign words' of the Ṛgveda, claimed to be 'Para-Munda' by Witzel, are likely to come from the BMAC language, which seems to have been introduced to the Indus Valley around 2000 B.C. (cf. section 2.10.2). The peacock is native to South Asia, but the structure of the word (trisyllabic with long middle syllable) suggests that *mayūra-* is probably an 'Oxus' word, whatever its ultimate origin: both Dravidian and Austro-Asiatic etymologies have been proposed (cf. *DEDR* 4642 and *CDIAL* 9865).

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The Nuristani languages

ALMUTH DEGENER

IN THE CONTEXT of the problems connected with the early migrations of the Indo-Iranian peoples and the entry of the Indo-Aryans into India, the question of where and when the ancestors of the later Iranians separated from the Indo-Aryans is particularly interesting. This problem is connected with that of the relationship between Iranian, Indo-Aryan and the third Indo-Iranian group of languages, the Nuristani languages, formerly also called Kafiri languages.

The Nuristani languages are spoken almost entirely within the confines of the area of northeast Afghanistan known as Nuristan. It is a land of high mountains and deep valleys, with forests and mountain pastures. The Nuristanis have been Sunni Muslims since they were converted to Islam by force in 1896 and turned from being Kafirs 'infidels' in the eyes of their conquerors into 'men of the enlightened land'. Before that they practised a number of archaic cults which may be referred to collectively as 'Kafiri religion'. Nuristani speakers were probably in contact with speakers of IA[1] languages for centuries, although only a very few individuals were ever fluent in non-Nuristani languages. The contact with Indo-Aryan culture was usually by way of contact with the neighbouring Dards. The influence of Iranian languages, in particular Persian and Pashto, gained importance only with the Islamisation of Nuristan a century ago.

The Nuristani languages have often been confounded with the Dardic languages. Dardic does not, from the historical point of view, present any problem to the linguist. It has not a single feature which cannot be derived from Old Indo-Aryan and is therefore no more than a convenient term for a group of IA languages with certain characteristics developed because of their relative isolation in the hills of the North West. The Nuristani languages, on the other hand, are more difficult to classify. Nobody nowadays will doubt that the Nuristani languages belong to the Aryan group of Indo-European languages, their nearest relatives being the Iranian and the Indian languages. However, there has never been unanimity about the exact position of the Nuristani languages in relation to these

[1] The following abbreviations will be used: Av. = Avestan, IA = Indo-Aryan, IE = Indo-European, K = Kalaṣa-alā, Nur. = Nuristani, OIA = Old Indo-Aryan, OIr. = Old Iranian, OP = Old Persian, Pers. = Persian, PIE = Proto-Indo-European, Skt. = Sanskrit.

two well-known branches of the Aryan family. There are three possible hypotheses, each of which has found supporters: either the Nuristani languages are part of the Iranian family, but separated at a very early stage from the main stream of Iranian languages; or they are part of the Indo-Aryan family, but separated from Indo-Aryan in pre-Vedic times; or they are neither Indian nor Iranian but represent a third branch of the Aryan family. Here we will try to evaluate each of these hypotheses critically.

The Nuristani languages are divided into five groups: 1. Kati, 2. Wasi-weri or Prasun, 3. Kalaṣa-alā or Waigali (= K), 4. Tregāmī, and 5. Aṣkun. Each of these groups comprises several dialects.[2] As none of these languages was reduced to writing until a few years ago, earlier stages of the present languages can only be reconstructed by cross-linguistic comparison of the various Nuristani languages with OIA and Iranian.

The principal phonological evidence is as follows:

1 The Nuristani languages are characterised by a complete loss of aspiration, e.g. K *kan-* 'to laugh' ~ Pers. *xand-*, K *kūr* 'foot' ~ Skt. *khura-* 'hoof', Kati *kur* 'donkey' ~ Skt. *khara-*, Av. *xara-*, K *pōt* 'path' ~ Skt. *panthā-*, K *pol* 'grain, piece' ~ Skt. *phala-* 'fruit', K *ti-* 'to stay' ~ Skt. *sthā-*, Kati *gul* 'country, valley' ~ OIA **ghala-* 'stream' (Turner 1966, No. 4453), Kati *dum* 'smoke' ~ Skt. *dhūma-*, Kati *bu-* 'to be' ~ Skt. *bhū-*, K *zumpi* 'teeth' ~ Skt. *jambha-* 'tooth', Av. *zafar-* 'mouth', Kati *garis* 'midday' ~ OIA **gharasya-*.

2 Nuristani does not have the Iranian fricatives *f*, *θ*, *x* in consonant clusters, e.g. K *čatā* '4', *tre* '3', *sot* '7'. (Regarding PIE **ks* see 5 below.)

3 The Aryan palatals **ḱ*, **ǵh* are represented in Nuristani by an affricate /c/ ([ts]), e.g. K *čin-* 'to cut' ~ Skt. *chind-*; Kamviri *ćūr* 'father-in-law, spouse's father' ~ Skt. *śvaśura-*; Kamviri *duć* '10' ~ Skt. *daśa*. There are also numerous words with Nur. *š* instead of *ć* for IE **ḱ*. This double representation of IE **ḱ* is problematic, the most probable explanation being that the words with *š* are very early loanwords from IA, where the palatal character of **ḱ*, **ǵh* has been preserved in Skt. *ś*, *ch*. In the neighbourhood of an *r* we may find *ş* instead, e.g. K *şiŋ* 'horn' ~ Skt. *śṛṅga-*.

4 IE palatal **ǵ* and **ǵh* both result in Nuristani [dz], represented by *j* or *z* in the various dialects, e.g. K *zamā* 'son-in-law' ~ Skt. *jāmātṛ-*; K *zim*, Kamviri *jim* 'snow' ~ Skt. *hima-*; K *zō* 'heart' ~ Skt. *hṛdaya-*; palatalised IE labiovelar **gʷ(ʰ)* and **gʷ(ʰ)h* both result in Nuristani [dž], e.g. K *ji* 'bowstring' ~ Skt. *jyā-*; K *jā-* 'to kill' ~ Skt. *han-*, Av. *jan-*.

5 Several words in Nuristani seem to indicate the absence of the RUKI rule (according to which *s* becomes *ş*/*š* after *r ṛ u k i*), which is held to have occurred quite early. Kati *dus*, K *dos* 'yesterday' ~ Skt. *doṣa-* 'evening'; Kati *tyūs* 'straw' ~ Skt. *tuṣa-*; Kati *mus* 'mouse' ~ Skt. *mūṣ-* all apparently preserve the original dental sibilant. (Of course, it is in theory possible that these words are early loan-

[2] Details can be found in Strand 1973.

words from Middle Indo-Aryan.) As for the outcome of **kḱ* + *s*, there seems to be a tendency for a retroflex affricate to occur in Nuristani where OIr. has *xš* as a reflex of IE **ks* rather than where OIr. has *š* as a reflex of IE **ḱs*, e.g. *maçi* 'honey' ~ Skt. *mākṣika-*, Av. *maxšī-* 'fly'; K *çot* 'wound' ~ Skt. *kṣata-*, OP *axšata-*; but this is not an absolute rule, cf. on the one hand Kati *čiw-* 'to shake' ~ Skt. *kṣubh-*, Av. *xšaob-*, and on the other Kati *kaç-kūrū* 'armpit', K *kačant* 'near' ~ Skt. *kakṣa-*, **kakṣyānta-*, Av. *kaša-*.

6 Nuristani has several retroflexes. The feature of retroflexion is not restricted to Indo-Aryan, it is also found in Eastern Iranian languages.[3] Retroflexes in the Pamir languages and in Pashto are clearly the result of internally motivated change in *r*-groups. The Nuristani case is not so straightforward. There seems indeed to be a preference for retroflex consonants to occur in the neighbourhood of an *r* (mostly in clusters with *r* + dental and, probably as a later development, in **ḱ* + *r*) and in Indian loanwords, but there are quite a number of cases where an *r*-group evidently never existed and which cannot easily be explained away as loanwords either (considering the low level of bilingualism and the rather low intensity of contact with IA speakers over the centuries). One possibility is substratum influence from the artisan-slaves, whose origin is unknown.[4]

7 Like IA, Nuristani has preserved Indo-Iranian *s*, whereas Iranian languages have *h*, e.g. K *sot* '7', *mās* 'moon'.

8 Dental clusters result in simple *t*, *d*, e.g. Kati *bədi* 'mind' ~ Skt. *buddhi-*; K *pratoy* 'he was given' < **pra-tta-*.

[3] This alone is not a convincing argument, as pointed out by Thomason and Kaufman 1988: 59: 'The flaw in this type of argument is its assumption that a given change that arises through internal motivation in one language can and should automatically be ascribed to the same sort of cause when it occurs in another language. ... In cases of interference through shift, naturalness plays an important role in determining the results of change—perhaps as important a role as in internally motivated change. ... We should therefore expect the same natural changes to arise sometimes through internal causes and sometimes through external causes, and it is no more reasonable to extrapolate a particular internal motivation from one case to another than it would be to extrapolate an external motivation from one case to another ... If a reasonable external explanation for a change is available, it must not be rejected merely because similar changes have occurred under different antecedent conditions.'

[4] Admittedly, this is a very bold assumption, since we know practically nothing about the genetic affiliations of the artisan-slaves in Nuristan. There are indications that they are ethnically different from the upper-class Nuristanis: 'There are numerous speculations as to whether they could be descendants of the original population subjugated by invading groups of Kafirs' (Klimburg 1999: 1, 69). In any case, if substratum influence had occurred, the introduction of retroflex phonemes should not have been an isolated feature. To quote once again Thomason and Kaufman 1988: 60, 'In interference through shift, if there is phonological interference there is sure to be some syntactic interference as well, and vice versa. In borrowing too this is probably generally true, though limited phonological restructuring apparently can occur without concomitant syntactic restructuring (and possibly vice versa). But we can at least predict confidently that in such cases there will be heavy lexical borrowing.' If the original language of the artisan-slave population were responsible for the retroflex consonants, then we would have to trace to the same source many features which Nuristani shares with languages of the Indian linguistic area, such the use of the conjunctive participle, definiteness-marking etc.

The grammatical system of Old Iranian and Old Indo-Aryan was very similar and has been thoroughly recast in both language families in more recent stages of their linguistic history, so that it is hardly possible to draw any genetic conclusions from a comparison of grammatical features. We may, however, mention a few features that are either particularly archaic, or typical for Nuristani, or rare or unknown in either Iranian or Indo-Aryan:

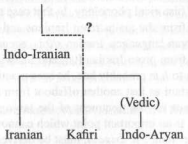
Most or all Nuristani languages distinguish masculine and feminine gender, singular and plural, several cases, the categories of definite vs. indefinite, pronouns of the 1st and 2nd persons and a system of demonstrative pronouns denoting degrees of distance or affectedness. They are typical SOV languages with adj.-head word-order. The frequent use of particles is characteristic. Most interesting among these are the local particles, which accompany almost every description of a movement or direction. The Nuristani languages have a vigesimal system of counting.

As to vocabulary, Nuristani shows a number of lexical similarities with Indo-Aryan, where Iranian differs. The word for 'fire' is Kati *aŋgā*, K *ǎy*, related to Skt. *aṅgāra-* or perhaps *agni-*, not to Av. *ātar-*; the word for 'spring (season)' is Aṣkun *wosunt*, corresponding more closely to Skt. *vasanta-* than to Iranian **wahar-* A small number of words, however, are conspicuously closer to Iranian than to Indo-Aryan: K *wřē-* 'to see' < **wēn-* ~ Av. *vaēna-*; K *kač-* 'to look' ~ Av. *kas-*; K *kan-* 'to laugh' ~ Pers. *xand-*; K *ew* 'one' ~ Av. *aēuua-*; K *wišpik* 'wasp' < **vaspika-* ~ Yidgha *woʃšio*, Balochi *gwabz*; K *wřu* 'entrails' ~ Pers. *rūda*. Some words have no counterpart in Iranian or IA, but have been compared with forms in other IE languages.

The 'third branch' hypothesis

In 1961, Georg Morgenstierne[5] declared: 'We are ... entitled to posit the existence of a third branch of I[ndo-]Ir[anian], agreeing generally with IA, but being situated on the Ir[anian] side of some of the isoglosses which, taken as a whole, constitute the borderline between IA and Ir. This branch had also retained archaisms of its own, and must have separated from the others at a very early date.' His emphasis at that time was on the fact, now generally accepted, that Nuristani, unlike Dardic, is not part of the Indo-Aryan group, at least not if Indo-Aryan is defined as that part of the Aryan branch of IE languages of which the oldest traceable form is Vedic Sanskrit. In fact, if IA is defined by the development of IE palatal **ḱ/ǵ* to *śi̯* and of aspirated **ǵh* to *h*, Nuristani cannot be IA, since a shift of **h* to *dz* is phonologically impossible. Morgenstierne did not insist on a narrow definition of 'third branch' but presented a genetic tree to illustrate his thesis:[6]

[5] Morgenstierne 1961: 139.
[6] Morgenstierne 1973: 342.



The 'Indian' hypothesis

In the light of Morgenstierne's work we can safely ignore any view which straightforwardly identifies Nuristani as Indo-Aryan. The 'Indian' hypothesis can only mean that the Nuristani languages are the remnants of Old Indo-Aryan languages which separated from mainstream OIA in pre-Vedic times. This is the position taken by such scholars as Turner,[7] Fussman[8] and Buddruss.[9] In 1973 Thomas Burrow, pointing to the fact that 'the differences between the two halves of the Aryan language group are particularly noticeable in the case of vocabulary', drew attention to the curious 'daēvic' words in Avestan. He thought that these words are in fact loanwords from Proto-Indo-Aryan and that the corresponding 'daēva-religion' was practised by those Proto-Indo-Aryans who remained on what was to become Iranian territory after the bulk of the Indo-Aryan population had moved on to India. The Nuristani languages would, according to Burrow, have descended from this Proto-Indo-Aryan. That would explain the traces of seemingly Indo-Aryan—in reality Proto-Indo-Aryan—words in Nuristani, such as K *de*, Prasun *lū* 'god' ~ Skt. *deva-* (as opposed to Av. *daēuua-* 'false god'), K *ačē* 'eye' ~ Skt. *akṣi-* (as opposed to Av. *aši* 'evil eyes').

The 'Iranian' hypothesis

The proto-Iranian changes plosive before consonant > fricative and **s* > *h* are apparently unidirectional, i.e. irreversible. Nuristani cannot therefore be an Iranian language, if Iranian is defined by the change of common Aryan **s* to *h*. From the phonological evidence Sten Konow[10] concluded that the Nuristani language he investigated, namely the Bashgali dialect of Kati, is an Iranian language split off from the Iranian branch of Aryan languages before **s* had shifted to *h* in all Iranian languages. In 1984 Manfred Mayrhofer investigated the question of whe-

[7] Turner 1966.
[8] Fussman 1977.
[9] Buddruss 1977.
[10] Konow 1911.

ther the Nuristani languages can be taken to represent a stage preceding proto-Iranian on the basis of historical phonology. In that case the speakers of Nuristani would have separated from the mainstream Iranians and from then on have been influenced by Indo-Aryan languages. Iranian *s/θ* is, according to Mayrhofer, best explained as resulting from proto-Iranian [ts], and likewise Iranian *z/d* from [dz]. Since the shift from **s* to *h* is probably late, he sees practically nothing to prevent us from defining Nuristani as just another offshoot from the Iranian branch of IE languages, if it were not for the treatment of the laryngeal in certain Nuristani words. That, however, is an important point which cannot be easily pushed aside. The Nuristani word for 'long', K *drigala*, must be derived from an older **dīrga-*, which obviously resembles OIA *dīrgha-* rather than Av. *darəga-*. The line of Mayrhofer's argument is roughly as follows:

In postvocalic position, at least one laryngeal probably still existed in early stages of IA and Iranian, since dialect variation between [H] > ø versus [H$_c$] > *i* can be observed not only between IA and Iranian, but even within OIr. In metrical texts, an intervocalic laryngeal produces hiatus, even if the traditional notation is with one long vowel: Vedic *vāta-* and Av. *vāta-* 'wind' are trisyllabic (*vaata-*) in the oldest texts, apparently because they represent **vaHata-* < **h$_2$ueh$_1$nto-*. If, therefore, a laryngeal was still present in postvocalic position, then this was also so in the case of **rH*. Consequently, the shift of **rH* to *īr* in IA and Nuristani and to *ar* in Iranian would be relatively late, possibly later than the separation of proto-Nuristani from proto-Iranian, which will have occurred at a time when Nuristani was already geographically closer to IA.

The other word which plays a decisive role in Mayrhofer's discussion of the laryngeals is the Nuristani word for 'daughter', Prasun[11] *lüšt* etc. Like OIA *duhitar-*, the Nuristani word presupposes a development from **dhugh$_2$ter-* to **dužit-*, with the intrusion of an epenthetic vowel ('Sprossvokal') after the laryngeal. On the other hand, OIr. (Av. *duγδar-* etc.) shows no trace of an epenthetic vowel. The most straightforward explanation of this is, of course, that Nuristani is more closely related to the Indian branch of Indo-Iranian. Another possibility, the one favoured by Mayrhofer, is that the loss or the vocalisation of an original laryngeal was, as in the case of **rH*, a relatively late process. Nuristani could then indeed represent the Iranian branch of Indo-Iranian at a very early stage, apparently after **k̂* was depalatalised and after **ĝ/*ĝh* shifted to **dz*, but before the laryngeals were completely lost, before **ts* shifted to *s/θ* and before **s* shifted to *h*.

One of the latest researchers to consider this problem is David N. Nelson, whose doctoral thesis on the historical development of the Nuristani languages

[11] The word occurs in all Nuristani languages. Prasun is chosen here (and by Mayrhofer) because *lüšt*, unlike Kati, K *Jü* etc., is not likely to be a loanword from Indo-Aryan. It has never been proved that Prasun shares the same genetic origin as the other Nuristani languages. It is possible that Prasun is an unrelated language with a Nuristani superstratum, but if so, it is legitimate to treat words which can be derived from IE by regular sound changes (such as **d > l*) as belonging to this superstratum and thus as representing a Nuristani language.

was completed in 1986. Nelson is, in his own words, 'inclined to agree with those who consider [Nuristani] a third branch of Proto-Indo-Iranian', but the model he uses closely resembles Mayrhofer's, i.e. it favours Nuristani being more closely related to Iranian than to Indo-Aryan. Nelson points out that 'unfortunately, the innovations that are common to Iranian and Nuristani are so meager that they can be accounted for as the result of later diffusion', thus making a final decision impossible.

The principal distinctive features of IA, Iranian and Nuristani are summarised in the following table:

Aryan	aspirates	kt etc.	k̂ > [tš]	ĝ(h) > [dž(h)]	laryngeal	s
Indo-Aryan	aspirates, h	kt	š	j/h	vowel	s
Nuristani	deaspiration	kt	[ts]	[dz]	vowel	s
Iranian	deaspiration	xt	s/θ	z/d	ø	h

At a glance, it can be seen that Nuristani shares more features with IA than with Iranian. Deaspiration and depalatalisation are the only features common to Iranian and Nuristani. But this fact alone is, of course, not decisive.

Deaspiration occurred relatively early both in Iranian and in Nuristani, with the ensuing non-operation of Bartholomae's Law in words like K *lātoy* 'he was found' < **lab-ta-*, Aşkun *batu* 'understood' < **bud-ta-* (with regressive assimilation). Instead of voiceless stops Iranian has fricatives, e.g. Av. *baod-/busta-*, Av. *grab-*/Pers. *giriftan*. The early loss of aspiration in Nuristani and Iranian need not necessarily have occurred as a single sound shift common to both dialect groups; it might have developed independently.

The Nuristani and Iranian reflexes of the IE palato-velars **k̂*, **ĝ*, **ĝh* all show forms of a dental: Proto-Nuristani **ts*, **dz*, Av. *s*, *z*, and OP *θ*, *d*. Morgenstierne[12] argued that the Nuristani evidence points to Proto-Indo-Iranian occlusive reflexes of PIE **k̂*, **ĝ(h)*; he suggested palatalised dentals **t'*, **d(h)'* or palatal affricates **č*, **ǰ(h)*. One might also consider the possibility of dental affricates **ts*, **dz(h)*. If original dental affricates were to be reconstructed for Proto-Indo-Iranian, Avestan would show a loss of occlusion, OP the loss of spirantisation and Proto-Nuristani the actual proto-morphemes (except for the loss of aspiration). However, as Nelson points out in his thesis, this would make it difficult to account for the IA palatals *ś* and *j*, because 'a sound change of ts > č and dz > ǰ does not seem to occur' in language universals, 'while the sound change č > ts is a common one'[13] which might have occurred in Nuristani and Iranian independently. It is

[12] Morgenstierne 1945: 231.

[13] Nelson 1986: 105. I am not sure if Nelson is quite correct in assuming that <ts> is not commonly palatalised into <tš>. According to D. N. S. Bhat (in Greenberg 1978: 71) 'the consonants that are the most susceptible to palatalisation among the apicals are ... the sibilants (or affricates that have a sibi-

therefore more likely that **č, *ǰ(h)* should be reconstructed for Proto-Indo-Iranian rather than **ts, *dz(h)*. Another suggestion is that of Andrew L. Sihler, who has recently (1997) argued that IE did not have a threefold series of plain velar **k*, palatal velar **k̂* and labiovelar **kʷ* (Sihler's notation) but that the palatal velar **k̂* has wrongly been claimed by linguists to explain the various reflexes of a common *satem*-language ancestor. In his view allophones of IE plain velar **k(h), *g(h)* shifted to palatal sibilants **ś(h), *ź(h)* at a very early, 'Proto-*satem*' stage. Old Iranian reflexes such as *θ* do not pose a problem, as Sihler points out that the development of slit fricatives from sibilants is a well-known feature in language universals, e.g. Burmese *θ < *s*. The weak point of his argument is that he has to assume a merger of **ś, *ź* with **č, *ǰ* in Proto-Indo-Iranian in order to account for Nuristani **ts, *dz*. Sihler compares the realisation of foreign *z* as *j* by Hindi speakers. That case is, however, entirely different, since Hindi does not have a phoneme *z* while the supposed Nuristani merger of **ś, *ź* with **č, *ǰ* would affect phonemes of one and the same language. I do not find this convincing. Anyway, in the case of Nuristani we once again end up with **č, *ǰ* as the immediate antecedents of **ts, *dz*.

If we follow the 'Indian' hypothesis, i.e. if we suppose that Proto-Nuristani was part of the language group that was to become established in northern India some time after Proto-Iranian separated from it, we would start with the following hypothetical sequence of sound shifts:

1	k̂	ĝ	ĝh	gʷ(i)	gʷh(i)	H	s
2	č (or ś)	ǰ (ź)	ǰh (źh)	ǰ(i)	ǰh(i)	H	s

After this stage, which is supposedly still common Indo-Iranian, we would have to suppose that the loss of the laryngeal or the shift of *s* to *h* occurred next, in order to make Iranian branch off before Nuristani. If we want to avoid this step because there are clear indications that these particular sound shifts were relatively late, we would instead have to posit at this stage one of the Nuristani sound shifts, namely deaspiration or the shift of IE **k̂/*ĝ(h)* to their Nuristani reflexes. In that case, the next part of the sequence would look something like this:

3 Nur.	č	ǰ	ǰ	ǰ(i)	ǰ(i)	H	s
4 Nur.	ts	dz	dz	ǰ	ǰ	H	s
5 Nur.	ts	dz	dz	ǰ	ǰ	vowel	s

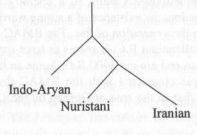
lant release)', even if 'in some languages such as Marathi, Northern Kannada, Telugu, Kashmiri, etc. the palatal affricates have been changed into apical affricates in a non-palatalising environment' (*ibid.*, 72).

Now, however, our model sequence will no longer be that of the 'Indian' hypothesis, but will have become that of the 'third branch' hypothesis, at any rate if we assume that the branching off of Iranian (with additional exclusively Iranian features) occurred at the same stage, simultaneously with either deaspiration or the depalatalisation of the IE palatal series. This would imply that the speakers of Proto-Indo-Iranian would have split up into three main groups, one of which pushed on to India and one to Iran, while the third became the ancestors of the present-day Nuristanis.

However, if we suppose that what was to become Iranian had some laryngeals and IE *s* preserved for some time after its separation from IA, the very sequence just presented as an illustration of the 'third branch' hypothesis might also be interpreted as illustrating the 'Iranian' hypothesis:

3 Nur.-Iranian	č	ǰ	ǰ	ǰ(i)	ǰ(i)	H	s
4 Nur.-Iranian	ts	dz	dz	ǰ	ǰ	H	s

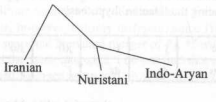
So far, this is the same sequence as that of the 'third branch' hypothesis. The affricates would subsequently have split up into *s/z* and *θ/d* in various Iranian dialects while being preserved in Nuristani: in other words, the separation of Nuristani from Iranian would be posited after this stage. The last sound shifts in Iranian would be the loss of the laryngeal and the shift of **s* to *h*. That leaves us with a genetic tree corresponding roughly to the model proposed by Mayrhofer 1983:



In discussing the 'Indian' hypothesis above I argued that it implies that either the sound shift **s > h* or the loss of **H* must have taken place in Iranian at an implausibly early date. However, this argument is invalid if we accept the possibility that two languages may separate geographically without any sound changes immediately occurring to distinguish them. Models based on pure linguistic gradualism alone can be misleading here. The sequence could just as well have been as follows:

2	č (or š)	j (ž)	jh (žh)	j(i)	jh(i)	H	s

After this stage Iranian would have separated geographically, without an immediate corresponding sound shift, due to either the Proto-Iranian or the Proto-Indo-Aryan tribes having moved on. Some time later, mainstream Proto-IA speakers would have penetrated into India, while others, i.e. Proto-Nuristani speakers, would have stayed on, their language undergoing deaspiration and other changes in succeeding centuries. This would then correspond to the genetic tree of the 'Indian' hypothesis:



Thus we obtain the very meagre result that each of the models suggested is (more or less) equally plausible, if seen from the linguistic point of view alone. Therefore I shall now try to combine linguistic and non-linguistic data into a coherent historical picture.

In the area between the Caspian Sea and the Amu Darya River settlements have been excavated which are commonly referred to as the Bactria-Margiana Archaeological Complex or BMAC. The cultural objects and monumental architecture found in these settlements point to a socially stratified society, an economy based on irrigation, the existence of a strong warrior class and religious practices which include the veneration of fire. The BMAC has been dated to the beginning of the 2nd millennium B.C. It seems to have spread southwards from Margiana and came to an end around 1700 B.C. Some archaeologists consider it probable that the people connected with the BMAC finds were Proto-Indo-Iranians,[14] who settled first in the area of Gurgan by the Caspian Sea, and then

[14] Hiebert 1995: 192. However, all such statements have to be treated with extreme caution, cf. Lyonnet 1997: 77: 'Malgré certaines contradictions manifestes ... ces analogies avec le monde indien sont souvent indiquées, chez les auteurs soviétiques, dans le but de souligner des mouvements migratoires de populations du nord-ouest vers le sud-est (ou du nord vers le sud) qu'ils aimeraient pouvoir rattacher aux mouvements indo-aryens ... Aucune preuve en ce sens n'a cependant encore pu être apportée. En l'absence d'arguments meilleurs, nous nous contenterons donc de souligner comme eux l'existence de rapports étroits entre le monde indien et le monde bactro-margien au cours de la phase II de l'âge du Bronze Moyen, et rappellerons que des rapports tout aussi étroits existaient déjà entre l'Asie centrale et le Baluchistan plus de mille ans auparavant sans justifier pour autant l'hypothèse de mouvements migratoires de populations.'

spread eastwards to Margiana and Bactria and further southwards to Kerman, Seistan and Baluchistan.

The BMAC culture was succeeded from about 1500 B.C. by the so-called Yaz I culture. This culture, locally diversified as it is,[15] is characterised by a particular kind of hand-made pottery and an apparently rural society, but above all by the absence of graves. No graves have been found in the area between 1500 B.C. and the Hellenistic period. This has led to the assumption that the bodies of the dead were exposed, as might be expected of Zoroastrians or their predecessors, and consequently some scholars have regarded the population of the Yaz I culture as Iranian.[16] This would neatly suit the explanation offered by Burrow[17] for the well-known concentration of etymologically related geographical names in the Indo-Iranian borderlands: the Vedic river *Rasā-* and the Avestan river *Raŋhā-*, the Vedic river *Sarayu-* and the Avestan name of a region *Harδiuua-*, the Vedic river *Sarasvatī-* and the Avestan name of a country *Haraxᵛaitī-*. By contrast, Vedic *Sindhu-* and Avestan *Hiṇdu-* denote one and the same country and its river. The area where these place names are located partly coincides with the range of the BMAC. The use of the same place names for different localities could be accounted for by assuming that the Proto-Indo-Aryans settled first in the area and left the place-names to the following Iranians. As most recently argued by Almut Hintze,[18] the phonetic differences between the IA and the Iranian names may be due to the fact that the Proto-Iranians took the place names over from Proto-Indo-Aryan before **s* had shifted to *h* in Iranian (rather than to a substitution of *h* for *s*). This sound shift would still have been incomplete when the Iranians came into contact with India and adopted the IA name *Sindhu-*.

A difficult problem is to explain how the supposed Proto-Iranians of the Yaz I culture could have come into contact with the supposed Proto-Indo-Aryans of the BMAC if the BMAC population left two centuries before the arrival of the Iranians. Assuming that the BMAC finds do indeed belong to the Proto-Indo-Aryans, I would suggest that the Proto-Nuristanis were still part of the Proto-Indo-Aryans when they migrated from Margiana to Bactria but that, unlike that part of the population which moved further south to form the Indo-Aryan population of India, the Proto-Nuristanis stayed on long enough to come into contact with the people of the Yaz I culture. The culture and religion of Nuristan before its Islamisation was strikingly reminiscent of the culture of ancient India. Even today, after a hundred years of adherence to a religion which considers all men to

[15] Lyonnet 1997: 107.

[16] Hintze 1998: 144, citing Parpola. Again Lyonnet 1997: 115f., without denying the possibility of migrations, warns against rash conclusions. She points out that 'toutes ces nouveautés ne sont pas à attribuer forcément à un seul et même groupe, venant d'une seule région, et il est plus probable que ... diverses tribus venant de plusieurs régions situées tant au nord-est qu'au nord-ouest de l'Asie centrale sont impliquées dans ces transformations.'

[17] Burrow 1973: 126.

[18] Hintze 1996.

be equal before God, there are clear traces of the traditional hierarchy valid in pre-Islamic, 'Kafir' times. Each of the Nuristani villages has its own customs but there are traditions which are common to all or most Nuristanis. Kafir society was a strictly oligarchic society organised in clans or lineages which were respected depending on their property and the number of warriors they could provide, with a double system of social advance which awarded ranks and privileges to those who were successful either in warfare or in giving feasts of merit. Kafir (and to a lesser extent Nuristani) society is divided into those Nuristanis who are born as members of the free landowning and livestock-herding class and those of lower status who are, by birth, members of a craftsmen class. Traditionally, it consists of three classes strongly reminiscent of the ancient Indian *varṇa* structure: 1. one priest subject to ritual restrictions; 2. the ruling class of cattle-owning warriors, among whom the poorer ones are socially inferior and work for the others as goatherds; and 3. the artisan-slaves who live apart in the village, do not own land and are not allowed to go near the sacred sphere of the pure priest. The general word for 'god', K *de*, corresponds to Skt. *deva-*, while K *dilu* 'sky' is derived from *devaloka-*. The names of Kafir gods include K Yamrā < *yamarāja-*, K Indr < *indra-*, K Ges < **gaveṣa-*, Kati Mon < *mahādeva-* and Kati Sudrem, the same word as in Prasun *sūǰum-sur* < **sudharman-*. The designations for demons and other supernatural beings are easily recognisable as being close to IA: K *yoṣ* 'giant' < *yakṣa-*, K *wōtri* 'fairy' < **vātaputrī-*, K *ḍāni* 'sorceress' < *ḍākinī-*. Even though the study of Kafir myths is very complicated, because they have only recently been collected and from informants who no longer sufficiently understand them, it reveals surprising parallels with Vedic, non-Iranian mythology. Gérard Fussman[19] has aptly demonstrated that such designations and the corresponding beliefs are hard to explain as loans from Indo-Aryan. It is much more probable that we are here dealing with ancient concepts which, however much they have been modified over the centuries, go back to a time before the Indo-Aryans became Indianised and eventually Hinduised through contact with indigenous beliefs and through the dominance of brahmanic concepts in India.

In short, archaeological and ethnological evidence tends to speak for the hypothesis that Nuristani was initially part of the Indian branch of Indo-Iranian. Accepting, furthermore, that the people of the Yaz I culture were Proto-Iranians, I now suggest that when the mainstream Proto-Indo-Aryans moved on to India, one part of them stayed on and became the ancestors of present-day Nuristanis. Their language was Proto-Indo-Aryan, and their traditions were much the same as those of the Proto-Indo-Aryans at the time of their arrival in India. When the Proto-Iranians arrived, the more advanced culture of the Proto-Nuristanis, in particular their religious culture, was not without attraction for a mostly rural society. Following Burrow, one might imagine that the Avestan term 'daēvayasna'

[19] Fussman 1977.

(*daēuuiiasna-*) was in fact aimed at the Proto-Nuristanis, together with those Iranians who were ready to follow them in their beliefs and practices.

It must have been during the time of contact between Proto-Nuristani and Proto-Iranian that the deaspiration occurred in both languages. Although it cannot be ruled out that it may have come about in each group independently, it is more probable that it was one and the same sound shift in both Proto-Nuristani and Proto-Iranian. We should bear in mind that in the Avesta the opposition between the two sides is always spoken of in religious terms between the 'mazdayasnas' and the 'daēvayasnas', never in ethnic or linguistic terms. Probably such differences were felt to be negligible. Also according to our gradualist model of language change outlined above, Proto-Iranian and Proto-Nuristani would at that stage still have been more or less the same phonologically. That 'daēvic' terms were taken over by Iranian, and possibly a certain amount of Iranian vocabulary by Nuristani, fits in well with language universals, according to which lexical items rather than grammatical structures are borrowed first, and that even by languages in casual contact, with little bilingualism among the speakers of the borrowing language.[20]

Hard-pressed by the dominant Proto-Iranian culture, the Nuristanis were probably forced to retreat to inaccessible mountain regions already in prehistoric times. That would account for the absence of graves after 1500 B.C. The Kafirs were normally coffined in chests standing on the ground, important persons being deposed in house-like roofed tombs.

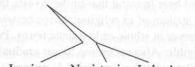
When the contact between Proto-Iranians and Proto-Nuristanis stopped, because the populations moved apart or because of religious diversities, it remained broken until the forced Islamisation of Nuristan centuries later. Contact with IA speakers always remained, even if on a limited scale. In the case of such casual contact, however, we would expect only lexical borrowing from IA. The numerous parallels in the development of IA and Nuristani—features such as retroflex phonemes, echo-words, the use of the conjunctive participle, word-order features such as SOV, adjective-noun, genitive-noun and the use of postpositions, definiteness-marking, etc.—are then difficult to account for, since they are too numerous to be taken as mere independent developments. If they are borrowed from IA, this would seem to presuppose heavy lexical borrowing too, which is not impossible but hard to prove.[21] Nuristani languages today are not part of the

[20] Thomason and Kaufman 1988: 36.

[21] According to the borrowing scale of Thomason and Kaufman 1988: 74, casual contact leads to lexical borrowing only, while slightly more intense contact involves slight structural borrowing: borrowing of function words like conjunctions and adverbial particles, borrowing of minor phonological features (in loanwords only) and possibly minor syntactic and lexical semantic features. Only in more intense contact situations will phonological borrowing probably include the phonemicisation, even in native vocabulary, of previously allophonic alternations, especially if the corresponding distinctive features are already present in the borrowing language.

Indian linguistic area[22] but share a number of characteristics with non-Indian languages of South and Central Asia.

The genetic tree that corresponds to this reconstruction is quite similar to that of the 'Indian' hypothesis, but takes into account the contact with Proto-Iranian in the latter half of the 2nd millennium B.C.:



I cannot pretend to have offered a final solution to the problem of where to place Nuristani within the Aryan group of IE languages. It seems to me, however, that an evaluation of both linguistic and non-linguistic data makes it most probable that Nuristani originally belonged to the Indo-Aryan branch but parted from it before the migration of the Indo-Aryans into India. Some of the features which seem to place Nuristani closer to the Iranian languages can be explained as the result of later intensive contact with Iranians.

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[22] As defined by Masica 1976.

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Gāndhārī and the other Indo-Aryan languages in the light of newly-discovered Kharoṣṭhī manuscripts

RICHARD SALOMON

1. Background: Gāndhārī then and now

APPROPRIATELY ENOUGH, the topic of this article is a language whose very name was first proposed by the great scholar whose career is celebrated in this volume. For it was Harold Bailey's 1946 article whose title 'Gāndhārī' introduced that name for the first time, with the following explanation:

> The word Gāndhārī has been chosen to head this study as a term sufficiently wide in its scope to embrace the forms of the one Middle Indian dialect of the north-west of India, centred in the old Gāndhāra region, around modern Peshawar, and which we meet in most varied sources (Bailey 1946: 764).

Prior to the publication of this article, the language in question had generally been referred to by descriptive terms such as 'Northwestern Prakrit.' It is a mark—only one of many—of Bailey's far-reaching influence on modern scholarship that this term is now the widely accepted way of referring to this language. Although we do not know for sure, and may never know, exactly what the speakers and writers of this language themselves called it, there can be no doubt that 'Gāndhārī' is the most appropriate designation that we have, and for this, as for so much, we are indebted to Harold Bailey.

Although Gāndhārī is a full member of the Middle Indo-Aryan (MIA) group of languages, it stands apart from all of the other languages of this family in several respects, most notably with regard to its phonology, writing system and cultural role. As to phonology, Gāndhārī is unique among the MIA languages in retaining certain features and distinctions of the Old Indo-Aryan stage of development which were eliminated in the other dialects. For example, whereas elsewhere in MIA the three sibilants of OIA (*ś*, *ṣ*, and *s*) were all levelled to either *s* or *ś* (depending on the dialect), in Gāndhārī they were generally retained in their original form (e.g. Sanskrit *śata-* / Pāli *sata-* / Gāndhārī *śada-* 'hundred'). Similarly, certain OIA consonant clusters, particularly those involving combinations

of stops with the semivowels *r* and *v*, which are simplified in other MIA languages, are preserved in Gāndhārī (e.g. Sanskrit *prasāda-* / Pāli *pasāda-* / Gāndhārī *prasada-* 'favor'). That these unusual phonetic features reflect the actual pronunciation of Gāndhārī, rather than being mere archaic spellings, is proven both by derived forms in the modern Dardic languages of the northwestern region (e.g. Sanskrit *traya-/tri-* ~ Gāndhārī *traya-/tre* ~ Kalasha *trē-* vs. Pāli *taya-/ti-* 'three'), and by the forms of certain words borrowed from Gāndhārī into other ancient languages such as Khotan Saka (see e.g. Bailey 1946: 774-8). Here once again it is Bailey's work which has been particularly influential in establishing these patterns.

In regard to the writing system associated with it, Gāndhārī once again stands apart from all other MIA dialects, which were represented by the Brāhmī script and its various regional and chronological derivatives, whereas Gāndhārī was invariably recorded in Kharoṣṭhī script. This is, in origin, probably only a matter of geographical and historical accident, but in practice it has a significant effect on our knowledge of the language. The orthography of Kharoṣṭhī, in which vowel length is not distinguished and geminate consonants are written as single, is less precise than that of Brāhmī, and this causes some problems in the interpretation of the language, although the gaps can often be filled in by comparisons with other languages.

In its role as a vehicle of culture too, Gāndhārī stood apart from most other MIA languages, with the partial exception of Pāli. Like Pāli, but unlike most other MIA languages, Gāndhārī was closely associated with Buddhist tradition. But it also had, for a time, during the period of the Kuṣāṇa empire, an important role as a secular language of administration, and in this respect too it stands apart from other MIA languages.[1] The emergence of Gāndhārī as a written and literary language is closely tied up with the predominance of Buddhism in the northwest, so that, for example, the great majority of the inscriptions which are one of the major sources of our knowledge of the language are Buddhist in content and affiliation; and the many newly discovered literary texts that are the main focus of this article are also, virtually without exception, Buddhist. The transformation of Gāndhārī from a local vernacular into a language of both church and state over a wide area of Central Asia is also connected with the expansion of Buddhism to these regions, but it was equally and simultaneously the result of the unifying force of the vast Kuṣāṇa empire, in which Gāndhārī served both as a vehicle for the Buddhist message and as an administrative language.

It is the result of this combination of forces, working hand in hand, that we find Gāndhārī documents in large numbers as far afield as ancient Bactria (modern northern Afghanistan and southern Uzbekistan) and Xinjiang in Chinese

[1] Of course, various other MIA dialects probably were used as administrative languages in other regions, but virtually no specimens of these administrative languages survive, except, in some limited cases, in inscriptions.

Central Asia, where it functioned as the administrative language of the Shan-shan or Kroraina kingdom. Thus, in its glory days the Gāndhārī language was an influential international language. But with the decline of the Kuṣāṇa empire in or around the third century, Gāndhārī rapidly declined and its role as the carrier of Indo-Buddhist culture was eventually taken over by Sanskrit. Indeed, the literary tradition of Gāndhārī was entirely lost and forgotten until it began to be rediscovered by modern scholarship in the nineteenth century.

The rediscovery of Gāndhārī and the cultural world that it embodied is still very much in process today. For until a few years ago, our knowledge of Gāndhārī was limited to a body of materials which although fairly large in total number—some thousands of texts in all—was severely circumscribed in respect to its form and contents. These previously known materials fell into four classes:

1 A few hundred inscriptions, nearly all Buddhist, mostly quite short and with a fairly limited vocabulary and a stereotyped and formulaic style.

2 Coin legends, very numerous, but obviously of limited use for linguistic and philological studies.

3 Nearly one thousand documents on wood and leather, mostly secular and administrative in character, from Niya and other sites in Xinjiang. These are of considerable linguistic value, as shown especially by the studies of Bailey and Burrow (1937), but once again are limited by their largely formulaic character and the restricted scope of their vocabulary and contents.

4 A single Buddhist literary text, the 'Gāndhārī Dharmapada' (now more accurately to be called 'Khotan Dharmapada'), on a birch-bark scroll discovered in 1892 at Kohmārī Mazār near Khotan in Xinjiang.

But now, within the last ten years, a large number of Buddhist literary manuscripts in Gāndhārī have come to light. Besides their obvious intrinsic interest, these are especially valuable for linguistic studies because of their wide diversity, both in terms of their contents and of their place and time of origin. To date, four important collections of manuscripts in Gāndhārī language and Kharoṣṭhī script have become available for scholarly study:

1 The British Library scrolls: a collection of twenty-nine birch-bark scroll fragments, of very diverse contents, probably dating from the early first century A.D., and apparently originally from the region of Haḍḍa in eastern Afghanistan (Salomon 1999; 2000; Allon 2001; Lenz forthcoming; Cox in progress).

2 The Senior scrolls: a collection of twenty-four birch-bark scrolls in a private collection in the United Kingdom, generally similar in form, scope and contents to the British Library collection, but perhaps slightly later in date. This collection is only now beginning to be conserved and studied (Salomon forthcoming a; forthcoming b, part II.4).

3 The Schøyen Kharoṣṭhī fragments: some 250 fragments, mostly very small, of palm-leaf manuscripts in a private collection in Norway. These fragments were reportedly discovered at or near Bamiyan in northeastern Afghanistan, and seem

to date from around the second or possibly the third century A.D. (Allon and Salomon 2000).

4 The Pelliot Kharoṣṭhī fragments: a small collection in the Bibliothèque Nationale de France comprising eight small pieces of palm-leaf manuscripts which were found in the area of Kucha on the northern rim of the Tarim Basin in Xinjiang. Although they were found nearly one hundred years ago, they have only recently been studied and published (Salomon 1998b). These fragments are difficult to date with any certainty, but they are not likely to be any older than the Schøyen Kharoṣṭhī manuscripts, and could be somewhat later.

Even though the detailed study of most of this large new body of materials is still in its early stages (with the exception of the Pelliot and, to some extent, of the British Library fragments), they have already vastly enhanced the level and scope of our understanding of the Gāndhārī language in its many forms and varieties. Complete studies of all of these texts, and perhaps also of others which may come to light in the future, will no doubt bring us much farther yet. We are now at the stage where it is possible to imagine—though not yet actually to bring into being—a comprehensive grammar and dictionary of Gāndhārī. Although these studies may not actually see the light of day for some years, the groundwork, at least, is now being laid for what may one day be the fundamental research tools for the study of this language which we have lacked for so long.

This is all the more to be hoped for, because the far-reaching cultural influence of this language—which, once again, Bailey was among the first to clearly comprehend—is further revealed by the new discoveries. For these new manuscripts confirm beyond a doubt that, as had previously been hypothesised on the basis of the then-unique Khotan Dharmapada, Gāndhārī was in its day a major language of Buddhist scholarship, a transregional church language used far beyond the boundaries of its original homeland, and quite possibly even a canonical language, at least in some sense of the term.

2. Varieties of literary Gāndhārī

2.1. 'Gāndhārī translationese'

The new manuscripts now provide us with numerous specimens of several varieties, or what might rather be called 'registers', of Buddhist literary Gāndhārī. The first variety represents what seems to be an early stage of development of the literary language, in which the influence of an underlying Middle Indic source dialect is still clearly evident. This type of Gāndhārī is particularly prominent among the British Library scrolls, and this observation seems to be consistent with their standing as, probably, the oldest among the four new corpora of Gāndhārī manuscripts. A typical specimen of this 'Gāndhārī translationese,' is the following verse from the recitation of the monk Yaśas in the Anavatapta-gāthā scroll (British Library Kharoṣṭhī fragment 1, recto, lines 57-9):

*[ṇa](*gha)rade ṇikasitaṇa ṇai[ti]ru uaghami ·*
adaśi [paj]rimu ti[r.] ṣamaṇo cakramatao .[2]

'Going out of the city, I approached the bank of the river.
I saw on the opposite shore a monk walking back and forth'.

Among the typical 'translationese' features in this sample are the first-person preterite verb forms in *-i* (*uaghami*, *adaśi*), reminiscent of similar 'aorist' formations in Pāli. Probably also an artifact of the process of translation (or, as some might prefer to say, transposition) from some other MIA dialect into Gāndhārī is the irregularity of the *anuṣṭubh* meter of this, as of quite a few other verses in this text; note the hypermetric first pāda (*ṇagharade ṇikasitaṇa*). In this and other respects, this text, like several similar ones among the British Library scrolls, seems a bit rough-hewn; such texts often read, not only like translations, but like rather imperfect or unpolished translations. Thus one gets the impression that this body of texts may reflect a relatively early stage in the development of Gāndhārī as a Buddhist literary language, a stage at which the techniques of translation were still somewhat rudimentary and unstandardised.

Several of the scrolls from the Senior collection contain texts corresponding to suttas of the Saṃyutta-nikāya in the Pāli canon. These also exhibit the same mechanical translation process, albeit in this case manifested in prose sūtra style, as in the following sample from Senior scroll 19, recto, lines 3-4:

teṇa o va ṇideṇa [sic] *samaeṇa gaganadia sotreṇa mahata darukade* [sic] *avuyadi adaśa [bha]yavada to mahata darukadha avuyato dispaṇo ta bhikhu amatr[e]ti paśas[o] ta bhikhu amo mahata darukadha gaganadiso[tre]ṇa avuyataṇa eva bha(*te)*[3]

'At that same occasion [and] time, a large piece of wood was being carried along by the current of the Ganges River. The Lord saw that large piece of wood being carried along. Having seen it, he then said to the monks: "Do you now, monks, see that large piece of wood being carried along by the current of the Ganges River?" "Yes, sir."'

A crucial philological issue is the identity of the underlying MIA source of these Gāndhārī translations. Since we have no actual specimens of it, we can only get occasional glimpses from the traces remaining in the translations. But there is reason to hope that detailed studies of the texts involved will eventually provide a critical mass of clues that will, in combination, give us a clearer picture of the underlying dialect or dialects. For now, all that can be said is that it is evidently a

[2] The parallel text in the Sanskrit Anavatapta-gāthā (Bechert 1961: 140, verse 155) reads:
nagarād abhiniṣkramya nadītīram upāgataḥ /
apaśyam pārime tīre śramaṇaṃ saṃvṛtendriyam //

[3] The Pali parallel text (Saṃyutta-nikāya IV.179, lines 8-12) reads:
addasā kho bhagavā mahantaṃ dārukkhandhaṃ [sic] *gaṅgāya nadiyā sotena vuhyamānaṃ //*
disvāna bhikkhū āmantesi // passatha no tumhe bhikkhave amum mahantaṃ dārukkhandhaṃ [sic] *gaṅgāya nadiyā sotena vuhyamānanti // // evaṃ bhante // //*

northern/midland early MIA dialect, whose phonetic and morphological features were apparently not very different from those of what we now know as Pāli.

2.2. *The colloquial avadāna style*

The several sets of brief narratives found in the British Library scrolls[4] which are entitled *avadana* (Skt. *avadāna*) or, in one case, *provayoga* (*pūrvayoga*) give a distinctly different impression from the 'translationese' texts. In these texts, the language is more natural and colloquial, though hardly polished, and one does not get any impression that they are translations from another dialect. Representative is the following specimen text from the fifth avadāna in the collection on British Library fragment 4 (part 6, verso, lines 15-17):

> *so teṣo nigaṭhaṇo uvaṣakramito ahadi aho sagi udeś[o] dase [asa] aha paḍi[ha]ryaṭ[ni] darśaiśe yavi raya [viñato] ray[e]ṇo matrido suṭhu [ya]di ...*
>
> 'He approached those Nirgranthas. He said, "I will give [you] instruction myself [?]". Then he said "I will show [you] miracles". When the king was informed [of this], the king said, "Truly, if ...".

The syntax of this passage has several features which are typical of the middle and later stages of MIA. Characteristic, for example, is the absence, with the exception of a few apparently stereotyped forms such as *aha* = Sanskrit/Pāli *āha*, of finite preterites of the sort noted above in connection with the first class of Gāndhārī texts. In the avadāna texts, preterite verbs are normally expressed by participles, with both active (*uvaṣakramito* = Sanskrit *upasaṃkrāntaḥ*) and passive constructions (*rayeṇo matrido* = *rājñā mantritam*), or by 'narrative present' forms (*ahadi* = **ahati*).

The frequent use, as in the example above (*matrido*), of forms of the unprefixed verb *matredi* in the general sense of 'speak', 'say' is also typical of the British Library avadānas. This seems to be another indication of the local and colloquial character of their language, since (as noted in Salomon 1999: 134) derivatives of this verb have a similar generalised sense in some modern Dardic and Nuristani languages; this, in contrast to Sanskrit, where the corresponding unprefixed verb *mantrayate* typically has more restricted senses such as 'deliberate', 'advise' or 'whisper', and Pāli, where the verb *manteti* is widely used in the general sense of 'speak to', 'address' only with the prefix *ā-*.

Also typical of the colloquial avadāna style is the consistent omission, as in the sample text above, of the quotative particle *iti* or its equivalents *ti* and *di*. This is a striking anomaly in comparison to other OIA and MIA languages, where the use of the quotative particle is more or less mandatory, and may be another reflection of areal dialectal features which set colloquial Gāndhārī apart from its MIA sisters.

While the Gāndhārī avadānas are stylistically distinct from other Gāndhārī texts, they do to some extent resemble parts of the avadāna literature preserved in Sanskrit. In many Sanskrit avadānas, for example, descriptive passages in a more ornate prose and/or verse style often alternate with narrative portions whose short, unadorned sentences resemble those of the Gāndhārī avadānas. Compare, for example, the following passage from the Divyāvadāna (ed. Cowell and Neil, p. 418, lines 7-12):

> *bhūtapūrvam atīte 'dhvani vārāṇasyām anyatamo lubdhakaḥ. sa himavantaṃ gatvā mṛgān praghātayati. so 'pareṇa samayena himavantaṃ gataḥ. tatra cāśanipatitāni* [sic] *ekasyāṃ guhāyāṃ praviṣṭāni āsāditāni. tena vāgurayā sarve gṛhītāḥ. tasya buddhir utpannā. yadi praghātayiṣyāmi māṃsaḥ kledam upayāsyati. tena pañcānāṃ mṛgaśatānām akṣīṇy utpāṭitāni.*

Of course, it would be rash to jump to the conclusion that the Gāndhārī texts constitute the stylistic and/or textual prototypes of the Sanskrit avadāna style. For stylistic patterns can easily develop independently of particular languages, so that it may be impossible to definitively specify where, geographically and linguistically, such styles originated. Nevertheless, we can suspect that we have in the Gāndhārī avadānas early specimens of a simple narrative style which underlay or at least influenced the development of the later avadāna style as it known to us in Buddhist Sanskrit literature.

It is also of interest to note in this connection that the Gāndhārī avadānas are actually only brief summaries or skeletons of longer stories, as is shown, not only by their brevity, but also by the frequent citation in them of abbreviation formulae like *vistare sarvo karya* 'The whole [story] is to be done [i.e. recited] in full' (Salomon 1999: 36). Thus in the more developed Sanskrit avadānas of a later period we have actual specimens of an elaborated style of narrative that may be implied, but not set out in writing, among the British Library scrolls. The latter therefore seem to reflect a stage in the development of the avadāna tradition in which it still preserved a significant oral or extemporaneous component.

2.3. *Scholastic Gāndhārī*

The third variety of literary Gāndhārī is the technical or scholastic style, which is represented in a large number of the British Library scrolls containing commentaries, abhidharma treatises and other technical texts, some of which are not yet clearly understood as to their genre and purpose. A more or less typical specimen of this style is this extract from an unidentified abhidharma text (British Library fragment 28, recto, lines 69-71):[5]

[4] For specimens of texts of this class, see Salomon 1999: 35-9, 139-49; Allon 2001: 303-6; and Lenz forthcoming, part I.

[5] The provisional text and translation of this passage are from Cox in progress.

*asti sarva. asti no ca sarva. ye duaḍaśayadaneha aṣagrahida se asti. (*tra)yadhva astida asabhina vatava. aṣa adhva astita di. ya asti ta ha astida vatava. (*ya nasti) ta nastida ha vatava. sata astida vatava. asata nastida vatava.*

'That which exists is everything, but that which exists is not [said to be] everything [in the sense that] that which is not included within the twelve sense-spheres exists. Existence in the three time periods is said to be not confused. Or else the time period is to be equated with existence. That which exists is indeed said to be existence. (*That which does not exist) is indeed said to be non-existence. Being is said to be existence; non-being is said to be non-existence.'

The style of these texts is highly formalised and standardised, with a limited vocabulary consisting largely of Buddhist technical words terms as *duaḍaśayadaneha* (= Skt. *dvādaśāyatanaih*) and *astita*/*astida* (= *astitā*), and of operational or syntactic terms of the formal discourse such as *vatava* (= *vaktavyam*) and *aṣa* (= *atha*). A somewhat broader, less technical vocabulary sporadically found in them is mostly limited to portions of the text containing citations of examples from everyday life.

The phonetic structure of this and other Gāndhārī texts of this genre generally involves a mixture of typically Gāndhārī features, such as *sarva* and *asti* in the sample text, with forms such as *kama* and *dhama* (rather than *karma* and *dharma*) which are more characteristic of non-Gāndhārī MIA dialects. However, the presence of forms which are not typical of Gāndhārī, sometimes in considerable numbers, is not necessarily proof that the texts containing them were translated into Gāndhārī from another language. For the fact that some common Buddhist technical terms are regularly spelled in Gāndhārī texts according to standard MIA orthography is well documented, the best attested example being the spelling *bhikhu* instead of proper Gāndhārī *bhikṣu* (Brough 1962: 102). Although such spellings in Gāndhārī do ultimately stem from the influence of midland dialects, their occurrence in a particular text by no means proves that the text itself is a translation; rather, these spellings seem to have been taken over into Gāndhārī generally, and perceived as normal.

It is therefore difficult, in the case of such technical literature, to be sure whether we are looking at a Gāndhārī translation of an original text in another MIA dialect, or rather a text that was originally composed in Gāndhārī in a sort of pan-Buddhist scholastic jargon, whose different regional manifestations were for the most part distinguished only by somewhat haphazard adaptations to local pronunciation. The vocabulary is so limited and technical, and the syntax and style so formalised, that the sort of obvious clues of 'translationese' that we find in narrative texts of the first variety of literary Gāndhārī, discussed above, cannot be easily spotted in texts of this class. Here once again, intensive studies of these texts to be undertaken in the future will probably at least partially clarify the issue, but for the meantime we can only make educated guesses on circumstantial grounds. This being the case, I would consider it more likely that many if not all

of these technical texts were in fact originally composed in Gāndhārī, mainly on the grounds that they seem to lack parallels in other Buddhist canons and in some respects seem quite anomalous in their contents and arrangement (Salomon 1999: 26-30).

4. Sanskritised Gāndhārī

A fourth variety of literary Gāndhārī is the sanskritised style which is characteristic of some of the Pelliot and, especially, the Schøyen fragments. The sanskritic features that characterise these corpora are notably absent from the British Library[6] and Senior scrolls. The sanskritised Gāndhārī texts themselves may eventually be further divisible into sub-types depending on their degree of sanskritisation, but the details of such a differentiation remain to be worked out.

A typical specimen of sanskritised Gāndhārī is the following extract from the Schøyen fragments of the Mahāparinirvāṇa-sūtra (Schøyen Kharoṣṭhī fragment 44a, recto, line 3; Allon and Salomon 2000: 247, 260):

(sarvaga)dhana(*ṃ) cida cinitva raño mahasudarśanasya śarira ǰapayisu catumaharpathe sthuvaṃ akarisu*[7]

'After building a pyre of (*all) fragrant [woods], they burned the body of King Mahāsudarśana. They built a stūpa at the crossings of four main roads.'

This passage is written in more or less typical Buddhist sūtra narrative style, which like the 'Gāndhārī translationese' described above shows traces of an underlying MIA source language, for example in the preterite verb forms *ǰapayisu* and *akarisu*. But it also has a strong tendency towards sanskritisation in its orthography and morphology,[8] as in the genitive ending in *-sya* instead of standard (i.e. non-sanskritised) Gāndhārī *-sa* or *-śa*, in *mahasudarśanasya*, and in the spelling of *sthuvaṃ* (= Skt. *stūpam*) with a conjunct character separately composed of the consonants *sa* and *tha* (), instead of the usual Kharoṣṭhī/Gāndhārī ligature *st(h)a* ().

Such sanskritisation is characteristic of the Schøyen Kharoṣṭhī fragments in general, and some of them have even more strongly sanskritised orthographies. For example, in fragment 42b we find the word *saṃkārasaṃǰña* = Sanskrit *saṃskārasaṃǰñāṃ*, instead of standard Gāndhārī *saṃkarasaña*.[9] Here the long vowel in *saṃkāra-* is marked by an extra stroke at the lower right corner of the syllable,

[6] It is for this reason that this fourth class of literary Gāndhārī was not discussed in Salomon 1999. The preceding description of the first three varieties of literary Gāndhārī is based largely on Salomon 1999: 138-40.

[7] The Pali parallel (Mahāsudassana-suttanta, Dīgha-nikāya II 142) reads:
sabbagandhānaṃ citakaṃ karitvā raññō cakkavattissa sarīraṃ jhāpenti, cātummahāpathe raññō cakkavattissa thūpaṃ karonti //

[8] For detailed discussion of these points see Salomon and Allon 2000: 266-71.

[9] For further discussion of this passage see Salomon forthcoming b, section II.2.

and the cluster *jña* is represented by a special consonantal conjunct () composed of the consonants *ja* and *ña*. The notation of long vowels has previously been observed in several other Kharoṣṭhī documents (Salomon 1998a: 56), but the development of a sanskritic conjunct for *jña*, evidently as a learned spelling in place of the colloquial *ñ(ñ)a*, is a new discovery.

It must be stressed that although sanskritised Gāndhārī is presented here as a fourth class of literary Gāndhārī, this class is not on the same level as the first three. For whereas the distribution of types 1 to 3 appears to be primarily determined by the genre of the texts, type 4 is probably determined chronologically. As noted above, the sample text provided for the sanskritised type 4 is evidently based on a type 1 or 'Gāndhārī translationese' text which was subsequently subjected to sanskritising orthography. It would not be surprising if other of the later Gāndhārī manuscripts, particularly those in the Schøyen group, will, when studied in detail, provide specimens of sanskritised versions of type 3, or scholastic Gāndhārī, and perhaps also of type 2, the vernacular narrative style.

The attribution of a later date, most likely the second or third century A.D., to the more sanskritised Gāndhārī manuscripts is based primarily on parallels from inscriptional Gāndhārī, where a similar trend toward sanskritisation first appears in inscriptions from the time of Kaniṣka onward, that is, probably, the early to mid-second century. Several, though by no means all, of the Kharoṣṭhī inscriptions of this period, for example the Sui Vihar copper plate inscription of the eleventh year of Kaniṣka's reign (Konow 1929: 141), have similar sanskritic features such as the genitive in *-sya*.

3. The historical development of Gāndhārī as a literary language

The new documents under consideration here enable us to determine, with far greater clarity, certainty and detail than could be done before, something of the historical development of the Gāndhārī language. Although a great deal of detailed analysis remains to be done, and although no doubt some questions will remain unanswered, we can now discern at least the broad outlines of the history of Gāndhārī's role as a Buddhist literary language. This process begins, or perhaps rather first becomes visible to us, in or around the first century A.D., when Gāndhārī was being used for renderings into the local dialect of pre-existing texts in midland MIA languages. Apparently more or less contemporary in origin with these 'translationese' documents, or possibly slightly later than them, are narrative texts (type 2), which were evidently originally composed in Gāndhārī, as well as technical texts (type 3), whose original language is difficult to determine. This is the state of things represented in the earlier corpora, namely the British Library scrolls and also, as far as can be determined up to now, the Senior scrolls.

The two later collections, unlike the earlier ones, show a distinct tendency toward sanskritisation. The Gāndhārī of the Schøyen Kharoṣṭhī fragments, which may be about a century or more younger than the British Library scrolls, is consistently sanskritised, while in the Pelliot fragments, which may be contemporary with or somewhat later than the Schøyen fragments, we find a greater diversity. One of them (No. 8) is in standard, non-sanskritised scholastic Gāndhārī; some others (particularly Nos. 3 + 6) seem to be in sanskritised Gāndhārī, although these remnants are too small to be analysed conclusively; and one fragment (No. 1, the largest and best preserved in the group) is written in more or less standard Sanskrit recorded in Kharoṣṭhī script.[10] Thus within this relatively small collection, we have, apparently by a lucky accident, samples of manuscripts exhibiting several different stages of textual development which neatly summarise the history of Gāndhārī as a Buddhist literary language.

In particular, the occurrence among the Pelliot fragments of a Sanskrit text in Kharoṣṭhī script, a rare though not totally unprecedented phenomenon, provides a clue to the ultimate fate of Gāndhārī. Although we do not yet have sufficient evidence in the form of actual contemporary texts to document the entire process, all indications are that Gāndhārī was gradually sanskritised to the point that it, in effect, became Sanskrit. What is particularly interesting about the Pelliot Sanskrit fragment is that it suggests that the end product of this process was, at least in Central Asia, a body of Buddhist literature consisting of Sanskrit texts written in Kharoṣṭhī script. Exactly how extensive this type of literature was, and whether it existed in the northwest of the Indian subcontinent and/or in Afghanistan as well as in Central Asia, remains to be seen; but it would not be too surprising if further specimens of Kharoṣṭhī-Sanskrit documents are discovered in the future.

In any case, when we view this matter in a broader perspective, it becomes clear that the evolution of literary Gāndhārī followed a similar course to that of the other MIA vernaculars in North India, and apparently at about the same time. For in the sanskritised Gāndhārī of the Schøyen and Pelliot fragments we have something that seems to be closely analogous to what is widely known as 'Buddhist Hybrid Sanskrit', for which we can perhaps coin the term 'Gāndhārī Hybrid Sanskrit'. The long-standing and controversial problem of exactly what forces and circumstances led to this sanskritisation remains largely obscure, but the new texts provide us with a rich body of material in the form of manuscripts dating from the very period during which these 'hybrid' languages developed.[11] So here too, the detailed analysis of these materials that is planned for the coming years should help to clarify these fundamental issues, especially since they can be expected to provide more accurate and reliable data than the much later and often very corrupt Nepali manuscripts of Buddhist Hybrid Sanskrit texts, which until now have been our main source for the study of the sanskritisation of Buddhist literature.

[10] For a detailed analysis of the language of the Pelliot Kharoṣṭhī fragments see Salomon 1998b (especially pp. 150-52).

[11] For a review of this issue in light of the new Gāndhārī materials see Salomon 2001.

4. The character of literary Gāndhārī

The brief characterisations presented above of four varieties of literary Gāndhārī are not meant to imply that any one or another of them is the 'true' or 'original' Gāndhārī. Even though type 2, as embodied in texts which were evidently originally composed in Gāndhārī rather than translated from or imitative of other languages, is presumably closer to the actual contemporary colloquial dialect, this does not mean that the three other types are in any sense less real or valid representatives of the Gāndhārī literary tradition. For experience tells us that in dealing with literary and canonical languages in South Asian tradition of all periods the search for a single original vernacular core inevitably becomes something of a wild-goose chase. The South Asian canonical languages tend to be, by their very nature, linguae francae or compromise dialects with extensive mixtures of words, forms and usages from various sources. This seems to be in the nature of things in the linguistic and cultural atmosphere of traditional and to some extent even of modern India, where speakers of a vast variety of more or less closely related languages interact, culturally and linguistically, in complex patterns. In part at least, this is why that scholars have never been able to agree—and probably never will agree—about the 'homeland' of Pāli; for it may have never had a single homeland as such. Rather, it was probably from the very beginning a compromise language based essentially on a midland dialect, with an admixture of remnants from an underlying source dialect, theoretically the Māgadhī of Śākyamuni himself, and secondary influences from other contemporary and later languages, including, as has been shown especially by the recent studies of O. von Hinüber (e.g. 1988: 16-17), Sanskrit itself.

Seen from this point of view, the history of Gāndhārī is less anomalous and less problematic than it might seem at first glance; in fact, it is quite closely parallel to that of Pāli, as far as we can reconstruct the latter. Gāndhārī apparently first began to develop into a literary language as a direct result of the spread of Buddhism to its homeland, where, in keeping with the principle of *sakāya niruttiyā*, Buddhist texts were rendered, by a somewhat rough and ready process of translation or transposition, into the local dialect. The resulting mixed dialect in due course established an identity of its own as, in effect, a canonical language, and became a vehicle for various kinds of text: poetry, technical and scholastic treatises, informal narratives, and perhaps others as well which are not yet clearly identified. Then, at a somewhat later date, it began to come under the inevitable influence of the pan-Indian prestige language, Sanskrit.

It is at this point, however, that the parallel between the history of Pāli and Gāndhārī begins to break down. The effect, alluded to above, of the sanskritising force on the former was always secondary and limited, and Pāli was never in danger of being overwhelmed by Sanskrit, as were the Central and North Indian vernaculars. The difference, presumably, was historical and geographical. Pāli, by establishing itself in geographically and culturally distinct regions of Sri Lanka

and Southeast Asia, remote from the Indian centers of sanskritic culture, in effect ensured its own survival. The northern MIA languages, meanwhile, remained far more susceptible to the power of Sanskrit in the Indo-Aryan heartland. Thus the new evidence suggesting that Gāndhārī became more and more sanskritised until, in effect, it was no longer Gāndhārī, is of a piece with what we previously knew of the fate of the midland/northern MIA dialect or dialects (never precisely identified) which underlay Buddhist Hybrid Sanskrit. But an important difference is that whereas we have no surviving specimens of the underlying 'Buddhist Middle Indic' (in von Hinüber's term, e.g. 1989: 350ff.), we do now have abundant examples of literary Gāndhārī. Thus once again, the potential value of these specimens for the reconstruction of the linguistic as well as the literary history of north Indian Buddhism is vast.

The newly discernible chronological sequence of the varieties of literary Gāndhārī also enables us to attempt a clearer explanation of the characteristic inconsistency and lack of standardisation in the orthography and morphology of these texts, especially the earlier ones. As discussed in Salomon 1999: 136-8, the British Library scrolls show a bewildering inconsistency in such fundamental features as the ending of the nominative singular masculine/neuter, which varies between *-o*, *-e*, *-u* and *-a*, not only among the different texts, but even within single texts. In this, moreover, they are not unique, but rather exhibit patterns similar to those which were previously attested in other types of Gāndhārī/Kharoṣṭhī documents, including the Khotan Dharmapada (see especially Brough 1962: 113-15) and the inscriptions (as demonstrated by Fussman, e.g. 1989: 460ff). In Salomon 1999: 137, I expressed the opinion that we should have expected some regularisation to have developed as Gāndhārī became an established literary language and that it apparently failed to do so simply because it fell out of use before such developments took place. But the new materials discovered since then show that this is not entirely correct. For in the later strata of literary Gāndhārī that we now have access to, we do indeed begin to find a somewhat more regular grammar. In the Schøyen Mahāparinirvāṇa-sūtra fragments, for example, the nominative singular ending is consistently *-o* (Allon and Salomon 2000: 269), in contrast to early Gāndhārī texts such as the British Library Anavatapta-gāthā, where all four of the possible nominative endings cited above were used, apparently in more or less free variation (Salomon 1999: 131).

Although the Mahāparinirvāṇa-sūtra fragments, and probably also the many other Schøyen Kharoṣṭhī fragments which are still unedited, are clearly more standardised than the earlier stratum of literary Gāndhārī texts, they are still by no means rigidly regular in the fashion of classical Sanskrit. Considerable flexibility remains in the orthography, for example, where sanskritised spellings such as *saptaratana-* (= Skt. *saptaratna-*) alternate, apparently at the scribe's whim, with MIA spellings such as *satahasya* (= *saptāhasya;* Allon and Salomon 2000: 270). Thus this text seems to represent a stage at which Gāndhārī was beginning to crystallise into a formal, standardised literary language, or what might be called

an 'artificial' language. But it is unlikely that Gāndhārī ever actually reached the culmination of such a development, with the full regalia of authoritative grammatical treatises and conscious self-examination, as did Pāli at a somewhat later date, and long before it, Sanskrit. The reason is presumably that in the case of Gāndhārī the movement toward standardisation and formalisation took place simultaneously with, and perhaps even as a result of, the processes of hybridisation and sanskritisation, so that the end result was not a standardised literary Gāndhārī, but simply Gāndhārī transmuted into Sanskrit.

5. Gāndhārī and the modern languages of the Northwest

The characteristic instability and nonstandardisation of Gāndhārī can also be viewed from a different perspective, one with interesting ramifications in connection with the study of the modern languages of the northwestern border regions of the Indian subcontinent. Here we find, somewhat surprisingly, that several of the characteristic patterns of phonetic inconsistency seen in Gāndhārī manuscripts nearly two millennia ago persist in modern Dardic and Nuristani languages. For example, Morgenstierne (1932: 57) notes that in Palula, a Dardic language of the lower Chitral Valley, aspiration of voiced consonants is 'found in many words where it is not justified by etymology, e. g. *ghāu* "cow", *dhūra* "far", *bhīš* "20", and *jhāmatrə* "son-in-law"'. The examples cited by him all involve aspiration of voiced consonants in initial position, a feature which is widely attested in Gāndhārī texts; in some of British Library scrolls, for example, initial *dh* is frequently written for original *d* (e.g. *dhakṣiṇa* = *dakṣiṇā*; Salomon 1999: 127). Also, one of the scribes of the British Library scrolls invariably writes *gh* for original *g* in all positions (*ibid.*).

Similar parallels appear in connection with the treatment of certain original consonant clusters such as *st* and *ṣṭ*. Here Morgenstierne (1932: 56) notes that *st* is sometimes preserved in Palula (e.g. *nāªst* 'nose') but sometimes assimilated to *th* (*hāt(h)* 'hand'). He further comments that '[t]o a certain extent this is in accordance with Sh[ina], where *st* is always assimilated, while *ṣṭ* is preserved in some cases. But the causes of the irregular development of these groups are not clear' (*ibid.*). Once again, virtually the same pattern of 'irregular development' is attested in Gāndhārī documents generally, including both those previously known and the newly discovered ones; for a detailed description of the problem, see Brough 1962: 75-7.

Another particularly interesting case involves the well-known northwestern tendency toward metathesis in connection with clusters of consonants and *r*, and similar regional peculiarities. For example, in connection with the Nuristani language of Nisheygram, Degener (1998: 28) notes that '[n]ach einem Konsonanten (K) erfolgt oft die Metathese von *r* + Vokal (V), nämlich KV*r*(K) → K*r*V(K) oder auch K*r*V*r*K oder K*r*VK*r*, z.B. ... *gŏrmā* / *gṛŏmā* / *gṛŏrmā* / *gṛomrā* "Zielstein"'. Similarly, Grierson (1931: 356) notes that in Kashmiri and some other northwestern languages 'the use of *r* after an initial consonant is often optional, as in *broṭh* or *boṭh* (< *dvārakoṣṭha*), before'. The instability of clusters of this type in Dardic and Nuristani is once again mirrored in Gāndhārī, where original (OIA) pre- and post-consonantal *r* are sometimes retained in writing, sometimes omitted and sometimes metathasised, resulting in common spelling variants such as *sarva* / *savra* / *sava* and *dharma* / *dhraṃma* / *dhama*.

My point in citing these parallels is not to reiterate the well-attested historical and typological connections between Gāndhārī and the modern languages of the northwest. Rather, the curious point here is that regionally distinctive patterns such as alternation between unaspirated and aspirated voiced consonants, inconsistent treatments of certain sibilant + stop clusters and sporadic metathesis of *r* seem to have remained in a state of instability from the time of the Gāndhārī documents until the present. I would rather leave it to the experts in historical linguistics and sociolinguistics to decide whether this surprising continuity is to be attributed to special features of borderland dialects such as those spoken in the frontier between two major families, Indo-Aryan and Iranian; or to the geographical characteristics of this mountainous region, which is naturally conducive to complex patterns of dialect variation and admixture; or to the convoluted ethnic and cultural history of the region, which is at once a crossroads of cultures and a remote isolated area; or perhaps rather to some combination of these and other factors.

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Pāli and the languages of early Buddhism

K. R. NORMAN

1. Introduction

I WANT IN THIS PAPER to return to something I spoke about at a conference which Heinz Bechert organised more than twenty years ago, on the language of the earliest Buddhist tradition.[1] I want, then, to go back to the beginnings of Buddhism—in fact to that ancient problem: What language or languages did the Buddha speak? I might as well start by admitting that we do not know, but we can make some intelligent guesses. Having made those intelligent guesses, I should then like to say something about the relationship between that language or those languages and the language of the Theravādin canon which we call, traditionally if incorrectly, Pāli.

2. Old Indo-Aryan and the origin of the Prakrit dialects

Of the various dates which have been put forward, I start from the premise that Indo-Aryan speakers started to come into India from the West somewhere around the beginning of the second millennium B.C.E. It is probable that they moved into India in waves, and since we can assume that Indo-Aryan was developing all the time, it is likely that, if there was a time span of several generations between incursions,[2] each wave spoke a slightly different dialect.

As they moved into India, they came into contact with other peoples who were already settled there. Some of these, who had also come into India from the West, perhaps a thousand years earlier, spoke Dravidian languages and others, further East, spoke Munda languages.[3] They also met speakers of another language, of which we know nothing except that, as might be expected, its vocabulary included terms for agricultural features, trees, fruits, animals, etc.[4] for which the Indo-

[1] The Fourth Working Session of the Committee for Buddhist Studies of the Akademie der Wissenschaften in Göttingen, 4-7 July 1976. The proceedings were published in Bechert 1980.
[2] As suggested by Burrow 1973: 126.
[3] For a survey of Munda loan-words in Indo-Aryan see Kuiper 1948.
[4] For the conclusion that up to one third of the vocabulary of agriculture in Hindi seems to be of unknown origin see Masica 1978: 137.

Aryan language had no equivalents. From all of these sources Indo-Aryan borrowed vocabulary, and possibly phonological features too.[5] It seems very possible that there would have been conflict of some sort between the incomers and the indigenous inhabitants, but it is also likely that, after that initial conflict, the races would have begun to assimilate, and there would have been an interaction between their various languages.

We know from the differences between the Ṛgvedic language and later Sanskrit that there were phonological and morphological variations in the Old Indo-Aryan dialects.[6] We also find in the Ṛgveda a number of forms which our knowledge of Indo-European philology tells us we should not expect in early Sanskrit.[7] We can regard them as 'Prakritisms',[8] i.e. early indications of the changes which distinguish Middle Indo-Aryan from Old Indo-Aryan.

Even though the recension of the Ṛgveda which has been handed down to us is perhaps no earlier than the seventh century B.C.E., nevertheless we can see that such proto-Middle Indo-Aryan features were in evidence well before the time of the Buddha. If there were such features in the literary language of the Ṛgveda, the assumption is that the spoken languages of the ordinary people had many more of them. We can, in fact, deduce that their languages contained not only morphological and phonological differences from Sanskrit, but also differences of vocabulary, and variations in the way in which words were formed.[9] Nevertheless, despite these indications of unexpected features occurring at that time, we would date the full development of the Middle Indo-Aryan dialects some centuries later.

3. The language(s) of the Buddha and the Jina

We can be certain that those dialects had developed by about 400 B.C.E., because by that date they were sufficiently wide-spread to present a threat to the predominance of Sanskrit. It seems clear that Pāṇini and the other Sanskrit grammarians wrote their grammars in an attempt to define and fix the nature of Sanskrit, so that the inroads of Middle Indo-Aryan into the sacred language could be identified and checked.

We read of statements by the Buddha about regional differences of vocabulary. We can therefore conclude that there were regional dialects in use in different parts of India at his time. I assume that the Buddha's travels were sufficiently widespread to have taken him from one dialect area to another.

[5] See Southworth 1978: 201-2.
[6] See Burrow 1955: 35-43 and Witzel 1989.
[7] For examples see Elizarenkova 1989 and Pinault 1989.
[8] From Sanskrit *prākṛta*, derived from *prakṛti* 'origin', i.e. 'connected with, derived from, an origin', viz. Sanskrit.
[9] For examples see Norman 1995: 282.

But can we be certain that the Buddha did not preach in Sanskrit, and that translations of his teachings from Sanskrit into Middle Indo-Aryan were not made later?

Any movement, whether religious or social, which opposed the power and status of the *brāhmaṇa* caste might be expected to make use of a non-brahmanical language. Not only would this be an anti-brahmanical gesture, but it would also aid the non-Sanskrit-speaking element of the population, i.e. those who spoke a vernacular language. It therefore seems very likely that the Buddha's sermons were preached in a non-Sanskritic language.

In my earlier paper[10] I drew attention to parallel statements in Jain and Buddhist texts about the nature of the languages which the founders of Jainism and Buddhism employed. Both religions stated that those languages could be understood by every living creature, humans and animals. I noted that the similarity between the Jain and Buddhist statements is too great for them to be unconnected.

It is also clear that the Jain and Buddhist texts go back to a common idea about the development of language, for they explain that the languages of the Jina and the Buddha respectively were intelligible to all beings because from them developed the other languages, i.e. they were the root languages. It is not difficult to see that this theory was directly opposed to brahmanical ideas about Sanskrit, the exclusive property of the *brāhmaṇa* caste, and by the 5th century B.C.E. all but unintelligible to the lower castes, let alone animals.

In short, we can see that Gotama the Buddha and Mahāvīra the Jina, living as they did in closely related areas in eastern India, shared a common Indian cultural context, with a common theory of language. The similarities in religious terminology in Buddhism and Jainism show very clearly that the two religions arose from a common religious milieu,[11] united in their opposition to brahmanical ideas. It seems, then, more than likely that in their rejection of the religion of the priestly *brāhmaṇa* caste they also reacted against the brahmanical language and made use of the vernacular dialects spoken by the non-brahmanical castes, which we may assume were closely related dialects of an eastern Middle Indo-Aryan language.

The texts tell us that the Buddha preached in various places, and we can assume that, as he moved about, he varied his language to suit his audiences. Much of his teaching life was spent in Magadha. We can therefore deduce that on some occasions, at least, he used the Magadhan dialect of the time, which we may call Old Māgadhī.

4. Old Māgadhī

We have little knowledge about the dialect geography of the fifth century B.C.E. To help us in our attempt to identify Old Māgadhī we have two main aids: the

[10] See Norman 1980a: 63-8.
[11] For a list of some of these terms see Norman 1989b.

inscriptions found in India, from the time of Aśoka onwards, and the statements of the Indian grammarians. Both sources refer to a time later than the Buddha, and are to some extent unreliable.

Many scholars now believe that the Buddha's death is to be dated c. 400 B.C.E. This means that the Aśokan inscriptions are about 150 years later, and so we must extrapolate backwards to find the situation at the time of the Buddha. It is clear from the Aśokan inscriptions that different areas had different dialects, and the divergence is such that we can suppose that the differences had existed for a considerable time. Although we can surmise that Aśoka intended his inscriptions to be carved in the dialects appropriate to each site, there is clear evidence that this was not always done. We have, then, to accept that the Aśokan inscriptions cannot be entirely satisfactory as a guide to earlier dialects and dialect forms.[12]

The grammarians were writing many centuries later, from the fifth century C.E. onwards, and were in any case describing the literary forms of the dialects. Nevertheless, a literary dialect or language very often includes fossilised features which were used at a much earlier date.

As a third aid, there is the information which can be gained from Jain texts, which underwent the same type of language changes as the Buddhist texts, as Jainism spread. Attempts have been made to identify Old Ardha-Māgadhī, the earliest form of the language of the Jain canon,[13] and we can, to some extent, use those studies to help with the identification of the languages of early Buddhism.

Most useful of all is the inscriptional evidence[14] that by historical times a dialect was being used in Magadha which turned all *-r-* and *-l-* sounds into *-l-*, turned all three sibilants into the palatal *ś*, and had the nominative singular of short *a*-stem nouns in *-e*. Its speakers seemed to have remained close together, for the epigraphical evidence suggests that its use was restricted to a very small area, and this set of features is not found together in any single Aśokan site.

Since the characteristics of this inscriptional dialect agree closely with the features of Māgadhī, as described by the grammarians many centuries later, it would seem that Māgadhī was a very conservative dialect, changing little over a long period of time. Extrapolating on this basis, we can perhaps be fairly confident that the main features of Old Māgadhī at the time of the Buddha were those of the inscriptions I have just mentioned.

5. The migration of the Buddhist teachings

As Buddhism moved from the land of its origin into areas where different dialects or languages were spoken, and as those dialects or languages developed and

[12] See Norman 1994a.
[13] See, for example, Chandra 1994.
[14] See Norman 1980a: 68.

changed over the course of time, it would seem to be inevitable that some sort of translation process was needed if the Buddha's teachings were not to become unintelligible. We must remember that at this time those teachings were still in an oral form, which meant that a preacher was not bound by the wording of a rigid written canon, but could translate (or transpose, if translate is thought to be an inappropriate term) freely as the need arose.

We know nothing about the translation techniques which were employed by those who took the Buddha's teachings to an area where a different dialect was used, and who were therefore faced with the task of translating into that dialect. If the dialect from which the translation was being made and the dialect into which the translation was being made had differences of phonology and morphology, then much of the translation process could have been done almost mechanically. For example, if the translation was being made from a dialect which did not voice intervocalic consonants into one which did voice them, than the translator simply had to voice all unvoiced intervocalic consonants. If the translation was being made from a dialect where the nominative singular of short *a*-stem nouns was in *-e* into a dialect where it was in *-o*, then the translator had simply to change all nominative singular *-e* endings into *-o*.

The accuracy of such a translation process depended on the knowledge and ability of the translator. Clearly, he had to know something about the characteristics of the donor and receiving dialects. If, by any chance, the donor dialect was one which voiced intervocalic consonants, and the receiving dialect did not voice them, then a mechanical translation technique was likely to produce errors, because it would lead to a situation where consonants which should be voiced in the receiving dialect might become unvoiced. It was all very well changing all past participles in *-ida* in the donor dialect into *-ita* in the receiving dialect, but what about a form like *uppāda*? Since there is a root *pad-* as well as a root *pat-*, should this be translated into *uppāta*, or left as *uppāda*? Only the sense of the passage could determine this, and if the passage was ambiguous, or for some other reason was difficult to understand, then a translator was left to guess, and his guesses might not always be correct. If the receiving dialect had the nominative singular of short *a*-stem nouns in *-o*, then to turn all *-e* endings into *-o* may well have meant that forms which should have had the *-e* ending in the receiving dialect, e.g. locative forms, were also changed, incorrectly, into *-o*.

6. The writing down of the Canon in Ceylon

According to the tradition of the Buddhist chronicles, Theravādin Buddhism was introduced into Ceylon (Sri Lanka) at the time of Aśoka around the middle of the third century B.C.E. We know nothing of the form of the language which was used by the Buddhists at that time. We know only that, according to the same tradition, the canon of their texts was written down in the first century B.C.E., i.e. about 200 years later.

Little further development in the language of the canon seems to have taken place after that date. Very few changes can be pointed out which are to be ascribed to the influence of the Sinhalese Prakrit, and even those few are debatable.[15] There are some Sanskritisms, and some influence from the twelfth century grammarians has been detected,[16] but we can now, within limits, define the influence which the later commentators and grammarians had upon the canonical language, and identify many of the features which their rules imposed upon it.[17] Having done that, we can say with certainty that the basic language of that canon is not Māgadhī. If we are correct in believing that the Buddha spoke Old Māgadhī on occasions, then we can see that the texts have been translated at least once before they were written down.

Is there any evidence for this? Yes, there is. If we analyse the language of the Theravādin canon, we can see that for the most part it has features which we would class as western, following the standard analysis of the languages of the Aśokan inscriptional sites. Nevertheless, we can detect anomalous forms in it, i.e. forms which do not seem to follow western patterns of phonology and morphology.

In what I say in this paper I am, to some extent, a prisoner of my own nomenclature. I use 'Pāli' as the name of a language, and it has become conventional to do so. But Pāli is an abbreviation of *pāli-bhāsā*, which means the language of the *pāli*, i.e. the texts, or the canon. It follows, then, that every feature of the language of those texts, however strange, and however inconsistent with the rest of the language of the texts, is Pāli. We can define it, if we wish, as a western dialect with some eastern features, but it would, technically, be incorrect to talk about these possible eastern features as anomalous forms. It is even more incorrect to call them non-Pāli forms. Nevertheless, I must call them something in the course of my discussion, so I shall call them 'anomalous'.

7. Anomalous forms

The presence of these anomalous forms in the Theravādin canon was, of course, noticed a long time ago, and their value as indicators of an earlier form of the Buddha's teachings has been much studied and debated. Lévi saw them as pré-canonique ('pre-canonical'),[18] while Lüders regarded them as evidence of an Urkanon ('an original canon').[19]

If these anomalous forms are remnants of dialects through which the Buddha's teachings, or portions of them, were transmitted, then our task is to see whether

[15] See Norman 1976: 125-6.
[16] See Smith 1928-66: vi.
[17] See Norman 1985: 121-2.
[18] See Lévi 1912.
[19] See Lüders 1954.

they exhibit characteristic features of any of the dialects about which we have knowledge, in the hope that this will tell us about the regions and languages through which the texts, or parts of them, were transmitted.

Within the scope of this paper I can consider only a small selection from the evidence which has been collected:[20]

Anomalous phonological features

1 The voicing of intervocalic consonants, e.g. *-t-* > *-d-*: *niyyādeti* (< *niryātayati*), *saṅghādisesa* (< *saṅghātiśeṣa*), [*opapātika* (< **aupapādika*)].

2 The voicing of doubled intervocalic retroflex consonants, e.g. *-ṭṭh-* > *-ḍḍh-*: *kaḍḍhati* (< *kaṭṭha* < *kṛṣṭa*), *aḍḍhuḍḍha* (< *ardhacaturtha*).

3 The development of intervocalic consonants, e.g. *-k-*, *-j-*, *-t-*, > *-y-*: *Sabhiya* (< *Sabhika*), *niya* (< *nija*), *Māyā* (< *Mātā*).

4 The development of intervocalic *-y-* to *-j-*: *gavaja* (< *gavaya*).

5 The development of initial *y-* > *j-*: *jantāghara* (< *yantra-gṛha*), *je* (< *ye*), [*Yamataggi* (< *Jamadagni*)].

6 The change of retroflex *-ṇ-* > dental *-n-*: *nibbāna* (< *nirvāṇa*), *bhikkhunī* (< *bhikṣuṇī*), *bhūnahū* (< *bhrūṇahan*).

7 An alternation between *-l-* and *-r-*: *pali-* (< *pari-*).

8 An alternation between intervocalic *-y-* and *-v-*: *āvuso* (< *āyuṣ-*), *āvudha* (< *āyudha*).

9 The development of *-kṣ-* > *-kkh-* instead of the expected *-cch-*: *bhikkhu*.

10 The development of a nasal + an unvoiced consonant to a nasal + a voiced consonant: *handa* (< *hanta*), *pārājika* (< **pārañjika* < *pārañcika*).

11 The development of a nasal + a voiced consonant to a doubled nasal consonant: *Channa* (< *Chanda*), *ārammaṇa* (< *ālambana*).

12 The contraction of *-āya-* > *-ā-* instead of *-e-*: *sotthāna* (< *svastyayana*), *pācittiya* (< *prāyaścitta*).

13 The resolution of consonant groups instead of assimilation: *magga-jina* (< *mārga-jña*).

Anomalous morphological features

14 *-e* as the nominative singular of short *a*-stem nouns.

15 *-āse* (< Vedic *-āsas*) as the nominative plural of short *a*-stem nouns.

8. Anomalous forms and the Aśokan inscriptions

I should like now to examine some of these anomalous forms, to see whether it is possible to put them into context with datable language features more accurately

[20] A longer list is given in Norman 1989a. Geiger (1994: §§ 36ff.) lists a large number of Prakrit phenomena found sporadically in Pāli and identifies them as 'probably borrowings from other dialects'.

than was possible twenty years ago. This will help us to see how much earlier they may be than the first century B.C.E., and to deduce in what part of India they originated.

Phonology

1 We find voicing of *-t-* > *-d-*, e.g. in *niyyādeti* (< *niryātayati* 'he assigns'), and *saṅghādisesa* (< *saṅghāśeṣa* 'a class of offence'), and such hyper-forms[21] as *opapātika* (< Sanskrit **aupapādika* 'self-produced') show that the translator had knowledge of a dialect where voicing occurred. Voicing is not a consistent characteristic of any of the Aśokan dialects, but there are some anomalous voiced forms in the Aśokan inscriptions, e.g. *loga* < *loka*, *ajala* < *acala*, *libi* < *lipi*, *thuba* < *thūpa*, and the hyper-forms which occur, e.g. the root *pat-* written for *pad-*, show that the Aśokan scribes had knowledge of a dialect where voicing occurred.

2 The voicing of *-ṭṭh-* > *-ḍḍh-* occurs in *kaḍḍhati* (the denominative verb from *kaṭṭha* < *kṛṣta* 'dragged') and *aḍḍhuḍḍha* (< *ardha-caturtha* 'three and a half'). There is an anomalous example in Aśokan *a(ḍ)ḍha-* (< *aṣṭau* 'eight').

3a There is the change of intervocalic *-k* > *-y-* in *Sabhiya* < *Sabhika*, in the name of the Sabhiya-sutta of the Pāli Sutta-nipāta. The change of intervocalic consonants to *-y-* is a characteristic of Māhārāṣṭrī Prakrit, but at a later date than the Aśokan inscriptions, where there are only one or two examples, some of which can probably be explained otherwise.[22] The *-ikya* forms found at the Kālsī site, where the other sites have *-ika*, may, however, reflect some such change. It is possible that the scribe was writing the *-ky-* ligature because he received *-k-* in his exemplar, but wanted to show that the local pronunciation was nearer *-y-*. Lüders has given some examples of the *-ika*/*-iya* alternation,[23] and the fact that the change of *-k-* > *-y-* occurs after the vowel *-i-* seems to support the view that *-ikya* at Kālsī does indicate that the change > *-iya* had taken place or was beginning to take place there.[24]

3b It is probable that *niya* < Sanskrit *nija* 'own, belonging to oneself', is an example of the change of intervocalic *-j-* > *-y-*. It has been shown that some of the etymologies in the Sabhiya-sutta depend upon their being first pronounced, i.e. composed in, not just transmitted through, a dialect where some of the intervocalic consonants, including *-j-*, had developed into *-y-*.[25] The fact that the sutta is an early composition is shown by the fact that there is a Buddhist Hybrid

[21] I use the term 'hyper-form' to designate those examples where the redactor of a text, translating mechanically from a dialect where a particular sound change occurs consistently to one where it does not, by mistake makes that change where it is unnecessary and therefore incorrect. In a Pāli context they are sometimes called hyper-Pālisms. For a more detailed discussion of the term see Norman 1989a: 375-7.

[22] See Norman 1970: 136-7.

[23] See Lüders 1954: §§ 89-90.

[24] See Lüders 1954: §§ 88.

[25] See Norman 1980b: 177.

Sanskrit version of it in the Mahāvastu, and if the age of the text supports the view that the version underlying both the Pāli and the Buddhist Hybrid Sanskrit versions was composed in Magadha, then this is additional evidence for the existence of this sound change in that area at an early date.

3c The Sabhiya-sutta also has etymologies which depend on their being pronounced in a dialect where intervocalic *-t-* had developed into *-y-*. This would support the suggestion[26] that the Buddha's mother Māyā was probably not called 'Delusion' but 'Mother' (Sanskrit *Mātā*). There is *codasa* (< **ca(y)uddasa* < *caturdaśa* '14') in an eastern Aśokan inscription.

4 We find intervocalic *-y-* > *-j-* in *gavaja*, which occurs instead of the expected *gavaya* ('a type of ox'). This may be a hyper-form,[27] but it may be a genuine remnant. This change is not typical of the Aśokan inscriptions, but it has been noted that there is one occurrence of an intervocalic *-y-* becoming *-j-* there,[28] in the word for 'peacock' (Sanskrit *mayūra*).[29] It occurs as *majūla* at the Kālsī and Jaugaḍa sites, with the eastern *l* replacing the *r*, and as *majura* in Shāhbāzgarhī and Mānsehrā in the North-west, with the expected western *r*. The appearance of *-j-* at four sites suggests very strongly that *-j-* was taken over without correction by the scribes at all those sites from the exemplars which they received. The dialect at Shāhbāzgarhī has a tendency to turn intervocalic *-j-* into *-y-*, and would therefore be unlikely to do the opposite, unless there was a good reason for doing so.

It is to be noted that this deduction, made on the basis of one single word, implies that the dialect of the exemplar (which was perhaps Aśoka's own dialect) differed from the eastern dialect attested in his inscriptions. This implication need present no difficulties, because there is also evidence that Aśoka's own dialect had palatal *ś* for the sibilant,[30] whereas no version of the Aśokan inscriptions, other than those from the North-west, has this sound except by scribal idiosyncrasy.

5 There is the change of initial *y-* > *j-* in *jantāghara* (< *yantra-gṛha* 'bath-house') and the particle *je* used when addressing women of a lower class.[31] This particle seems to be related to the emphatic particle *ye* which appears in Pāli and the Aśokan inscriptions.[32] We may compare *haṃje*, which is used in Jain Prakrit in a very similar sense to *je*.[33] From its wide-spread appearance in the Ardha-Māgadhī of the Jain canonical texts, we may assume that the change of initial *y-* > *j-* was a feature of Old Ardha-Māgadhī.

[26] Made by von Hinüber 1991: 187.

[27] See Lüders 1954: § 148.

[28] See Norman 1980a: 74 n. 43.

[29] In Aśokan Rock Edict I(G).

[30] See Norman 1980a: 61-77 (65).

[31] As noted by von Hinüber 1993: 101-2.

[32] See Norman 1967: 162-3 and 1994: 221-6.

[33] See Schwarzschild 1961 [= 1991: 104-16].

There is also the hyper-form *Yamataggi* for the Sanskrit name *Jamadagni*. We can deduce that the translator was aware of the fact that the donor dialect sometimes showed initial *j-* where the receiving dialect showed *y-*, and intervocalic *-d-* where the receiving dialect showed *-t-*. When he came across the form *Jamadagni* (or more likely *Jamadaggi*), in the absence of any knowledge of the correct form of the name in the receiving dialect, he was obliged to back-form by rule, which led to the hyper-form. This confirms that there was a pre-Pāli dialect where the changes of initial *y-* > *j-*[34] and intervocalic *-t-* > *-d-* occurred.

6 There is the change of retroflex *-ṇ-* > dental *-n-* in *nibbāna*, *bhikkhunī*, *bhūnahū* (< *bhrūṇahan* 'embryo killer'). This is a standard feature in the eastern versions of the Aśokan inscriptions.

7 We find *-l-* instead of *-r-* in, e.g., verbs with the prefix *pali-* instead of *pari-*. This is a standard feature in the eastern versions of the Aśokan inscriptions.

8 Intervocalic *-v-* occurs instead of *-y-* in *āvuso* (< *āyuṣ-* 'sir') and *āvudha* (< *āyudha* 'weapon'). This alternation (particularly in the usage of *-v-* and *-y-* as glide-consonants) is common in Aśoka, e.g. the optative endings *-evu* in the eastern versions and *-eyu* in the western versions.

9 We find *-kṣ-* developing > *-kkh-* instead of *-cch-* in *bhikkhu*. This is a standard feature of the eastern versions of the Aśokan inscriptions.

10 There is a very small number of forms which show an anomalous development of a consonant group containing a nasal + an unvoiced consonant: *-nt-* > *-nd-*: the vocative particle *handa* < *hanta*. I accept the suggestion that *pārājika* ('a type of offence') is < **pārañjika* < *pārañcika*.[35]

11 There is also a very small number of forms which show an anomalous development of a consonant group containing a nasal + a voiced consonant: *-nd-* > *-nn-*: the Buddha's charioteer name *Chanda* changing > *Channa*; *-mb-* > *-mm-*[36]: *ālambana* 'support' changing > *ārammaṇa*.

There is an example of the second change in Aśokan *Luṃmini* < *Lumbini*. Both changes are typical of the Gāndhārī dialect as seen in the Gāndhārī Dharmapada, but they are not found in the version of the Gāndhārī dialect which occurs in the Aśokan inscriptions in the North-west. They therefore seem to be a later development in that dialect, and it is most unlikely that these forms could be borrowings into Pāli from the Gāndhārī dialect.[37]

[34] The antiquity of the change of initial *y-* > *j-* is shown not only by the examples given in *Vedic Variants* (see Bloomfield and Edgerton 1932), but also by the fact that at *Rāmāyaṇa* 7.4.12 the etymology of *yakṣa* implies a form with *j-* (cf. Prakrit *jakkha*). See Burrow 1974: 74.

[35] See Roth 1968: 342.

[36] See Norman 1989a: 371.

[37] In the discussion which followed this paper, Professor Richard Salomon stated that, except for *pa(m)ama* 'fifth', the change does not occur in the recently discovered Gāndhārī documents in Kharoṣṭhī script. It therefore seems probable that the change represents a borrowing into the Gāndhārī Dharmapada. It is noteworthy that in both Pāli and Prakrit numerals seem prone to abnormal or early developments. Note *aḍḍhuḍḍha*, *a(ḍ)ḍha* and *codasa* above, and Pāli *paññā-*, *panna-* and *pañña-*, Prakrit *paṇṇa-* and Aśokan *paṇṇa-* in compounds of *pañca-*. These latter forms show the further development of *-ñj-* to a double nasal.

[38] See Lüders 1954: 85 n. 5.

12 Instead of the usual contraction of *-aya-* > *-e-*, we find *-āya-* contracting > *-ā-* in, e.g. *sotthāna* (< *svastyayana* 'welfare'), *pācittiya* (< *prāyaścitta* 'expiation'). This change is found in Jain texts.[38]

13 There are resolved consonant groups, e.g. *-jñ-* resolved > *-jin-* as well as assimilated > *-ñ-*, in *magga-jina* (< *mārga-jña* 'knowing the road'). The resolution of consonant groups is an eastern feature in Aśoka, with assimilation in the West.

Morphology

14 The masculine nominative singular ending *-e* in place of *-o* is perhaps the most widely attested of the anomalous forms. It is a standard feature of the eastern versions of the Aśokan inscriptions.

15 The nominative plural ending *-āse* occurs spasmodically in Pāli. It is found in the eastern dialect of Aśoka.

9. Dialect variation

We may, then, deduce that at the time of Aśoka, and even earlier in the case of some Pāli texts which we can, with great probability, date to a pre-Aśokan time, many of the features which we have marked out as anomalous in Pāli can be shown to occur in eastern versions of Aśoka's inscriptions, although sometimes only as a single example, i.e. they are anomalies in Aśoka also.

We must therefore conclude that the information we have hitherto had about dialects in Aśoka's time, let alone at an earlier time, is deficient, since it by no means tells us about all the dialects which were in use. The fact that we can, if we look carefully, augment this information by detecting hints of other dialects is, in itself, of great importance, because it suggests that the anomalous forms in the eastern versions of the Aśokan inscriptions, e.g. *-y-* > *-j-*, may be traces of the dialect which Aśoka himself used, rather than the dialect of Aśoka's secretariat at Pāṭaliputra. Aśoka probably spoke a sub-dialect of Māgadhī, i.e. a dialect spoken in just the area where we would expect the early language of Buddhism to be in use. That dialect is not represented, in its entirety, in any extant version of his inscriptions.

If our conclusion is correct, then, we can assume that the dialects in use, even in a limited area such as Magadha, showed variations. This should not surprise us, because we should expect neighbouring areas, even neighbouring villages, to have very slightly divergent dialects. We can also assume that traces of this linguistic diversity were retained when the Buddha's sermons, which had been preached in different areas, were first collected together and their language was

homogenised. We can guess—and it is nothing more than a guess—that when the first collection of the Buddha's teachings was made and homogenisation began to take place, examples of divergence were even more numerous, since, as sub-dialects of the Magadha area, these variations were probably not sufficiently great to cause difficulties for speakers of other sub-dialects, and there was therefore no need to remove them.

Sometimes these anomalous forms that I have been discussing are called 'archaisms' in as much as they are examples of earlier features which are no longer standard in Pāli. Some call these forms 'Māgadhisms',[39] because they conform in part to the pattern of Māgadhī, as described by the grammarians. Others, however, say that the term Māgadhism is misleading, because it takes for granted that these forms are taken over from Māgadhī.[40] It is true that it is not entirely accurate to regard all such anomalous forms as Māgadhisms, since some of these features are found in other dialects too—the *-e* nominative singular ending, for example, is found in the post-Aśokan Kharoṣṭhī inscriptions from north-western India.[41]

It has been pointed out that other explanations can be given for some of these forms,[42] but there is unlikely to be agreement about such views, since there is no way of proving or disproving any hypothesis.[43] What is, however, clear is that every Māgadhism does not prove that the passage in which the Māgadhī form occurs is old and dates from the Māgadhī period of Buddhism, and certainly those who say that we can rely too much on such details are correct. Once a standard procedure had been adopted, e.g. of writing the 'Māgadhī' vocative plural form *bhikkhave* in a specific context,[44] it was also applied to newly created texts, so that the occurrence of such Māgadhisms tells us nothing about the original language of the text in question. In short, the occurrence of a Māgadhism in a text does not prove that the text was originally in the Māgadhī dialect.

10. Reasons for retention

Irrespective of the name given to them, the question is, why did these anomalies remain in the Pāli canon? Why were these features overlooked when the general task of translating from one dialect to another was being carried out, as Buddhism moved away from its eastern home, and—most importantly—at the time when

39 See Geiger 1994: Index of Contents, 202 s.v. Māgadhism.

40 See Bechert 1991a: 13.

41 See Brough 1962: 115. There is an example of the change of final *-as* to *-e*, not *-o*, in the Ṛgveda in *sūre duhitā́* (ṚV 1.34.5, but *sū́ro* at VII.69.4). This is perhaps a dialect form, taken over from another source, although it is explained by some as showing dissimilation of vowels.

42 See Bechert 1991a: 13.

43 See Norman 1997: 72, where I proposed a theory of 'the economy of development' to deal with conflicts of views.

44 See Bechert 1991a: 11-12.

the language of the canon was codified into the language which we call Pāli. The problem is not so much 'where did they come from?' as 'why did they remain?'

An easy answer is 'scribal error', and we can point to the Aśokan inscriptions, where some very obvious errors of 'translation' can be seen, resulting from the need to translate quickly before they were inscribed or even while they were being inscribed. It is hard to imagine that this could apply to texts which were recited repeatedly over a period of some hundreds of years and were, we may surmise, subjected to a great deal of editorial 'correction' or 'normalisation' at the time the canon was written down.

There was, I think, no one reason for the failure to translate, but it is possible to suggest why some of the necessary changes were not made. If we examine the examples I have given we can surmise that *saṅghādisesa*, *pārājika* and *pācittiya* were retained because they are technical terms, being the names of particular types of offence; *nibbāna*, *bhikkhu* and *bhikkhunī* are also technical terms; *bhūnahū*[45] is a semi-technical term and *āvuso* has a semi-technical sense, in as much as the Buddha laid down[46] the specific circumstances in which it was to be used; *jantāgharа* too has a semi-technical meaning as part of a *vihāra*.[47]

The derivation of some words was probably not recognised, e.g. *kaḍḍhati* and *āvudha*, and translators were therefore unable to identify the correct form in their own dialects. The particle *je* was doubtless retained in its eastern form because the genuine western form *ye* was not used as a vocative particle in the dialect into which the sermons were translated, although *ye* is used as an emphatic particle after infinitives in Pāli in exactly the same way that *je* is used in Jain texts.[48]

There were genuine forms with *-y-*, e.g. the suffix *-Īya*, and in resolved consonant groups containing *-y-*,[49] so it is possible that forms with intervocalic *-y-*, such as *niya*, seemed not to require translation.

Other forms were retained because their eastern form could be confused with another western form, e.g. *-jina* < *-jña* was retained because *jina* 'conqueror' made sense in the context.[50]

The same is true of the ending *-e*, which was sometimes kept because it seemed to make sense as a locative, e.g. *ante-vāsin* 'one living at the *anta*', rather than 'one living inside (*antar*)'; *pure*, as a parallel to *pubbe*.

45 See Saksena 1936: 713-14.

46 See D II 154,9-15.

47 It is also possible that, if the word was sometimes applied to a bath-house which did not contain a *yantra*, its equivalent in the receiving dialect was not recognised and it was therefore not translated.

48 I believe that von Hinüber (1993: 102) was misled by the *Āgamaśabdakośa* into believing that this usage is only attested once. As Schwarzschild (1961) makes clear, it is quite common. For additional examples see Oberlies 1993: 78 s.v. *je*. For Pāli *ye* after infinitives see Norman 1971: 154-5 (ad Thī 418).

49 See Geiger 1994: § 36.

50 So, for example, the commentary explains *maggajino* ('knowing the path') at Sn 84 as *maggena sabbakilese vijitāvī* ('having conquered [all defilements] by means of the path').

If a translator had to deal with a passage where a form was ambiguous, he might be unable to determine the correct form. For example, in one verse in the Theragāthā[51] there are three words ending in *-e*: *sacce*, *atthe* and *dhamme*. These can be eastern nominative or western locative case forms. The Pāli commentary took all three as locatives, while the Buddhist Hybrid Sanskrit translator[52] took one of them, *sacce*, as a nominative, and wrote *satyam*.

Some *-e* forms seem to be quotations. The Dīgha-nikāya describes the teachings of the six teachers who were contemporary with the Buddha, and some of these descriptions include nominative singular forms in *-e*.[53] It seems likely that the words attributed to the six teachers reflect the actual dialects they spoke. Although not everyone would agree with this suggestion,[54] it is supported by the fact that comparable views ascribed to heretical teachers in Jain texts show close verbal similarities.

We can surmise that the ending *-āse* was probably retained for metrical reasons. In verse passages replacement would present difficulties, since the standard nominative plural ending *-ā* would leave the pāda a syllable short.

11. Conclusions

We can conclude, then, that Lévi was to some extent correct. The technical and semi-technical terms are pre-canonical in the sense that they are earlier than the Theravādin canon, and in fact probably predate any form of Buddhist canon in that they go back to the very beginning of Buddhism. Since some of them have parallels in Jain texts we can surmise that they were part of the pre-Buddhist and pre-Jain śramaṇical terminology which was taken over by both Buddhists and Jains from the eastern dialect spoken in the area where both religions had their origin.

Lüders' suggestion, however, is less acceptable. Almost all the features of the other anomalous forms can be shown, or can be surmised, to have been current in the East at the time of Aśoka, and probably earlier. If we could be bold enough to say '150 years earlier', then we could go further and say 'employed in the East at the time of the Buddha'. We could be even bolder and say, 'perhaps by the Buddha himself', i.e. these features may have formed part of some of the very earliest texts. They may indeed go back to the original language or languages of Buddhism, but whether those texts were already grouped together into a systematised collection which could be described as an Urkanon is much more debatable. In fact, if the term Urkanon implies a single collection, in a unified language,

51 *sacce atthe ca dhamme ca āhu santo patiṭṭhitā*, Th 1229cd.

52 Udāna-v 8.14. In Norman 1969: 112 I took *atthe* and *dhamme* as nominatives and *sacce* as a locative and translated accordingly.

53 See Norman 1976: 119-21.

54 Bechert (1991a: 13) prefers to regard them as 'Sinhalisms'.

approximating to the structure and contents of later canons, and accepted by all Buddhists before the different schools began to separate, then it would seem highly doubtful that such a thing could ever have existed.[55]

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The vocabulary of Buddhist Sanskrit: Problems and perspectives

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AN INTEREST IN THE VOCABULARY of the Buddhist texts and its problems is almost as old as Buddhism itself. The obvious reason for these problems is the well-known linguistic diversity which prevailed in the vast area of India in ancient times as it does today. The first to experience them were most likely the early Buddhist monks, when they propagated their faith and tried to make themselves understood beyond Magadha, the original home of Buddhism, and then in the course of time even beyond India. Thus these problems were gradually exported from India, as Buddhists in Central Asia and finally in China started to struggle with strange Sanskrit—or even worse Gāndhārī—words in their attempt to translate new and alien concepts into Chinese and other languages.[1]

Eventually, about two centuries ago, these problems even reached Europe, where this struggle was taken up with quite different aims. For western scholars have been trying to disentangle the history of the Buddhist vocabulary since the first half of the 19th century by applying the methods developed at that time by the emerging science of historical linguistics in order to reach a better understanding of the texts through tracing the history of words.

In the west, Eugène Burnouf (1801-1852) seems to have been the first to master the Buddhist Sanskrit vocabulary.[2] He successfully initiated the modern study of the subject, culminating about a century later in the dictionary of Buddhist

[1] The problems experienced by the early Chinese translators are discussed, e.g., by Seishi Karashima, *A Glossary of Dharmarakṣa's Translation of the Lotus Sūtra*. Bibliotheca Philologica et Philosophica Buddhica, I, Tokyo 1998 [Rev.: B. Dessein, *Asiatische Studien/Études Asiatiques*, 52, 1998: 978-81; T. H. Barrett, *JRAS*, 3rd ser., 10, 2000: 133ff.] (and in earlier studies by the same author); by Paul Harrison, 'The Ekottarāgama Translations of An Shigao', in *Buddhavidyāsudhākaraḥ. Studies in Honour of Heinz Bechert on the Occasion of his 65th Birthday*. Indica et Tibetica, 30, Swisttal-Odendorf 1997: 261-83; or by Daniel Boucher, 'Gāndhārī and the Early Chinese Buddhist Translations Reconsidered: The Case of the Saddharmapuṇḍarīkasūtra', *JAOS*, 118, 1998: 471-506 (whose starting-point is the work of Karashima).

[2] For comprehensive references see Akira Yuyama, *Eugène Burnouf. The Background to His Research into the Lotus Sūtra*. Bibliotheca Philologica et Philosophica Buddhica, III, Tokyo 2000.

Hybrid Sanskrit by Franklin Edgerton (1885-1963).[3] Needless to say, Sir Harold Bailey (1899-1996) also contributed considerably to the understanding of the Buddhist vocabulary in his review of Edgerton's dictionary and elsewhere.[4] All this, however, was almost half a century ago. Consequently, it may be useful to look back at the quite impressive progress which has been made in recent years, largely as a result of Edgerton's work,[5] and to look forward in order to get an impression of the huge amount of work which still remains to be done.

What, then, is the Buddhist Sanskrit vocabulary? A comprehensive definition of the particular section of the vast ocean of Sanskrit words which might be described as 'Buddhist vocabulary' would include all words found in Sanskrit texts ever composed by Buddhists, at least in so far as they are preserved today and accessible either as edited books or at least in the form of facsimiles.

We still today see less than we might, because many texts are not yet edited and many more have disappeared completely, at least in their original language, so that they are to a large extent, though of course by no means completely, lost to the study of the Buddhist Sanskrit vocabulary. On the the other hand, we probably see more of the Buddhist vocabulary than the Buddhists themselves ever did. For no Buddhist using his texts for religious purposes, for the study of Buddhist philosophy or for keeping the monastic rules in everyday life, or simply reading Buddhist narratives for pleasure, had access to, or perhaps even wished to have access to, so many texts from so many periods and so many places as we do today. Obviously, a Newar Buddhist in the 19th century saw and used Buddhist Sanskrit literature in quite a different way from a Mahāsāṃghika monk in Bāmiyān, who again would know other texts than did Nāgārjuna in South India. Therefore, any one Buddhist's understanding of what the Buddhist Sanskrit vocabulary really was would necessarily have differed both from that of another Buddhist at another time and place and even more so from our present-day perception. At the present time the Buddhist vocabulary can for the first time be seen as a whole (though with enormous gaps due to the well-known heavy losses of texts). It is largely due to the vast panorama now opened before our eyes that this array of words of very mixed origin and various linguistic shapes reveals itself as a still more complex ensemble than it would have appeared to a Buddhist in the past. In a way it resembles a town heavily damaged by decay, neglect and destruction, in which a Roman temple is located next to a Norman cathedral overbuilt in Gothic style, and in which the railway station is Indo-Saracenic, or perhaps rather in which the Bhārhut stūpa stands side by side with those of Takht-i-Bāhī, Amarāvatī and Svayambhūnāth with all their architectural alterations made in the course

[3] Franklin Edgerton, *Buddhist Hybrid Sanskrit Grammar and Dictionary*, New Haven 1953.

[4] H. W. Bailey, 'Buddhist Sanskrit', *JRAS*, 1955: 13-24.

[5] Among the more important contributions, Helmer Smith, 'En marge du vocabulaire sanscrit des bouddhistes', *Orientalia Suecana*, 2, 1953: 119-238; 3, 1954: 31-5; 4, 1955: 109-13, perhaps deserves to be singled out.

of time. In the same way as these monuments were built and rebuilt time and again, our texts were composed and edited in different styles, periods, and places.

In contrast to these monuments, however, which still stand on the spot where they were built—even if a large part of the Amarāvatī stūpa is of course better seen in the British Museum today—our texts are never found at the place where they were actually composed, rarely even in the place where the surviving manuscripts were copied. Consequently, any investigation of their vocabulary is hampered in the first place by the absence of reliable information about the exact provenance of the manuscripts in respect of both the time and the place of copying.

We could be much better informed about the origin of our manuscripts if more attention had been paid to this aspect of the Buddhist tradition. For example, a systematic collection and edition of the numerous colophons to Buddhist manuscripts from the Pāla period, which frequently mention the monasteries to which they once belonged, would certainly yield interesting results, even if quite a few monasteries might be difficult to locate.[6] However, we can only establish the provenance of a manuscript if it has a colophon containing the pertinent information or, as in the exceptional case of the Gilgit manuscripts, if it was found on the spot where it was copied. Very often, when neither type of information is available, palaeography provides a last chance to trace the origin of a manuscript in time and space, pointing to mediaeval Bengal, for instance, in the case of the unique Bhikṣunī-Vinaya manuscript discovered in Tibet.

A further crucial point is the number of copies extant. A single undated copy such as the Bhikṣunī-Vinaya manuscript provides only an uncertain point in time very roughly determined by palaeography. For reasons unknown, and of course quite accidental, the surviving information on the manuscript tradition thus begins and ends at the same time. In such a case the content of the text, particularly references to realia, to the environment of an author or redactor, may, under favourable circumstances, allow at least a blurred view of a historical background.

Although the Bhikṣunī-Vinaya[7] was copied in Bengal, northwestern traces can be observed when such a typical item as a *bhūrjachatra*, BhVin §226 = 258,5

[6] Only a few colophons were used, e.g., by Jhunu Bagchi, *The History and Culture of the Pālas of Bengal and Bihar*, Delhi 1993; many(?) more are preserved, but inaccessible at present, in Pāla manuscripts in China. It remains an open question what impact these would have on our understanding of the history of the Pāla dynasty, for which see Gourishwar Bhattacharya, 'Newly Discovered Copper Plate Grants of the Pāla Dynasty', in *Festschrift Klaus Bruhn*, Reinbek 1994: 195-224.

[7] Gustav Roth (ed.) *Bhikṣuṇī-Vinaya Including the Bhikṣuṇī-Prakīrṇaka and a Summary of the Bhikṣu-Prakīrṇaka of the Ārya-Mahāsāṃghika-Lokottaravādin*. Tibetan Sanskrit Works Series, 12, Patna 1970 [Rev.: J. W. de Jong, 'Notes on the Bhikṣuṇī-vinaya of the Mahāsāṃghikas', in *Buddhist Studies in Honour of I. B. Horner*, Dordrecht 1974: 63-70, repr. in *Buddhist Studies by J. W. de Jong*, Berkeley 1979: 297-304; O. v. Hinüber, *OLZ*, 72, 1977: 526-9; J. Brough, *BSOAS*, 36, 1973: 675-7] and G. Roth, 'Nachtrag zur Edition des Bhikṣuṇī-Vinaya der Ārya-Mahāsāṃghika-Lokottaravādin', in *Studien zur Indologie und Buddhismuskunde. Festgabe für H. Bechert*. Indica et Tibetica, 22, Bonn 1993: 229-38; É. Nolot (tr.) *Règles de discipline des nonnes bouddhistes*. Publications de l'Institut de Civi-

'birch-bark umbrella' is mentioned in the definition of *chatra*, when *ajā* and *uṣṭrī*, BhiVin §252 = 294,4 are enumerated amongst the animals giving milk for producing curds, or when a *drākṣāvana*, BhiVin §233 = 268,20 'vineyard' is listed as one of the possible forms of groves. These items are missing in the Mahāsāṃghika parallel as preserved in Chinese translation.[8]

Furthermore, when considering the famous comparisons[9] given by the Buddha when he—erroneously as we know today—described the disastrous effects on the duration of his teaching once women are admitted, the Theravādavinaya has the words *seyyathā pi ... sampanne sālikkhette ...*, Vinayapiṭaka (Vin) II 256,21 'as in a ripe rice field' and *seyyathā pi ... taḷākassa ... āḷiṃ bandheyya ...*, Vin II 256,29 'as one would build a dam for a tank', where the Bhikṣuṇī-Vinaya uses *yavakaraṇe*, BhiVin §8 = 10,1 'in a harvest of barley'[10] and *parvatasaṃkṣepe setuṃ bandheyya*, BhiVin §12 = 16,18 'would build a dam in a gorge in the mountains'. This clearly points to an area where barley is grown and where there are mountains and, taken together with the information on umbrellas etc., points to northwestern India. Consequently, the wording of the Bhikṣuṇī-Vinaya as we have it was at some point shaped in this part of India, certainly not in Bengal, where the single extant manuscript was copied to be later exported to Tibet.

Observations of this kind, however, never provide any information on the time when such northwestern features intruded into our text. Although the chronology of the textual tradition is a crucial point also for the history of the vocabulary, the palaeography only helps us to guess the age of the extant copies, leaving us in no position to draw any conclusions about the age of the text as such. This is so even if we are lucky enough to know an early dated version such as Dharmarakṣa's Chinese translation of the Saddharmapuṇḍarīkasūtra (dated 286 A.D.), which at least fixes a point in time. This text is of course exceptionally well documented over a period beginning with Central Asian manuscripts such as the recently published Lüshun manuscript[11] of the 5th century A.D. and ending as recently as during the last century in Nepal. In spite of these unusually lucky circumstances

lisation Indienne, fasc. 60, Paris 1991 [Rev.: J. Filliozat, *BEFEO*, 79, 1992: 291ff.; C. Chojnacki, *BSOAS*, 56, 1993: 154ff.; J. W. de Jong, *IIJ*, 37, 1994: 375-8; G. Roth, *OLZ*, 90, 1995: 207-15]; Boris Oguibénine, 'Lexicon and Grammar in the Texts of the Mahāsāṃghika-Lokottaravādins', in *Lexicography in the Indian and Buddhist Cultural Field. Proceedings of the Conference at the University of Strassburg 25 to 27 April 1996*. Studia Tibetica. Quellen und Studien zur tibetischen Lexicographie, 4, Munich 1998: 75-87; Yumi Ousaka and Moriichi Yamazaka, *Bhikṣuṇī-Vinaya. Word Index and Reverse Word Index*. Philologica Asiatica Monograph Series, 18, Tokyo 2002.

[8] Akira Hirakawa (tr.) *Monastic Discipline for the Buddhist Nuns*. Tibetan Sanskrit Works Series, 21, Patna 1982, pp. 327 (where only 'sunshades of bark' are mentioned), 338 and 377 respectively.

[9] These are not found in the Mahāsāṃghika version here, cf. Hirakawa [see previous note], p. 48 n. 3.

[10] A map showing the area in which barley is grown in India today may be found in *The Imperial Gazeteer of India*, Vol. XXVI: *Atlas*, London 1931, Pl. 17, cf. also: Ashok K. Dutt and M. Margaret Geib, *Fully Annotated Atlas of South Asia*, London 1987: 55ff.

[11] Jiang Zhong-xin (ed.) *Sanskrit Lotus Sutra Fragments from the Lüshun Museum Collection. Facsimile Edition and Romanized Text*, Lüshun and Tokyo 1997.

we are nevertheless completely in the dark about the place and the time of the original composition of this text.[12]

It is, of course, a very general feature of the Indian and Buddhist text tradition that neither the date of the original, the 'Urtext', nor the geographical area where it was composed and developed are known for certain. This is true not only in the realm of anonymous literature, but perhaps more often than not also for works by well-known, even famous, authors such as Aśvaghoṣa.[13] The degree to which such crucial historical data are absent in India becomes only too obvious once one compares the situation in ancient and mediaeval Europe.[14] Here, it is not unusual to find a fairly large number of manuscripts surviving with a well-documented origin and chronology. Moreover, the 'density' of the tradition is usually much higher in the West than in India, both in terms of the longer sequence of manuscripts containing a specific text and in terms of the much smaller area over which the texts are transmitted.

Even this superficial comparison suggests that the Buddhist texts on which we are working do indeed offer an extremely rich vocabulary, but one which is very poorly documented in various ways, forcing us to connect spots on the map separated by hundreds if not thousands of miles, and very often several centuries in addition, so that our work has to bridge frightful distances in both space and time.

In this somewhat desperate situation, conclusions based on the history of the Buddhist vocabulary are almost inevitably rather speculative. However, before abandoning the study of the Buddhist Sanskrit vocabulary altogether as a result of methodological scruples, we should consider another aspect of this vocabulary which helps to make up for these obvious deficiences. This is the quite special approach of Buddhists to the linguistic form of their canonical texts. As is well known, these are to a large extent ultimately based on Middle Indic originals, which later were gradually assimilated to Sanskrit.

This process primarily affected canonical or paracanonical texts rather than the Buddhist *śāstras*. The language of the latter is very close to, if not identical with, classical or standard Pāṇinian Sanskrit, so that this part of the Buddhist vocabulary is in most respects much nearer to the general Indian philosophical tradition than to the Tripiṭaka. Consequently, the task of describing and tracing the typically Buddhist Sanskrit words in the Buddhist *śāstras* requires a different approach. In this area, our interest will be focused on semantics, neither the phonetic shape of individual words nor their morphology being in any doubt as they

[12] Cf. the pertinent remarks of G. Fussman, 'Histoire du monde indien. Cours: Les Saddharmapuṇḍarīka indiens I et II', *Annuaire du Collège de France. Résumé des Cours et Travaux*, 1995-6: 779-86; 1996-7: 749-63, esp. 750ff., where other important observations are also made on this text.

[13] The problems of determing the time and place of Aśvaghoṣa are briefly discussed by O. v. Hinüber, 'Origin and Varieties of Buddhist Sanskrit', in C. Caillat (ed.) *Dialectes dans les Littératures Indo-Aryennes*, Paris 1989: 341-67, esp. 348ff.

[14] See, e.g., the articles 'Handschriften' (1989) and 'Skriptorium' (1995) in *Lexikon des Mittelalters*, Munich.

are in the case of the canonical vocabulary. It is because of its Middle Indic connections and the lack of grammatical standardisation that the vocabulary of the canonical texts offers such a broad and fruitful basis for a study of linguistic history, though of course here too semantics must not be neglected.

These special features of the canonical Sanskrit vocabulary as well as of the canonical language as a whole, was observed long ago by the Buddhists themselves[15] and even defended:[16] *yogī śabdāpaśabdena dharmaṃ gṛhṇāti yatnataḥ* 'A yogi zealously grasps the Dharma through grammatical and ungrammatical words' (Paramādibuddha); *apaśabdād artham api yogī gṛhṇāti deśabhāṣātaḥ / toye payo niviṣṭaṃ pibanti haṃsās tad uddhṛtya* 'A yogi grasps the meaning even from vernaculars and ungrammatical words. Geese draw out and drink milk mixed with water' (Vimalaprabhā). Still, they were criticised occasionally also by Hindus such as the philosopher Kumārila in the 7th century, who scornfully commented on Buddhist and Jaina texts alike in his statement *asādhuśabdabhūyiṣṭhāḥ śākya-jaināgamādayaḥ*, Tantravārttika 1.1.12,[17] hinting at the lack of standardisation pervading Buddhist canonical texts as perceived from the perspective of Pāṇinian grammar.[18] Having cast off the fetters of Pāṇini's rules, the Buddhists were no longer bound by any limits, but free to create new words and forms.

This freedom opened up a rich opportunity to mould texts linguistically in various ways and for various purposes. The Buddhists naturally availed themselves of these opportunities in a creative manner and soon seem to have found the linguistic freedom useful as a way of marking the identity of their various schools. The linguistic shape of Buddhist Sanskrit words is largely determined by the school which used (even if it did not create) a particular text. In order to characterise the affiliation of a text to one particular school, a Buddhist author was able to utilise a variety of linguistic means. In addition to specific words typical of and formed in his own school, he had at his disposal a particular literary style, typical formulae, or even a characteristic form of literary composition.[19] All this

[15] Cf. the remarks of D. Seyfort Ruegg, 'Allusiveness and Obliqueness in Buddhist Texts: *saṃdhā, saṃdhi, saṃdhyā* and *abhisaṃdhi*', in C. Caillat (ed.) *Dialectes dans les Littératures Indo-Aryennes*, Paris 1989: 295-328, esp. 296ff., where attention is drawn to the term *ārṣa* used by Kumāralāta to designate specific forms found in Buddhist language. By using the term 'Buddhist Ārṣa', following J. Newman [see p. 123 of the work cited in the next note], one can avoid the misleading 'Buddhist Hybrid Sanskrit', a term which is particularly awkward for texts of Edgerton's 'Group I', which are certainly not Sanskrit but rather 'Hybrid Prakrit'; cf. also D. Seyfort Ruegg, *JAOS*, 118, 1998: 553ff.

[16] Quoted from the Kālacakra literature and translated by John Newman on pp. 128ff. of 'Buddhist Sanskrit in the Kālacakra Tantra', *JIABS*, 11/1, 1988: 123-40; cf. also p. 464 of Narayan Hemandas Samtani, 'Arthaviniścaya-nibandhana. A Study of Some Buddhist Sanskrit Words', in Kameshwar Nath Mishra (ed.) *Aspects of Buddhist Sanskrit*, Sarnath 1993: 460-74.

[17] I owe this reference to my friend Albrecht Wezler, Hamburg.

[18] Cf. also Johannes Bronkhorst, 'Buddhist Hybrid Sanskrit. The Original Language', in Kameshwar Nath Mishra (ed.) *Aspects of Buddhist Sanskrit*, Sarnath 1993: 396-414.

[19] O. v. Hinüber, *Entstehung und Aufbau der Jātaka-Sammlung. (Studien zur Literatur des Therāvāda-Buddhismus I)*. AAWLM, 1998, No. 7: 210.

means that besides specific ways of wearing the monastic robes and carrying the alms bowl, or using a staff of a characteristic shape,[20] the texts—and not only their contents but also their vocabulary—were an important part of the identity of any Buddhist school.

The unique freedom enjoyed by Buddhist authors in forming new words originated in the idea of recasting the originally Middle Indic texts in Sanskrit instead of translating them. The motive behind this choice is hard to guess.[21] For the results produced by this procedure are quite mixed. On the one hand we have Pāli, which was very loosely approximated to Sanskrit by replacing words such as **bāhaṇa* by *brāhmaṇa* or by using absolutives ending in *-tvā*, and on the other texts from Edgerton's group III such as the Jātakamālā, in which almost Pāṇinian Sanskrit prevails. Therefore we cannot be sure whether the intention from the very beginning was the creation of a true Sanskrit text.

It is however certain that the guiding principle was not to achieve a true translation, but a phonetic transposition, if not a mere graphic assimilation to Sanskrit. For even where the metre obstructed a straightforward transposition into Sanskrit, the graphic appearance of a Sanskrit word was chosen. The following line from the Udānavarga is one of almost innumerable examples:[22]

na tena thero {so} hoti, Dhp 260 : *na tavada theru bhodi*, KDhp[23] XII 1
sthero na tāvatā bhavati, Uv XI 11a[24] : *sthaviro na tāvatā bhavati*, Uv XI 11a.

The text of the Udānavarga vulgate is to be read metrically as – – ◡ – ◡ – – ◡, showing the Middle Indic *thero* and *hoti* behind the respective Sanskrit words. Although the fundamental principle of 'phonetic' transposition could result in Middle Indic words in Sanskrit disguise, as in this verse, where the correspondences between the two languages leave no room for doubt, where this is not the case many hard choices had to be and were made, occasionally quite arbitrarily. Here, the disadvantages and even dangers of clinging to phonetics become only too obvious, as is demonstrated by the following two examples discovered long ago.

[20] Id., *Sprachentwicklung und Kulturgeschichte. Ein Beitrag zur materiellen Kultur des buddhistischen Klosterlebens*. AAWLM, 1992, No. 6: 40, 77ff.

[21] Similar observations can be made concerning epigraphic Sanskrit: Th. Damsteegt, *Epigraphical Hybrid Sanskrit*, Leiden 1978: 238sqq. [Rev.: M. Mayrhofer, *Die Sprache*, 25, 1979: 176-81; K. R. Norman, *Lingua*, 48, 1979: 291-4; J. W. de Jong, *IIJ*, 22, 1980: 313-16; J. S. Klein, *JAOS*, 100, 1980: 150ff.; G. Fussman, *JA*, 268, 1980: 420-26; W. Rau, *OLZ*, 1981: 587-90]; cf. also Richard Salomon, *Indian Epigraphy*, Oxford 1998: 83f.

[22] This verse is not found in the Patna-Dharmapada.

[23] Following a suggestion by Richard Salomon the abbreviation G(āndhārī)Dharmapada should be replaced by K(hotan)Dharmapada in order to distinguish the different versions of this text recently discovered.

[24] This is the wording of the Subaši manuscript: H. Nakatani, *Udānavarga de Subaši*, Tome I, Paris 1987: 36, no. 132.

As Hermann Oldenberg (1854-1920) pointed out as early as 1881, the Middle Indic word *vagga* allows for two different interpretations in the Pāli Vinaya,[25] because it corresponds to either *varga* or, as the opposite to *samagga* / *samagra*, also to *vyagra*. Now, in the Eleventh Saṃghādisesa dealing with monks following a *saṃghabhedaka* monk in his vicious activities, Pāli *anuvattakā vagga-vādakā*, Vin III 175, 14**f., corresponds to *anuvartino vyagravādina* in the Sarvāstivāda,[26] *sahāyakā anuvartino vyagravāditāyām* in the Mūlasarvāstivāda,[27] but to *vargavādakā anuvartakāḥ* in the Mahāsāṃghikalokottaravāda[28] Prātimokṣasūtras. This confirms the observations of Oldenberg, in whose time, of course, only the Theravādavinaya was known. The Theravādins explain the word as *tassa ... pakkhāya ṭhitā honti*, Vin III 175, 33, which points to an understanding *vargavādaka* 'partisan' rather than to *vyagravādaka* 'preaching discord' in contrast to *samagga* 'harmony'.

The second word is the non-technical *prāgbhāra*, which was discussed by Theodor Zachariae (1851-1934)[29] in 1883, when he discovered the true origin of Pāli *pabbhāra* 'slope' in the Vedic word *hvara* 'bent, crooked'. This explanation was, unfortunately, overlooked by F. Edgerton in his dictionary, as it was earlier by T. W. Rhys Davids (1834-1922) and W. Stede (1882-1958) in the Pāli Text Society's *Pāli English Dictionary* in 1925. Both refer only to Pāli *pabbhāra* as the basis of Buddhist Sanskrit *prāgbhāra*, not to its Vedic origin.[30] This, however, is crucial to understanding why the Buddhists committed an obvious mistake here.[31] They Sanskritised their texts long after the Vedic vocabulary ceased to be current, and thus can hardly be blamed for failing to recognise the correct **prahvāra*.

Both these words, *vyagra* / *varga* and *prāgbhāra*, were clearly created by deliberate choice, particularly in the Prātimokṣasūtra.[32] They were both attempts,

[25] Hermann Oldenberg, *Bemerkungen zur Pāli Grammatik*, 1881: 324ff. [repr. in *Kleine Schriften*, Wiesbaden 1967: 1172ff.].

[26] See Georg v. Simson (ed.) *Prātimokṣasūtra der Sarvāstivādins, Teil II*. Abhandlungen der Akademie der Wissenschaften in Göttingen. Phil.-hist. Kl., Dritte Folge, 238, Göttingen 2000: 172.

[27] This is the reading of the unpublished Peking manuscript. The text preserved in Gilgit has only *sahāya[...* The lost portion of the text was wrongly reconstructed by A. C. Banerjee, *Two Buddhist Vinaya Texts in Sanskrit. Prātimokṣa Sūtra and Bhikṣukarnavākya*, Calcutta 1977: 19 [repr. from *IHQ*, 29, 1953: 172].

[28] Nathmal Tatia, *Prātimokṣasūtram*. Tibetan Sanskrit Works Series, 16, Patna 1975: 10.

[29] Theodor Zachariae, *Beiträge zur indischen Lexicographie*, Berlin 1883: 60ff.

[30] See also M. Mayrhofer, *Etymologisches Wörterbuch das Altindoarischen*, III, Lfg. 25, Heidelberg 1998, s.v. *prāgbhāra-*.

[31] A similar case of misunderstood Vedic vocabulary is the well-known *pārājika*, correctly and sufficiently explained by E. Burnouf as long ago as 1844, but still discussed time and again without new insights, for the (so far?) last time by A. Heirman, 'On *pārājika*', *Buddhist Studies Review*, 16/1, 1999: 51-9: ταράσσει τοὺς ἀνθρώπους οὐ τὰ ῥήματα ἀλλὰ τὰ περὶ τῶν ῥημάτων δόγματα ... (after Epictetus and Laurence Sterne's *Tristram Shandy*).

[32] Similarly, *hāsadhamme*, Vin IV 112,22** Pācittiya LIII (*hassadhamme*, Sp 860,30), is turned into Sarvāstivādin *udakaharṣaṇāt*, Pātayantika LXIV (v. Simson [see n. 26 above], p. 225) = Mūlasarvāstivādin (Peking manuscript), but Mahāsāṃghikalokottaravādin *udakahasya(saṃmardanāt?)*, Pācattika LXVI (so read; the photo is not clear for the second part of the word).

attended by varying degrees of success, to reverse historical developments. At the same time, this manipulation of the vocabulary interfered with its natural linguistic development and thus resulted necessarily in the development of a language with strong artificial components. This is particularly clear in morphology, where a grammatical monster such as *prādurśakārṣīt* could be introduced, as a specific expression of the general past, by crossing aorist and perfect, the opposition of aorist and perfect having in any case ceased to exist.[33]

All the examples discussed so far show one common feature: they are words or forms shaped deliberately. This means that we can outline their origin and development by reconstructing the thoughts of the Buddhists who created them. In other cases, where accidental changes are responsible for shaping the Buddhist vocabulary, it becomes a very difficult and at times controversial matter to draw a line of demarcation between those forms which must be recognised as part of the Buddhist vocabulary and those which must be considered as mere scribal mistakes and eliminated from the manuscript tradition as corruptions.

Immediately after Franklin Edgerton's dictionary appeared, this important aspect of Buddhist vocabulary and morphology was pointed out by John Brough in a masterful review article.[34] While setting an example of respectful criticism, Brough provided an indispensible companion to Edgerton's work and to the study of Buddhist Sanskrit in general with his remarks on the manuscript tradition of Buddhist Sanskrit texts, particularly those from Nepal. It may be recalled that one of Brough's main examples demonstrating the fallacies of the manuscript tradition is the aorist ending *-etsuḥ*. Edgerton had assumed that this ending genuinely existed in Buddhist Hybrid Sanskrit (or Buddhist Ārṣa) morphology. However, as Brough rightly pointed out, the form is to be read and interpreted as the common Middle Indic ending *-ensuḥ*. Consequently, it must be dropped from the description of Buddhist Sanskrit morphology.

Errors of this kind based on a misinterpretation of the script are of course by no means limited to modern editors or readers of manuscripts. Not long ago, Siegfried Lienhard discovered an excellent example of a new word which had its origin in a palaeographical error.[35] As a result of the similarity of the *akṣaras ra* and *va* in Newar script, the word *varttikara* 'wick' was changed into *ratikara*, which became firmly rooted in the Nepalese manuscript tradition of the Kāraṇḍavyūha. Although there can be no doubt that *ratikara* was a corruption, in accordance with Lienhard's brilliant argument, nevertheless, as he himself observes, the 'new word' *ratikara* was so persistently used that it seems that it must have

[33] Cf. O. v. Hinüber, 'Origin and Varieties of Buddhist Sanskrit' [see note 13], p. 359.

[34] John Brough, 'The Language of Buddhist Sanskrit Texts', *BSOAS*, 16, 1954: 351-75 [repr. in *Collected Papers*, London 1996: 130-54].

[35] Siegfried Lienhard, 'Avalokiteśvara in the Wick of the Night-Lamp', *IIJ*, 36, 1993: 93-104.

come to be accepted as a word of the Buddhist vocabulary. The context, which is slightly erotic—Avalokiteśvara warning the merchant Siṃhala that his beloved is a witch—certainly favoured the acceptance of *ratikara*, which could be interpreted as 'giving amorous pleasure'. Thus, context and palaeography worked happily together to turn corruption into vocabulary. Subsequently, scribes and of course also the Nepalese readers of the Kāraṇḍavyūha seem to have accepted the corruption as a new word. This necessarily resulted in a considerable alteration in the meaning of the passage, although we are at a loss to guess exactly how a reader might have understood the new text. The corruption occurred too late to be really made use of, at a time when new Buddhist Sanskrit texts, which might have demonstrated the meaning of *ratikara* in different contexts, were no longer being composed, and nobody so far has done any 'field research' by simply asking Newar Buddhists their opinion on *ratikara*.

The development of *ratikara* is well documented and the number of manuscripts is crucial in demonstrating that this word really intruded into the accepted Buddhist Sanskrit vocabulary. The situation is much more difficult when comparable developments are met with in fragmentary texts. Recently, during the Twelfth Conference of the International Association of Buddhist Studies at Lausanne, some fragments of the Schøyen collection were introduced by Kazunobu Matsuda, among them a Pravāraṇāsūtra fragment.[36] In this text the Buddha is said to have lived during the rains '*niradbhute bhikṣusaṃghe*', tentatively translated by Matsuda as 'in the rare community of monks'. Of course *nir-adbhuta* at once suggests a meaning connected to *adbhuta*, although no *nir-adbhuta* seems to be attested so far according to the standard dictionaries. Still, there is a rare though commonplace *an-adbhuta* 'not wonderful' listed in the Poona Dictionary.[37] Thus one could speculate that this *nir-adbhuta*, being apparently synonymous with *an-adbhuta*, might show the same strange semantic development as *an-acchariya*, which supposedly means 'very wonderful'.[38] However, in this particular case, Sanskrit alone does not really give us a clue. For the wording *niradbhuta bhikṣusaṃgha* is obviously built on an older expression preserved in Pāli: *nirabbuda bhikkhusaṃgha*, Vin III 18, 34.

The meaning of Pāli *abbuda* or Sanskrit *arbuda* is clear and well documented in Buddhist texts. Originally, *arbuda* is a technical term for some sort of ulcer. It is found in Sanskrit medical literature and elsewhere in this and other meanings,

[36] This refers to the panel 'New Discovery of Buddhist Manuscripts' organised by Jens Braarvig on 26th August 1999: Jens Braarvig, Jens-Uwe Hartmann, Kazunobu Matsuda, Lore Sander, 'Buddhist Manuscripts from the Schøyen Collection: Report on the New Discoveries from the Bamiyan Valley in Afghanistan'; cf. now also Jens Braarvig (ed.) *Buddhist Manuscripts I*. Manuscripts in the Schøyen Collection, I, Oslo 2000: 79 n. 3.

[37] A. M. Ghatage et al. (ed.) *An Encyclopaedic Dictionary of Sanskrit on Historical Principles*, I (1976) - VI/1 (1998): *a - anumita-mādhurya*, Poona, s.v.

[38] See p. 8 of O. v. Hinüber, '*gāthā anacchariyā asutapubbā*', *Zeitschrift für Vergleichende Sprachforschung*, 84, 1970: 5-10 [= p. 22 of *Selected Papers on Pāli Studies*, Oxford 1994: 17-24].

but only Buddhists seem to use the word metaphorically to refer to moral impurity. Thus, the community of monks is free from impurities, which, according to the Abhidharmakośa, is one of the preconditions for preventing a division of the community (*saṃghabheda*).[39] Consequently, the Pravāraṇāsūtra does not mention a 'rare community of monks' but 'the community free from impurities'.

Although we can trace the origin of *niradbhuta* quite easily, it remains difficult to explain the Sanskritisation. First of all there is again the problem of the transmission of the text: does *niradbhuta* really exist? For, the ligature *rba*, being rather remotely similar to *dba*, might simply have been misread by the scribe of our single extant fragment. This explanation, however, is perhaps unlikely, since a simultaneous change of *ba* to *bha* has to be assumed.

On the other hand, as the Abhidharmakośa shows, Sanskrit *arbuda* was known to the Buddhists and used also in its metaphorical sense, though this is not attested as *nirarbuda* but in the phrase *arbudāt pūrvam*, Abhidh-k 262, 14, explained by the Abhidharmakośavyākhyā[40] as *doṣo 'rbudaṃ*. If it was really the redactor of the Pravāraṇāsūtra who resorted to the Sanskritisation *niradbhuta*, why did he do so and how did he understand his own creation? Neither question can be answered as a result of lack of evidence. Unfortunately, the Chinese translation does not help: the word was not included in the Chinese texts, perhaps because the translators did not understand it. This assumption, of course, presupposes the acceptance of the word *niradbhuta* by the tradition. The lack of any further evidence precludes a solution of this problem.

In contrast, a well-documented word demonstrates how the Buddhists occasionally failed to make sense of a Middle Indic word and attempted to establish a Buddhist Sanskrit form in various ways in different traditions. The differing Buddhist Sanskrit shapes of the word *maheśākhya*, with its rare variant *maheśakya* and its opposite *alpeśākhya*, are discussed at length by Edgerton, who also draws attention to the Pāli equivalent. In Buddhist Sanskrit the word is explained in the Abhidharmakośavyākhyā on *alpeśākhyas tu durgandhāhāro maheśākhyaḥ sugandhāhāraḥ*, Abhidh-k III 14 (Pradhan [2]1975: 125, 20) as *alpeśākhyo 'nudāro hīnajātīya ity arthaḥ. īṣta itīśaḥ. alpa īśo 'lpeśaḥ. alpeśa ity ākhyā yasya so 'lpeśākhyaḥ. viparyayān maheśākhyaḥ*, Abhidh-k-vy 279, 25-27 '*alpeśākhya* means "not high, of a low caste". "Owning, ruling" means "he owns, rules". "Owning, ruling little" is *alpeśa*. He whose designation is "owning, ruling little" is one who is called "owning, ruling little". The opposite is called "owning, ruling much"'. Already in 1926 Louis de La Vallée Poussin[41] drew attention to this explanation,

[39] Louis de La Vallée Poussin, *L'Abhidharmakośa de Vasubandhu*, III, Bruxelles 1927: 211 n. 5.

[40] U. Wogihara (ed.) *Sphuṭārthā Abhidharmakośavyākhyā the Work of Yaśomitra*, Tokyo 1936: 428, line 10.

[41] Vallée Poussin, *Abhidharmakośa*, Tome II, 1926: 48 n. 1. This explanation is also accepted by the Mahāvyutpatti, No. 6411: *dbaṅ-che-ba* or *dbaṅ-che-bar grags*.

which is duly referred to in the *Critical Pāli Dictionary* s.v. *appesakkha*. Unfortunately it was not heeded by any other scholar, again including Edgerton.[42]

Although this interpretation may look a bit strange, there does not seem at first sight to be any need for further discussion, because the overall meaning fits well into the contexts quoted in Edgerton's dictionary. However, the slightly different form *mahesakya* found in two manuscripts of the Mahāparinirvāṇasūtra[43] is obviously a variant of *mahesākhya*, though the relationship between the two forms is difficult to explain. The meaning seems to be *mahāśakya* 'very powerful', which also makes sense. Moreover, this latter form also occurs as a variant in the Saddharmapuṇḍarīkasūtra (SP 180,12) in the manuscripts found in Kashgar[44] and in $N_1 = N_2$.[45] All this requires some explanation, because variants such as this usually point to a problem of Sanskritisation.

In Pāli we find the same pair *appesakkha* and *mahesakkha* explained quite differently by the Theravāda commentaries as *appesakkho ti appapakkho apparivāro*, Papañcasūdanī V 14, 23 (on Majjhimanikāya III 204, 35); *appesakkhā ti appaparivārā*, Manorathapūraṇī III 10 (on: *mātugāmo ... appassako appabhogo appesakkho*, Aṅguttaranikāya II 203, 3 [formula: 4+4+4]); and, slightly differently, *appesakkhā ... ti bho pabbajjā nāma appayasā* ..., Sumaṅgalavilāsinī 669, 19 (on: *pabbajjā appesakkhā*, Dīghanikāya II 248, 20). Obviously, the Majjhimabhāṇakas[46] understood the word as 'having few followers', while to the Dīghabhāṇakas it meant 'of little fame'. The Aṅguttarabhāṇakas, finally, also seem to know the second meaning, as can be seen from the explanation *yasavasena tāva mahesakkhā devatā*, Manorathapūraṇī II 137, 17. The latter is indeed the explanation followed, most likely correctly, by the *Critical Pāli Dictionary*, where *appesakkha* is derived from *alpayaśaska* (a form which provided the *-e-* for *mahesakkha* instead of the expected **mahāsakkha*). If this is correct, the Dīghabhāṇakas and Aṅguttarabhāṇakas preserve or at least mirror the original and correct derivation, while the Majjhimabhāṇakas merely give a meaning without etymological background. At any rate this derivation, which is also accepted in the *Critical Pāli Dictionary*, makes much more sense than the one suggested by Yaśomitra in his Abhidharmakośavyākhyā.

[42] The word is also discussed by Richard Gombrich, *How Buddhism Began*, London 1996: 151ff. with note 7 (comments by A. Sanderson).

[43] Ernst Waldschmidt (ed.) *Das Mahāparinirvāṇasūtra*, I-III. Abhandlungen der Deutschen Akademie der Wissenschaften, Phil.-hist. Kl., 1949, No. 1, Berlin 1950; 1950, No. 2, 1951; 1950, No. 3, 1951 [Rev.: F. Edgerton, JAOS, 77, 1957: 227-32], §5,3 (cf. 5,8). The Tibetan translation *che-ba mthu* corresponds closely to the Sanskrit; cf. however Mahāvyutpatti, No. 6411 [see note 41 above], which may indicate different usages in different schools.

[44] Hirofumi Toda, *Saddharmapuṇḍarīkasūtra. Central Asian Manuscripts. Romanized Text*, Tokushima 1981: 174a4 [Rev.: *IIJ*, 28, 1985: 137-9].

[45] Manuscripts used in the facsimile edition, *Sanskrit Manuscripts of Saddharmapuṇḍarika Collected from Nepal, Kashmir and Central Asia*, 12 vols., Tokyo 1977-1982. The confusion whereby the siglum N_1 refers to the manuscript described as N_2 and vice versa has been pointed out more than once.

[46] On the *bhāṇakas* cf. O. v. Hinüber, *A Handbook of Pāli Literature*, Berlin 1996, §49.

The variants *maheśākhya* / *maheśakya* moreover demonstrate a certain hesitation as to the correct Sanskritisation of this word. The true meaning of both words was always vaguely remembered, but their derivation was forgotten. The fact that the derivation was not self-evident explains why Buddhist traditions, in Pāli on the one hand and in Sanskrit on the other, differ in their opinion. It is difficult to tell whether there was a second split within the Sanskrit tradition between *maheśākhya* and *maheśakya*, since the evidence does not seem sufficient to allow one to draw any conclusions on the school affiliation of the two forms. In this case, a rather exact observation of the opinions of Buddhists at different times and places is possible only because some relevant commentaries happen to be preserved.

Looking back over the few examples discussed here, we can get a picture of the various kinds of evidence which would be required for a truly comprehensive study of a Buddhist word, in an ideal philological environment, as it were. The word should be attested in the only older Buddhist language which we possess, that is, in Pāli. In Buddhist Sanskrit it should preferably occur in several texts. These texts should have a variety of well-defined geographical origins, should belong to different schools and should be attested by an long and unbroken line of datable manuscripts, which themselves should be copies of known provenance. Furthermore, the text should be critically edited or at least facsimiles of a sufficient number of manuscripts should be available. In addition, we should have an old explanation of these words in one or more commentaries. Finally, it would be helpful to have Tibetan, Chinese or other translations, to show how the text was interpreted by the translators at a certain point in time.

Of course none of the words discussed above really meets these ideal requirements. Most likely no such word exists. Still, these examples may suffice to draw attention to the possibilities offered by the study of single words for a better understanding of both their meaning and their history, as well as demonstrating the deficiencies inherent in the material available to us.

Finally, it is worth pointing out that, in addition to being objects of investigation in themselves, words can also be used as tools of research. The occurrence of a word such as *drākṣā* or *yava* in the Bhikṣunī-Vinaya points to a particular cultural background and thus helps to pin down the geographical area in which a certain phase of the development of the text took place. Similar evidence is provided by a local word such as the oft-quoted *cīmarakāra*, which replaced *ayaskara* in the Northwest, as brilliantly demonstrated by Sir Harold, first in a letter to Sir Ralph Turner in 1965 and later in public in his lecture 'A Half-Century of Irano-Indian Studies' delivered before the Royal Asiatic Society on 13th April 1972.[47]

These are, then, the requirements for and the possibilities offered by the study of the Buddhist Sanskrit vocabulary. Ideally, every single word used in a given

[47] Ralph Lilley Turner, *A Comparative Dictionary of the Indo-Aryan Languages*, London 1968, with *Addenda et Corrigenda* (ed. J. C. Wright), London 1985, s.v. 4842a *cīmara*; H. W. Bailey, *JRAS*, 1972: 99-110, esp. 103ff.

Buddhist Sanskrit text should be subjected to such a comprehensive scrutiny. Obviously, this is a formidable and scarcely feasible task, which must therefore be reduced to manageable proportions.

Confronted with the vast mass of Buddhist Sanskrit texts and the enormous volume of words used in them, it was certainly reasonable for Franklin Edgerton to begin a study of the vocabulary by concentrating on its very core, the specifically Buddhist words. The shortcomings of this method are only too obvious, and Edgerton himself anticipated the criticism[48] which followed immediately upon the publication of his grammar and dictionary. For the relationship between standard Sanskrit and typical Buddhist vocabulary completely disappears from sight. This is not only a matter of statistics, important as that may be. It also remains unclear which segment of the standard Sanskrit vocabulary is actually used by Buddhists, which words are perhaps avoided or which are preferred. Even today we are totally ignorant about these aspects of the Buddhist vocabulary. However, a comprehensive approach capable of answering such questions would need much more preparatory work, for instance in the form of indexes such as that to the Saddharmapuṇḍarīkasūtra.[49] Even good editions are mostly sadly lacking. And even moving within Edgerton's self-imposed limits leaves us with an enormous number of linguistic problems to solve.

The erratic changes introduced inadvertently by scribes are still more difficult to assess. For once a Buddhist Sanskrit word came into existence it was subject to the threat of alterations due to corruption in the course of its long transmission, which, in the case of a text attested only in recent Nepalese manuscripts, may have lasted up to two thousand years. In contradistinction to classical Sanskrit, where corrupt forms can be emended with the help of a well-defined norm, in Buddhist texts corruptions developed an element of creativity which could ultimately enrich the vocabulary. Perhaps the greatest challenge for a linguist dealing with Buddhist Sanskrit texts is to determine the point at which even a corruption may turn into linguistic reality ('Sprachwirklichkeit'). We therefore need to combine the methods of textual criticism, historical linguistics and cultural history to solve a host of philological problems as we gradually move towards a true and comprehensive history of the Buddhist Sanskrit vocabulary.

[48] *Buddhist Hybrid Sanskrit Grammar*, XXI: 'I have no doubt that some competent scholars will question the wisdom of this limitation'.

[49] Yasunori Ejima (ed.) *Index to the Saddharmapuṇḍarīkasūtra - Sanskrit, Tibetan, Chinese*, Tokyo 1985-93 [Rev.: *WZKS*, 33, 1989: 228ff.; 35, 1991: 223; 39, 1995: 252-4]; id., *Tibetan-Sanskrit Word Index to the Saddharmapuṇḍarīkasūtra*, Tokyo 1998.

The Avestan language and its problems

JOST GIPPERT

DURING THE LAST TWO DECADES of the twentieth century, Avestan studies have witnessed an astonishing explosion of scholarly interest, which has been manifested in a large number of monographs concerning both the Old Avestan language, as represented in Zoroaster's Gathas and the Yasna Haptaŋhāiti,[1] and Young Avestan texts such as the Zamyād Yašt or the Ērbadistān, each of which has been edited twice within the past ten years.[2]

Comparing the competing editions now available, we may note that a high level of agreement has been achieved both in the analysis of individual Avestan word-forms and in the interpretation of the texts which depends on this analysis. Nevertheless every scholar who deals with the language of Zoroaster will admit that the Avestan tradition still conceals many a riddle to be solved by later generations of investigators. In principle, this may be due to three well-known reasons:

Firstly we have to take into account the fact that the Avestan corpus is rather small: less than 1,700,000 characters if arranged in a plain text format. If we compare this with the Vedic tradition, which is what comes nearest to it with respect both to its contents and to the circumstances of its transmission, we may observe that the size of the complete Avestan corpus is less than that of the Ṛgveda Saṃhitā alone, although the latter represents only one tenth of the whole Veda. As for the Old Avestan parts, they are just half of the extent of the only other Old

[1] Cf. J. Narten, *Der Yasna Haptaŋhāiti*, Wiesbaden 1986; J. Kellens and E. Pirart, *Les textes vieil-avestiques*, 1-3, Wiesbaden 1988-1991; H. Humbach, *The Gāthās of Zarathuštra and the Other Old Avestan Texts*, 1-2, Heidelberg 1991 (hereafter: '*Gathas*').

[2] Cf. P. G. Kreyenbroek, *Sraoša in the Zoroastrian Tradition*, Leiden 1985; A. Panaino, *Tištrya*, I, Rome 1990; K. M. JamaspAsa (ed.), *The Avesta Codex F1*, Wiesbaden 1991; H. Humbach and J. Elfenbein, *Ērbedestān*, Munich 1990; F. M. Kotwal and P. G. Kreyenbroek, *The Hērbedestān and Nērangestān*, 1, Paris 1992; A. Hintze, *Der Zamyād-Yašt*, Wiesbaden 1994; H. Humbach and P. P. Ichaporia, *Zamyad Yasht*, Wiesbaden 1998. For recent works concerning the Avestan language and its transmission in general, cf. J. Narten, *Die Aməša Spəntas im Avesta*, Wiesbaden 1982; J. Kellens, *Le verbe avestique*, Wiesbaden 1984; R. S. P. Beekes, *A Grammar of Gatha-Avestan*, Leiden 1988; K. Hoffmann and J. Narten, *Der Sasanidische Archetypus*, Wiesbaden 1989 (hereafter: '*Sasan. Arch.*'); K. Hoffmann and B. Forssman, *Avestische Laut- und Flexionslehre*, Innsbruck 1996 (hereafter: '*ALF*').

Iranian corpus available to us, namely, that of the Old Persian inscriptions.[3] Under these circumstances it is not surprising that we are faced with an extremely large number of *hapax legomena* which make many Old Avestan passages practically unintelligible even today.

The second reason why we cannot expect to find *ad hoc* solutions to the problems offered by the Avestan tradition consists in the fact that we do not dispose of an immediate descendant of the Avestan language in Middle and New Iranian times. In this respect, too, Avestan differs from both Vedic and Old Persian. The former was succeeded by other varieties of Sanskrit (Epic, Classical, Buddhist), as well as by written and vernacular varieties of Middle Indic, which later developed into the modern Indo-Aryan languages; as for Old Persian, we may claim that, in spite of some temporary breaks in the tradition, its linguistic heritage was by and large transmitted through Middle Persian into Modern Persian, so that secondary evidence is available from these later stages of the language. It is true, of course, that most of the Middle Persian texts we dispose of were interrelated directly or indirectly with the Avestan corpus, in that they belong to the same Zoroastrian sphere; today, however, most scholars will agree that the Middle Persian tradition can hardly ever be taken as a reliable witness to the meaning or analysis of Avestan words or passages, even in the case of texts that claim to be translated from Avestan sources. In other words, Middle Persian cannot be regarded as a continuant of the language of the Avesta, either linguistically or with respect to the transmission of its contents—all the more so where the Old Avestan texts are concerned.

The third reason why we are still far from being able to solve all the riddles posed by the Avestan tradition lies in the circumstances of the transmission of the Avestan texts themselves. Three essential points must be considered here.

First, we must bear it in mind that the entire corpus of Avestan texts was transmitted orally for a long time before the first attempts were made to write them down. In this respect, the Avestan tradition is very similar to Vedic but again diametrically opposed to that of Old Persian, the written attestations of which are practically contemporary with their composition. Oral transmission obviously had several effects on the shape of the Avestan texts. One such effect, the impact of which can hardly be estimated today, is that of intentional redaction, which may have affected the texts several times during the oral period. This effect may be seen, for example, in the addition of explanatory glosses or the duplication of preverbs and similar elements standing in tmesis, as in Y. 28,10c, where *xšmaibiiā* seems to gloss *vā*, both meaning 'for you':

*aṯ. vā. <**xšmaibiiā.**> asūnā. vaēdā. xᵛaraiθiiā. vainṭiiā. srauuå.*

or in Y. 48,7a, where the preverbs *nī* 'down' and *paiti* 'against' are duplicated:

*nī. aēšamō. <**nī.**>diiāṯqm. **paiti.** ṛamәm. <**paiti.**>siiōdūm.*

In metrical passages, these effects can easily be identified, because the added elements are normally hypermetrical.[4]

Besides deliberate redactional intervention, there are at least two kinds of unintentional factors that may have affected the texts to a certain degree. Although the Zoroastrian priests no doubt endeavoured to preserve and transmit the original wording as far as possible unaltered, they could not prevent it from being influenced over the centuries by what we might style internal and external interferences. Among the former I should reckon processes of mutual adaptation of Old Avestan and Young Avestan forms, as in the case of Proto-Iranian word-final *-*ah* (< *-*as*), which, according to Karl Hoffmann's proposal,[5] yielded *-ō* in Old Avestan but *-ō* in Young Avestan; if this suggestion is correct, we would have to assume that doublets like *vacō* 'word, utterance' (< *ṷáčah, cf. OInd. *vácaḥ*) appearing alongside *vacā* in Old Avestan,[6] together with other Old Avestan words ending in *-ō* instead of *-ā*, reveal Young Avestan influence.

The opposite interference can be seen in cases where Young Avestan shows an intervocalic voiced stop when we should expect a voiced fricative instead, as in *frāδəṇte* 'they prosper' in Vd. 21,1. The variant *frādəṇte* with a dental stop is met with several times in the verse[7]

yeθhe. šiiaoθnāiš. gaēδå. aṣa. frādəṇte.
'by whose deeds the livestock prospers with truth',

which is a linguistically adapted quotation from a Gathic passage, Y. 43,6c:

yehiiā. šiiaoθanāiš. gaēδå. aṣā. frādəṇtē.

In the case of the present root *frād-* 'to further', the stop also occurs in other Young Avestan forms where Old Avestan influence is not so evident. This is true, for instance, of the various compounds with the participle *frādaṯ* as their first member, which appear never to have been written with the fricative.[8] But for these words too an Old Avestan model may be found in *frādaṯ.gaēθəm*, which occurs once in Y. 33,11.

This raises the question of the evaluation of the so-called Pseudo-Old Avestan texts. A good example of this genre is the frequently quoted *Yeθhē Hātąm* prayer, which is normally cited as Y. 27,15:[9]

[3] The figures given here are based on the electronic text editions contained in the TITUS collection, cf. http://titus.uni-frankfurt.de/texte/texte2.htm.

[4] For the Gathas, a list of preverb duplications is provided in Humbach, *Gathas*, I, 59f.; for the Yasna Haptaŋhāiti cf. Y. 41,1: *dadəmahicā. cīšmahicā. āca. <ā>uaēdaiiamahi.*

[5] *MSS*, 22, 1967: 34 (= *Aufsätze zur Indoiranistik*, II, 491).

[6] OAv. *vacā*, Y. 45,5b; *vacō*, Y. 31,20b; cf. YAv. *vacō*, Y. 8,4 etc.

[7] Y. 19,17; Vt. 2,5; 3,4; G. 4,9.

[8] YAv. *frādaṯ.fšu-*, *frādaṯ.gaēθā-*, *frādaṯ.nar-*, *frādaṯ.vaŋhu-*, *frādaṯ.vīra-*, *frādaṯ.vīspąm.hujiiāiti-*, *frādaṯ.xᵛarənah-*. — In Vd. 21,1 *frādaṇte* is the reading of Jp1 and Mf2.

[9] Within the Yasna liturgy proper (cf. below), this prayer is repeated 72 times (Y. 4,26; 5,6; 6,21; 7,27; 10,21; 13,7.8; 17,19; 18,8.9; 19,21; 20,5; 21,1.5; 26,11; 27,15; 28,12; 29,12; 30,12; 31,23;

yeϑhē. hātąm. āaṯ. yesnē. paitī. vaϑhō.
mazdå. ahurō. vaēδā. aŝąṯ. hacā.
yå̊ŋhąmcā. tąscā. tå̊scā. yazamaide.

Theoretically, this formula might represent either an older variety of Young Avestan itself or a Young Avestan text reshaped after the model of Old Avestan. And indeed, a presumptive Gathic model for it can be found in Y. 51,22:

yehiiā.mōi. aŝąṯ. hacā. *vahištəm. yesnē. paitī.*
vaēdā. mazdå. ahurō. *yōi. å̊ŋharəcā. hoṇticā.*
tą. yazāi. xᵛāiš. nāmənīš. *pairicā. jasāi. vanṯā.*

Comparing this strophe with the *Yeϑhē Hātąm* prayer, we find several clear indications that the latter is closer to Young Avestan than to Old Avestan, such as the genitive form of the relative pronoun, *yeϑhē* 'whose', which matches Young Avestan *yeϑhe* rather than Old Avestan *yehiiā*, or the comparative form *vaϑhō* 'better', which contrasts with Old Avestan *vahiiō*. Note that the Gathic strophe Y. 51,22 is also quoted as such several times in other environments in the Avesta, such as Y. 15,2 or Y. 63,1,[10] with Pseudo-Old Avestan *yeϑhē.mē* replacing Old Avestan *yehiiā.mōi*:

yeϑhē.mē. aŝąṯ. hacā. *vahištəm. yesnē. paitī.*[11]

On the other hand, it should be noted as a special feature of the *Yeϑhē Hātąm* prayer that it provides the verbal form *vaēδā* 'he knows' with a voiceless fricative

32,17; 33,15; 34,16: 35,10[2]; 36,6; 37,5; 38,5; 39,5[2]; 40,4; 41,7[2]; 41,8; 42,6; 43,17; 44,21; 45,12; 46,20; 47,7; 48,13; 49,13; 50,12; 51,23; 53,10; 54,2; 55,7; 56,5; 57,4.6.8.10.12.14.18.20.22.26.29.32. 34[2]; 59,29.33; 60,13; 63,3; 65,18; 67,8; 68,24; 70,7; 71,24.31).

[10] Y. 65,16; 69,1; 69,2 (+ rep.); 69,3 (+ 2 reps.). Further quotations of this and the *Yeϑhē Hātąm* prayer are found in the extra passages of the Vispered, Viδēvdād, and Vištāsp Yašt liturgies (cf. below), esp. within Y. 59,33 and Y. 71,16.

[11] Interference by the Gathic strophe Y. 51,22 may be responsible for a certain disagreement in the manuscript tradition concerning the verse structure of the *Yeϑhē Hātąm* prayer; cf. Geldner's n. 1 to Y. 4,26. Those manuscripts which insert the Pahlavi translation after *paitī* (Pt4, F2 in Y. 4,26; in Y. 6,21 also J2, K5, Mf4) may be influenced by the fact that the first verse of Y. 51,22 ends in *paitī*. Interestingly enough, Mf4, the sister manuscript of Pt4, which was not available to Geldner when he prepared his edition but which has meanwhile been published in facsimile (K. M. JamaspAsa and M. Nawabi (ed.), *Manuscript D90, Yasnā With its Pahlavi Translation*, 1-2. Pahlavi Codices and Iranian Researches, 19-20, Shiraz 1976), inserts the break after *vaϑhō* in Y. 4,26 (cf. fig. 1, extracted from p. 103 of the facsimile edition, with *yeϑhe*(!) and *vaϑhō* marked), which would agree with an original verse structure of 3 × 11 syllables as proposed by Geldner. (In Pt4, *vaϑhō* is simply omitted in 4,26.) Mf4 is also important for preserving, though not consistently, the palatal *ŋ́* of *vaϑhō* which was postulated as the original reading by Karl Hoffmann, *Festgabe deutscher Iranisten zur 2500-Jahrfeier Irans*, Stuttgart 1971: 69 (= *Aufsätze zur Indoiranistik*, I, 321): within attestations of the prayer, Mf4 has *vaϑhō* in Y. 7,27, 27,15 and 60,13 (cf. fig. 2, showing Y. 27,15, extracted from p. 334 of the facsimile edition, with *yeϑhe*(!) and *vaϑhō* marked). Cf. pp. 180f. below for further consideration of this question.

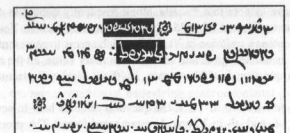


Figure 1. Y. 4,26 in Mf4 (p. 103).

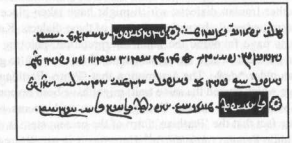


Figure 2. Y. 27,15 in Mf4 (p. 334).

instead of the voiced *δ* we find in *vaēδa* in the clearly related Young Avestan passage Vr. 16,3:[12]

yaēšąm. nō. ahurō. mazdå. aŝąuua.
yesne. paiti. vaϑhō. vaēδa.

This may well be compared with the interchange of *-δ-* and *-θ-* found in Young Avestan doublet forms from the root *dā-*, such as *daδāiti* vs. *daθāiti*,[13]

[12] The passage is quoted twice in Vr. 24,0 and reappears again in Yt. 13,148.

[13] *daδāiti* (3 sg. pres. ind. act.) is attested 54 times (Y. 9,22; 65,2; Yt. 2,12[2]; 5,2; 8,49; 10,3[3].26[2].28. 62[2].107; 13,5; Vd. 3,34.35; 15,2.3.9.11.13.15; 18,12.34.37; Vr. 7,3; Ny. 4,3; N. 17.25[2].37.61.62.84. 105[2]; P. 6(7).50; Vn. (FrK.) 8.27[2].37[2].62.71-2; Vyt. 5,34; 7,46.48; Nik. 5[2].16.17. For *daθāiti* there are only two attestations in the Pursīšnīhā: P. 23(24) and 34(35); the 3 sg. pres. subj. act., however, is attested with *-θ-* only (*daθąi*): Y. 11,5; Yt. 5,19.23.27.31.35.39.43.47.51.55.59.66.70.74.79.83.89[2].99. 106.110.114.118; 9,5.11.15.19.23.27.32; 11,15; 14,29.31.33; 15,4.9.13.17.21.25.29.33.37.41.43[4].44[2]; 16,7.10.13; 19,10.94; Vd 18,29; 19,9[2]; Vr. 12,4; Ny. 4,8; P. 31(32); Vyt. 4,25. The problem becomes even more complicated if we consider the forms of the perfect active participle: as against *-δ-* in 19 occurrences of the nom. sg. *daδuuå* (Yt. 5,17; 10,50.143; 13,83; 15,2.4.9.13.17.25.29.33.37.41; 19,16; Vd. 2,20.21; 7,52; 22,7) and 12 of the acc. sg. *daδuuåŋhəm* (Y. 6,1; 16,4.5.6; 70,1; Vd. 18,7.13.60.66; S. 2,8.15.23), we find *-θ-* alone in the oblique case forms, viz. in 18 attestations of the gen.-abl. sg. *daθušō* (Y. 1,1; 4,7; 16,3; 22,1; 24,12; Yt. 13,78.157; 15,44; Vd. 19,4; Vr. 11,16; S. 1,8.15.23; A. 3,7.8.11; Vyt. 7,46.51) and one of the (secondary) abl. *daθušaŋ* (Yt. 5,7).

although we have to note that **vaēθa*, albeit frequently quoted in Avestological literature as the equivalent of *vaēδa*, is not attested as such in Young Avestan. The *hapax legomenon vaēθāca* in Yt. 1,26, which seems to represent **vaēθa* plus copulative *-ca*, is unintelligible and has no evidentiary value, all the more so since the passage in question (*vaēθāca. taṯca. kaēθica*) displays extreme manuscript variation.[14]

Leaving aside *vaēθāca* in Yt. 1, the question remains how to account for the interchange of *-δ-* and *-θ-* in Young Avestan word-forms. The proposal to see a dialectal phenomenon here, which is once again due to Karl Hoffmann,[15] can be interpreted in two ways. Either it is a case of divergence between two dialects of Young Avestan proper, i.e. dialects of the Avestan language as spoken at the time of the composition of the texts; or it results from an *external* factor, namely, interference from other Iranian dialects, which might have taken place as the texts were being transmitted orally by native speakers of these dialects. Karl Hoffmann himself seems to have favoured the latter interpretation, pointing to a similar development in Parthian, where the present stem of the root *dā* 'to give' appears as *dah-* from an older **daθ-*. The assumption that (Proto-)Parthian (or another Iranian language which shared the same trait) might have been responsible for the emergence of voiceless *-θ-* in the Young Avestan verb seems to be further supported by the fact that the 'Parthian' form of the present stem is also found in Zoroastrian Middle Persian (*dah-*/*dih-*).[16] Here too it is usually regarded as an

[14] According to Geldner's apparatus, the reading *vaēδāca* is supported by Mf3, Pd, K36, Lb16, Ml2, while J9 has *vae.θāca*. Another group of manuscripts, including F1, allegedly the oldest Yašt manuscript available, provides quite a different reading: *auuaṯ.θāca* (F1, L11), *avaṯ.θāca* (Jm4), *auuaδaθāca* (E1, P13, K19), *auuadaθāca* (L18, K12, J10, O3), *auuaδaθaca* (Pt1). Instead of *taṯca* (Mf3, Pd, Ml2), we find *dadaca* in J9, F1, *..daca* in Mb1, *dadaci* in Jm4, L11, *daδaca* in K19, J10, P13, E1, L18, K12 and *daθaca* in Pt1. *kaēθica* is provided by Mf3, Pd, K36, Lb16, as against *kaeθaṯca* (J9, Jm4), *kaeθaδaca* (E1, P13, L18, K19, O3), *kaeδadaca* (Mb1, F1) and *kaθaδaca* (Pt1, J10, K12). It is clear that we have a dichotomy of manuscripts here, Geldner's text being based on the group consisting of Mf3, Pd, K36 and Ml2, all of which are Khorda Avesta manuscripts rather than Yašt manuscripts proper. On the basis of F1 and its descendants, one might prefer to restore **auuaθāca. *yaθa. *kaθaca* 'in just that way and what way so ever', which reminds one of the curse formula which appears in Yt. 19,57 (*ibe. ibā. yaθna. ahmāi*), 60 (*ibe. ibā. yaθna. ahmāi. auuaeθa. ibā. yaθna. kahmāi*) and 63 (*ibe. ibā. yaθna. ahmāi. auuaθe. ibā. yaθna. ahmāi. auuōiia. ibā. yaθna. ahmāi*); but **vaēθāca. *yaθa. *kaθaca* 'and I know, in what way so ever' also remains possible (for *yaθa. kaθaca* cf. Yt. 4,7; 19,82; Vd. 2,11.15.19 and 37). The formula *auuaδa. aēṯaδa. aēṯahe. šiiaoθnahe. yaθa. vaēδaŋti* 'when they blame (somebody) there for this deed here', which appears five times in Vd. 4,50ff., is too remote to be compared here, albeit it seems to contain another instance of the development *-δ- > -θ-* (if *vaēδaŋti* belongs to √*vid* as proposed by Bartholomae, *Airan. Wb.*, 1322).

[15] *Handbuch der Orientalistik*, 4: *Iranistik*, 1: *Linguistik*, Leiden 1958: 8 (= *Aufsätze zur Indoiranistik*, I, 65); *ALF*, 97f.

[16] Cf., e.g., 3 sg. pres. ind. *dahēd* <YHBWNyt>, *Mēnōg-ī xrad* 21,41 (ed. Sanjana, p. 40, l. 6); the Pazend version, ed. Antiā, reads <daha‡> (p. 301, l. 22); 3 pl. pres. ind. *dahēnd*, *ibid.*, 41,16 (<YHBWNd>, p. 62, l. 6 / <daha◌nd>, p. 317, l. 12).

element borrowed from a Northern dialect, since the Manichaean variant of Middle Persian shows not **dah-* but *day-*,[17] which must reflect **daδ-*.

It is true of course that interference from languages spoken by the transmitters has been held responsible for other features of the Avestan texts as well. A striking example is the emergence of one of the most characteristic traits of Avestan orthography, the representation of underlying postconsonantal glides *i̯* and *u̯* by the graphic sequences of double <ii> and <uu>. This feature can be compared with what we find in Old Persian forms such as *aniya* or *haruva*, whose graphic representation <a-n-i-y>[18] and <h-ru-u-v>[19] seems to indicate that they were pronounced with three syllables, a homorganic anaptyctic vowel having arisen within the consonant cluster. The same process seems to have left its mark in their Avestan equivalents *aniia-* and *hauruua-*; but, unlike the Old Persian case, this cannot be taken as a feature of the language as spoken at the time of the composition of the texts, since it had no effect on the metrical value of the words in question, both *aniia-* and *hauruua-* being treated as bisyllables /anja-/ and /harǰa-/ in all metrical parts of the Avestan corpus.[20] On the other hand, Karl Hoffmann was certainly right in postulating that the graphic notation we find in the Avestan manuscripts reflects a trisyllabic pronunciation,[21] which must accordingly have emerged after the composition of the metrical texts. Thus the assumption that this was due to interference by speakers of Old Persian, in whose phonological system the glides *i̯* and *u̯* did not occur in postconsonantal position and who were not able to pronounce them as such in Avestan words, has a good deal in its favour.

We must, however, be careful about trying to draw conclusions from this case for that of the interchange of *-δ-* and *-θ-* in Young Avestan. In the first place we have to note that the 'double' representation of glides affected the whole Avestan corpus whereas the replacement of *-δ-* by *-θ-* occurs only sporadically in the Young Avestan texts. If this too were a matter of transmission (in the sense of a substitution of *daθāiti* for *daδāiti*), we should have to ask why it did not affect the complete Young Avestan corpus, but only parts of it. (Old Avestan, of course, could not be affected because it had no intervocalic *-δ-*.) As a matter of fact, this would not be easy to account for on the basis of an assumption that speakers of Parthian (or a related language) were responsible for the transmission of the complete Avestan corpus after the interference of Old Persian speakers had taken place, i.e. in Arsacid times.

Nevertheless, there remain several conceivable scenarios. If we do not want to give up the idea of speakers of Parthian transmitting the Avestan texts, we might

[17] E.g. 3 sg. pres. ind. *dayēd* in M 49 I R 3 (*Mir. Man.*, II, 306, l. 13), 3 pl. pres. ind. *dayēnd* M 11 V 5 (Waldschmidt-Lentz, *Man. Dogm.*, 557).

[18] Thus, e.g., DB 1,95 and 3,32.

[19] Thus DB 1,40 and 1,80.

[20] Cf. Hoffmann, *ALF*, 36.

[21] *Sasan. Arch.*, 39ff.

presume that the whole corpus was not transmitted by the same people, Parthian influence manifesting itself only in those parts transmitted by Parthians. Alternatively, we might take refuge in the idea of Proto-Parthian influence at the time of the composition of the texts in question, which again could be interpreted in two ways: it might mean that there was a dialectal split within Young Avestan as a spoken language, one dialect showing interference from (neighbouring) '(Proto-) Parthian', or it might mean that the texts were composed by speakers of '(Proto-) Parthian' who used Young Avestan as a sacral language. For the latter case, one might well compare the use of Latin as a sacral language in Europe, which caused some similar effects when adapted during the past millennium by speakers of languages as different as French, German, English or Hungarian. Finally, each of the scenarios envisaged above has a chronological aspect, in that it might be interpreted as indicating a certain age for a text containing the feature in question.

We cannot expect to be able to solve this riddle as long as several other problems raised by the Avestan tradition remain unclarified. If we speak of 'parts' of the Young Avestan corpus which might have been influenced by Parthian, we presuppose that the Young Avestan texts available to us are in some way heterogeneous, and we should expect certain features that can be interpreted as 'dialectal' in the sense outlined above to appear as bundles within these parts. At present, however, we are still far from being able to establish the existence of such bundles or to delimit in detail the specific parts of the text which are characterised by them. This unsatisfactory situation is due to several awkward peculiarities of the Avestan manuscript tradition.

First of all, we have to take into account the fact that most of the manuscripts which have come down to us contain not separate texts but collections of texts, the composition of which is not due to their dialectal or chronological uniformity, not even to their contents, but only to their applicability for certain liturgical purposes. This is especially true for the Yasna collection, which represents, as is well known, the texts and text-elements to be uttered by the Zoroastrian priests in the course of the *Haoma* sacrifice. It is for exclusively liturgical reasons that this collection contains, right in its middle, the oldest Avestan texts available to us, i.e. the Gathas and the Yasna Haptaŋhāiti, as well as such strange Young Avestan passages as the one following the so-called Hōm Yašt, which is cited as Y. 11,9:

yō.nō. ***aēuuō.*** *aṯ.tē.* ***uiiē. θrāiiōdiiāi.***
tūrahe. maṇdāidiiāi. xšuuīdəm. haptāždiiāi.
nauua. das*ne. yōi.vā. yaēθma.*

These 'verses' represent nothing but a sequence of quotations from Old Avestan texts which contain the numerals from one to ten, or word-forms resembling these numerals, partially concealed in unrelated infinitives, which were adapted to Young Avestan and obscured in a 'cabbalistic' way with the result that there is certainly no point in trying to interpret them meaningfully; cf. the following synopsis:

OAv. *yō.nō.* ***aēuuō***, Y. 29,8a; OAv./YAv. ***aēuua-*** 'one, only';
OAv. *aṯ.tōi.* ***ubē***, Y. 34,11a; OAv. ***ubē***, YAv. ***uiie*** 'both';
OAv. ***θrāiiōdiiāi*** 'to shelter', Y. 34,5a; YAv. ***θrāiiō*** 'three';
OAv. ***tūrahiiā*** 'of Tūra' (PN), Y. 46,12b; YAv. ***tūrīia-*** 'fourth';
OAv. ***maṇdaidiiāi*** 'to keep in mind', Y. 44,8b; (YAv. ***pańca*** 'five');
OAv. ***xšuuīdəm-cā*** 'and the milk', Y. 29,7a; YAv. ***xšuuaš*** 'six';
OAv. ***haptaiθē*** 'in the seventh', Y. 32,3c; YAv. ***hapta*** 'seven';
OAv. ***āžduiiāi*** 'to reach', Y. 51,17c; YAv. ***āšta*** 'eight';
? OAv. ***nā.vā*** 'either a man', Y. 35,6; 41,2; YAv. ***nauua*** 'nine';
OAv. ***yōi.vā. yōiθəmā. dasəmē***, Y. 28,9b; OAv. ***dasā***, YAv. ***dasa*** 'ten', ***dasəma-*** 'tenth'.

In the present case, it is not only the verses themselves that are obscure, but also their relationship to the context in which they are located. According to the manuscripts that preserve liturgical instructions in Middle Persian (Pahlavi or Pazend) alongside the Avestan Yasna text, they were uttered by the ***rāspī***, i.e. the second priest of the ritual, assistant of the ***zōṯ***, at the moment when both priests had finished their joint recitation of the so-called Hōm Yašt. This latter text, though extending across three Yasna 'books', from Y. 9,1 to Y. 11,8, shows a clear linguistic and textual uniformity, so that we are justified in treating it as a unity (as its traditional name 'Hōm Yašt' reflects). However, it shares no obvious common traits with the following verses, so that these may pertain to any other stratum of Young Avestan which one may care to postulate.

In the case of the Yasna liturgy, we also have to consider the fact that the collection as transmitted in the manuscripts contains not only texts of the types indicated above, which can at any rate be assigned a coherent structure, but also various litanies, whose structure is less consistent. In these cases, we are not dealing with inconsistencies in the Yasna text itself but with differences between at least four kinds of liturgies, of which the Yasna proper merely forms something like a common skeleton. The four liturgies in question can easily be distinguished in accordance with the manuscript classes that contain the respective texts: besides the Yasna proper, handed down in manuscripts of the so-called Pahlavi-Sanskrit Yasna and Yasna Sāda types, we find the Vispered liturgy in Pahlavi Vispered and Vispered Sāda manuscripts, the Vidēvdād liturgy in Vendidād Sāda manuscripts and the Vištāsp Yašt liturgy in the unique Vištāsp Yašt Sāda manuscript K4. The interrelationship between the four liturgies can be outlined in the following way. In the Vispered liturgy, the 24 'chapters' of the text collection named 'Vispered' are inserted into the Yasna text in such a way that, for instance, Vr. 1,1-9 are placed between Y. 1,9 and 1,10, or Vr. 12,1-5 between Y. 27,5 and 27,6. The Vidēvdād liturgy further extends this mixed text by inserting the 22 chapters of the Vidēvdād proper, grouped into ten sections, beside the Yasna and Vispered elements; thus, *fargards* 1 to 4 of the Vidēvdād are also placed at the end of Y. 27, after the inserted text of Vr. 12,1-5, and so on. The Vištāsp Yašt liturgy is similar to the Vidēvdād liturgy in that the eight 'chapters' of this text

are inserted in the position of eight of the ten Vidēvdād 'sections', Vyt. 1 appearing after Y. 27 and Vr. 12,1-5 but before Y. 28. The interrelationships thus established can be roughly illustrated in a diagram such as the one given in Table 1.[22]

Y.	1_{1-8}		$1_{9}2_{8}$		$2_{9}\cdot11_{8}$		$11_{9\text{-}15}$		11_{17}-13	14-15	16-17		18-21		22	
Vr.	"	1	"	2	"	$3_{1\text{-}5}$	"	3_{5}-4	"	5-6	"	7-8		9	"	10-11
Vd.	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Vyt.	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"

Y.	23-27			28-30			31-34				35-42			43-46		
Vr.	"	12		"	13		"	14		15	"	16-17		"	18	
Vd.	"	"	1-4	"	"	5-6	"	"	7-8	"	"	"	9-10	"	"	11-12
Vyt.	"	"	1	"	"	2	"	"	3	"	"	"	4	"	"	5

Y.	47-50			51			52-53			54			55-71
Vr.	"	19		"	20	21-22		"	23		"	24	"
Vd.	"	"	13-14	"	"	15-16	"	17-18	"	"	19-20	"	"	21-22	"
Vyt.	"	"	6	"	"	7	"		"	"	8	"	"		"

Table 1. Arrangement of Yasna, Vispered, Vidēvdād and Vištāsp Yašt liturgies.

Liturgies:		
Yasna & Vispered	Vidēvdād (& Extr.Wg. 1A)	Vištāsp Yašt (& Extr.Wg. 1B)
frauuarāne. mazdaiiasnō. zaraθuštriš. vīdaēuuō. ahura.ṣkaēšō°		
hāuuanąe.	*dātāi. haδa.dātāi. vīdaēuuāi.*	*haδa.mąθrāi. zaini.parštāi. upairi. gātubiiō. gərəptāi. mąθrāi. spəṇtāi.*
	zaraθuštrāi.	
	aŋaone. aŋahe. raθβe.	

Table 2. Textual deviations depending on the liturgical context in Y. 3,24.

Under these circumstances, it would still be justifiable to treat the four text collections of Yasna, Vispered, Vidēvdād and Vištāsp Yašt separately, as Westergaard and Geldner did in their editions, were it not for certain deviations in the arrangement and wording of the Yasna text contained in the 'extended' liturgies. These deviations, of which Y. 3,24 provides a typical example (cf. Table 2), have hardly ever been dealt with thoroughly in Avestological literature, and they are only partially accessible in the editions: while Westergaard listed eight of them, which he took from Vendidād Sāda manuscripts and K4, under the heading of 'Extrakte', Geldner confined his information about such deviations to the critical

[22] This table, which agrees with the one provided by Geldner in *Grundriß*, II, 11f., shows only the major deviations. The picture becomes much more complicated when minor divergences are considered.

apparatus and only H. Brockhaus's edition of the Vendidād Sāda, nowadays easily available again in reprinted form,[23] covers the complete text of the Vidēvdād liturgy.

One further example may suffice to show that these deviations are not just a *quantité négligeable*. This is so-called *Ahuna Vairiia* prayer, which is usually quoted as Y. 27,13 because it is written in full at this position in most manuscripts containing the Yasna:

yaθā. ahū. vairiiō. aθā. ratuš. aŋāṭcīṭ. hacā.
vaŋhəuš. dazdā. manaŋhō. šiiaoθənaŋm. aŋhəuš. mazdāi.
xšaθrəmcā. ahurāi.ā. yim. drigubiiō. dadaṭ. vāstārəm.

In addition, this prayer is referred to in many other places within formulae which are uttered by the *zōṭ* and the *rāspī* in dialogue form and which indicate which part of the prayer is to be recited by which attendant at the sacrifice. The most frequent formula is printed as Y. 3,25 in Geldner's edition; here, the *zaotar*- is named as the main reciter, both by himself and the *rāspī*:

zōṭ: *yaθā. ahū. vairiiō.* ***zaotā.*** *frā.mē. mrūtē.*
rāspī: *yaθā. ahū. vairiiō.* *yō.* ***zaotā.*** *frā.mē. mrūtē.*
zōṭ: *aθā. ratuš. aŋāṭcīṭ. haca.* *frā. aŋauua. vīδuuā. mraotū.*

Another formula, appearing in Y. 15,4 and Vr. 3,6, mentions instead the fire-priest, *āṭarəuuaxš-*:

zōṭ: *yaθā. ahū. vairiiō.* *yō.* ***āṭarəuuaxšō.*** *frā.mē. mrūtē.*
rāspī: *aθā. ratuš. aŋāṭcīṭ. haca.* *frā. aŋauua. vīδuuā. mraotū.*

It seems to have escaped notice so far that two further versions of the formula are met with in the deviant passages of the Yasna contained in the 'extended' liturgies, within Y. 59,33 and Y. 65,17. Here, two other officiating priests are named, namely the *sraošāuuarəz-* and the *frabarətar-*:

zōṭ: *yaθā. ahū. vairiiō.* *yō.* ***sraošāuuarəzō.*** *frā.mē. mrūtē.*
rāspī: *aθā. ratuš. aŋāṭcīṭ. haca.* *frā. aŋauua. vīδuuā. mraotū.* (Y. 59,33)

zōṭ: *yaθā. ahū. vairiiō.* *yō.* ***frabarəta.*** *frā.mē. mrūtē.*
rāspī: *aθā. ratuš. aŋāṭcīṭ. haca.* *frā. aŋauua. vīδuuā. mraotū.* (Y. 65,17)

Although both these titles appear several times in other Avestan passages such as Vd. 5,57, Vr. 3,1, G. 3,5, Vyt. 3(15) or the Nirangistan (67ff.), it is interesting to note that it is only from the formulae discussed above that it becomes clear that the persons bearing them are involved as speakers in the ritual. And it may be remarked that in both cases the additional attestations thus obtained help to establish the correct phonetic shape of these titles, which are now confirmed by the Vispered manuscript K7 of 1288 A.D.—supposedly the oldest Avestan manu-

[23] H. Brockhaus (ed.) *Vendidad Sade*, Leipzig 1850 (repr. Hildesheim 1993).

script extant. So we can now take it for granted that *frabarətar-* 'attendant' had a 'hysterodynamic' inflexion with zero-grade root, *-bərə-* < *-bhr̥-*, throughout its Avestan paradigm, as against *variae lectiones* with *-arə-* (reminiscent of Vedic 'proterodynamic' *prábhartar-*) in Vištāsp Yašt (K4) and Nirangistān manuscripts.[24] As for the officer 'producing obedience', we gain further evidence for the conspicuous long *ā* vowel which appears at the boundary of most compounds containing the root *varəz-* 'to produce' as their second member, *sraošāuuarəz-* agreeing with *vāstriiāuuarəz-*, *huuarštāuuarəz-*, *dužuuarštāuuarəz-*, *šiiaoθnāuuarəz-* and *haiθiiāuuarəz-* (as against the ambiguous *huuarəz-* /hŭ-ɣarz-/ and *vohuuarəz-* /ɣohŭ-ɣarz/).

Whatever one may think about this peculiarity, the deviations from the Yasna text which occur in the 'extended' liturgies leave us with two dilemmas. The minor one consists in the problem of how to refer to the passages in question. Given that Geldner did not bother with them at all, basing his edition on the Yasna liturgy proper, we have no choice but to confine ourselves to indicating the 'enclosing' Yasna passages (e.g. Y. 59,33), wherever these can be determined. Maybe this was one reason why Bartholomae in his Wörterbuch took notice only of Westergaard's 'Extracts'; if he had worked through Brockhaus's edition of the Vendidād Sāda, he would have encountered the same problem.

The major dilemma brought about by such deviations is one of the most striking problems Avestan studies have by now been facing for several centuries, namely, the question of the evaluation of the manuscript tradition. It is true that Geldner's investigations, undertaken in preparation for his edition and continued during the course of this work, yielded immense progress with respect to the classification of the manuscript material available to him; and again we must be grateful to Karl Hoffmann, who significantly improved our understanding of this matter by reassembling and reformulating the particulars scattered throughout Geldner's Prolegomena. Nevertheless, the knowledge we have gained in this way does not yet suffice to clarify all the problems connected with the transmission of the text.

[24] Nom. sg. *frabarəta* in HJ, facs.-ed. D. P. Sanjana, fol. 135v, l. 3 (the passage in question is part of N. 67, p. 110 in Waag's edition); TD, facs.-ed. Harvard Iranian Series 3, fol. 91v, l. 5, has *frabarəta* at this place as well. In other places, both HJ and TD have *frabarət-*: HJ 139r, l. 12 / TD 94r, l. 1 (= N. 68a) and HJ 146v, l. 12 / TD 98v, l. 1 (= N. 71a) (nom. sg. *frabarəta*); HJ 155v, l. 12 / TD 105r, l. 2 (= N. 74a), HJ 157r, l. 11 / TD 106r, l. 2 (= N. 79f) and HJ 159r, l. 5 / TD 107r, l. 7 (= N. 81i) (gen. sg. *frabarətarš*); HJ 159v, l. 11–12 / TD 107v, l. 6 (= N. 82b) (acc. sg. *frabarətārəm*). In other contexts, forms containing *-barə-* are only rarely met with: Geldner notes dat. sg. *frabarəθre* instead of *frabarəθre* for Mf2 in Vd. 5,58 (n. 4), *frabarətāram* instead of *-barətāram* for K11 in Vr. 3,1 and for K12 in G. 3,5. The assumption of a 'hysterodynamic' *frabarətār-* further matches with the MPers. equivalent *frabardār* (cf., e.g., the diagram printed in Geldner's edition at the beginning of Vr. 3, which shows the respective positions of the sacrifice participants, among them the *fraburdār*, according to the Vispered tradition).

First of all, the information available from Geldner's edition is, in the case of the Yasna tradition, concentrated on the manuscript tradition of the Yasna liturgy proper, as we have just seen. Although we may well believe that the Yasna part of the text as contained in Vispered, Vendidād or Vištāsp Yašt Sāda manuscripts is derived from what we find in Pahlavi Yasna or Sanskrit Yasna codexes, this has not yet been proved. In other words, it is still open to us to doubt whether we have to assume that there was a single archetype for each of the major Avestan texts, as Karl Hoffmann did, or whether there might have been several independent first attempts to write them down, depending on their usage in liturgy, which would have manifested themselves in the divergent manuscript classes established by Geldner.

Secondly, the material Geldner's edition provides does not suffice for a thorough reinvestigation of this question. This is not only due to the fact that Geldner, in preparing his Yasna edition, ignored most of the deviations of the 'extended' liturgies discussed above, but also to the fact that he regarded several graphic peculiarities as negligible. This holds true, for example, for the distinction of <ao> and <aō>, <š> and <š̰> or <ŋ> and <ŋ̊>. With a view to establishing a critical text, his decision may have been justified, but for investigating the interdependence of manuscripts, especially those which Geldner himself reckoned as less important, such distinctions may be crucial.

Finally, at least one manuscript that has become available since Geldner finished his Yasna edition is important enough to deserve checking systematically for the readings it preserves, namely Mf4. It was Geldner himself who belatedly realised the value of this manuscript, which he proved to be a sister manuscript of Pt4 and an important member of the Iranian Pahlavi Yasna family.[25]

It is on the basis of these considerations that I decided some years ago to undertake a project whose objective is the reassembly of the available material in digital form and the application of new methods based thereupon to the study of Avestan. As I have described the scope of the project named 'AUREA' in detail on another occasion recently,[26] I shall try to be brief on this subject here.

The starting-point of the AUREA project was the first digitised version of the Avestan corpus which was prepared by Sonja Gippert-Fritz in the 1980s in connection with Bernfried Schlerath's *Avesta Dictionary* project in Berlin. As the electronic version produced at that time contained only the plain text as represented in Geldner's edition, the first task to be undertaken in the present project, with a view to tackling the problems outlined above, consisted in digitising the data contained in Geldner's critical apparatus. For the Yasna, this task has meanwhile

[25] Cf. n. 11 above for a discussion of the value of Mf4.

[26] Cf. my paper 'Indo-iranistisches Textretrieval' presented at the conference 'Indogermanisch und Indo-Iranisch', which has meanwhile been printed in B. Forssman and R. Plath (ed.) *Indoarisch, Iranisch und die Indogermanistik. Arbeitstagung der Indogermanischen Gesellschaft vom 2. bis 5. Oktober in Erlangen*, Wiesbaden 2000: 133-45.

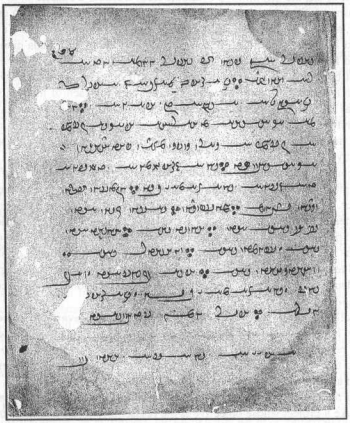


Figure 3. Y. 27,14 to 28,1 in J2 (p. 341).

been finished, thanks to the efforts of Michiel de Vaan, who also collated and incorporated additional variant readings given in Westergaard's edition. As his second task, de Vaan started recollating several important manuscripts that are available via facsimile editions or microfilms; besides Mf4, which I have already discussed, these include the Pahlavi Yasna manuscripts J2[27] and K5[28], the Vendidād Sāda manuscript P1[29]—which was the basis for Brockhaus's edition—and the Vištāsp Yašt Sāda manuscript K4, a microfilm of which was obtained from the Copenhagen Royal Library. Subsequently, de Vaan collated the readings of Br2 noted in Geldner's Nachlaß in Marburg University Library and a microfilm

[27] Facsimile edition by L. H. Mills, Oxford 1893.

[28] Facsimile edition by K. Barr, Copenhagen 1937.

[29] Facsimile edition (produced manually) by E. Burnouf, Paris 1829-1843.

of Pt4 procured from the Bodleian Library in Oxford. My own contribution to this task consisted in the recollation of the Vispered Sāda version contained in K7.[30] The database of variant readings thus produced is, of course, open to further extension; the next manuscript we hope to obtain for this purpose is J3, which is housed in Oxford and which is, according to Geldner's stemma, a very valuable manuscript of the Sanskrit Yasna family.



Figure 4. Y. 27,15 to 28,1 in P1 (p. 166).

As a by-product of these efforts, we intend to prepare digitised copies of the manuscripts themselves wherever possible; by now, J2 and P1 have been scanned completely from the printed editions and they are ready to be republished in both digital and printed form (cf. figs. 3 and 4, showing Y. 27,14/15 to 28,1 as they appear on fols. 341 and 166 of these manuscripts, respectively).

[30] Facsimile edition by K. Barr, Copenhagen 1944.

Another digitised manuscript was placed at the disposal of the project by Petr Vavroušek from Prague. This manuscript, which seems not to have been taken notice of anywhere, is in the possession of Charles University and is another derivative of the Vendidād Sāda family. Although its readings have not yet been thoroughly checked, at first glance it seems to be fairly worthless; nevertheless, we intend to collate it, and for convenience I propose to refer to it henceforth as Prl (cf. fig. 5).



Figure 5. Y. 28,1 in Prl (fol. 84r).

As was stated above, however, the primary goal of our work on the manuscript tradition is to establish a reliable database of variant readings which can enable us to investigate the consistency of readings and the interdependency of manuscript classes. One example may suffice to show how such a database can be used, what has been achieved and what is still to be desired.

In connection with the *Yeŋ̊hē Hātąm* prayer (cf. p. 168 above), I mentioned the form *vaŋ̊hō* 'better', which distinguishes the 'Pseudo-Old Avestan' text from its presumptive model, Y. 51,22, with Gathic Old Avestan *vahiiō*. In Geldner's edition, the younger form is regularly written *vaŋhō*, with a nonpalatal *ŋ*. Leaving aside the occurrences in the 'Pseudo-Old Avestan' *Yeŋ̊hē Hātąm* prayer, we find five attestations of this comparative form in the Young Avestan parts of the Yasna, in Y. 59,30.31, 65,11.14 and 71,13. For these five occurrences, a total of

93 manuscript readings is now known either on the basis of the information given by Geldner or through the collation of manuscripts undertaken as part of the present project. Fourteen of these readings show the palatalised velar nasal *ŋ́*, which, according to Karl Hoffmann's reasoning (cf. n. 11 above), must be taken as the original variant. By listing them according to the manuscripts, we find Geldner's assumptions about the close relationship of Mf4 with Pt4 and Mf1 confirmed; moreover, the value of the branch they represent, i.e. the Iranian Pahlavi Yasna, stands out clearly, all the more so since K5, which represents the Indian branch of the Pahlavi Yasna, agrees with them in at least one case, Y. 65,14. Surprisingly enough, Pt4 and Mf4 have *vaŋhō* with a plain velar nasal in Y. 71,13, where K5 agrees with Mf1 in reading *vaŋ̊hō* again. In other manuscripts, *vaŋ̊hō* appears only twice (K36, Pd). These findings may be summarised in tabular form as follows:

	Iranian Pahlavi Yasna			Indian P. Y.	Khorda Avesta	
	Mf4	Mf1	Pt4	K5	K36	Pd
59,30	*vaŋ̊hō*	*vaŋ̊hō*	*vaŋhō*	*vaŋhō*		
59,31	*vaŋhō*		*vaŋ̊hō*	*vaŋhō*		
65,11	*vaŋ̊hō*	*vaŋ̊hō*	*vaŋ̊hō*	*vaŋhō*	*vaŋ̊hō*	
65,14	*vaŋ̊hō*	*vaŋ̊hō*	*vaŋ̊hō*	*vaŋ̊hō*		*vaŋ̊hō*
71,13	*vaŋhō*	*vaŋ̊hō*	*vaŋhō*	*vaŋ̊hō*		

Table 3. Representation of YAv. *vaŋ̊hō* 'better' in Yasna manuscripts. (Readings indicated by Geldner are presented with a shaded background.)

While all this agrees with what we might expect, two questions remain open.

First, there is no way yet to evaluate the two other manuscripts reading *vaŋ̊hō* in Y. 65, namely K36 and Pd. These two manuscripts were classified by Geldner as belonging to the 'Khorda Avesta' type, which means that they cannot be assigned a position within the stemmata of Yasna manuscripts off-hand. Nevertheless, it is worth while trying to find out whether or not the readings they provide in Yasna passages depend on any particular branch of the manuscript tradition, a task which Geldner did not even attempt. For this purpose it is necessary to study in greater detail the transmission of lesser liturgical collections such as the so-called 'Mayā Yašt', within which Y. 65 is contained in the manuscripts in question. As a matter of fact, neither Geldner's nor any other edition of the Avesta gives any information about the elements that constitute this liturgy,[31]

[31] For the 'Mayā Yašt' or 'Mayā Zōhr', cf. Geldner, *Grundriß*, II, 9 nn. 10-11, according to whom the two titles are mentioned in the manuscripts Mf3 and ('Wilson's Ms. Nu. 1' =) W1, respectively; according to the Prolegomena to his edition (p. xi), the Mayā Yašt includes Y. 65 in Mf3.

editorial practice having always been determined exclusively by 'greater' units such as the Yasna collection or the Vidēvdād.

Secondly, it is not at all clear whether the list of readings Geldner provides is complete in the sense that all the manuscripts he had to hand were checked in all five cases and whether the variant reading with palatal *ŋ́* is really restricted to the few manuscripts named. Today, all we can do is to try to reconstruct Geldner's practice in this respect by comparing the information he gives for manuscripts such as J2 or K5 with what a recollation of these manuscripts may reveal. One example may suffice to show that even in the case of these manuscripts, which Geldner valued extremely highly, he neglected a significant number of variants. For the relative pronoun *yeŋ́hē*, which introduces the *Yeŋ́hē Hātąm* prayer, Geldner mentions three cases where J2 has a short final *e*, thus yielding a 'normal' Young Avestan *yeŋ́he* instead of the expected Pseudo-Old Avestan form: Y. 21,1 (in the prayer formula itself), Y. 61,1 (where the introductory words are used to build a hypostatic feminine noun denoting the prayer, *yeŋ́hē.hātąmca. hufrāiiaštąm. fraēšiiāmahī*) and Y. 12,1 (in another 'Pseudo-Old Avestan' text, the *nāišmī. daēuuō* prayer, in the formula *yeŋ́hē. gāuš*). He gives no indication, however, of the fact that *yeŋ́he* is by far the most usual variant in J2, appearing in as many as 62 further recitations of the *Yeŋ́hē Hātąm*,[32] one further attestation of the name of the prayer (Y. 72,1) and nine other 'Pseudo-Old Avestan' passages within the Yasna.[33] As a matter of fact, the 'correct' form *yeŋ́hē* is attested only once in J2, at the point where Y. 15,2 (itself an adaptation of Y. 51,22, cf. above) is repeated in Y. 69,2, a piece of information which may indeed be significant, all the more so since the two other repetitions of the same formula in Y. 69 (1 and 3) show the usual *yeŋ́he*. In the light of these observations, we may expect that the recollation of less-studied manuscripts such as J3 or Mf1 will reveal a great deal of additional information.

It goes without saying that the database we have been establishing since 1996 now can and will also be used as a basis for up-to-date editions of the texts. Unlike Geldner's, these editions can be so arranged as to meet the requirement of illustrating the position of a given passage within its liturgical context, not only by distinguishing the different liturgies, as discussed above, but also by contrasting the divergent types of text that constitute them: coherent hymnic or poetic structures such as the Gathas or the Hōm Yašt; formulaic prayers such as the *Ahuna Vairiia* and their repetitions; litanies such as those which abound in the Young Avestan parts of the Yasna and in the Vispered; quotations and adaptations of strophes or verses from both Old Avestan and non-Old Avestan texts; and simple allusions to elements contained in other contexts. It is conceivable that such a differentiation requires a more elaborate system of referencing than the one we have used so far, and not only with respect to the 'extra' passages inserted into the Yasna text in the Vispered, Vidēvdād and Vištāsp Yašt liturgies. Such a system is at present being developed.

[32] Y. 5,6; 6,21; 7,27; 10,21; 13,7.8; 17,19; 18,8.9; 19,21; 20,5; 21,5; 26,11; 27,15; 28,12; 29,12; 30,12; 31,23; 32,17; 33,15; 34,16; 35,10; 37,5; 38,5; 39,5; 40,4; 41,7; 43,17; 44,21; 45,12; 46,20; 47,7; 48,13; 49,13; 50,12; 51,23; 53,10; 54,2; 55,7; 56,5; 57,4.8.10.12.14.18.20.22.26.29.32.34; 59,29.33; 60,13; 63,3; 68,24; 70,7; 71,24.31. In Y. 36,6 and Y. 67,8 the word is damaged but its final *-e* is clearly legible. In Y. 4,26 and 42,6 the manuscript is damaged precisely at the end of the word; in Y. 41,8 and Y. 57,6 the prayer is omitted in J2.

[33] Y. $12{,}1^{3}$; 15,2; 58,4; 63,1; 65,16; 69,1.3.

There is yet another aspect of the AUREA project that may be of interest here. At the beginning of this paper, I drew attention to the fact that our understanding of Avestan is limited to a considerable extent by the small size of the corpus that has come down to us and by the absence of any daughter language. This is why comparison with cognate languages plays a much greater rôle in the interpretation of Avestan than it does in the case of any other ancient Indo-European language and why the use of Vedic as a standard by which to measure Avestan has become common practice. The basis of this comparative method, which has brought about innumerable convincing results, is a set of well known sound correspondences, the applicability of which is regarded as being extremely regular. Nevertheless, it seems that the validity of this view has never been thoroughly checked; that is to say, the consistency of the rules and the relative chronology implied has never been tested systematically. Such a test, however, is a necessary precondition to the use of Vedic evidence for the explication of Avestan. As a matter of fact, the number of deviations from acknowledged sound correspondences to be met with in alleged Vedic-Avestan word pairs should not be underestimated.

Let me give just one example.

The Avestan word for 'utterance', the nom.-acc. sg. form of which appears in the variants *vacə̄* and *vacō* in Old Avestan as we have seen above, has a clear counterpart in Vedic *vácaḥ*, which is attested 51 times in the Ṛgveda-Saṃhitā alone;[34] both can be traced back to a Proto-Indo-Iranian stem in *-s-*, **uácas*, which finds a more distant cognate in Greek ἔπος, all being inherited from Proto-IE **uékʷos*, a derivative of the verbal root **uekʷ-* 'to speak'. The close relationship between Old Indic and Avestan, which leads to the assumption of a common Proto-Indo-Iranian mother language as an intermediate stage between Proto-Indo-European and the attested Vedic and Old Iranian languages, is made still clearer by the systematic equivalence to be observed in other case forms of this word, such as the instr. sg. *vacaŋhā*,[35] which has its exact counterpart in Ved. *vácasā*,[36]

[34] ṚV 1,26,2.10; 30,4; 54,3; 57,4; 75,1; 78,5; 83,3; 84,19; 91,10; 93,2; 94,8; 101,1; 114,6; 144,7; 145,2; 2,31(222),5; 3,10(244),5; 3,33(267),8; 4,33(329),5; 5,1(355),12; 11(365),5; 22(376),4; 39(393),5; 54(408),15; 6,48(489),11; 7,8(524),6; 96(612),1; 101(617),5; 8,8(628),11; 19(639),12; 24(644),20; 25(645),20; 39(659),2; 43(663),27; 46(666),14; 61(670),1.9; 66(675),5; 74(683),1; 101(710),5; 9,101(813),13; 103(815),1; 10,17(843),14; 37(863),6; 50(876),6; 64(890),10; 97(923),14; 108(934),8; 122(948),2; 150(976),2.

[35] Old Avestan attestations: Y. 31,22; 32,5; 33,2; 34,1.

[36] ṚV 1,76,4; 2,18(209),3; 14(248),6; 4,1(297),15; 5(301),14; 25(321),2; 5,29(383),6; 6,62(503),5; 10,151(977),1.

both attested also with the enclitic particle *-ca* 'and' attached,[37] or the loc. sg. *vacahi* (*-cā*, Y. 30,3) and the gen. pl. *vacaŋhąm* (Y. 31,19), albeit the regular correspondents of these forms, *vacasi* and *vacasām*, seem not to be attested in Vedic but only in later Epic Sanskrit.[38]

Less clear is the case of the nom.-acc. pl. form, which appears as *vacå* in Old Avestan[39] as against Vedic *vácāṃsi*.[40] It is by no means certain that these reflect the same underlying PIIr. form. We might argue that the final vowel seen in Vedic *vácāṃsi* could have been lost in the Iranian equivalent which developed into Avestan *vacå*, because it was a Proto-Indo-Iranian *shwa* reflecting a Proto-Indo-European laryngeal; but we might equally well suppose that Vedic and Avestan here preserve two morphologically distinct formations, Avestan *vacå* going back to a PIE **wékᵘōs*, with no 'collective' ending **-h_2* attached.

The question whether Avestan and Vedic continued two different formations of the nom.-acc. pl. of neuter *s*-stems has a crucial bearing on at least one passage that may be regarded as problematic. This is Y. 32,14, where we seem to meet with a form **varəcåhī-cā*, which, if it could be established as such, might represent **varəcāhi-cā*, as an exact equivalent of Ved. *várcāṃsi* (plus *-ca*), nom.-acc. pl. of *várcas-* meaning 'energy' or 'splendour'. This interpretation, first proposed by C. Bartholomae,[41] is hampered by the manuscript tradition, however, which in Y. 32,14 indicates a word boundary after *varəcå*, leaving both this (or the variant reading *varəcā*)[42] and the remaining *hīcā* as *hapax legomena*:

ahiiā. gərəzhmō. ā.hōiθōi.	*nī. kāuuaiiascīŋ. xratūš. <nī.>dadaŋ.*
varəcå.hīcā. fraidiuuā.	*hiiaŋ. vīsəṇtā. drəguuaŋtəm. auuō.*
hiiaŋcā. gāuš. jaidiiāi. mraoī.	*yā. dūraoŋəm. saocaiiaŋ. auuō.*

While *varəcå* might still be, as a 'regular' nom.-acc. pl. of **varcah-* 'might, energy', the equivalent of Ved. *várcāṃsi*,[43] *hīcā* would, as a single word, have to be interpreted as the instr. sg. of a verbal root-noun *hic-* meaning the 'act of pouring'; this solution was, hesitantly, envisaged by H. Humbach[44] and further supported by J. Kellens.[45] Another solution was put forth by S. Insler who proposed to see here a locative sg. **varəcahī-cā*,[46] which would be equivalent to Ved. *várcasi(-ca)*.[47]

It goes without saying that all the solutions mentioned are quite acceptable from a syntactic point of view, in that either an acc. pl. **varəcāhi-cā* or an acc. pl. *varəcå* might depend on *nī ... dadaŋ* 'they lay down', in concord with the acc. pl. *xratūš*, and a loc. sg. **varəcahī-cā* might also depend on the same verb, in concord with the loc. sg. *ā.hōiθōi* 'in the tying'; while *hīcā*, if taken as the instr. sg. of a verbal noun 'pouring', might represent a syntagmatic unit together with the following *fraidiuuā*, taken as an adjective meaning 'everlasting'.

The question posed above of the regularity of sound correspondences is involved in this problematic case both internally, i.e. with respect to the representation of Old Avestan sounds by graphemes in the manuscripts, and externally, i.e. with respect to the relationship of the proposed readings to their Vedic counterparts. The former would present us with the problem of evaluating the difference between the variant readings, i.e. *-å* vs. *-ā*, in connection with the divergent interpretations. As for the latter, we would have to investigate the question whether we are right at all in assuming **varəcāhi* to be the regular outcome of the Proto-Indo-Iranian preform which yielded Vedic *várcāṃsi*. Within the AUREA project, several steps have already been undertaken with a view to these investigations, the preparation of the database of variant readings being only one of them. Another preparatory step consisted in the compilation of a list of acknowledged or alleged equivalences between Old Avestan and Vedic on the level of word-forms, for the purpose of analysing with a special computer programme the relative chronology and the consistency of the sound correspondences involved. It may be of interest to note that the list of presumed equivalences contains about 900 Old Avestan word-forms out of a total of less than 2000, which indicates a very high degree of agreement indeed. The computer programme (developed by R. Gehrke and K. U. Bux) is still in the state of testing; we hope to be able to present it (and the results it offers as to the relationship of Old Avestan to Vedic) to the public within a few months.

In the case of problems such as that of *varəcå.hīcā* in Y. 32,14, however, it is not only questions of sound correspondences that must be considered. As a matter of fact, a comparison with Old Indic may be helpful on many other levels as well, both linguistic and philological. As in many other cases, it might be worthwhile investigating the textual usage of Ved. *várcas-* and the other equivalents of the Avestan lemmata that occur in the passage in question, a method well established in Avestan studies. If we do so, we will soon come across two verses of the Atharvaveda Saṃhitā (AVS 4,8,5-6), where *várcas-* occurs in a narrow syntactic juncture with the verb *sic-* 'to pour', thus immediately reminding us of the conspicuous *hīcā* of Y. 32,14:

[37] *vacaŋhā-cā*, Y. 47,1 (and repetitions); 48,4; *vácasā-ca*, ṚV 2,32(223),3.

[38] Post-Vedic *vacasi*, Mbh. 12,59,138; *vacasām*, Mbh. 14,44,5.

[39] Y. 31,1; 33,8; 35,9; 58,6.

[40] ṚV 1,145,3; 3,33(267),10; 4,3(299),16; 38(334),10; 6,32(473),1; 52(493),14; 7,23(539),1; 8,101(710),7; 10,65(891),13; 66(892),11; 95(921),1; 108(934),6.

[41] *Airan. Wb.*, 1367.

[42] The manuscripts reading *varəcā* are, according to Geldner, K5, Pt4, K4 and Lb2, to which Mf4 and Br2 can now be added.

[43] Thus AVS 4,22,3; unaccented *varcāṃsi* twice in AVP (3,21,2; 6,19,9).

[44] *Gathas*, II, 88 (cf. already his earlier edition *Die Gathas des Zarathustra*, Heidelberg 1959: II, 37).

[45] *Les nom-racines*, 88 sq; Kellens-Pirart, II, 328.

[46] S. Insler, *The Gāthās of Zarathustra*, Tehran—Liège, 1975, *ad loc.*

[47] Cf. unaccented *varcasi* in AVP 20,53,7.

yắ ắpo divyắḥ páyasā mádanty antárikṣa utá vā pṛthivyắm /
tắsāṃ tvā sárvāsām apắṃ ***abhí siñcāmi várcasā*** *//5//*

abhí *tvā* ***várcasāsicann*** *ắpo divyắḥ páyasvatīḥ /*
yáthāso mitravárdhanas táthā tvā savitắ karat //6//

The verses in question belong to a hymn whose topic is the consecration of a king. The procedure indicated here is the so-called *abhiṣeka-*, which consisted of the 'pouring of water upon the person to be consecrated', as W. D. Whitney explained in his translation:[48]

> 'The waters of heaven that revel with milk, in the atmosphere or also on the earth, —**with the splendor** of all those waters **do I pour upon** thee.
>
> The heavenly waters, rich in milk, **have poured upon** thee **with splendor**; that thou be an increaser of friends, so shall Savitar make thee.'

Although it is quite possible that an act of consecration, or rather enthronisation, executed by the Kavis was alluded to by Zoroaster in our Gathic strophe, we have to note that there is a difference in the syntactic behaviour of the words in question: Ved. *várcas-* appears in the instrumental, not the accusative, when governed by *abhí-sic-*, whose direct object is the consecrated person.[49] In the context of Y. 32,14, however, it is hardly possible to regard *vaŋacā̊* as governed by *hīcā* at all; as an accusative in concord with *xratūš*, it seems rather to depend on *nī ... dadaṯ* as stated above.

The latter view finds its confirmation in Vedic text material as well. In one of the mantras of the White Yajur Veda, VS 9,22, the plural form *várcāṃsi* occurs along with three terms denoting 'power' or 'might', namely *índriyá-*, *nṛmṇá-* and *krátu-*, the last of which is the acknowledged counterpart of Av. *xratu-*:

asmé vo astv indriyắm	*asmé nṛmṇắm utá* ***krátur***	*asmé* ***várcāṁsi*** *santu vaḥ*
'Ours be your strength,	ours your power and might,	ours be your splendours.'

Even though *krátu-* is not used in a plural form in this mantra, its co-occurrence with *várcāṃsi* is striking enough to be taken as a parallel to the Avestan verse in question. It may be added that in the Śatapatha-Brāhmaṇa, where the usage of the given mantra within the Vājapeya ritual is discussed (ŚBM 5,2,1,15), the four terms are resumed in the sequence *yáśas-*, *índriya-* and *vīryá-*, arranged syntactically as direct objects of *dhatte* 'he lays (into himself)':

sò 'sya sárvasya yáśa indriyắṃ vīryắṃ saṃvṛ́jya tád ātmán ***dhatté*** *tád ātmán kurute*

> 'By appropriating (to himself) the glory, the strength, the manly power of this All (i.e., Prajāpati), he **lays** (them) into himself, he makes them his own.'

[48] Harvard Oriental Series, 7: 157f. (note *ad loc.*).

[49] In AVP 6,19,9 *varcāṃsi* is nom. pl., subject (not object) of *saṃ ... siñcantu*.

This too is reminiscent of Y. 32,14, where the equivalent verb *(nī ...) dadaṯ* is used. We thus arrive at the following interpretation[50] which is intended to take both Vedic correspondences into account:

> 'As a *grāhma-* in (close) connection with this one, even the *kavis* (continue to) lay down (on him) power[s] and splendour[s], by daily pouring(?), whenever they get near the deceitful one to assist (him), and whenever the cow is ordered to be killed, to assist (him) who inflames the one who is hard to burn'.

My aim in taking up the example of Y. 32,14 has been to illustrate why I believe that further progress in Avestan studies can only be achieved by taking a closer look at the similarities and interdependencies which connect the Avestan language with Vedic Old Indic. For studying Vedic, it may not be necessary to compare Avestan; but for the study of the Avestan corpus, the evidence of Vedic should never be underestimated.

[50] For a previous treatment of Y. 32,14 which focused on the verbal form *mraoī*, cf. *Mīr curad, Fs. Calvert Watkins*, Innsbruck 1997: 165-81. The revision presented here does not affect the main points of that paper.

Scythian elements in Old Iranian

ALEXANDER LUBOTSKY

1.1. DURING THE FIRST MILLENNIUM B.C., the Central Asian steppes were inhabited by a group of tribes, called Sakas by the Persians and Scythians by the Greek. They controlled an enormous territory from the banks of the Danube across the Pontic steppes to Central Asia. We do not know whether these peoples spoke the same language, but they presumably were culturally homogeneous, as follows from the archaeological evidence: all over the Eurasian steppes we find in the first millennium the 'Scythian' short sword, the trilobate arrowhead and the so-called 'Animal Style' decoration.

From Classical and Mesopotamian sources we learn that sometime during the late eighth and seventh centuries B.C., the Scythians invaded Media and the Near East and dominated the lands of the Urartians, the Mannaeans and the Medes for several decennia. This period led to inevitable amalgamation. In the seventh century B.C., Urartian soldiers start wearing a Scythian *bashlyq*, very different from the helmet worn by the Urartians in the preceding centuries. Various peoples of the Iranian plateau and beyond wear Scythian clothing and weaponry at least by the end of the sixth century B.C., as can be seen on the Persepolis reliefs. Scythian influence can further be deduced from the story told by Herodotus (I,73) that the Median king Cyaxares sent young boys to the Scythians to learn their language and the art of archery.

On the basis of extensive historical and archaeological evidence, my colleague Willem Vogelsang convincingly argued in his 1992 book that the Scythians must have played an essential role in the rise and organisation of the Achaemenid empire. It therefore seems legitimate to ask whether we can find Scythian loanwords in the Old Iranian languages, namely Avestan and Old Persian. It must be borne in mind that since all three languages are closely related, it is not simple to prove borrowing. As is well known, Old Persian vocabulary contains many words which must be of Iranian but non-Persian origin. These words are usually attributed to Median, but it is in principle equally possible that they are borrowed from any other Iranian language, including Scythian. Only when we find phonological features which are characteristic of Scythian can we be confident that we are indeed dealing with a Scythian loanword.

Unfortunately, we know next to nothing about the Scythian of that period—we have only a couple of personal and tribal names in Greek and Persian sources at our disposal—and cannot even determine with any degree of certainty whether it was a single language.[1] Our information about Sarmatian and Alanic, which represent the 'Middle Iranian' stage of Scythian, is also practically restricted to personal names, whose etymological analysis is often uncertain. We only get onto firm ground when we consider the historical development of Ossetic, the modern representative of one of the Scythian dialects.[2] In a situation like this, it seems necessary to start from Ossetic and then to move backwards. In other words, we must select Ossetic sound changes which belong to the oldest layer, check whether these are also reflected in Sarmatian and Alanic names, and then hypothesise that they already took place in Scythian. Needless to say, the last step must necessarily remain uncertain. Nevertheless, if we find an apparently Iranian word in Avestan or Old Persian that does not agree with the sound laws of these languages, and if the specific sound change concerned is typical of Ossetic and Sarmatian-Alanic, we may seriously consider the possibility of a Scythian origin.

1.2. There are two major isoglosses which separate Ossetic from the other Iranian languages, namely Iranian *p > Oss. f and Iranian *ti > Oss. c.[3] Both developments are already found in Sarmatian names in Greek inscriptions from Southern Russia (1st cent. B.C. to 3rd cent. A.D.), at least if our analysis of the names is correct.

The problem with the sound change *p > f is that the inscriptions write both π and φ, cf. Πουρθαιος (Olbia) / Φουρτας (Tanais) (< *$puθra$-, Oss. $fyrtifurt$ 'son'); Πιδος (Berezan') / Φιδας (Tanais, Panticapaeum) (< *$pitā$, Oss. $fydlfidæ$ 'father'). Abaev (1949: 212f.; 1979: 332) interpreted the π/φ alternation diachronically, but, as indicated by Bielmeier (1989: 240), the different reflexes may belong to different dialects: forms with π are attested in the West (Olbia), whereas forms with φ are found in the East. We may therefore assume that the sound change *p > f was typical of East Scythian dialects.[4]

Assibilation *ti > *t^si (with voicing to *d^zi in intervocalic position) is found in two Sarmatian names from Olbia: Ἰνσαζαγος, which is usually interpreted as Oss. *$insæzæg$ 'Vicentius' (Abaev, *IESOJ* IV, 277; cf. Oss. $yssæzinsæg$ 'twenty' < Proto-Ossetic *$insæz$ < *$vinsati$), and, possibly, Κουζαιος, if this is connected

[1] Henceforth I shall use 'Scythian' as a cover term for the Old Iranian stage (i.e. ca. tenth to third centuries B.C.) of the North Iranian dialects.

[2] An important argument in favour of the view that Ossetic is indeed 'Neo-Scythian' is furnished by the name of the Scythian rebel Skunxa, who was captured by Darius (DB 5,27). As was indicated by Frejman (1948: 239f.), this name is likely to correspond to Oss. (Dig.) *æsk'wænxun* 'to be distinguished'.

[3] The latter sound change is also found in Choresmian, but as a part of a more general assibilation process.

[4] It is of course also possible that there were different traditions in the representation of a Sarmatian sound for which there was no equivalent in the Greek alphabet, e.g. [φ] (a bilabial spirant).

with Oss. *$kuʒ$* 'puppy' (thus Abaev 1949: 171, who compares the Ossetic personal names *$Kuʒa$* and *$Kuʒæg$). Here, too, we may hypothesise that the assibilation may already have occurred in Scythian or in some of its dialects.

2. Avestan *$x^var\partial nah$-* / Iranian *$farnah$-*

2.1. I have recently discussed the etymology and concept of Avestan *$x^var\partial nah$-* and its Iranian cognates (cf. Lubotsky 1998), so that I shall only indicate the main lines here.

The best semantic analysis of *$x^var\partial nah$-* was given by Sir Harold Bailey in his Ratanbai Katrak lectures (1943: 1ff.). On the basis of a meticulous analysis of Avestan and Pahlavi passages, Bailey arrives at the following rendering of *$x^var\partial nah$-* (p. 29): 'from the primary meaning "the thing obtained or desired" by way of "good things" and "riches" to the "good fortune" assured by riches to the possessor of *$hvarnah$*, and thence to "Fortune", a divine (*$mēnōkīk$*) hypostasis, and a force bestowing "good fortune" including all success and victory". In anticipation of the discussion later on, I shall tentatively gloss Av. *$x^var\partial nah$-* by 'prosperity'.

Let us look at the major constructions involving Av. *$x^var\partial nah$-*. The most frequent formula with *$x^var\partial nah$-* is the octosyllabic line *$ahe\ (mana/ā\theta ŋham)\ raiia\ x^var\partial nah\partial ŋhaca$* 'on account of his (my/their) wealth and prosperity', which occurs hundreds of times in the Yašts. A typical example is Yt. 3,18 (*et passim*):

$ahe\ raiia\ x^var\partial nah\partial ŋhaca$ *$tąm\ yazāi\ surunuuata\ yasna$*
'On account of his wealth and prosperity,
I will worship him with audible veneration.'

'Wealth and prosperity' appear together in other formulae, too, cf. *$raēšca\ x^var\partial nasca$*, *$raiiąmca\ x^var\partial nah\partial ŋhamca$*, *$raēuuant$-* *$x^var\partial nah\partial ŋhant$-*. They are attributes of a god, who can bestow them on a devotee. In Yt. 10,108, for instance, Mithra asks:

$kahmāi\ raēšca\ x^var\partial nasca$ *$kahmāi\ tanuuō\ druuatātəm$* *$azəm\ baxšāni\ xšaiiamnō$*
'On whom shall I, who possess them, bestow riches and prosperity,
on whom health of the body?'

Another frequent juxtaposition is formed by *$x^var\partial nah$-* and *$sauuah$-* 'power', cf. *$sauuascа\ x^var\partial nascа$*, *$x^var\partial nah\partial ŋhō\ sauuah\partial ŋhō\ mazdaδātahe$*, *$x^var\partial nō\ mazdaδātəm$ ... $sauuō\ mazdaδātəm$* ... etc.

Our knowledge about *$x^var\partial nah$-* comes primarily from the Yašts. In Yt. 19, two types of *$x^var\partial nah$-* are distinguished: *$kauuaēm\ x^var\partial nō$* 'the prosperity of the Kavi-dynasty' and *$ax^var\partial əm\ x^var\partial nō$*. The *$kauuaēm\ x^var\partial nō$* belongs to the gods, who by its power create and preserve the world. It also accompanies the ancient kings and heroes and gives them extraordinary powers. The *$ax^var\partial təm\ x^var\partial nō$*, on the other hand, is described as an object of desire for divinities and heroes,

who constantly struggle for it. Ahura Mazdā even prescribes that every mortal should fight for the *ax^{v}arətəm x^{v}arənō*. The meaning and etymology of the adjective *ax^{v}arətəm* are disputed, but it must mean something like 'undistributed'.

In Yt. 18, the Aryan *x^{v}arənah-* (*airiianəm x^{v}arənō*) is honoured. It was created by Ahura Mazdā, is full of milk and pastures and overcomes the daēvas and the non-Aryan countries.

2.2. The major problem we encounter when dealing with the etymology of this word is its initial. Whereas Av. *x^{v}arənah-*, Pahl. *xwarrah* and Pers. *xurra* point to initial **x^{v}-*, the other languages show initial **f-*, cf. OP *^{o}farnah-* in the PN *Vi^{n}dafarnah-*, Man. MP and Parthian *prh, frh* /farrah/ 'fortune, glory', Sogd. (Buddh.) *prn*, (Man.) *frn*, (Chr.) *fn* /farn/ 'glory, high rank', Bactrian *φαρ(ρ)ο* on Kushan coins, Khot. *phārra-* 'splendour, rank (of Buddha)', Pers. *farr(a)*, Oss. *farn*/*farnæ* 'happiness, wealth, well-being'.

For a long time it was held that the initial *f-* is due to a specific Median sound-law PIr. **x^{v}-* > Med. *f-*. It was assumed that *farnah-* was borrowed by Old Persian from Median, and then disseminated all over the Iranian territory in the period of the Achaemenid empire. In 1983, however, Skjærvø convincingly showed that the 'Median' theory is untenable. His conclusions can be summarised as follows:

a. It is impossible to prove that *farnah-* is an originally Median word and that there was an exclusively Median development **x^{v}-* > *f-*.

b. Forms with *f-* are attested throughout the whole Iranian territory, whereas **x^{v}-* is confined to Avestan. Pahl. *xwarrah* and Pers. *xurra* can be considered loanwords from Avestan.

c. There is no evidence that *farnah-* was so important in the Achaemenid empire that this term should have been borrowed by all Iranian dialects of that time and replaced the local variants.

I agree with Skjærvø that the distribution of the forms clearly shows that *farnah-* must be the original form. The initial *x^{v}-* of Av. *x^{v}arənah-* can easily be explained by substitution of *x^{v}a-* for *fa-*, which is frequently attested in loanwords. For instance, in South Russian dialects, *f* in loanwords regularly appears as *x^{w}*, cf. *x^{w}ábr'ika* 'factory' (Standard Russ. *fábrika*), *x^{w}anár'* 'lantern' (Standard Russ. *fonár'*, a borrowing from Gr. φανάριον); Middle Welsh *Chwefror* 'February' is a borrowing of Latin *Februārius*; in Finnish, we find *sohva* 'sofa', *kirahvi* 'giraffe' etc.

Furthermore, there is an important linguistic argument against a Proto-Iranian reconstruction **h^{v}arnah-*, which, as far as I know, has never been mentioned in the literature. (For a detailed discussion of the evidence I refer the reader to Lubotsky 1999.) Avestan compounds with second members in *^{o}x^{v}-* normally appear with *-s(.)x^{v}-* after *i, u, r*, which is a result of the RUKI rule, cf. *husx^{v}afa*, 3 sg. pf. *√x^{v}ap-* 'to sleep'; *paitiš.x^{v}ana-* 'disturbing noise'; *pairiš.x^{v}axta-* 'surrounded on all sides'; *paitiš(.)x^{v}arəna-* 'jaws'; *aiβis.x^{v}arəβa-* 'suitable for consumption'; *mainiiuš.x^{v}arəβa-* 'reared on supernatural food'; *pasuš.x^{v}arəβa-* n. 'food for cattle'. The exceptions are very few: apart from three compound verbs, unchanged *x^{v}* is only found in compounds with *^{o}x^{v}arənah-*: *aiβi.x^{v}arənah-* 'full of x^{v}arənah-'; *pouru.x^{v}arənah-* 'with much x^{v}arənah-'; *viŋdi-x^{v}arənah-* 'with found x^{v}arənah-'; and the personal names *ātara-x^{v}arənah-* and *aiβi-x^{v}arənah-*.

Also in the position after *-ā́*, the initial *x^{v}* of *°x^{v}arənah-* remains unchanged (*ušta.x^{v}arənah-*, *vīspō.x^{v}arənah-*, *barō.x^{v}arənah-*, *haomō.x^{v}arənah-*), whereas, for instance, the initial *x^{v}* of *°x^{v}arəna-* 'eating' often appears as *-ŋ^{v}h-* (*åŋ^{v}harəna-* 'dish, bowl', *haŋ^{v}harəna-* 'cheek').

This state of affairs clearly shows that the initial *x^{v}-* of Avestan *x^{v}arənah-* cannot reflect Proto-Iranian **hu-* < PIE **su-*.

2.3. The insight that **farnah-* is the original form opens new perspectives for the etymological analysis. In the following I shall argue that **farnah-* goes back to PIr. **parnah-* and is cognate to Skt. *párīṇas-*, which is not only the same morphological formation but has the same range of meanings.

Skt. *párīṇas-* n. is traditionally glossed 'fullness, abundance, prosperity' and derived from the PIE root **pelh$_1$-* 'to fill' (cf. Mayrhofer, *EWAia*, *s.v.*). For Skt. *párīṇas-* we can reconstruct PIE **pelh$_1$-nos-*, the expected Iranian reflex of which is **parnah-* with regular loss of the laryngeal in inlaut. We shall return to the problem of the Iranian initial *f-* below, but first we have to look at the actual occurrences of Ved. *párīṇas-*. This word is attested only in the Ṛgveda (all other attestations being Ṛgvedic repetitions or variants). It occurs eleven times as a simplex and twice in the compound *góparīṇas-*. Finally, there is one attestation of the adjective or neuter *parīṇasá-*.

Among the eleven occurrences of *párīṇas-*, we find four times an asyndetic formula *rā́yā́ párīṇasā* at the end of the line, three times referring to Indra and once to Agni. A typical example is 8,97,6a-d (other passages are 1,129,9a; 4,31,12b; 5,10,1c):

sá naḥ sómeṣu somapāḥ *sutéṣu śavasas pate /*
mādáyasva rā́dhasā śūṃ́rāvatā- *-índra rā́yā́ párīṇasā //*

'Get intoxicated with our pressed-out Soma-juices, O Indra, Soma-drinker, Lord of power, with (your) bountiful gifts, with (your) wealth (and) *párīṇas-*.'

The formula *rā́yā́ párīṇasā* is no doubt identical with the Avestan formula *(ahe/mana/åŋhąm) raiia x^{v}arənaŋhaca* and goes back to Indo-Iranian times. Let us now review the other passages with *párīṇas-*. At the end of a hymn to the Maruts, 1,166,14, we read:

yéna dīrghám maruṭaḥ śúśávāma *yuṣmā́kena párīṇasā turā́saḥ /*
ā́ yát tatánan vr̥jáne jánāsa *ebhír yajñébhis tád abhíṣṭim aśyām //*

'Your *párīṇas-*, O Maruts, through which we shall stay powerful for a long time, O strong ones, and which (other) people will try to draw into their surrounding, is what I seek to acquire with these sacrifices as a gift.'

First of all, the passage shows that there is a direct connection between *párinas-* and power (root *šū-*), which is reminiscent of the Avestan pair *sauuasca xᵛaŋarənasca*. Furthermore, we may conclude from the passage that *párinas-* is not simply 'abundance', but also some kind of military superiority or sovereignty. The imagery is essentially the same as that of Avestan *airiianəm xᵛaŋarənō*.

Just like Av. *xᵛaŋarənah-*, Vedic *párinas-* is a quality possessed by the gods (especially Indra and the Maruts), which can be bestowed on the devotees. This also follows from 8,21,7:

nū́nā́ id indra te vayám *ūtí abhūma nahí nū́ te adrivaḥ /*
vidmā́ purā́ párinasaḥ //

'We of the new generation are dependent on your help, Indra. We have known your *párinas-*, not (only) now but also before, O master of the pressing stones.'

A more profane aspect of *párinas-* becomes apparent from 1,133,7a: *vanóti hí sunváṇ kṣáyam párinasaḥ* 'The presser (of Soma) wins indeed a house of *párinas-*'. The idea that *xᵛaŋarənah-* is present in the house of a devoted man follows, for instance, from Y. 60,7: *mā̊ yauue imaŋ nmāŋəm xᵛāθrauuaŋ xᵛaŋarənō frazahīŋ* 'May the comfort-bringing *xᵛaŋarənah-* never leave this house'.

2.4. We can now return to the question of the initial *f-* of Iranian *farnah-* instead of the expected **p-*. Since *farnah-* is most probably a dialectal Iranian form, it must originate from an Iranian language where **p* regularly yields *f*. As indicated above (§1.2), this sound change is only found in Ossetic and Sarmatian and can thus be postulated for Eastern Scythian dialects. The first attestation of the element *farnah-* in Median onomastics can be dated around 714 B.C. (the reign of Sargon II, 721-705 B.C., cf. Lecoq 1987: 678). At that time, Media was invaded by Scythian tribes and most probably many Median princes and high military officials were of Scythian descent.

We may conclude that Iranian *farnah-* is of Scythian origin and is cognate with Vedic *párinas-*, as shown by the Avestan and Vedic formulae. The original meaning of Indo-Iranian **parHnas-* was 'sovereignty, control', then 'abundance'. Avestan *xᵛaŋarənah-* is a borrowing from Scythian with substitution of *xᵛa-* for the initial *fa-*.[5]

There are two additional arguments for the Scythian origin of this word.

First, 'sovereignty, dominion, control over a territory' seems to be an essential element of Av. *xᵛaŋarənah-* and its Iranian cognates (note, for instance, the continual struggle for *axᵛaŋarətəm xᵛaŋarənō* 'the undistributed dominion', described in Yt. 19). Control of a vast territory is especially vital for a nomadic society: it has been calculated that in order to raise 6-7 cows or horses in the Eurasian steppes one needs 1 square km of pasture (Kuz'mina 1994: 205).

[5] The genuine Avestan word related to Scythian *farnah-* and Skt. *párinas-* is Av. **parənah-*, preserved in the adjective *paraŋaŋhuntəm* (Yt. 5,130), meaning something like 'abundant'.

Secondly, if we look at the meaning of **farnah-*words in all Middle and Modern Iranian languages, we see that the broadest range of meanings is attested in Ossetic, where *farnifarnæ* is not only an attribute of heroes but also refers to the happiness, peace and prosperity, which can be wished for and achieved in every house. In all other languages, **farnah-* is in general only a technical term.

2.5. The Scythian origin of *xᵛaŋarənah-* has important chronological implications for dating the Avesta, since this word is already attested in the Gathas (*xᵛaŋarənō*, Y 51.18).[6] When could the speakers of Avestan have borrowed the word *xᵛaŋarənah-* from the Scythians? The answer to this question cannot be definitive, since the Scythians must have been in contact with Avestan speakers for a long period of time. (It is traditionally assumed that the Avesta was composed in Eastern Iran, in Marv or Herat, cf. Hoffmann and Narten 1989: 87.) On the other hand, the Scythians became really powerful somewhere around the end of the ninth century B.C., before they came to the Iranian plateau and conquered Media. It is therefore likely that the borrowing of the word *xᵛaŋarənah-*, which was an important Scythian concept, took place not before the late ninth or early eighth century. This argument thus furnishes a *terminus post quem* for the creation of the Old Avestan texts. It is only slightly later than the conventional dating, which, on linguistic grounds, places the Old Avesta somewhere around the tenth century (cf., for instance, Hoffmann and Narten 1989: 88 with references). There are also other points of view, however. For instance, Skjærvø (1994: 201) assumes that Old Avestan texts were composed in the period 1700-1200 B.C., which is much too early if our reasoning concerning *xᵛaŋarənah-* is correct.

3. Old Persian forms with *θi* and the month-name *θāigraci-*

3.1. I have found three Old Persian words containing the sequence *θi* where on etymological grounds we would expect *ti*:[7] *duvarθi-* 'portico, colonnade', *skauθi-*/*škauθi-* 'weak, poor' and **θigra(ka)-* 'garlic' (from which the month-name *θāigraci-* is probably derived, see below). Theoretically, the *-θ-* of the former two words can be explained by generalisation from the oblique cases of an original hysterodynamic paradigm with **θí < *tí*, in the same way as *gāθu-* 'place, throne' must have got its *θ* (cf. Av. *gātu-*, gen. sg. *gātuuōš*, with generalisation in the other direction). In the case of **θí* we have the additional complication, however, that **θí* yields OP *šiy* (e.g. **haθi̯a-* > OP *hašiya-* 'true'), so that the *θ* would have to have spread to the strong cases before the development **θí* > OP *šiy* took place,

[6] The passage has received various interpretations, but all scholars agree that *xᵛaŋarənō* must be a form of *xᵛaŋarəah-*.

[7] Traditionally, OP *xšāyaθiya-* 'king' has also been seen as a non-Persian word because of its **θiya-* (allegedly from Plr. ***θi̯a- < **tia-*). As Hoffmann (1976: 637 n. 26) has convincingly argued, however, OP *xšāyaθiya-* is a *vṛddhi*-formation derived from **xšayaθa-* 'reign' with the suffix *-iya-* < **-iH₀-*.

the oblique cases subsequently generalising the θ on the basis of the strong cases. Although this explanation is not totally impossible, it is not very appealing either, especially since the hysterodynamic inflection is moribund in Indo-Iranian languages and is only attested in a few archaic words, whereas 'portico' and 'weak, poor' do not belong to the basic vocabulary. Therefore, some scholars have seriously considered borrowing from Median. For instance, Mayrhofer (1964: 118 with references) writes about *duvarθi-*: 'das Hinterglied viell. ursprünglich **v(a)rti-*, mit *-þ-* aus obliquen *-þy-*Kasus. Die Lautumgebung wäre medisch'. This solution is of course impossible for **θigra(ka)-*, so that I would rather suggest borrowing from a Scythian dialect with assibilation of **ti* > **tśi* (cf. §1.2) for all three words.[8] The θ of Old Persian may be due to substitution (cf. the Greek rendering of the Old Persian name *Aspacanah-* by 'Ασπαθίνης), but if the borrowing is sufficiently old—the contacts of the Persians with the Scythians may date back to the 8th cent. B.C.—Scythian **tś* could have been taken over with **ć* or **s* (the same as the reflex of PIE **ḱ̂*), which only later merged with θ in Old Persian. A similar scenario must at any rate be assumed for the name of Egypt, which had an emphatic *ṣ* in Semitic languages (Akk. *mi-ṣir-a-a*, Hebrew *miṣrayim*) and which was borrowed by Old Persian in a form like **mu(d)zrāya-*> *mudrāya* (cf. Hoffmann 1958: 3).

Let us now look at the etymologies of these words in more detail.

3.2. *duvarθi-* 'portico, colonnade' is found in the passage XPa 11f, which reads: *θātiy Xšayāršā xšāyaθiya vašnā Auramazdāhā imam duvarθim visadahyum adam akunavam* 'Says Xerxes the king: By the favor of Ahuramazda, this Colonnade of All Lands I built' (tr. Kent 1954: 148). It is beyond any doubt that *duvarθi-* is derived from the word for 'door'. The only moot point is whether *duvarθi-* is a derivative with the suffix *-ti-* or represents a haplologised compound **dvar-v(a)rti-*, as already suggested by Bartholomae in his dictionary. The *communis opinio* opts for the latter derivation, but I see no reason for this: the suffix *-ti-* is of course rare in denominal formations, but since we find words like Skt. *pā́ti-*, OP *pasti-* 'pedestrian' (for the denominal *-ti-* see Wackernagel and Debrunner 1954: 639ff.), the analysis of *duvarθi-* as **duvar-ti-* seems to me perfectly acceptable.

The word for 'portico' is also attested (with an additional suffix) in MP *d'hlyc* [dahlīz], Man. MP *dhryz* [dahrīz], Persian *dahlīz*, and has been borrowed from Middle Persian into Armenian (*dahlič*).[9]

3.3. The etymological explanation of *skauθi-*/*škauθi-* 'weak, poor' is problematic. The word is always used in the Old Persian inscriptions in opposition to /tunuvant-/ 'powerful, strong' (DNb 8f. ≈ XPl 9f., DB 4,65) or to the comparative

[8] The semantics of these words is typical of borrowed vocabulary.

[9] Incidentally, Slav. **dvorъcь* 'palace' may also be an Iranian loanword, but this cannot be demonstrated, since the Slavic word could represent a derivative of **dvorъ* 'court' with the suffix **-iko-*.

/tauviyā/ 'the stronger one' (DSe 39f.). The initial *š* is only found in the Behistun inscription,[10] but it is likely to be *sprachwirklich*, since both *skauθi-* and *škauθi-* are reflected in Western Middle Iranian, as Man. Parthian *'skwh /iškōh/* and Man. MP *'škwh /iškōh/* (see Schmitt 1990: 47 *contra* Wüst 1966: 284 n. 1). The initial *šk-*, which can hardly be explained as a regular IE formation, the vacillation between *sk-* and *šk-* and the unclear *-θi-* clearly point to borrowing; therefore I quite agree with Kent (1950: 40, 52) that *skauθi-* is a loanword.[11] It need not be borrowed from an Iranian language, of course, but if it is, we can think of the original **sk(a)u-ti-* (assuming again that *-θi-* stands for Scythian *-tśi-*), a derivative with the suffix *-ti-* from the root **sku-* 'to tear' (see Mayrhofer, *EWAia*, *s.v. SKAV-*). For the formation and semantics we can even compare Oss. *sk'wʸydzag/ sk'udzag* 'a torn off piece, scrap, shred', also used for a 'torn off, isolated, weak person' (cf. the examples cited in Abaev, *IESOJ*, *s.v.*), which is derived from the verb *sk'wynyn/ sk'unun* 'to tear, exterminate', intransitive *sk'wyjyn/sk'ujun* 'to be torn, to grow scarce, die out'.[12] The only problem is the full grade in OP *skauθi-*, because for a *ti*-derivative we would expect zero grade in the root (although full grades are also occasionally found, cf. Wackernagel and Debrunner 1954: 630). Since we are presumably dealing with a loanword here, we can also explain it as adaptation or mishearing of a foreign word. It is conceivable, for instance, that Scythian *u* was more open than the Old Persian one and was therefore rendered by *au*.

A similar root etymology (but of course on the assumption of an inherited word) was already proposed by Herzfeld (1938: 307f), who pointed to Av. *kutaka-* 'small'. This was accepted by Wüst (1966: 284), who added Lithuanian cognates such as *skùtas* 'shred'. Hoffmann (1957: 62 = 1976: 414) also took Av. *kutaka-* and OP *skauθi-* together, but connected them with the Indo-European verbal root **kau-* 'to humiliate' (Skt. *kava-* 'Erniedrigung, Beeinträchtigung, Minderung', Goth. *hauns* 'humble', etc.). As for the formation of *skauθi-*, Hoffmann took it as a *vṛddhi* derivative to **skuθa-* 'Erniedrigung', which seems hard to reconcile with the short diphthong in the OP word (cf., for instance, OP *θāigraci-* in the next section).

[10] For the reading see Schmitt 1990: 46f.

[11] Gershevitch (1954: 55) suggested a connection with Sogd. *škwrδ* 'difficult' on the assumption that *-r-* is secondary in Sogdian. In answer to my query about the form, N. Sims-Williams wrote to me (26 November 1999): 'Sogd. *škwrδ* is written *šqwrθ* in Chr. Sogd. Final *-rθ* can be due to metathesis as in *kwrδ*, Chr. *qwrθ* < **kuθra* "whither" etc., so *škwrδ* is likely to represent **škauθra-* or **skauθra-*. Since the *-r-* is constant it cannot be ignored as Gershevitch assumed in 1954. The initial *šk-* can possibly be explained from OIran. **sk-* (see Gershevitch), but of course OP already has the variant *škauθi-*, cf. MP *iškōh*. I suppose that the OP and Sogd. meanings represent as it were passive and active senses: "subject to oppression/difficulty" vs. "causing oppression/difficulty"'. The problem with this etymology is however that the suffix **-tra-* never forms adjectives in Indo-Iranian.

[12] The Ossetic *sk'wʸydzag/sk'udzag* need not be an old formation, since the suffix *-dzag* enjoys a certain productivity in Ossetic.

3.4. The Old Persian month-name *θāigraci-* (= Elam. *sa-a-kur-ri-zí-iš*) is attested in the Behistun inscription (DB 2,46-7) in the gen. sg. *θāigracaiš* <θ-a-i-g-r-c-i-š>. This is the third month of the pre-Zoroastrian calendar (May-June), corresponding to Aram. *Sivan*, Akk. *Simannu*. As a result of the studies of Justi, Eilers and Wackernagel, there is now a kind of hesitant consensus on its reading, formation and etymology (cf. Brandenstein and Mayrhofer 1964, Sims-Williams 1991: 178, etc.).

The first step was taken by Justi (1897), who pointed out that Old Persian *θāigracaiš* is 'ein mit Vṛddhi gebildetes Beiwort zu "Monat"'. Justi further considered **θigra-* to be the ancestor of Modern Persian *sīr* 'garlic', with the same sound development as in *tīr* 'arrow' < **tigri-* (Av. *tiγri-*). He analysed **θigraci-* as a compound 'Knoblauch-Sammler', containing the root *ci-* 'to gather', and explained the name of the month as 'der Monat der Knoblauchsammler'. Justi further stressed the important role of garlic in the ancient world and mentioned the Persian *Sīrsūr* 'feast of garlic'.[13] As to the etymological connections of the apparent Proto-Iranian **ćigra-*, Justi mentioned Skt. *śigru-* 'Moringa pterygosperma (horseradish tree)' (Śū+)[14] and *śaigrava-* 'its fruit, ben-oil (pressed from its seeds)'.

Justi's explanation was originally met with enthusiasm (for instance, it was accepted by Horn, *GIP*, I/2: 85, and by Bartholomae), but gradually a more sceptical attitude became prevalent: Meillet and Benveniste (1931: 163) call *θāigraci-* 'd'origine obscure' and Kent (1953: 55) says 'etymology uncertain', although on p. 187 he refers to Justi. The situation has changed since the publication of Eilers' work on the name of the Persian New Year festival (1953). Eilers accepted the major elements of Justi's explanation except with respect to the formation of *θāigraci-*. Developing ideas expressed earlier by Marquart (1905: 126ff.) and Justi (1897: 247), Eilers has shown that several months of the Old Persian calendar are named after the festivals which were held during them: *Bāgayādi-* (the seventh month) after **bagayāda-* '(festival of) the offering to Baga', *Āçiyādiya-* (the ninth month) after **āçiyāda-* '(festival of) the fire-offering'.[15] Eilers therefore assumed (p. 43) that *θāigraci-* contains the feminine suffix **-cī-* 'zu einem maskulinen Eigenschaftswort auf *-ka* gehörig' and means 'die mit Knoblauch-verbundene (Zeit)'; however, he recognised the problem that the feminine gender is rather unexpected since the Old Persian months seem to be masculine adjectives qualifying the noun *māh-* 'month' (Kent 1953: 55).

[13] The Persian garlic festival Sīrsūr, during which people eat meat with garlic in order to keep of the Jinn and send children to school to learn a trade (Steingass *s.v.*), is held on the 14th of Dadv (Eilers 1953: 42), i.e. in December. Since the time schedule of the festivals may have changed during the centuries, this does not invalidate the connection.

[14] Cf. Wüst 1966: 153ff., who further adduced Skt. *śigru-* (RV), the name of a people, and, possibly, Av. *šiγūire°* (in comp. *šiγūire.ciθra-* 'of S. origin') < **šigruja-*.

[15] Sims-Williams 1991: 182 recently adduced Sogd. *n'wsrδyc*, Choresmian *n'wsrcy* (apud Bīrūnī), which point to **Nāwasardačiya-* '(month) of the New Year festival (**Nawa-sarda-(ka-)*)'.

The formation of *θāigraci-* was further clarified by Wackernagel (cf. Wackernagel and Debrunner 1954: 303), who saw that Indo-Iranian *vṛddhi* derivatives often substitute *-i-* for *-a-* in the second member. Among Iranian examples such as Av. *māzdaiiasni-* 'belonging to the Mazda-worshippers' to *mazdaiiasna-*, *vārəθraγni-* 'victorious' to *vərəθraγna-* 'victory', he also mentions the Old Persian month-names *bāgayādi-*, *ādukani-* and *θāigrci-* (spelled thus). In other words, *θāigraci-* must be analysed as a *vṛddhi*-formation '(the month) belonging to the *θ.*-festival'. The name of the festival cannot be determined with certainty, but it was most likely **θigraka-* or **θigrači-*.

One of the *Benennungsmotive* for 'garlic' is the arrow-like shape of its shafts. For instance, English *garlic*, OE *gārlēac* is actually 'spear-leek' (OE *gār* 'spear, lance'). It is therefore attractive to assume that Pers. *sīr* and, possibly, OP **θigra°* are related to Ir. **tigra-* 'sharp', **tigri-* 'arrow', which would mean that these words are borrowed from an Iranian, presumably Scythian, language with the regular development of **ti-* into **tⁱi-*. An additional argument in favour of the Scythian origin of this word is the fact that garlic is native to Central Asia (*Encyclopaedia Britannica*). It is possible that Skt. *śigru-* 'Moringa pterygosperma' also belongs here as an Iranian loanword.[16] Its connection with Ṛgvedic *Śígru-*, the name of a people (see n. 14), remains hypothetical, although not impossible.

3.5. I would like to add to the dicussion on OP *θāigraci-* a piece of Ossetic evidence, which, to my knowledge, has never been mentioned in this connection. One of the Ossetic spring festivals is *cyrγisæn/cirγesæn*, in Iron also called *Atynæg* (after the Greek saint Ἀθηνογένης, cf. Abaev, *IESOJ, s.v.*). This festival marks the beginning of the mowing season. In the excellent book by Čibirov on the Ossetic agrarian calendar, we find the following description (1976: 193; translation mine): 'Nobody among the Ossetians is allowed to start mowing when he chooses, until in July all the inhabitants of a village and district come together for a celebration, called Atynæg. During this festival, the old men after long deliberations decide whether it is time to start mowing. When the day is set, it is announced that whoever takes a scythe in his hands before this date will be responsible for bad weather.' The festival is always held on a Sunday, whereas the actual mowing starts on Monday or Tuesday depending on the local tradition.

[16] In the *Encyclopaedia Britannica*, we find the following description of *moringa pterygosperma*: 'The drumstick tree, also called horseradish tree, small, deciduous tree, of the family Moringaceae, native to tropical Asia but also naturalised in Africa and tropical America. Drumstick trees can reach a height of about 9 m (30 feet); they have corky gray bark, branching, fernlike leaves, and scented clusters of white flowers. The dagger-like fruits sometimes are 45 cm (18 inches) long. Flowers, pods, leaves, and even twigs are cooked and eaten. A horseradish-flavoured condiment is prepared from the crushed roots. Ben oil, extracted from the seeds, is used by watchmakers. Perfume makers value it for its retention of scents.' It seems attractive to suppose that the tree has got its name from the dagger-like (or spear-like) fruits.

Similar festivals also take place elsewhere in the Caucasus, in Georgia, Abkhazia, Ingushetia etc.[17]

The name of this festival is usually interpreted as a compound meaning literally '[time for] taking up the sharp [things]'; cf. Abaev, *IESOJ*, *s.v. cyry:* '"vremja, kogda berutsja za ostroe" (t. e. za kosy, načalo senokosa)' ('time when people take up the sharp things, i.e. the scythes; the beginning of mowing'). The first part of the compound is *cyryl*cir*y* 'sharp, sharp thing',[18] which is a regular reflex of PIr. **tigra-*. The second part is *isæn*/*esæn* (from PIr. **āyas(a)-* + *-ana-*), a verbal noun to *isyn*/*esun* 'to take'.[19] This transparent analysis has a strong flavour of folk etymology, however. It remains a distinct possibility that the original meaning of the festival was 'collecting garlic'. When the Ossetians took to using a different word for 'garlic' (Iron *nury* from Georgian *niori*; Digoron *bodæn* < PIr. **baudana-* 'smelly'),[20] they no longer understood the name of the ancient festival. As a result of the reinterpretation, *cyryisæn*/*ciryesæn* has become one of the names of the mowing festival.

This brings us back to Justi's idea that the old name of the festival may have been **θigrači-* 'garlic collector'. Wüst (1966: 151f.) has argued that this interpretation of *θāigraci-* is morphologically impossible, since the root *ci-* 'to gather' is *aniṭ* and all root nouns of this structure have a final *-t-* in Indo-Iranian.[21] This argument does not hold if we are dealing with a loanword, however. Scythian may have lost the final *-t* very early, so that the word was taken over into Old Persian as an *i*-stem. In Ossetic, where the verb **či-* was replaced by *isyn*/*esun*, the original compound **tigra-čit* may have been remade into the virtual **tigra-āyasana- > cyryisæn*.

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[17] In Georgia, for instance, June or July is called *tibisay* 'month of mowing, a grass-month' (cf. Gippert 1986: §3.3).

[18] In Modern Ossetic, the word for sharp things in general is *cyryag*/*ciryag*.

[19] Abaev, *IESOJ*, *s.v.* follows Miller's derivation of the verb from PIr. **ais-* 'to rule', which is implausible because this root does not appear in the full grade in Indo-Iranian. Abaev further considers possible contamination with PIr. **yas-*, but this is an unnecessary complication: PIr. **ā-jasa-* (an inchoative to **ā-jam-*) can regularly yield Oss. *isyn* through the stages **āǰasa- > *ajasa-* (East Iranian shortening before *ǰ*) > **aǰi̯V-* (Oss. syncope, for which see Cheung 2000) > Oss. *isyn*/*esun*.

[20] Sergey Starostin points out to me (p.c.) that the Dargin and Lezgian words for 'garlic', Darg. *s:urge*, Lezg. *serg*, are likely to be borrowed from Alano-Sarmatian **cirgV* (and not related to Proto-East-Caucasian **swVlV*, as hesitantly suggested in Nikolaev and Starostin 1994: 972), thus indirectly proving that Oss. *cyry* originally had the meaning 'garlic'.

[21] Incidentally, Justi himself saw the difficulty, but in his time it was not certain that this rule applied to Iranian as well.

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Regional interaction in Central Asia and Northwest India in the Kidarite and Hephthalite periods

FRANTZ GRENET

Introduction

THE KIDARITE AND HEPHTHALITE PERIODS, which in Central Asia and Northwest India span the whole of the fifth century and the first two-thirds of the sixth (see fig. 1 overleaf), have long had a low reputation in historiography. Narrative sources, all from other countries, are not rich. Contemporary epigraphic records are very scarce and the recently-discovered Bactrian archives of Rōb, invaluable as they are for the knowledge of language and institutions, have not shed much light on political events or cultural changes beyond the narrow horizon of this mountain kingdom.

Western scholars have tended to treat this period like the contemporary Dark Ages of Europe, the more so as the Kidarites and Hephthalites are also known as 'Huns' in Byzantine records and, in fact, probably incorporated elements distantly connected with the Western Huns. Chinese Buddhist sources presented the Hephthalites as responsible for the decline of Buddhism in India, an assumption long supported by an erroneous chronology of the art of Gandhara. As for Soviet archaeologists, they generally selected this period to draw the line between 'Antiquity' and 'Middle Ages', or, according to the requirements of the Marxist vulgate, between the 'slave-holding' and 'feudal' periods of history, a choice which seemed to find some basis in the well-documented multiplication of castles at that time.

In a paper read at the SIE conference in Rome a few years ago (Grenet 1996), I attempted to show that there was, in fact, a deep crisis in Sogdiana and Bactria, but that this crisis mostly affected the second half of the fourth century and, at least in Sogdiana, was quickly followed by a new phase of intense urbanisation, which provided the base for the economic and cultural flowering of the seventh century. In the present paper I would like, more specifically, to stress the contributions of the Kidarite and Hephthalite states, which I think can be credited for an opening up of Sogdiana and for the dissemination of elements of Indian culture in

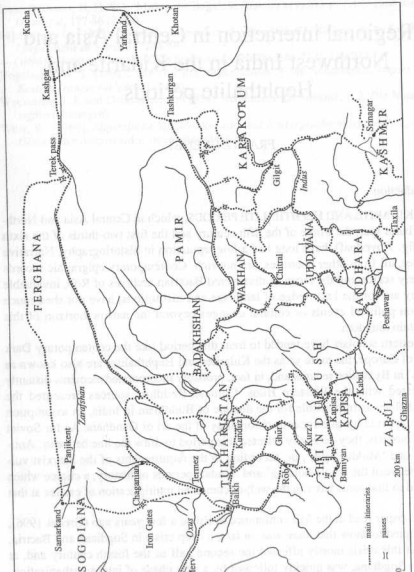


Figure 1. Central Asia and Northwest India in the 5th to 8th centuries (map adapted from Kuwayama 1987, with additions).

regions which they had not reached even in Kushan times. Besides evidence provided by texts and coins, I shall make use of recent archaeological discoveries and other material which is still too little known. I have also greatly benefited from conversations with Boris Marshak, the excavator of Panjikent, and with my student (now colleague) Etienne de la Vaissière, whose thesis on the subject *Histoire des marchands sogdiens* will be published shortly (de la Vaissière 2002).

New perspectives on the Kidarites (ca. 430-477)

Reconstructions of the Kidarite period differ markedly, depending on whether they are the work of numismatists or of historians relying upon Chinese and Byzantine chronicles. In the latter sources the Kidarites appear as a brief dynastic and military episode with started from Bactria and involved only two generations of rulers (Enoki 1969-70). The Chinese pilgrim Faxian who visited Northwest India during the first years of the fifth century does not mention any invasion from Bactria. The first references to a ruler named Kidara are those in the *Weishu*, which are are assigned to the period 424-451 and probably reached China as a result of Dong Wan's embassy in 437. Here Kidara is described as a 'king of the Great Yuezhi, brave and fierce', who eventually crossed the Hindukush. (The passage was last discussed by Kuwayama 1989: 110.) In later accounts his descendants are termed sometimes *Juduoluo* 'Kidarites' and sometimes *Juchang* 'Kushans', never *Xiongnu* 'Huns'; in the only passage of the *Weishu* where these names appear together, the Xiongnu figure as adversaries of the Kidarites, competing with them for the possession of the Kabul valley: 'The state of the Little Yuezhi: the capital is Puruṣapura (Peshāwar). The king of the Little Yuezhi is a son of the king of the Great Yuezhi. Juduoluo had been driven away by Xiongnu and fled westwards, and later made his son assume the defensive' (*ibid.*, 116-17).[1] This is perfectly consistent with the coin legends in Brāhmī, where the Kidarites style themselves 'Kushānshāh'; they were the last rulers to do so, even if dynasties in the Kabul valley still claimed descent from Kanishka in the eighth century.

The system proposed by Göbl (1967; 1984),[2] still followed by Alram (1996) and, in this respect, by Cribb (1990), present us with a strikingly different picture —so different that both Enoki and Kuwayama have ignored it. According to this

[1] Enoki (1969: 17-18) supposes that this statement arose from a confusion with the expulsion of the Kidarites from Bactria by the Hephthalites. But, as he had himself established previously (1958: 17), the Chinese never called the Hephthalites 'Xiongnu', unlike the Indians who extended to them the denomination 'Hūṇa' and Iranians and Byzantines who called them 'White Huns' (*Spēd Hyōn*, Λευκοὶ Οὖννοι). One cannot, however, exclude that this particular passage in the *Weishu* contains a reminiscence of the passage in the *Hanshu* mentioning the Xiongnu's expulsion of the ancient 'Great Yuezhi' westwards out of China.

[2] In accordance with general usage, coins listed in Göbl 1967 are referred to as 'NumH' and seals as 'Sig.'.

system the Kidarites represent the very first wave of invaders in Bactria and Northwest India. They are identified with the Chionites (called by the Chinese *Xiongnu*, by the Sogdians *Khūn*, a name corresponding to our 'Huns'). The Chionites are first mentioned by Ammianus Marcellinus in the 350's as adversaries and subsequently *federati* of the Sasanians.[3] We know that the Kushano-Sasanian kingdom collapsed in Bactria in the mid-370's and that the Chinese records place an invasion of Sogdiana by the *Xiongnu* at about the same period. The keystone of the identification of the Chionites and Kidarites is the reading βαγο κιδαρο on the latest series of gold coins present in the hoard of Tepe Maranjān near Kabul, which were buried while Shapur III was on the throne in Iran (383-8). I have several times questioned this reading (Grenet 1996: 399 n. 57).[4] In fact, on the best specimens only the initial sequence κι- followed by a row of undifferentiated o's is visible (Pl. Ia). This could just as well be interpreted as 'Kay Wahram', the name of the last, or one of the last, of the Kushano-Sasanian kings, which is written very clearly in Middle Persian on silver coins he issued in Gandhara. As noted by Cribb (1990: 161), this ruler's second (foliated) crown is the same as that shown on the so-called Kidara gold coins (Pl. Ib). Seen in this perspective, the burial of the hoard at Tepe Maranjān would bear witness to the retreat of the last Kushano-Sasanians in the face of the Huns, who had just crossed the Hindukush.[5] The Kidarites come later and appear to pose as restorers of the previous

[3] For the sake of easy comparison with earlier publications I retain the name 'Chionites' for the pre-Kidarite invaders of Bactria. Although the names 'Chionite' and 'Hun' are likely to be connected—cf. Sogd. *Xūn*, Middle Persian *Hyōn* (contaminated by the *Hiaona* of the Avesta), hence Latin (borrowed from Greek) *Chionitae*—the question of ethnic continuity is in fact more complex. We now know that in about 430 a member of a 'royal family' in the Rōb region was called Gurambad, the same name as Grumbates, king of the Chionites mentioned by Ammianus Marcellinus (XIX,1,7-2,6) at the siege of Amida in 359 (Sims-Williams 1997: 13, Doc. 4). As this name is not otherwise recorded, it is very probable that these two princes were related. There are several possible explanations: either a group of the Chionites had established themselves in this region after their invasion of Bactria in the late 4th century; or they had been settled earlier by Shapur II as *federati*; or, yet again, the 'Chionites' he brought with him in his campaign were in fact pastoral people from this region (thus Maršak 1971: 65). Were the Οὐαχσανῖται mentioned in Menander (who are probably the same as the Walkhon of the *Armenian Geography*, see Marquart 1901: 141, 157) the 'Chionites of Warnu', i.e. of the Rōb region?

[4] Among the numismatists, only Zejmal' (Zeimal 1996) refers to Enoki's date (between 412 and 437) for the establishment of the Kidarite kingdom, but without questioning Göbl's reading of the Tepe Maranjān coins, which creates a contradiction.

[5] I cannot here examine in detail the difficult question of the Bactrian legend αλχανο (thus on NumH 33, 36; later αλχανο, αλχανο, pl. αλχανανο), which appears in Kapiśa and Gandhara on a long succession of coins beginning with reused dies of Shapur II and finishing with the first issues bearing the name of the Hephthalite ruler Khiṅgila written in Brāhmī (see most recently Alram 1996). It never occurs on coins explicitly issued by the Kidarites. The identity, assumed since Humbach 1966: 28-31, of αλχανο with the Brāhmī legend *rājā lakhāna* (which coexists with it on one emission) is not self-evident, as other names and titles also co-occur with αλχανο (βαυο ζαοβλ, Khiṅgila). There are still, I think, good reasons to take αλχονγο as originally designating a people or a confederation, just as later on the Hephthalites put their abridged name ηβ on Bactrian coins imitating those of Peroz

order. The first coins epigraphically attributable to them, issued in Gandhara and bearing the Brāhmī legend *kidāra kuṣāṇa ṣāhi*, display an original portrait style. On the first emissions, the crown is a distant copy of that of Kay Wahram (Pl. Ic); subsequently (Pl. Id), Kidara assumes a new crown copied from his Sasanian adversary Yazdgird II (438-457), with five crenels surmounted by a half-moon.

All this tallies well with the chronology outlined in the *Weishu*, according to which the conquest of Gandhara was preceded or accompanied by that of the so-called 'Five kingdoms to the North'. In his inspiring article quoted above, Shoshin Kuwayama has proposed to see in these 'Five kingdoms' a short designation of the sequence Yarkand—Kharvandan (Tashkurgan)—Wakhan—Chitral, a sequence explicitedly attested later on for the first conquests of the Hephthalites and to which he proposes to add Uḍḍiyāna, i.e. Swat (Kuwayama 1989: 110). Even if this correspondence cannot be taken as certain in all details,[6] it is clear that at this early stage of their expansion the Kidarites sought to control the mountainous nexus of trade routes linking Bactria, India, China and Sogdiana. This step can be viewed as a first move towards the conquest of the latter country, which had always remained independent of the Kushans and Kushano-Sasanians. The unique—but surely conclusive—proof that this conquest actually took place is provided by rare silver coins minted at Samarkand and attributable on typological grounds to the fifth century; they carry the name Kidara, in Sogdian *kyδr* (Pl. Ie).[7] They were first deciphered by Zejmal' (1978: 208), whose discovery apparently remained unnoticed by historians and numismatists outside the Soviet Union.[8] As demonstrated by de la Vaissière (2002), this conquest took place after the Chinese embassy of 437, which still found on the throne of Samarkand a

(Humbach 1983: 306). To the references given by Humbach (1966, *loc. cit.*) to the Alkhon mentioned besides the Hephthalites and Walkhon in the *Armenian Geography*, and to the Hala-hūṇa or Hārahūṇa of Indian sources, one may perhaps add the 'Red Huns' (Middle Persian *Karmīr Hyōn*, Greek Κερμιχίονες, see Bailey 1932: 946), bearing in mind that *āl* means 'red' in Turkish. If the possibility that some of these Huns spoke an Altaic language may be entertained, such a derivation of *Hala-/Hāra-* would appear more likely than that from Turkish *qara* 'black' (see the discussion in Enoki 1959: 17-18), as there is no other reference to 'Black Huns' in this historical context. See above, n. 1, for the questions raised by the text mentioning competition between Kidarites and Huns ('Xiongnu') in Gandhara.

[6] Kapiśa would be expected in the list. Kuwayama considers that it was bypassed by the Kidarite and Hephthalite conquests (see also Kuwayama 1991: 280 and 1999: 39), but this appears quite unlikely in view of the role always played by the Panjshir valley in the history of invasions of Northwest India.

[7] The only apparent difficulty comes from the lack of a long *-ā-* in the second syllable, in contrast to *kidāra*, the currently accepted reading of the Brāhmī legends on NumH 11 and 14; but the latter also disagrees with the two Bactrian seals on which the name very probably appears, Sig. 19 (κηδαιρο or rather κηδδιρο; reading kindly supplied by N. Sims-Williams) and Sig. 11 (κιδιρο κοβανο βαο, soon to be republished by A. B. Nikitin). The shape of *-ḍā-* in the Brāhmī legends is not unequivocal and a reading *kidara*, as proposed in Göbl 1967, cannot be ruled out (despite the fact that Göbl subsequently changed his mind). (I am grateful to Osmund Bopearachchi for his help on this point).

[8] At first Zejmal' did not explicitly connect his reading *kyδr* with Kidara; this he did only in Zeimal 1996: 120 (see also Litvinskij 1998: 100, with a wrong reference to Göbl 1984).

certain Huni 忽倪 (Early Middle Chinese *xwət-ŋej*), the second successor of a *Xiongnu* conqueror. The subsequent Kidarite conquest provides a possible explanation for the interruption of all Sogdian embassies to China between 441 and 457, since envoys from Sogdiana, who had previously come every second or third year, might temporarily have been covered by the label 'Yuezhi', i.e. 'from the Kidarite kingdom'.

In my paper in Rome I summed up the evidence on multiple town foundations in fifth-century Sogdiana, and commented: 'In the troubled political context of the time, it is difficult to put a name on the authority which could coordinate such an effort, sometimes, like at Samarkand, accompanied by a gigantic increase in the height of the ancient citadel' (Grenet 1996: 374). It now appears that these developments coincided in time with the Kidarite domination. In fact there is evidence at this time of a 'Bactrianisation' of the hitherto very provincial Sogdian culture. At Panjikent, a small treasure deposited in a temple chapel suggests a southern origin for some of the first settlers. In another chapel a painting dating from the late fifth century is modelled on a Bactrian cult statue of Anāhitā: the identity of the goddess, epigraphically attested in Bactria by coins, is confirmed on the Panjikent painting by the added attribute of dog-like dragons covered with scales, which very probably tries to convey the notion of the 'water dog', *sag ī āβīg*, used in Middle Persian texts as an equivalent of Avestan *baβra-* 'beaver', the animal associated with Anāhitā. A penetration of cults from the South is also perceptible in more modest artistic media, such as cult figurines. An eloquent example is the image of Heracles vanquishing a giant with his mace: still seen in its pristine Greek form on an ivory sword-handle from the Oxus temple at Takht-i Sangin (Pl. IIc), already degenerated on a third or fourth century terracotta from Northern Bactria, where the giant is reduced to a gnome (Pl. III), it has descended one step further into horror in a specimen from the vicinity of Samarkand, on which all that remains of the giant is a shapeless head (Pl. IV). The mace and the paws of the Nemean lion tied across Heracles' chest are recognisable on all three specimens, demonstrating the continuity of the development.[9]

The difficult campaigns of the Kidarites against Wahram V, the only Sasanian king credited with having crossed the Oxus to the Bukhara oasis (Tabarī, I,863-5 = Nöldeke 1879: 98-104),[10] and then the rebellion of the Hephthalites in Eastern

[9] I have already discussed and reproduced the two first specimens in Grenet 1996: 368-9, as well as the data from Panjikent (with references to Marshak's publications). The third Heracles, exhibited in the Department of Archaeology of the Samarkand State University, was found near the village of Tailiak (preliminary publication by N. A. Avanesova in *Trudy Samarkandskogo Gosudarstvennogo Universiteta*, N.S., 307, 1976: 36-7 with fig. 2). There is no way to decide whether Heracles still kept his Greek name at this last stage (as he did on 2nd-century Kushan coins with the Bactrian legend ηρακλο) or had taken that of a local war-god, probably Washaghn (the Sogdian form of Vərəθrayna).

[10] See Maršak 1971 for a thorough analysis of these sources, which retains much of its value despite the fact that his late chronology of the Kushano-Sasanians (367-459), borrowed from V. G.

Bactria after the middle of the century, prompted the reinforcement of the defences of Sogdiana. The earlier Sogdian castles had been artistically planned and quite theatrical, with their thin walls pierced by multiple arrow slits, but they were not adapted to the requirements of siege technology, which had been reintroduced in Central Asia by the Sasanians (Semënov 1996, *passim*, esp. 161-7). In this field, too, Bactrian experience is likely to have contributed to the reinforcement of city walls, which immediately affected the newly founded town of Paykend on the western front (*ibid.*, esp. 181, 192, 197). A foundation by the Kidarites, the last 'Kushānshāhs', could also explain the name of Kushaniyya, a town which, judging from its location between Bukhara and Samarkand, is very unlikely to have been founded by the earlier Kushans or Kushano-Sasanians. There is little doubt that the Kidarites, like their contemporaries the Wei of Northern China, succeeded in federating the Hunnish tribes in the service of their own imperial project, hence the name 'Kidarite Huns' by which the Byzantine chronicler Priscus designates the adversaries of the Sasanians in the 450's and 460's. Kunkhas (Κούγχας), the name, or rather title, of their second ruler in Bactria as transmitted by Priscus, can perhaps be explained as a Greek nominative of *Xūn-qan '*qan* of the Huns', with initial *k-* by dissimilation (cf. Tremblay 2001: 188). Moreover, a re-examination of the fragments of Priscus has shown that, far from having been tributary to the Sasanians as was hitherto believed, the Kidarites claimed from Peroz a tribute which had been discontinued by Yazdgird II, after having been regularly paid by his predecessors in order to secure peace on the Khurasan border (Priscus, *Exc. de Leg. Rom.* 12 = Blockley 1983: 348-9);[11] presumably the tribute had been paid since the Huns' invasion of the Kushano-Sasanian kingdom. This demonstrates that the Kidarites, despite their expressed loyalty towards the Sasanian (or rather Kushano-Sasanian) political heritage, in fact cashed in on the military threat they exercised upon Iran, a position they had inherited from the Huns and were soon to pass on to the Hephthalites.

The contribution of the Imperial Hephthalites (457-560)

By that date, indeed, the Hephthalites were already challenging the Kidarites in their Bactrian homeland. The question of the Hephthalites' own cultural identity is difficult to establish. The Bactrian form of their name is now attested as

Lukonin, must now be taken back by one century (see Cribb 1990, and my review of the latter in *Abstracta Iranica*, 14, 1991: No. 260).

[11] 'The Persian monarch [i.e. Peroz] ... asked Constantius [the envoy] to come to him while he was engaged not in the cities but on the borders between his people and the Kidarite Huns. With these a war had begun, the cause of which was that the Huns were not receiving the tribute monies which the former rulers of the Persians and the Parthians had paid. The father of the monarch [i.e. Yazdgird II] had refused the payment of the tribute and had undertaken the war, which his son had inherited together with the kingdom'. See Blockley 1983: 396 n. 163 for a discussion of the Greek text. His contribution has been overlooked by all recent historians (e.g. Zeimal 1996).

ηβοδαλο [ēvdal] (Sims-Williams 1997: 14-16), which rules out earlier proposed connections such as Khotanese *hītala-* 'strong' (Bailey 1982: 3 with n. 20) or a postulated Middle Persian *haft āl* 'the Seven Al' (Humbach 1996: 248). The Chinese chroniclers presented conflicting ideas on their origins; even the envoy Wei Jie, who interviewed them in the early seventh century, could not reach any certainty (Enoki 1959: 6-7). Also, the Chinese reports as well as that of Maniakh, the Sogdian envoy to the Byzantine court (Menander, *Exc. de Leg. Gent.* 7 = Blockley 1986: 115), do not always clearly distinguish between customs proper to the Hephthalites and those of the peoples they dominated: Maniakh presents them as dwelling in towns, while Chinese records, probably reflecting more systematically the way of life of the tribal aristocracy, make them live on pastures under felt tents (cf. Kuwayama 1989: 114-15 for a geographical assessment of Songyun's account). The custom of polyandry is sometimes ascribed to the Hephthalites (*Zhoushu*, *Liangshu*), sometimes to the Tokharians, i.e. Bactrians (*Suishu*) (Enoki 1959: 51). As we now know a polyandric marriage contract from the kingdom of Rōb which predates the earliest historical appearance of the Hephthalites by more than a century (Sims-Williams 1997: 13 n. 21), it seems that the latter version is closer to the truth—unless indeed the Hephthalites actually came from those very mountain fringes of Bactria of which the Rōb kingdom formed part. Their funerary custom, which is clearly un-Zoroastrian, is described in the *Weishu*: 'If a man dies, a wealthy family will pile stones to form a house; a poor family will dig the ground for burial. The articles of everyday use are buried with the dead' (Enoki 1959: 49-50). It points to the same sort of mountain milieu, although, due to the history of archaeological exploration, this complex of customs is better documented in Ferghana than in the area under discussion.

To us, looking on from our present-day vantage point, the Hephthalites appear on the whole as an amplified version of the Kidarites, like them deriving their strength from their ability to unify various ethnic elements with different military traditions. But their kings' conscious policy was one of breaking with the past: they abandoned the title Kushānshāh and, from the very first coins they issued in Gandhara (Pl. If), they displayed their strikingly non-Sasanian physical type with an artificially deformed skull (while the Kidarites' innovation had been limited to appearing clean-shaven).

Whatever the ethno-linguistic connections of the ruling clan may have been,[12] it seems clear that the original power-base of the Hephthalites is to be sought in the Hindukush or in Eastern Bactria. In 457 they sent an embassy to Northern China (*Weishu*, see Enoki 1959: 24) and—if Ṭabarī's account is not anachronistic—concluded an alliance with the Sasanian pretender Peroz, then governor of Sistan, who eventually gained the throne (Ṭabarī, I,872 = Nöldeke 1879: 115). After ten years of fighting they succeeded in eliminating the Kidarites from

[12] On the basis of personal names and titles, Tremblay (2001: 183-8) concludes that their linguistic substratum was neither Bactrian nor Sogdian but nonetheless East Iranian, perhaps ur-Pashtun.

Bactria,[13] but they do not appear to have annexed Sogdiana until 509, from which date envoys from Samarkand present themselves under the name of the Hephthalites (Kuwayama 1989: 117-18). At an early stage of their expansion they had followed in the Kidarites' footsteps in Gandhara and in the 'Five kingdoms to the north'. In spite of the hypercritical position upheld by modern Japanese historians concerning their role on the subcontinent (most recently Kuwayama 1989: 92), it no longer seems possible to deny the Hephthalite identity of the 'Hūṇa' rulers Toramāṇa and Mihirakula, famous in Indian sources as enemies of the Guptas and plunderers of Buddhist monasteries. In the coin series established by Göbl they immediately follow Khiṅgila, who is unknown from contemporary sources but remembered in later tradition. This sequence of three rulers corresponds perfectly to the 'three generations' or 'three reigns' of Hephthalite *tegins* mentioned by Songyun, who met Mihirakula in 520 while he was attacking Kashmir (Kuwayama 1989: 92). This ruler's own religious sympathies are expressed by the Shivaite trident and bull symbols prominently displayed on his coins (Pl. IIa).

Two remarkable silver bowls bear witness to a phase of coexistence between the last Kidarites and the first Hephthalites in Northwest India. In fact, we know from the *Weishu* that a residual Kidarite kingdom sent embassies to China until 477 (Kuwayama 1989: 117; according to Göbl 1967: II, 224, this kingdom was possibly located in Swat). One of these bowls is well known, as it has been exhibited in the British Museum since it was found in Swat in the beginning of last century (Pl. Va). It shows, in the central medallion, a man in profile, surrounded by four hunters, of whom the one to the left is clearly the man in the medallion. The identity of the characters was established thirty years ago by Robert Göbl (1967: II, 262-6; III, Pl. 93-5) and Boris Marshak (Maršak and Krikis 1969: 67-76), who reached conclusions almost identical in every detail despite working in complete ignorance of each other. The portrait on the medallion finds analogies in one class of the seals from northwest India recently republished by Pierfrancesco Callieri (1997), in particular with one carrying in Brahmi the name *Bhānudevaḥ* (Cat. U 7.32). Two of the hunters wear crowns quite similar to those shown on the last Kidarite issues in India: one is freely inspired by the horned crown of

[13] Priscus, 12 (= Blockley 1983: 348-9, events of 464): (Kunkhas, son of Kidara) 'pretended [to Peroz] that he was at war with his neighbours'; 22 (= Blockley 1983: 360-1, events of 467): 'an embassy arrived from the Persians which announced that they had crushed the Kidarite Huns and taken their city of Balaam'. Maršak (1971: 64) and Zejmal' (Zeimal 1996: 125-6), take up a hypothesis by Czeglédy that the otherwise unknown Balaam should represent Balkh (Maršak suggests a corruption from *Bazd i bāmīg*, a plausible guess); the final defeat of the Kidarites would have been the result of a combined operation by the Hephthalites and the Sasanians. According to Marquart (1901: 214), followed by Enoki (1959: 36; 1969: 22), Balaam corresponds to Balxān towards the Caspian Sea, in which case the Kidarites would have been already expelled from Bactria by the Hephthalites. However, if Balxān, which is attested in the account of the campaigns of Yazdgird II against the Chōls, is to be identified with the ruins of Igdykala, this was an isolated stronghold, quite unlikely to have provided a surrogate capital for the imperial Kidarites (Jusupov 1986: 154-79; Létolle 2000: 218 and fig. 18).

Kushano-Sasanian kings of the previous century (Wahram II and Kay Wahram, first crown); the other one is derived from Kidara's own crown, itself copied from Yazdgird II (Pl. VIa; compare Pl. Id). The third hunter has the same profile as the Hephthalite ruler Khiṅgila on his earliest issues, with no crown yet (Pl. VIb; compare Pl. If). As previously mentioned, the fourth hunter is the man in the medallion. He wished to have himself depicted with contemporary rulers with whom he was, so to speak, on hunting terms. Consequently, the bowl can be precisely dated to the 460's or 470's, that is to say between the first Hephthalite conquests in Gandhara and the last embassy sent to China by the Indian Kidarites.[14]

The second bowl studied by Marshak was, unlike the previous one, unknown to Göbl and has been very little reproduced since (Pl. Vb). It is kept in the Samarkand museum and was found at Chilek, 30 km to the north of the Sogdian capital. It is clear at a glance that it is the product of the same workshop, and its Gandharan origin is confirmed by obvious borrowings from the local style (e.g. the bull-shaped capitals and the Gupta type of the ladies). But this one was commissioned by the Hephthalite ruler, who holds a flower in a quite unexpectedly gentlemanly stance; his royal status is now indicated by ribbons floating behind his head, a purely graphic device as they are not yet attached to a crown at this stage (Khiṅgila's early coins show the same inconsistency). While the first bowl remained in its country of manufacture until its discovery, the other one found its way to the northernmost possessions of the Hephthalites, where one century later it was eventually hidden in a house, together with two Sogdian dishes and a Sasanian one representing Peroz. The Chilek find provides good evidence that costly objects circulated widely within the Hephthalite dominions, either through trade or through aristocratic exchange.

Although the administration of the empire was shared between several *yabghus* and *tegins*, armies and dignitaries travelled far and wide on both sides of the Hindukush. For the first time since the Greeks, contacts with Northern India benefited not only Bactria but also more distant regions such as Sogdiana and Margiana. The latter is probably mentioned under the name *Anxi* in a list of Hephthalite conquests given in the *Weishu* (Kuwayama 1989: 115).[15] The study of coin circulation in Merv has shown that the Sasanians lost control of that province between the defeat of Peroz and the last years of Kawad (Loginov and Nikitin 1993). The archaeological evidence from the two Buddhist stupas at Merv, recently re-examined by Callieri (1996), makes it probable that they were first built during that period.[16] There are several indications that the focus of this

[14] Slightly differently Göbl (ca. 450) and Marshak (between 457 and 468).

[15] It seems that at this period the name *Anxi* (and its short form *An*) had not yet been transferred to the kingdom of Bukhara.

[16] See, however, Filanovič and Usmanova 1996 for an attempt to combine M. E. Masson's far earlier dating of the first stupa (under Shapur I) with Callieri's observations on the material found in association with the second, extramural stupa.

second Buddhist conquest of Central Asia, more far-reaching than the first one in the Kushan period, was centred in Kashmir. One Buddhist deposit in Merv contained an early sixth-century statuette actually imported from there; manuscripts found in Merv belong to the Sarvāstivāda school which at that time flourished in Kashmir and, to judge from their script, some of them at least had probably been copied there (Vorob'ëva-Desjatovskaja 1983: 69-85). This Kashmiri connection lasted, indeed, longer than the temporary political unity created by the Hephthalites: even in the middle of the seventh century the ancestor of the Barmakids, who was the lay keeper of the main Buddhist temple at Balkh (the *Nava-vihāra*, Arabo-Persian *Naubahār*), took temporary refuge in Kashmir after the massacre of his family (Yāqūt, *Mu'jam al-buldān*, in Mélikian-Chirvani 1974: 21-2).[17]

In Sogdiana the sixth century saw a complete re-working of the local religious iconography according to Hindu models. For example, at Panjikent the previously mentioned image of Anāhitā in the temple chapel was replaced at that time by a new one with two additional arms and an Indian *makara* instead of the Zoroastrian dog (Belenitskii and Marshak 1981: 40-43 with figs. 11, 13, 34, Pl. 27, and Azarpay 1981: 189-90). The new iconographic type of Vaiśravaṇa standing on the Earth goddess or on a *yakṣa*, probably elaborated in sixth-century Kashmir, quickly reached the northern limits of the Hephthalite empire, being found both in Khotan (at the Rawak monastery) and in Sogdiana, where he fulfilled the role of guardian of the Zoroastrian hell (Grenet 1995-6). Recent studies of the Sogdian painters' technique have shown that they were more directly acquainted with the codes of the Indian masters than hitherto believed (Lapierre 1990).[18]

The Hephthalites were obviously conscious that their end might come from the north. The latest research of the Uzbek archaeologists tends to credit them with the first construction of the wall of Kanpirak, which protects the Zarafshan valley from this side; long stretches of it are still visible, though almost completely eroded.[19] After the conquest of their domains in 560 by the allied forces of

[17] As shown by Bailey (1943: 182; 1982: 46), the name of the Barmakids comes from the Sanskrit title *pramukha* 'chief'. There is no reason to make them descend from a line of Buddhist 'priests' (i.e. monks?), as often stated in modern literature.

[18] For Kuwayama these multifarious Indian influences in the Hephthalite period are attributable less to imperial unity than to a diaspora from over-exploited Gandhara: "The Indian wealth, no longer saved in Gandhāra, pushed the way toward Kāpiśī and Bāmiyān, or farther through the Hindu Kush to Tokhāristān and even beyond the Amū-Daryā. Together with merchants, Indian gods and popular beliefs travelled to such countries and cities" (Kuwayama 1987: 724). But, except perhaps for Kapisa and Bamiyan, all these territories were under Hephthalite sway as well, and there is no special reason to assume that conditions offered there to trade or religious propaganda differed markedly from those to the south of the Hindukush. Kuwayama himself admits that the decline of Gandhara was a slow process, not a direct outcome of the Hephthalite conquest. Similarly Fussman (in Fussman and Le Berre 1976: 54-9).

[19] Š. T. Adylov, 'O datirovke steny Kampirak i nekotoryx voprosax političeskoj istorii Zapadnogo Sogda', unpublished (summary in *Genezis i puti razvitija processov urbanizacii Central'noj Azii. Tezisy dokladov*, Samarkand, 1995: 45-7).

the Western Turks and the Sasanians (Grignaschi 1984), the latter's culture soon absorbed numerous elements of Indian origin, such as tales, the game of chess and astrological lore (Grenet and Pinault 1997). At the same time Sogdiana became less directly linked with India, its main orientation now being towards the Northern steppes and China. Buddhism receded in the face of persecution, the results of which were witnessed by Xuanzang at Samarkand in about 630. Unlike the Kidarites and the Hephthalites, the Turks took a long time, in fact more than a century, before crossing the barrier of the Hindukush.

The Late Hephthalites: Nēzak *shahs* of Kapisa, Nēzak *tarkhans* of Tukharistan (560-748)

Near the Hindukush, remnants of the Hephthalites subsisted, retaining some of their military power and their political autonomy under Turkish overlordship. On his return trip Xuanzang met with a group of them, who had kept their nomadic ways, on the western fringes of Badakhshan (where a district has kept their name to this day); he mentions them as the *Ximotalo*, possibly a pseudo-Sanskritisation ('Hematāla') of the name of the Hephthalites (Enoki 1959: 34-6). In 651-2 the conquering Arabs fought 'Hephthalites (*Hayāṭila*) inhabiting Herat' (Ṭabarī I, 2885-6). Meanwhile, as demonstrated by Kuwayama (1989), the most substantial remnants of the Hephthalites were centered on the middle course of the Surkhab (Kunduz river), with their summer pastures on the plateaux to the East, towards Ishkamish and Nahrin. Here, according to the description of the political organization of the Western regions given by the *Tangshu* under the year 659, the Hephthalites, expressly designated 'Yida', formed the separate 'government' of Taihan, a Chinese transcription of the title *tarkhan*. Their capital is named as Huolu 活路 (EMC *ɣwat-lɔᵏ*).

In a situation such as this, archaeological surveys can help to give some substance to ingenious deductions based on the study of Chinese sources. The reconstruction of settlement patterns achieved by Bertille Lyonnet (1997: 277-84, with the map fig. 69) and Jean-Claude Gardin (1998: 98-101, with figs. 18.1, 19) indicate that the area attributed to the last Hephthalites—or at least the part included in their survey, primarily the Ishkamish sector—was densely occupied at that time. Its ceramics present original features compared with that of other regions of Bactria; and there is evidence of a scattering of small kurgans, of which some at least can be attributed to this period (cf. the account of the funerary practices of the Hephthalites in the *Weishu*, quoted above).[20] From indications of distances given in the *Suishu*, Kuwayama has proposed to locate Huolu 'in the Baghlan and Ghori plain ... in the middle course of the Surkhab where, some hundreds of years

[20] Another densely populated sector, the Kunduz plain with the former Hephthalite capital at Huo (= Warwalīz, present-day Kunduz), had been appropriated by the Turks after their victory in 560 (Kuwayama 1989: 121-2).

before the Hephthalites, the Kushans had likewise dominated with a great fort-like temple at Surkh Kotal overlooking the extensive plain' (Kuwayama 1989: 126). In fact the name Ghūr, which is most probably the form behind the Chinese *ɣwat-lɔᵏ*, has survived in the name of a village near Pul-i Khumri, and a very large fortified town, never explored despite the excavations nearby at Surkh Kotal, still carries the name Qalʿa-i Ghūrī (Ball 1982: No. 846) (fig. 2). I would not be surprised if field research, when it is eventually resumed, were some day to discover here the last capital of the Hephthalites.

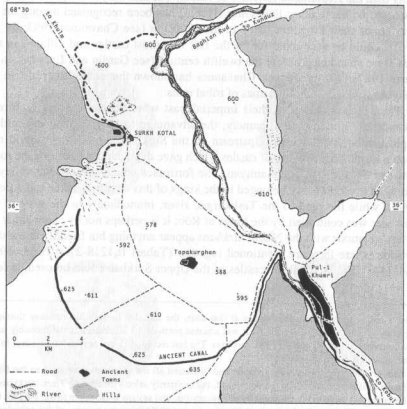


Figure 2. Probable site of Huolu, capital of the Late Hephthalites: Qalʿa-i Ghūrī, here named Tapakurghan (after D. Schlumberger, M. le Berre and G. Fussman, *Surkh Kotal en Bactriane*, I/[2]: *Planches*. Mémoires de la DAFA, 25, Paris, 1983: Pl. I).

In 718 the Hephthalite *tarkhan* could, allegedly, still put 50,000 soldiers at the disposal of the Turkish *yabghu* of Tukharistan (Kuwayama 1989: 131).[21] In the

[21] In 719 a ruler called 'Nasai', i.e. Nēzak, sent an embassy to China (Chavannes 1904: 40). His principality is called Hopizhe, which (*pace* Harmatta 1996: 374) is hardly to be recognised as Kapisa,

previous years, a ruler known as the 'Nēzak *tarkhan*' by Arab chroniclers, who sometimes call him a Turk and sometimes a Hephthalite, had led a revolt against the Arab conqueror Qutaiba.[22] In 651 one of his predecessors bearing the same titles had taken part in the events which led to the assassination of Yazdgird III in Merv; from 703 onwards Qutaiba's adversary is reported to have held strongholds in Badghis, the region of the foothills to the northeast of Herat. But in 709-10 his last campaign brought him back to the Surkhab valley, surely the heart of his lands; as Kuwayama convincingly argued, it shows that these rulers were none other than the Hephthalite *tarkhans* of Huolu. The fact that, at the present stage of research, no name other than Ghūr (Huolu) has been recognised among the 15 districts of their kingdom listed in the *Tangshu* (see Chavannes 1903: 69 fn., 276)[23] could be accounted for by the fact that most castles and villages in this area were abandoned before the twelfth century (see Gardin and Lyonnet, in Le Berre 1987: 117). Moreover, Chavannes has shown that some 'districts' in the *Tangshu* lists were merely names of tribal units.

There was a lesson of their imperial past which these nomads or former nomads had not forgotten, namely, the advantage to be gained from building sophisticated fortifications. Upstream on the Surkhab, the *tarkhans* could rely upon a formidable network of castles which gave them control of one of the roads between Tukharistan and Bamiyan. The fortresses which secured the valley of Bamiyan itself probably belonged to the kings of this country (Baker and Allchin 1991), while the road to the Tashkurgan river, immediately to the west of the Surkhab, was controlled by the kings of Rōb; it is perhaps not by chance that the latters' relations with the Nēzak *tarkhans* appear anything but friendly in the only episode where they are mentioned together (Ṭabarī II,1218-27 = Hinds 1985: 164-74).[24] The fact that the castles of the Upper Surkhab could be used, at least

always called Jibin in Chinese sources at that time; the fact that he sent his embassy through a dignitary of Tukharistan suggests that it was situated north of the Hindukush, most probably in the area formerly controlled by the Nēzak *tarkhans*. The last recorded 'Yida' embassy took place in 748 (Chavannes 1904: 80).

[22] Esin (1977) has conveniently gathered and discussed all the information relating to the Nēzak *tarkhans* in Islamic sources. On the other hand, she arbitrarily selects the reading Tirek (*tyrk*) instead of Nēzak (*nyzk*), as found in the majority of manuscripts, and assigns these rulers to the Türgesh tribe of the Western Turks on the basis of a dubious reading of al-Kūfī (whose account of this episode is in any case less well-informed than Ṭabarī's). She does not mention the source which explicitly qualifies the Nēzak *tarkhan* as 'king of the Hephthalites' (Ḥamza Isfahānī, p. 63, line 12). Esin's conclusions have been adopted by Harmatta 1996: 374.

[23] Chavannes tried to localise the 'government' of Taihan in Badghis, partly because of the Nēzak *tarkhans*' later involvement in this region, partly also, it seems, because he identified Baghlan with the district of Lan listed under Tukharistan rather than under Taihan. But Lan has since emerged in the Rōb documents under its Bactrian name *Λανο, which makes the identification with Baghlan (< Bactr. *βαγολαγγο*) hardly possible any more (Sims-Williams 1999: 195).

[24] N. Sims-Williams informs me that the rulers of Ghūr never appear in the Rōb documents, although there is sometimes mention of a *tarkhan* who is obviously a high official of the Rōb kingdom itself.



(*a*)



(*b*)



(*c*)



(*d*)



(*e*)



(*f*)

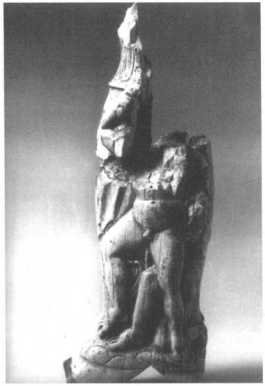
(*a*) Spurious 'Kidara', gold, Kapisa, 380's. Legend (Bactrian, corrupt): *βαγο κιοοοοοο οαζοκο κοβανο βο* (Göbl 1984: 736/3; British Museum, photo courtesy J. Cribb). (*b*) Kay Wahram, silver, Gandhara, 380's or later. Legend (Middle Persian): *kdy whlm'n ZY kwš'n MLKA* (NumH 8/1). (*c*) Kidara, silver, Gandhara, 430's? Legend (Brāhmī): *kidāra* (or *kidara*?) *kuṣāna ṣā* (NumH 11/7; British Museum, photo courtesy J. Cribb). (*d*) Kidara, silver, Gandhara, 440's? Legend (Brāhmī): *kidāra* (or *kidara*?) *kuṣāna ṣāhi* (NumH 14/5; British Museum, photo courtesy J. Cribb). (*e*) Kidarite, silver, Samarkand, after 437, Legend (Sogd.): *kyδr* (Zeimal 1996: fig. 1). (*f*) Khingila (ca. 460-90), gold, Gandhara, early stage. Legends: (Brāhmī): *khigila*, (Bactr.): *αλχαννανο* (Tanabe 1992: coin 247).



(*a*)



(*b*)



(*c*)

(*a*) Mihirakula (ca. 515-40), silver, Gandhara. Legend (Brāhmī): *jayatu mihirakula* (NumH 136/1). (*b*) Nēzak *shah*, Kapisa, 'Group I' (2nd half of 6th cent.?). Legend (Middle Persian): *nyčky MLKA* (Frye 1974: fig. 1). (*c*) Heracles vanquishing a Silenus. Sword handle (ivory), Takht-i Sangin (Oxus temple), 4th-3rd cent. B.C.



Heracles. Terracotta, Kara-Pichok (Northern Bactria), 3rd-4th cent. A.D.



Heracles. Terracotta, Tailiak (near Samarkand), 6th-7th cent. A.D. (Photo courtesy N. A. Avanesova).



(*a*)

(*b*)

(*a*) Silver bowl from Swat (460's-470's) (British Museum). (*b*) Silver bowl from Chilek (same period) (Samarkand Museum).



(*a*)



(*b*)

(*a*) Detail of Pl. 5a: Kidarite hunter. (*b*) Detail of Pl. 5a: Hephthalite hunter.

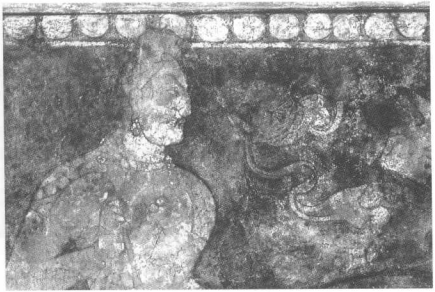


(*a*)



(*b*)

(*a*) Probable remains of Kurz castle: Kāfir Qal'a-i Barfak (Le Berre 1987: Pl. 36 b). (*b*) Seal with Brāhmī inscription: *Rostama* (6th cent.) (Callieri 1997: Cat. U 7.36).



(*a*)



(*b*)



(*c*)

(*a*) Rustam and flying Simurgh (Panjikent, 740's). (*b*) Khiṅgila (ca. 460-90), silver, Gandhara, middle stage. Legend blurred (NumH 64, specimen from the Hiraṇama collection). (*c*) Lion-headed Simurghs on the obverse of silver coins of Pangul (late 7th or early 8th cent.), Ghazna or Qandahar (NumH 245/2).

on occasions, by the Hephthalite rulers of Ghūr, emerges from a comparison between Marc Le Berre's survey (1987) and Ṭabarī's precise account of the Nēzak *tarkhan*'s ill-fated campaign (Ṭabarī: *loc. cit.*). Judging from the excellent condition of most of the ruins, the most important castles which existed in the eighth century should all subsist in some form. Bearing this in mind, the castle now known as Kāfir Qal'a-i Barfak is, I think, the best candidate for identification with 'Kurz' (*krz*), the eagles' nest where Qutaiba besieged and finally captured the *tarkhan*: it stands to the east of the river, overlooking a footpath to the Chahār-dar pass, towards which the *tarkhan* was probably heading on his way to Kabul (Minorsky 1970: 338-40),[25] and near a defile mentioned by Ṭabarī (II,1220). On the site see Le Berre 1987: 38-9 with Pl. 36-7; Baker and Allchin 1991: 191 with fig. 5.43, 'Barfak I'; Ball 1982: No. 1139, 'Tāla' ('palatial residence'). (See Pl. VIIa.)

The questions surrounding this line of rulers have become more complicated since the name or title 'Nēzak *shah*', written in Middle Persian (*nyčky MLKA*), has been deciphered on a series of silver coins previously attributed to 'Napki Malka' (Pl. IIb) (Harmatta 1969: 406-9; Frye 1974; Alram 1996). These coins, although very frequent in the Kabul plain and downstream on the Kabul river, have hardly ever been discovered in an archaeological context. Consequently there has been considerable uncertainty as to their time and place of circulation. Kuwayama (1991: 276-81), while unfortunately remaining unaware of the correct reading of the legend, made a fundamental contribution in proving that these coins had been issued by a particular dynasty of kings of Kapisa, mentioned in Chinese sources from the end of the sixth until the middle of the seventh century.[26] According to these sources their crown was topped by the head of a bull, which is exactly what is depicted on all the 'Nēzak *shah*' coins. The fact that the Kapisa kings probably controlled the rich silver mines in the Panjshir valley could account for the abundance and quality of their coinage; according to Xuanzang they could afford to dedicate every year a silver image of the Buddha 18 feet high (Watters 1904-5: 123). As shown by Alram (1986), at some stage they had to defend their territory against encroachment by a certain king 'Naraṇa' (Narendra?). The latter was based in Gandhara, where he issued coins typologically following those of Mihirakula; he may or may not have been Narendrāditya Khiṅgila, mentioned in the *Rājataraṅgiṇī* among the kings of the short-lived Gonandīya dynasty of Kashmir (Kuwayama 1991: 278-9).

János Harmatta, who first established the correct reading of the name of the 'Nēzak *shah*s', argued that they stemmed from the Hephthalites (Harmatta 1969:

[25] In his careful discussion of Ṭabarī's passage, Minorsky proposed to identify Kurz with the present-day village of Iskan, but, not knowing that ruins of castles dating from this very period were still standing all over the region, he relied merely on hypothetical emendations to the manuscripts of Ṭabarī.

[26] See now Kuwayama 1999, for a generally updated presentation of his views on the history of Kapisa; p. 50, the reading *nyčky MLKA* is unconvincingly discarded as a mere graphic corruption.

406-9).[27] Although he subsequently abandoned this view in favour of a connection with a postulated *Nizük tribe of the Western Turks (Harmatta 1996: 374), it is still supported by some sound arguments: in the middle of the seventh century the king of Kapisa claimed descent from Khiṅgila through a chain of twelve generations or twelve reigns;[28] the basic crown type selected by this dynasty was inspired by that of Peroz, whose coins had been the prototype for most of the Hephthalite emissions in Balkh (NumH 287 = Humbach 1983: 306, coins marked with $\eta\beta$) as well as in Chaganian (Rtveladze 1987). In fact the kings of Kapisa might well have originated from a branch of the Hephthalites which had escaped from the North at the time of the dislocation of their empire. Although the edited text of Xuanzang presents them as *chali* 'kṣatriyas', the most ancient manuscripts have the word *suli* 'Sogdians' and the *Suishou* gives their family name as *Zhaowu* 昭武 (EMC *tɕiaw muâ*), the one traditionally carried by all Sogdian rulers (Kuwayama 1991: 278).[29] But they appear as a distinct political entity from the homonymous Nēzak *tarkhans* of Southern Tukharistan, although they have sometimes been confused by modern scholars and may in fact have been ultimately related.

Rustam, a Hephthalite hero?

While some *membra disjecta* of the former Hephthalite empire remained powerful in the Hindukush regions as late as the eighth century, there is evidence that the Sogdian aristocratic culture of that time preserved some memory of the glorious days of Khiṅgila, the first Hephthalite conqueror of India. As shown long ago by Belenitskii and Marshak (1971: 14-15), the profile of Rustam, shown on several cycles of epic paintings at Panjikent, is completely distinct from the then prevailing ideal of Sogdian art and obviously reproduces Hephthalite prototypes. In fact, with its narrow skull, V-shaped eyebrows, hooked nose and heavy jaw, it displays an almost complete identity with some portraits of Khiṅgila (Pl. VIIIa-b). In a so far unpublished lecture delivered at SOAS, Marshak suggested that the iconographic type of Rustam ultimately derived from illustrated scrolls brought from the regions south of the Hindukush during the Hephthalite period. There are

[27] He also (rightly) attributed the coins to Kapisa.

[28] Harmatta 1969: 395 ('the period of 192 years calculated from 466 to 658 divided according to the 12 kings gives an average ruling period of 16 years, which seems to be real'). Differently Kuwayama (1991: 276-8; 1999: 41-4), who supposes that this refers to another (postulated) Khiṅgila, held to have founded the Kapisa dynasty at the end of the sixth century. This creates a further complication and gives a time-span far too short for 12 reigns.

[29] This name appears to reflect Sogd. *čamūk* (*čm'wk*), a title of uncertain origin but attested both by coins and by various Chinese transcriptions of names of 7th-century rulers of Samarkand, Panjikent and Chach (Y. Yoshida, in a forthcoming article). Cf. also Askajamūk, the name of two kings of Khwārizm in Bīrūnī's list, the town Jamūkat near Taraz, and the *al-Jamūkiyyūn* 'important Turkish nobles' in Ṭabarī, II,1613 (Frye 1951).

indeed indications of the popularity of the hero in these regions at that time: the personal name *Purlang-zin* 'the man with the panther's skin' in the Rōb archives (undated document cited in Sims-Williams 1997: 10); the name *Rostama* written in Brāhmī on a seal of the Hephthalite period (Pl. VIIb) and on two Upper Indus inscriptions (Bemmann and König 1994: Oshibat 18.106; Fussman and König 1997: Shatial 54:12).[30] In Sasanian onomastics, on the other hand, the name Rustam is exceedingly rare: it is never found on seals or monumental inscriptions, and only twice in narrative records concerning the very end of the period.[31]

Some support for Marshak's hypothesis can be found in the particular shape of the fantastic lion-headed creature which flies towards Rustam's head.[32] Such flying creatures are common in Sogdian epic painting. Some scholars have proposed to identify them as incarnations of Vərəθraγna (Duchesne-Guillemin 1979: 384), others as bearers of the *farn*, i.e. the Royal Glory (Azarpay 1973; Belenitskii and Marshak 1981: 70-73). The debate may now be closed following the discovery of a countermark on a coin, probably from Northern Bactria, which shows side by side a similar symbol and the word *farn* written in Sogdian (Nikitin and Roth 1995). But in Sogdian painting these animal symbols usually assume the shape of camels, horses or hawks. The lion-headed protector is found only with Rustam. I have only been able to discover one parallel: this is on coins of Panguⁿ, a Turkish king who ruled in Zabul and Arachosia in the late seventh or early eighth century, on which a lion-headed feathered creature is repeatedly displayed (Humbach 1996: NumH 245, 254-5) (Pl. VIIIc).[33] In this case too I propose to interpret it as a reference to Rustam, perhaps even as a claim to ancestry. At the time of the Arab conquest of Sistān the last Sasanian *marzbān*, Ērān ī Rustamān, had a genealogical tree going back to the hero (*Tārīx-i Sīstān* = Gold 1976: 6, 64). Can we go one step further and call this particular *farn*-bearer the Simurgh? Considering the latter's importance in the legends of Rustam and his father Zāl, this is a very tempting solution,[34] although in Sasanian Iran the Simurgh always has the

[30] I am grateful to O. von Hinüber for having drawn my attention to these last documents.

[31] Rustam, the last *ērān-spāhbed*, son of Farrokh-Hormizd, *spāhbed* of Khurasan or/and Azerbaijan (Christensen 1944: 499-502), and Erān ī Rustamān, the last *marzbān* of Sistan (on whom see below), who is explicitly presented as a descendant of the hero Rustam. But we now also have Ῥωσταμος on a Greek legal document from the vicinity of Dura-Europus, ca. 250 A.D., a name which is probably a legacy from the Parthian period (Feissel and Gascou 1995: 86-90).

[32] The lion's head is hardly visible on our illustration (Pl. VIIIa) but appears clearly on some other scenes of the same cycle of paintings.

[33] Kuwayama (1999: 53-66) has demonstrated that these rulers, who issued from the Turki Shahis of Kabul, were those known in Chinese sources under the title 'Qaradachi ilt'ābir (*xie-li-fa*)' and in Arab sources under the title *rtbyl*; but he fails to take the necessary next step of identifying the forms *ilt'ābir* and *rtbyl*, for which see Sims-Williams' paper in this volume.

[34] Göbl (*op. cit.*) unhesitantly qualifies it as such. Concerning NumH 245 (I: 168), he notices that the Simurgh functions as 'investiture symbol', as he brings a ring of pearls to the ruler. His remark (*ibid.*) about the 'snake-heads' terminating the Simurgh's tail feathers, as well as the ribbons on the crown of a contemporary ruler of Kapisa (NumH 243), gave rise to a far-fetched hypothesis of a link with the

head of a dog instead of a lion, an adaptation which perhaps reflects a Zoroastrian scruple about providing such an important symbol with the head of an Ahrimanian animal.

Conclusion

In this paper I have tried to examine, in broadly chronological order, some particular points of Kidarite and Hephthalite history about which it appeared to me that philology, numismatics and field archaeology could and should give one another mutual support. I do not claim to have provided definitive answers to any of the questions I have tackled. My aim was rather to ensure that specialists in each of the various disciplines involved are informed of the progress made in the others. Readers of this paper will have realised that unfortunately this still is not always the case.

ANNEX:

Tentative chronology of Kidarite and Hephthalite political history

SOGDIANA, BACTRIA, MARGIANA	NORTHWEST INDIA
ca. 350-75: 'Huns' conquer Sogdiana.	
357-8: Chionites temporarily stopped by Shapur II on Bactrian border.	
ca. 375: Chionite conquest of Bactria; end of Kushano-Sasanian rule there under Wahram II Kushānshāh.	
	ca. 388: Chionite (*Alxono*?) invasion of Kapisa, then ruled by Kay Wahram Kushānshāh (Tepe Maranjān hoard).
End of 420's (?): formation of Kidarite kingdom in Bactria; conquest of Gandhara and 'Five kingdoms' to the north. Sasanian king Wahram V (421-38) penetrates the Bukhara oasis.	
437: Sogdiana still ruled by 'Hun' king.	
440's (?): Kidarite conquest of Sogdiana. Wars against Yazdgird II (438-457).	Kidara imitates Yazdgird II's crown on his coins in Gandhara.
457: first Hephthalite embassy to China; alliance with Peroz, governor of Sistan?	
467: Kidarites eliminated in Bactria.	460-466 (?): Hephthalite conquest of Kapisa and Gandhara. Reign of Khiṅgila (ca. 460-490). 477: last embassy of Indian Kidarites to China.
484: defeat and death of Peroz on Bactrian frontier. Interruption of Sasanian coinage in Merv until 512.	Toramāṇa (ca. 490-515). Mihirakula (ca. 515-540). 520: travels of Songyun; Hephthalites masters of the 'Five kingdoms' and attacking Kashmir; control over Khotan and Kucha.
509: incorporation of Sogdiana in Hephthalite empire.	
556: conquest of Sogdiana by Western Turks.	
560: Bactria divided between Turks and Sasanians; Hephthalites under king Faghānish take refuge South of the Oxus.	ca. 560 (maybe earlier) till 666 (?): independent Hephthalite(?) dynasty in Kapisa, issuing 'Nēzak *shah*' coins.
651: a 'Nēzak *tarkhan*' intervenes in Merv.	
659: reorganisation of 'Western provinces' under Tang overlordship, including Hephthalite district of Taihan (= *tarkhan*) around Surkhab valley.	
	666 (or maybe later, but before 706): beginning of Turki Shahi dynasty in Kabul, with separate branch in Zabul and Arachosia (king Pangul).
703-710: 'Nēzak *tarkhan*' campaigns against Qutaiba; captured at Kurz castle.	
718: 'King of the Hephthalites' still has 50,000 soldiers in the service of the Turkish *yabghu* of Tukharistan.	
748: last Hephthalite embassy to China.	

demonic king Ẓaḥḥāq (Belenitski and Marshak 1971: 15). This peculiarity seems to me to be a mere stylisation.

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Ancient Afghanistan and its invaders: Linguistic evidence from the Bactrian documents and inscriptions

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DURING THE LAST TEN YEARS our corpus of Bactrian texts has increased dramatically. From the historian's point of view, pride of place must be assigned to the inscription of Rabatak, found in 1993, which gives the genealogy of Kanishka and describes some of the events of his first regnal year.[1] For philologists, the discovery of more than 150 documents inscribed in the Graeco-Bactrian cursive script on leather, cloth and wood is even more important, since it has made it possible to complete the decipherment of this script and has greatly enriched our knowledge of the Bactrian language.

The documents in question, which began to appear in the bazaar of Peshawar and on the international art market in the early 1990s, have passed through the hands of many different dealers and collectors. In most cases there is no reliable record of their original provenance, but internal evidence suggests that the majority ultimately derive from a single source in the vicinity of Rōb, modern Rui in the northern Hindukush. A smaller group of documents come from the region of Guzgan or Juzjan, further to the north-west: at least one was written in Ambēr, modern Sar-i pul, and another in Kalf, later Kālif or Kēlif on the Oxus. Many of the documents bear dates. These range from the year 110 to the year 549 of an unspecified era, presumably the same era as is known both earlier and later from the Bactrian inscriptions of Kara-tepe, ancient Termez (years 35 and 97), and of the Tochi valley in Pakistan (years 618, 631 and 636). On the basis of synchronisms with the dates of the Arabic and Sanskrit inscriptions of the Tochi valley, it has been calculated that the era in question began in 233 A.D., early in the Sasa-

[1] First published in Sims-Williams and Cribb 1996; revised edition in Sims-Williams 1998; cf. also Sims-Williams 1997d; Wright 1997; Fussman 1998; and Grenet 1999. (The edition of Mukherjee 1998 is worthless, at least from an epigraphic and philological point of view.) The significance of the Rabatak inscription for Kushan chronology has already been widely discussed, cf. the contrasting views of Alram, Cribb, Göbl (all in Alram and Klimburg-Salter 1999) and Fussman 1998. The discussion is usefully summed up by de la Vaissière 2001: 293-5.

nian period. In that case, the dates of the Bactrian documents will range from 342 to 781 A.D., a span of more than four centuries extending through the Kushano-Sasanian, Kidarite, Hephthalite and Turkish periods, well into Islamic times. As I have shown elsewhere, the contents of the documents provide many historical references, to peoples and rulers, money and taxes, which appear to be consistent with this chronological framework.[2]

It is hardly necessary to repeat here the survey of the new documents and their contents which I have already provided on several occasions.[3] However, as the relevant bibliography is growing steadily, it may be useful to give a list of the various types of document attested, together with their publication details.

Apart from a few unidentifiable fragments and texts of uncertain type (perhaps ten in all), the new Bactrian documents may be divided into four groups:

1 Legal documents such as contracts and receipts. 26 documents dated from the year 110 = 342 A.D. to the year 549 = 781 A.D. (**A-I**, **Ii**, **J-Y**) and five documents of unknown date (**aa-ae**) have already been published in Sims-Williams 2000: 31-153.[4] Since the publication of that volume, six more legal documents have come to light, five bearing dates within the same range and one undated.

2 Lists and accounts. Seven leather documents (**af-al**) and 29 wooden slips or tallies (**am**1-29) have been published in *BD* 1: 155-69.[5] A further eight wooden slips are now known to me. In general such documents are undated, but one tally (**am**2) bears the numeral 147, which possibly represents a date (379 A.D.).[6]

3 Letters. At least 63, of which three are dated (in the years 198, 199 and 231 = 430, 431 and 463 A.D.). All unedited.[7]

4 Buddhist texts. Two texts, one of which is edited in Sims-Williams 2000b.[8]

As a result of these new finds, the corpus of Bactrian available for study is now much larger—perhaps as much as a hundred times larger—than it was ten years ago. Our knowledge of the Bactrian lexicon has increased correspondingly, perhaps by three or four times.[9] The purpose of the present paper, therefore, is to examine this enlarged Bactrian vocabulary for linguistic data in the form of

[2] Sims-Williams 1999a.

[3] See Sims-Williams 1997 (in English); 1997a (French); 1997b (Japanese); 1997c (Russian).

[4] Henceforth *BD* 1. For editions with commentary and photographs see also Sims-Williams 1999 (**F**); 2000a: 3-10 (**B**, **E**, **A**; legible photograph of **J**' is to be found in Sims-Williams 1997a: 642; small but still usable photos of **A** (upper part), **J** (verso) and **P**' in 1997b, figs. 18, 21 and 23 respectively.

[5] See also Sims-Williams 2000a: 10-12 (edition of **ak** with commentary and photographs).

[6] Differently *BD* 1: 167.

[7] Some of the characteristic greeting formulae are cited in Sims-Williams 1996: 82 n. 13. For photographs of the letters see 1997, pl. 1-2 (Doc. 66); 1997a: 640 (Doc. 2, recto); 1997b, fig. 10 (Doc. 1, recto), figs. 11-12 (Doc. 70); and Fogg 1995: 19 (document without signature).

[8] With colour photos on Pl. XI. The other Buddhist text is illustrated in Sims-Williams 1997b: 7.

[9] For example, the glossary to my edition of the legal and economic documents alone (*BD* 1: 171-236) contains 1,143 lemmata (excluding cross-references and the like) as compared with just over 400 in Davary's dictionary of 1982.

names and titles, loanwords and calques, in which one may hope to identify traces of the languages of the many peoples who held sway in Bactria during the course of its long and turbulent history.

Bactria was a province of the Achaemenian empire, as we know from the Old Persian inscriptions, and the Bactrian texts contain a certain number of words and names which must already have entered the language during this period (Table 1).

Table 1. The Achaemenian heritage

• Divine name *ναvα*, Babylonian Nana, Nanaya, Sogd. *nn-*, *nny*

Babylonian month-names:[10]
• νεισανο, Bab. Nisannu, Aram. Nīsān
• σιαvο, Bab. Siwānu, Aram. Sīwān
• βαβατο, Bab. Šabāṭu, Aram. Šbāṭ

Avestan day-names,[11] *probably borrowed via Old Persian, e.g.*:
• αβαμοχοιvο (10th day of the month), Av. *apąm vaŋ̊hīnąm*, Sogd. *ʾβwxn rwc*
• γωβτο (14th day), Av. *gūuš ḫuδāŋ̊hō*, Chor. *γwšt*, Inscriptional Parth. *gwzdh*
• *δαιβο (8th/15th/123rd day) in PN δαιβο-μαργγο 'slave of the Creator', Av. *daēušō*, Sogd. *δšrwc*

Other words of Near Eastern origin:
• λιβο 'document, copy', OP *dipi-*, Elamite *tuppi*, Bab. *DUB* = *ṭuppu*, Eastern Iranian loanword in Skt. *lipi-* 'writing, alphabet'
• ναργο [harg] 'rent (for land), hire (of a workman)', Bab. *ilku* 'land tax', MP *harg* 'duty, tribute, etc.', Niya Prakrit *harga* 'tax'
• γωρο (a measure for grain), Bab. *GUR* = *kurru*, Hebrew *kōr*, Turkish *küri*, Pers. *γūr*
• μιδο (a measure for grain), cf. Hebrew *middā* 'measure'
• τασκο (a measure for grain), OP **taçuka-* 'quarter', Pers. *tasū*

This 'Achaemenian heritage' includes words of Near Eastern origin which occur in Bactrian and other languages of eastern Iran and Central Asia as a result of Achaemenian rule between the 6th and the 4th century B.C. Examples include the name of the goddess Nana[12] and at least three month-names, as well as typical cultural loanwords such as λιβο 'document, copy', ναργο 'rent, hire' or the various terms used as measures for grain. Whatever the ultimate origin of these loan-

[10] See Sims-Williams and de Blois 1998.

[11] *Ibid.*, 151-2.

[12] Note, however, that it has recently been argued that the iconography of this goddess reached Bactria as early as the end of the 3rd millennium B.C. (Potts 2001), in which case it may be that the borrowing of her name also predates the Achaemenian period.

words—Sumerian, Elamite or Semitic—all or most of them were probably adopted by way of Old Persian (though only *τασκο* 'quarter' is actually an OP word in origin). The Avestan day-names too, which are found in most Middle Iranian calendars, were probably borrowed by way of Old Persian. This is clear from the fact that in Sogdian these names are regularly accompanied by the word *rwc*, a loanword from OP *raucah-* 'day', distinct both from the Avestan word for 'day' (*aiiar-*) and from its Sogdian counterpart (*mēθ*).

Table 2. The Greek heritage

Divine names:
- *ηρακιλο* 'Heracles'
- *σαραπο* 'Sarapis'
- *δηματριγανο*, *δρηματιγανο* etc. (name of a month, Sogd. *jymtyc*), from the name of the goddess 'Demeter' (Δημήτηρ, Δήμητρ-), Sogd. *δrym'r*, *jymt*[13]

Other words borrowed from or through Greek:
- *ιωναγγο* 'Greek', adj. to **ιωνο*, Gk. Ἴονες
- *χβονο*, *αχβονο* '(calendar) year, (regnal) year', if from Gk. χρόνος
- *σιμιγγο*, *σιμινο* 'made of silver', adj. to **σιμο* 'silver', Gk. ἄσημος 'unmarked, uncoined', MP *asēm*, Pers. *sīm* 'silver'
- *δ(δ)ραχμο* 'drachma, dirham', Gk. δραχμή
- *δ(δ)ιναρο* 'dinar', Gk. δηνάριον < Latin *denarius*
- *φρομο κησαρο* (name or title) 'Caesar of Rome', Tibetan 'Gesar of Phrom'
- *οιβοηγγο*, *οιβ(ο)ιγγο* 'cloth made of linen or cotton', originally adj. to **οιβο* 'linen, cotton', Gk. βύσσος (< Egyptian, cf. Coptic *hbos*?), Sogd. *wšwyn'k*, Turkish *böz*

Calques:
- *χοαδηο*, *χοδδηο* etc. 'lord' < **hwa-tāwan-* 'αὐτοκράτωρ, self-powerful', Sogd. *xwt'w*, Parth. *xwd'wn*, Bactrian loanword in late Sogd. *xyδyw*,[14] Pers. *xidēv*, English *khedive*
- *χοαζαοαργο* 'αὐτοκράτωρ' < **hwa-zāwar-aka-* 'self-powerful'

The conquest of Bactria by Alexander the Great in the 4th century B.C. had an enduring influence on its culture. This influence is symbolized by the adoption of Greek as the language of culture and administration and later on by the use of the Greek alphabet for writing Bactrian. Naturally, a further stratum of borrowings

[13] My proposal to derive the month-name *δρηματιγανο* etc. from the name of the goddess Demeter (Sims-Williams and de Blois 1998: 165) receives welcome confirmation from the attestation of the older form *δηματριγανο* in an unpublished document.

[14] Sundermann 1997: 155.

entered the language as a result of Greek rule and Greek cultural domination (Table 2). In addition to divine names such as *ηρακιλο* 'Heracles' these borrowings include a variety of cultural loanwords, amongst them words of Latin and even Egyptian origin which were borrowed via Greek. Like other Middle Iranian languages, Bactrian has a word for 'lord' (*χοαδηο*) which is in origin a calque on the Greek αὐτοκράτωρ; but it is unique, so far as I am aware, in having a second calque on the same Greek term, *χοαζαοαργο* < **hwa-zāwar-aka-* 'self-powerful', which was probably created in a renewed attempt to convey the precise nuance of αὐτοκράτωρ once the meaning of *χοαδηο* had become attenuated.

It has been noted that the modern languages of Afghanistan preserve a number of words of Greek origin, such as Ormuri *mēčīn*, Pashto *mēčən* 'hand-mill' < μηχανή[15] or the village-name Istālif < σταφυλή 'grapes'.[16] Further Greek loanwords are to be found in languages with which Bactrian was in contact, such as Sogdian and Niya Prakrit, e.g. Pkt. *milima*, Sogd. *myδ'mβn* (a measure for grain) < μέδιμνος; Sogd. *qpyδ* 'shop, stall' < καπηλεῖον.[17] It seems likely that at least some of these words were also current in Bactrian and that their absence from the extant Bactrian documents is merely accidental.

Table 3. The Kushans

- *ιαβγο*, title of Kushan kings (= Pkt. *yavuga-*, *yaüa-*, Gk. ζαοου) < 翕侯 *xihou* 'allied prince' (EMC *xip-γəw*);[18] Toch. B *yapko*,[19] Turkish *yabγu* etc.
- *κοβανο* 'Kushan'
- Early Kushan surnames: *καδφισο* 'Kadphises', *τακτοο* 'Taktu'
- *τοχοαραστανο* 'Tukharistan'

In the 2nd century B.C. Bactria was overrun by nomadic peoples from the north, including those known to the Chinese as the Yuezhi and to the Greeks as the Tokharoi. The Chinese histories recount how the Kushan tribe obtained the supremacy amongst the Yuezhi and then established an empire which came to extend far beyond Bactria, across much of Northern India and Central Asia. The assimilation of the Kushan invaders and their adoption of the language of their Bactrian subjects means that we know hardly anything about the language which the Yuezhi had spoken before their arrival in Bactria, so that it is very difficult to identify Kushan or Yuezhi elements in Bactrian (Table 3). As has been shown by Humbach (1966: 24-8), the title *yabγu*, which was used by the Kushans (and later by many other peoples including the Hephthalites and the Turks), is probably

[15] Morgenstierne 1973: 133.

[16] Morgenstierne 1970; differently Kieffer 1983: 512 and Chuvin 1983.

[17] Burrow 1935: 785; Sims-Williams 1996a: 51.

[18] EMC (= Early Middle Chinese) forms are cited according to Pulleyblank 1991.

[19] Pinault 1998: 12.

Chinese rather than Yuezhi in origin. But the name 'Kushan' is presumably a genuine Yuezhi word: according to the Chinese sources, it was the name of one of the five Yuezhi tribes. The surnames of the earliest Kushan kings, Kujula Kadphises, Vima Taktu and Vima Kadphises, probably belong here too, since they contain consonant clusters (*df* and *kt*) which do not occur in native Bactrian words (see further below, pp. 236-7). Finally, I have to mention the name of the country, 'Tukharistan'. This name is not attested in Bactrian until about 500 A.D., in the Hephthalite period, but it obviously derives from the name of the Tokharoi, Skt. Tukhāra, whom the famous Buddhist translator Kumārajīva identified with the Chinese Yuezhi.

Table 4a. Indian elements, 1

Kushan period:
- σκανδο κομαρο 'Skanda Kumāra', μααση̃νο 'Mahāsena', βιζαγο 'Viśākha'
- προβαο 'ruler, chief', Skt. *prabhu-*
- βατριαγγο 'pertaining to the *kṣatriya* class', adj. to Skt. *kṣatriya-*

Hephthalite and Turkish periods:
- Hypocoristic -ιλο in PNs εβκιγγιλο, μαοιλο, Skt. *-ila-* (?)
- ραυολο PN 'Rāhula'
- δδηβο PN and title 'Deva'; δδηβοραζο PN 'Deva-rāja'
- σρι(ο) title 'Śrī'
- ραζογολο 'royal tribunal', Skt. *rāja-kula-* 'royal family; royal court'
- πανο (a small coin), Skt. *paṇa-*, Sogd. *pn-*
- παρ(ο)μανο 'authoritative', Skt. *pramāṇa-* 'authority', Sogd. *prm'(')n* 'trustworthy'
- βαλακο 'boy', Skt. *bālaka-*

Indian elements are already attested in Bactrian during the period of the Great Kushans, which is hardly surprising in view of the fact that much of northern India formed part of their realm. But it is interesting to note that the Indian vocabulary remains in use, and even seems to increase, in later texts of the Hephthalite and Turkish periods (Table 4a). This is true of Indian Buddhist terms, too (Table 4b). A few Buddhist names are found already on the Kushan coinage, but most such terms occur in late or undatable texts, especially in the two Buddhist documents and the unique Bactrian fragment in Manichean script. The only Indian Buddhist term which is attested in clearly secular texts is βαναρο [vahār] 'monastery' < Skt. *vihāra-*. But a few words are sufficiently assimilated to receive a Bactrian suffix (e.g. μαρανιγγο 'deadly' and ρακβασανζο 'rākṣasī') or to undergo Bactrian phonological developments, as in the case of the only borrowed verb, Man. Bactrian *'βy'gyr-* (probably) 'to predict'.

Table 4b. Indian elements, 2: Buddhist terms

On Kushan coins:
- βουδο/βοδδο 'Buddha'
- σακαμονο 'Śākyamuni'
- μητραγο 'Maitreya'

In later sources:
- βαναρο 'monastery', Skt. *vihāra-*
- βοτο, βοδο, Man. [*b*]*wt* 'buddha'
- βωδοσατφο 'bodhisattva'
- δδυαρμο or δαναρμο, Man. *drm* 'dharma'
- μαρανιγγο 'deadly', adj. from Skt. *maraṇa-*
- ναμω(ο) 'namo'
- πον°, Man. *pwwn* 'merit', Skt. *puṇya-*, adj. Man. *pwnyng*
- ρακβασο, ρακβαζο 'rākṣasa', f. ρακβαζανζο 'rākṣasī'
- σαγγο 'community', Skt. *saṃgha-*
- Man. *'βy'gyr-* 'to *predict', Skt. *vyākar-*
- Man. *krm*/*qrm* 'karma'
- Man. *nrḥ* 'hell', Skt. *naraka-*
- Man. *šmn'n* 'Buddhists', Pkt. *śamaṇa-*

Cf. also Coptic ⲁⲩⲣⲉⲛⲧⲏⲥ (name of a prophet) < Skt. *arhant-* via Bactrian?[20]

The rule of the Kushans in Bactria and northern India was roughly contemporary with that of the Parthian dynasty of the Arsacids in Iran. In about 224 A.D. the Parthians were ousted from Iran by the Persian dynasty of the Sasanians. Within a few years, perhaps by 233 (if that date is correctly identified as the starting-point of the Bactrian era), the Sasanians had also conquered Bactria. A number of MP words, especially titles such as 'princess' and 'Kushānshāh', come into use in the Bactrian texts of the Sasanian period (Table 5 overleaf). In particular, it is interesting to note the use of the MP form *kanārang* in place of καραλραγγο, the genuine Bactrian form of the title. Not much of this MP vocabulary seems to survive into later Bactrian, though names such as Wahran and Yezdgird remained in use. The MP month-names also seem to have had only a brief vogue, being attested exclusively in documents dated between 430 and 492 A.D., years during which the Sasanians, in competition with first the Kidarites and then the Hephthalites, made a last-ditch attempt to exert control in Bactria.[21]

Meanwhile, soon after the middle of the fourth century, Bactria had again been invaded by nomads from the north-east. This time the invaders were a people referred to as Chionites, apparently a variant form of the name of the Huns,

[20] See Sims-Williams 2000c.

[21] See Sims-Williams and de Blois 1998: 153-5.

the Xiongnu of the Chinese sources, who had sacked the Chinese capital Luoyang in the year 311 and who now threatened the eastern borders of the Sasanian empire. The Chionites under their chief Grumbates came to a temporary understanding with the Sasanians and fought on the Persian side against the Romans at the siege of Amida in 360, but within twenty years they had taken control of Bactria and put an end to the rule of the Sasanian Kushānshāhs.

Table 5. The Sasanians

Month-names:
- αβανο, MP Ābān
- ανιαβανο 'Another Ābān' (a name for the epagomenae following Ābān māh?)
- σπανδαρομιδο, MP Spandārmed
- βαρηοαρο, MP Šahrēwar

Titles:
- Divine title βορζαοανδο ιαζαδο, MP *Burzāwand yazad*
- βαυανοβαο 'Shāhānshāh'
- κοβανοβα(υ)ο 'Kushānshāh'
- βα(υ)ραβο 'satrap', MP *šahrab*; παρσαβαραβο 'Persian satrap'
- καναραγγο 'margrave', MP *kanārang*
- ναζαροχτο 'chiliarch', MP *hazāruxt*
- βαμοβνο 'queen', MP **bāmušn* < *bāmbišn*
- δοχβο 'princess', MP *duxš*
- βαβαστανο 'eunuch', MP *šābestān*
- λαβιρο 'scribe', adapted from MP *dibīr*

Other MP forms:
- παδδιστο noun 'promise', MP *padist*
- ζαμο 'vessel', MP *jām*
- Abstract and necessitative suffix -ιβανο in αβοοαγιβανο 'purity', οινιβανο 'let it be seen!' (~ MP *wēnišn*)

After the Chionites, the next rulers of Bactria mentioned in our sources are the enigmatic Kidarites. The Byzantine historian Priscus refers to the 'Kidarite Huns', which suggests that Kidara, their eponymous founder, was a Hunnish chieftain and that 'Kidarites' is merely a new name for the Chionites. On the other hand, as Frantz Grenet points out in this volume, the Kidarites use the title 'Kushānshāh' on their coinage, thus presenting themselves as restorers of the old order, while the *Weishu*, our principal Chinese source for this period, clearly distinguishes Kidara and the Kidarites from the Xiongnu. In any case, neither the Chionites nor the Kidarites seem to have left much trace in the Bactrian documents. At the most one can refer to a document, probably of about 470 A.D., which contains the

personal name γοραμβαδο, recalling that of the Chionite chieftain Grumbates a century earlier.

Table 6. The Hephthalites

- ηβοδαλο 'Hephthal, Hephthalite (people)', adj. ηβοδαλαγγο 'Hephthalite', Gk. Ἐφθαλῖται, Arabic *Haytal* etc.
- PN εβκιγγιλο, name of the Hephthalite ruler Khiṅgila (on his seal-stone)[22]
- PN τωρομανο, cf. the name of the Hephthalite ruler Toramāṇa

We know a little more about the Hephthalites, the next wave of barbarian invaders of Bactria (Table 6). In particular, we know the names of several of their kings, such as Khiṅgila, Toramāṇa and Mihirakula, whose fame survived in the later Indian tradition. But as in the case of the Chionites, we know nothing of the language or ethnic make-up of the Hephthalites. Apart from the name 'Hephthal' itself, and perhaps a couple of personal names, our documents do not contain a single word which can definitely be attributed to the Hephthalite language. The only Hephthalite titles attested in the documents are either native Bactrian words or at any rate forms which are known to have been used in Bactrian before the arrival of the Hephthalites. These include the originally Chinese title *yabγu*, which, as noted above, was already used by the Kushans.

For the sake of completeness, I have taken the opportunity to list in Table 7 the few other Chinese loanwords which have so far been identified in Bactrian.

Table 7. Chinese loanwords in Bactrian

- Title ιαβγο < Chin. 翕侯 *xihou* (Early Middle Chinese *xip-ɣəw*)
- χινζωιο 'queen, consort' via Turkish *qunčuy* < Chin. 公主 *gongzhu* (EMC *kwŋ-tɕuâ*), Wakhi *xinʒó*[23]
- σαγο (a measure for wine) < Chin. 石 *shi* (EMC *dʑiajk*), Toch. B *cāk*
- σακο 'document, receipt' < Chin. 冊 *ce/chai* (EMC *tsɘ̈jk/tsʰɛ:jk*), Chor. *čikk* 'deed (of divorce), Pers. *čak*, Arabic *ṣakk*[24]
- Man. *j'w* 'tide' < Chin. 潮 *chao* (EMC *driaw*), Sogd. *c'w*[25]

Many scholars formerly held that the Hephthalites were Iranians,[26] but the chief argument in favour of this view, the evident Iranian affinity of the language

[22] See Sims-Williams forthcoming.

[23] The Wakhi form (not recognised in *ESVI*, 411-12) was pointed out by Ivan Steblin-Kamenskij in the discussion following the presentation of this paper.

[24] For the Chinese origin of Chor. *čikk* etc. see MacKenzie 1990: 90.

[25] See Yoshida 1998: 42.

[26] e.g. Konow 1947; Ghirshman 1948; Enoki 1959.

used on the so-called 'Hephthalite' manuscript fragments, lost its value once it became clear that the language in question was not introduced into Bactria by the Hephthalites but was the indigenous language of the region, already used centuries earlier by the Kushans. Consequently, as David Bivar has written, 'the view ... that the language of the Hephthalites was a Turkish dialect ... holds the field at present'.[27] However, this view too stands on a very uncertain footing. It is based partly on the statement of the 10th-century encyclopaedist al-Xwārazmī that the Turkic Khalaj or Khalach are a 'remnant' of the Hephthalites[28] and partly on the occurrence of Turkish names and titles in later periods of Afghan history. These Turkish elements might provide a strong argument if there were no other way of accounting for them; but in fact we know that the Hephthalite supremacy was brought to an end in the middle of the sixth century by an alliance between the Sasanians and the Western Turks, after which the former Hephthalite territories were divided between the victors. These events offer a straightforward reason for the presence of numerous Turkish names and titles in later sources on the region, including our Bactrian documents from the 7th century onwards (Table 8).

A few titles which are usually regarded as Turkish have been noticed in the Bactrian documents of the preceding two centuries, but in each case the title is better defined as 'pre-Turkish'. We have already discussed the case of *yabγu*. The title *tegin* 'prince' is certainly common in Turkish, but its irregular pl. *tegit* has suggested that it may have been borrowed from 'a Mongolian type of language' (Pulleyblank 1962: 258). Since we know from Chinese sources that the title *tegin* was already used by the Hephthalites, it is tempting to regard this as evidence of the Altaic affinities of the Hephthalites (as Pulleyblank does in fact suggest); but in Bactrian, names which appear to derive from *tegin* occur in texts which probably predate the Hephthalite period. Finally, Bactrian σωπανο, the title of a minor official, may well correspond to Turkish *čopan* '(assistant to) a village headman', proto-Bulgar ζοαπαν etc., Byzantine Gk. ζουπάνος, but this word is not attested in Turkish until the 11th century and its ultimate origin is quite obscure.

Amongst the Turkish words which occur in Bactrian texts from the seventh century onwards, I would like to draw attention to two in particular because of their importance for the later history of Afghanistan. The first is the tribal name χαλασο, that is, Khalach, which is first attested as the personal name of a slave-boy in a sale contract of 678 A.D. A little later it is attested as the name of a people in a deed of 710 A.D., which records a gift by 'Bag-aziyas, the great Turkish princess, the queen of Qutluγ Tapaγlïγ Bilgä Sävüg, the princess of the Khalas'. This is one of the earliest mentions of the Khalach tribe, who later play a part in many episodes of Afghan, Persian and Indian history; it is also noteworthy for the

[27] Bivar 1983: 213, referring to Minorsky. However, so far as I can see, Minorsky (1940: 426) does not in fact commit himself to this view, which he attributes to Marquart 1901: 253—likewise erroneously, since Marquart refers to al-Xwārazmī's remark on the Hephthalite origin of the Khalach only to correct it: 'in Wirklichkeit sind sie eine Abzweigung eines sehr alten türkischen Volkes'.

[28] Bosworth and Clauson 1965: 6, 8.

clear identification of the Khalach as Turks, which lends no support to the theory that the Khalach were actually the last descendants of the Hephthalites.

The second is the title υιλιτοβηρο [hilitbēr] corresponding to standard Turkish *iltäbir*. The initial aspirate of the Bactrian spelling suggests that it may be a Khalach form, since the consistent preservation of [h-] is one of the most notable features distinguishing Khalach from other Turkish dialects.[29] This word, in a form with metathesis of *l* and *r*, provides the origin of the title *rutbīl*, attested in Islamic sources as that of various 7th to 9th-century rulers of the regions to the south of the Hindukush, as was tentatively suggested by Alessio Bombaci.[30] Most modern scholars have emended the attested form *rutbīl* to **zunbīl*, but, as we now see, the emendation is unnecessary, indeed erroneous.

Table 8. The Turks

'Pre-Turkish':
- ιαβγο, Turkish *yabγu* < Chin. 翕侯
- σωπανο (title of a minor official), Turkish *čopan* '(assistant to) a village headman', proto-Bulgar ζοαπαν etc., Byzantine Gk. ζουπάνος
- PN ταγινοκο and family name ταγινανο, if derived from *tegin* (see below)

Turkish names and titles in texts from the 7th century onwards, e.g.:
- τορκο 'Turk', f. adj. τοροσανζο 'Turkish'
- χαλασο 'Khalach (people)', also used as a PN
- Title and PN ταγινο, τιγινο, Turkish *tegin* 'prince', attested on coins of the Turkish period, e.g. NumH240 (dated 706 A.D.): ταγινο νωρσανο βανο 'Tegin, ruler of Khorasan'
- χαγανο, Turkish *qaγan*; also καγανο (NumH244: αρι βαγο δδηβο βαγδδιγγο καγανο 'Srī bag deva, *qaγan* of Baghd')
- ταδονο ταρχανο, Turkish *tudun tarxan* (NumH245: ταδονο ταρχανο βαγδδιγγο υαροβιδο 'Tudun tarxan, chiliarch (?)[31] of Baghd')
- ιενγλο ταρχανο, Turkish *înal tarxan*
- μαγατορο, Turkish *baγatur*, Pers. *bahādur* 'warrior'
- PN υιλιτοβηρο, Turkish *iltäbir*, Man. *lytβyr*, Chin. 頡利發 *xielifa* (EMC *γɛt-li-puat*), quasi-Skt. *hitivira*, Sogd. *ryttpyr/δyttpyr*, Arabic *rutbīl*
- ταποαγλιγο υιλιτοβηρο, Turkish *tapaγlïγ iltäbir* 'the iltäbir worthy of service'
- PN χοτολογο ταπαγλιυ βιλγανο σαβουο 'Qutluγ Tapaγlïγ Bilgä Sävüg'
- κηρανο τογγανο τογγανο σπαρανο (sequence of titles or personal names, including Turkish *toŋa* 'hero')

[29] See (e.g.) Doerfer 1983: 14-15.

[30] Bombaci 1970: 58-9.

[31] See Sims-Williams 1997e.

Table 9. The Islamic period

- ταζιγο 'Arab', probably < Parth. *tāžīg;[32] adj. ταζιαγγο 'Arab', Sogd. *t'zyk'nk*; δδραχμο ταζαγο 'Arab dirham'

Arabic and New Persian terms attested in texts from 739 A.D. on:

- PN χαμιρο, Arabic title *amīr*, Sogd./Chor./Turkish *xmyr*[33]
- γαζιτο 'poll-tax', Pers. *gazīt*, Arabic *jizya*
- βαριτο 'assigned tax, harvest tax (?)', Pers. *barāt* '(document granting) the right to the revenue of an estate', Arabic *barā'a* 'immunity, tax receipt'
- βανριστανο 'city'
- πιδο ναμο ιεζιδ° 'in the name of God', Arabic *bi'smillāh*

And so we come to our last wave of invaders: the Muslim Arabs and Persians (Table 9). The Muslims are first referred to, under the name 'Tāžīg' or 'Tāzīg' (ταζιγο), in a contract dated 739 A.D. Later texts contain a few Arabic and New Persian terms, in particular two words for taxes payable to the Muslims: γαζιτο, Pers. *gazīt*, the well-known *jizya* or 'poll-tax', and βαριτο, which may be a variant (with *imāla*) of Persian *barāt* in the sense 'assignation' or 'tax assigned to a tax-collector for his own pocket'.[34] Finally, the very last Bactrian document, dated in 781 A.D., begins with a Bactrian version of the *bi'smillāh* (πιδο ναμο ιεζιδ° = *pid nām yezīd* 'in the name of God'), indicating that its writer was, at least nominally, a Muslim.

In conclusion, I would like to return to the question of the Kushan language by looking a little more closely at the names of the Kushan kings. As was mentioned earlier, the names of the first three Kushan rulers, Kujula Kadphises (κοζουλο καδφισο), his son Vima I Taktu (οοημο τακτοο) and his grandson Vima II Kadphises (οοημο καδφισο), attest consonant clusters (*df* and *kt*) which do not occur in native Bactrian words. They also differ from later Bactrian names, including those of Kujula's great-grandson Kanishka and his successors, in consisting of two words each. So it seems to be at least a plausible hypothesis that these names may retain features of the language which the Kushans had spoken before they invaded Bactria and adopted the local language as their own. Of course these few names provide only very limited and uncertain evidence; but, such as it is, the evidence suggests that the Kushan language may have been Iranian, or at least have contained an Iranian component. I have argued elsewhere that Vima may represent a widespread Iranian word for 'rock' (Av. *vaēma-* 'cliff', Parth. *wym*, Armenian *vēm*, Khot. *bīma-* 'rock, stone') and that the name Kujula probably belongs to the root of Khot. *kūš-* 'to seek', Chor. *kwzy-* 'to ask, request'.[35] Kujula may be a hypocoristic formation in *-*la-* or *-*ula-*,[36] while Kadphises may contain the common Iranian hypocoristic suffix *-*ič(a)-*. It is more difficult to assign a specific meaning to the root element of the surname Kadphises, but there is no reason to suppose that it cannot be of Iranian origin: cf. Parth. *df* (*δf*) < *θw* (e.g. *nydfr-* 'to hurry'), Bactrian οιγαλφο 'witness', with *lf* via **δf* < **θw*, or the name of the city Kālif, Bactrian *καλφ*, which must derive from an earlier *Kāδf. Finally, the surname Taktu may well be identical with the Sogdian personal name Takut (*tkwt*),[37] though in this case a non-Iranian origin does seem likely.

With Kanishka I, the son of Vima II Kadphises, we meet for the first time a new type of name ending in *-(η)βκο*. This suffix, which is attested in the royal names Kanishka (κανηβκο), Huvishka (οοηβκο) and Vasishka (βαζηβκο), as well as that of Kuzgashk (obl. κοζγαβκι), an official of the time of Huvishka, was derived by Henning from a superlative suffix *-*išta-ka-*.[38] At first sight this analysis may seem to provide a plausible etymology for the names Kanishka and Huvishka (cf. Skt. *kaniṣṭha-* 'smallest', Av. *huuōišta-* 'eldest'), but Henning's derivation of Vasishka from **vāzišta-ka-* 'most beneficial' ignores the evident relationship between the names of Vasishka and his grandfather (?) Vasudeva (βαζοδηο);[39] moreover, an explanation of this type can hardly be applied to the case of Kuzgashk in view of the vowel which here precedes the final *-šk*.

Bactrian *-(η)βκο* has often been compared with the very common Toch. B hypocoristic suffix *-śke*, f. *-śka*, attested in names such as m. Mitraśke, Wrauśke, f. Priśka, Lariśka.[40] The Toch. B diminutives in *-śke*, f. *-śka* (e.g. *somśke* 'son', *ṣerśka* 'sister', *kuntiśke* 'pot', *käntwäśke* 'tongue') and the Late Khot. diminutives in *-šk̄ā-* (e.g. *mijsīšk̄ā-* 'lady', *tcime'śka-* 'eye', *khuīška-* 'wave', *kamaiška-* 'a kind of cloth',[41] *pvāška-* 'cool') probably belong here too.[42] This approach, which takes into account the function of the suffix, seems much more promising. If the Bactrian-Tocharian comparison is valid, three explanations are possible in principle: either the Toch. B suffix was borrowed from Bactrian; or the Bactrian form was borrowed from Tocharian; or the suffix is a foreign import in both languages.

32 See Sundermann 1993.

33 Cf. Maḥmūd al-Kāšγarī (ed. Dankoff and Kelly 1982: 139).

34 F. de Blois in *BD* 1: 185-6. My first thought was that *βαριτο* might refer to a tax in support of the postal system (Pers. *barīd* 'post-horse'), which still seems an alternative worth considering. In either case one probably has to assume that the ending of the word has been influenced by that of γαζιτο.

35 Sims-Williams 1998: 89-90.

36 Cf. Degener 1989: 305 and Bailey 1952: 546 for comparable diminutive and hypocoristic suffixes in Khotanese.

37 See Sims-Williams 2001: 277.

38 Henning 1965: 82-4. For explanations on broadly similar lines see also Bailey 1968: 37-8; Burrow 1983: 157-9.

39 Cf. Sims-Williams 1998: 90, where I also tentatively suggest a connection between the name of Huvishka and that of his grandfather (?) Vima II Kadphises.

40 See Krause 1953. Cf. also the Tumshuqese f. PN *Matuška* (Konow 1935: 37-8, 50).

41 Loanword in Turkish *kimišgā* 'an embroidered Kāšγar felt' (Dankoff and Kelly 1982: 364). The base is probably Chinese 錦 'brocade' (EMC *kim*).

42 Degener 1989: 312-14.

In view of the ever-increasing evidence for a significant Bactrian component in the Tocharian lexicon, the first solution seems at first to be the obvious one. On the other hand, it leaves unexplained the much broader range of the suffix in Tocharian than in Bactrian. And in fact there is really no basis for regarding the suffix *-(ɳ)ϸκο* as Bactrian: it has no plausible Bactrian etymology and it is found exclusively in the names of a ruling class who are known to be comparatively recent immigrants to Bactria. The hypothesis of a borrowing from Tocharian does not appear much more promising: no other Toch. loans have been identified in Bactrian, nor does *-ške* have a convincing Tocharian etymology.[43]

In the circumstances, the possibility that Bactrian *-(ɳ)ϸκο* and Toch. B *-ške* have their origin in a third language is well worth considering, all the more so as this would allow one to bring in a functionally comparable suffix in the languages of Bactria's northern neighbours, Sogdiana and Parthia. In both Sogdian and Parthian the most common hypocoristic suffixes are those which derive from Old Iranian *-*ič̌a-* and *-*k(k)a-*. In both languages, moreover, these two suffixes can be combined to (virtual) *-*ič̌a-k(k)a-*. Thus, Sogdian attests personal names such as *tšc'kk* beside *tš'kk* (to *tš-* 'axe') or *γrc'k'* beside *γrc* (to *γr-* 'mountain'), while Parthian has several more or less complete series such as Mihr—(*Mihrič̌)—Mihrak—Mihrič̌ak or Wahman—Wahmanič̌—Wahmanak—Wahmaničak.[44] A similar collocation of suffixes is found in a few diminutives, e.g. Sogd. *γwš'yck* 'jar', *tšycq* '*mattock', Chor. *tšyckyk* 'adze'.[45] Some such forms probably contain a **k* suffix added to a feminine in *-*č̌i-*. However, it is not necessary to assume that all of them are formed in exactly the same way, nor that they are all equally old. The most widely attested word of this type, represented by Inscriptional MP *knysky* [kanīsag] 'slave-girl',[46] Sogd. *qncq* 'child', Man. Parth. *qnycg* [kanīžag] 'girl', MMP *qnycg* [kanīzag], Pers. *kanīza*, is clearly ancient, a fact which gives a particular significance to its Khot. equivalent *kaṇaiska-*, attested both as a common noun meaning 'little finger' and as a representation of the name of Kaniṣka. On the other hand, Late Khot. *jīšką-* 'girl' is demonstrably a recent formation created by adding the suffix *-kā-* to Old Khot. *jsicā-* 'id.'.[47]

My proposal, therefore, is that Bactrian *-(ɳ)ϸκο* and Toch. B *-ške* are cognate with Parth. *-ič̌ak*, Sogd. *-c'kk*, etc. and have their origin in an Iranian language in which **čk*, i.e. [tšk], was simplified to **šk*. This development, whose naturalness cannot be doubted, is neatly exemplified by Khot. *jīšką- < jsicā- + -kā-*. However, the parallel and no doubt older development seen in Khot. *kaṇaiska-*, where *sk* evidently results from the simplification of **ck*, i.e. [tsk],[48] with the usual Khot. depalatalisation of **č*, seems to rule out Khotanese as a potential source for the suffix *-(ɳ)ϸκο*. A Bactrian origin is even less likely, since in Bactrian, unlike Khotanese, Old Iranian **č* was depalatalised in almost all circumstances.[49] This explanation of Bactrian *-(ɳ)ϸκο* and Toch. B *-ške* seems therefore to imply a derivation from an otherwise unattested Iranian language.

It would hardly be safe to go further than this, and some will perhaps feel that I have already gone too far. However, if one is looking to identify an unattested Iranian language which might be the source of a Bactrian and Tocharian suffix, one cannot but think of the frequently proposed hypothesis that the Tocharian languages contain a stratum of loanwords 'from an Iranian source other than Bactrian (a Saka dialect?) ... a stratum antedating the borrowing from Bactrian' (Schwartz 1974: 409) or, as G.-J. Pinault puts it below (p. 245), from 'unidentified [Old Iranian] languages, differing from Avestan and perhaps attributable to the ancestors of the Ossetes'.[50] The words in question, many of which have a strong military flavour, are distinguished by phonological features such as the preservation of the Old Iranian diphthong *ai* and a tendency for Old Iranian **a* to appear as Toch. B *e*. Typical examples include B *waipecce* 'possession' (see Pinault below, pp. 246-7); *tsain* '(a kind of) weapon' (Schmidt 1985: 763); *kertte* 'sword'; A *porat*, B *peret* 'axe'; A *parāṃ*, B *perne* 'rank'; A *ratāk*, B *retke* 'army' (< **rataka-*, MP *radag* 'line, rank, row', with syncope just as in the case of *-ške < *-ič̌a-k(k)a-*).[51] Several of these words may have specifically Scythian connections, in particular the word for 'axe', whose irregular final *-t* (as against the regular reflexes of IE **ḱ* in Gk. πέλεκυς, Skt. *paraśú-*, Yazghulami *parus*) has its closest equivalent in Ossetic *færæt* or Khot. *paḍa-*, and A *parāṃ*, B *perne < *farnah-*, explained by A. Lubotsky as a Scythian form which spread to other Iranian languages during the Old Iranian period (see above, pp. 191-5).

It is more difficult to identify potential Scythian loanwords in Bactrian in view of the comparatively close relationship between the two languages. But our Bactrian texts do contain a few words whose closest or only cognates are in Iranian 'Saka' languages such as Khotanese and Ossetic, most notably *ϸιζγο* 'good' (= Oss. Dig. *æxsidzgæ* 'pleasant', to the root of Khot. *ksiṃj-* 'to desire').[52] Since the closest connections of Bactrian are with the languages of immediately adjacent regions such as Sogdiana, Choresmia and Parthia, these words do seem in need of explanation. Such an explanation could be provided by the notion that

[43] Klingenschmitt 1994: 371 n. 106 reconstructs IE *-*ke-ko-* and compares Pers. *-ak < *-a-ka-ka-*. However, the Pers. form is not really comparable. If it were really of PIE date (which no-one would seriously suppose), it would imply IE *-*ko-ko-*.

[44] See Sims-Williams 1992: 34; Diakonoff and Livshits 1977-2001, glossary, *s.vv.*

[45] See Gershevitch 1954, §1012; MacKenzie *apud* Sundermann 1984: 307 n. 20.

[46] See Henning 1939: 825 n. 4. The *-s-* shows that this form is non-Persian, perhaps Bactrian ('d'origine dialectale', Benveniste 1946: 91).

[47] See Emmerick 1994; Skjærvø forthcoming.

[48] Cf. Degener 1989: 156, 312; Emmerick 1994: 53.

[49] The only exception is the development of **čy* to *š*, which is not relevant here.

[50] Cf. also Winter 1971; Schmidt 1985.

[51] Winter (art. cit.) identified *retke* as a Bactrian form on account of the syncope and went on to deduce that the *e*-vocalism was diagnostic for Bactrian loanwords in Tocharian. Unfortunately, as demonstrated by Schwartz (1974), virtually none of the forms identified by Winter as Bactrian conform with what we now know of Bactrian phonology.

[52] Gershevitch 1985: 56.

the Kushans, or more generally the Yuezhi, introduced some 'Saka' elements into the Bactrian language, including of course the hypocoristic suffix -(η)βκο. In the *Prologues* of Pompeius Trogus, we read that 'Scythian tribes', amongst them the Asiani, seized Bactra and Sogdiana, and that later 'the Asiani became kings of the Tochari'. As David Bivar has pointed out, 'the historical rôle played by the Asiani is precisely that of the people who later came to be known as the Kushāns' (Bivar 1983: 193). If the Kushans were indeed the royal family of the Asiani or Asii, the likely ancestors of the Ossetes, we need not be surprised to find Scythian elements in the names of their kings.

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BD 1 = Sims-Williams 2000.

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Tocharian and Indo-Iranian: relations between two linguistic areas

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1.1. SINCE THE BEGINNING OF TOCHARIAN STUDIES, the two languages of the 'Tocharian' group have interested Iranianists as well as Indologists because of the proximity of the sites where Tocharian manuscripts and those in Iranian languages such as Khotanese and Sogdian were discovered at the beginning of the twentieth century. In respect of the contents of the texts, which are almost all of Buddhist inspiration, Tocharian studies fall into the Indian sphere. The type of Brāhmī used by the Tocharian scribes was also used to write Sanskrit and the decipherment of Tocharian was made possible by the existence of Sanskrit-Tocharian bilinguals. Borrowings from Sanskrit, or from one or another Prakrit, are very numerous, occuring in almost every line of the texts. Borrowings from Iranian languages have likewise been the subject of a number of studies. We have at our disposal a very detailed appraisal of many years' work in this field (Isebaert 1980) and it is not my intention here to draw up a new report listing all the bibliography which has been added in the last two decades. The study of the Iranian loanwords in Tocharian is at present in a state of flux, following the recent find of a substantial archive of documents in Bactrian, spread over several centuries (probably the 4th to the 8th centuries A.D., according to Sims-Williams 1997). These documents occupy very much the same geographical and chronological space as the Tocharian manuscripts, the greater part of which date from the 6th to the 8th centuries, and the lexical material seems to be of great interest for Tocharian studies. It will necessitate a review of the conclusions of previous studies, such as the classic assessment by Olaf Hansen (1940), according to which most Iranian loanwords in Tocharian derive from Sogdian and above all from Khotanese. Many of the borrowings thought to have come from these languages can now be seen to have come more directly from Bactrian, confirming the hypotheses of Werner Winter (1971) and the pioneer work of Martin Schwartz (1974). The new information on Bactrian which I shall mention below comes from articles and lectures by Nicholas Sims-Williams. To some extent it is provisional. The forthcoming publication of this new evidence will certainly contribute greatly to Tocharian studies, and not only at the lexical level, since

Tocharian—to call the two Tocharian languages by this convenient collective name—shares with Bactrian and other Middle Iranian languages morphological and syntactic characteristics which can now be re-examined from the perspective of dialect geography. I will cite just two phenomena mentioned by Sims-Williams (1999): (1) the marking of a direct object characterised as 'human' and 'definite' by means of the preposition *aβo* (see also Sims-Williams 1999a: 196, 199; 2000: 25); (2) the use of the optative as a narrative past tense without modal value (Sims-Williams 2000: 27). The two usages, which are also relevant to other Iranian languages, have precise parallels in Tocharian: (1) the use in the same conditions of the morpheme *-ṃ ~/n/*, which does not reflect an Indo-European ending; (2) the use of the optative suffix, expressing repetition in the past, to form the imperfect from the present stem.

Even though it may be necessary to revise our view of the connection between Tocharian and Khotanese with regard to lexical borrowings, the contribution to Tocharian studies of Sir Harold Bailey, both an Indologist and an Iranianist, is certainly such as to justify the appearance of a Tocharianist at a conference in his memory. As an annex to my paper I give a list, no doubt incomplete, of those studies by Bailey which are of significance for Tocharian studies, not to mention his *Dictionary of Khotan Saka* (1979), which accords Tocharian its due place amongst the languages in contact in Central Asia. I will not seek to evaluate those proposals of Bailey's which the progress of scholarship has made obsolete or which Tocharian specialists have vigorously contested. Tocharian studies are less advanced than Middle Iranian studies and still at a transitional stage. Following in Bailey's footsteps, on this occasion I have devoted special attention to particular lexical problems in Tocharian which need to be approached from the perspective of language contact, in order to exemplify the problems of research in this field.

1.2. In connection with Tocharian borrowings from the Indo-Iranian group of languages, it is worth recalling a few fundamental points. All researchers agree that, within the family of Indo-European languages, the Tocharian languages have no dialectal affinity with the Indo-Iranian group. Proto-Tocharian evolved to a certain extent in isolation, in a region of Central Asia cut off from those where Indo-Iranian speaking populations were to be found. Certain features of its vocabulary suggest a common civilisation with Turkic-speaking peoples in the pre-Buddhist period (see Pinault 1998). This would mean that the ancestors of the Buddhist 'Tocharians' of the Tarim oases were nomadic shepherds occupying part of the Mongolian and Siberian steppes. There is no consensus on the dialectal position of Tocharian within Indo-European, apart from the absence of characteristics shared with Indo-Iranian. A balanced appraisal, which could be amended on certain points, has been drawn up by Adams (1984). Phonetic, morphological and lexical isoglosses attest the affinity of Tocharian with 'Western' Indo-European (in a broad sense of the term): Celtic, Italic (Latin), Germanic, Baltic and Slavic, i.e. the 'Northwestern group', to which we should add Greek. Several recent studies tend to confirm this view (see Pinault 1990: 186-90 on the relationship between Latin *noctū* and Toch. A *nakcu*, B *nekcīye* 'during the evening', with preservation of the reference to the 'evening' as in Hitt. *nekuz*; Hackstein 1998, on the treatment of initial laryngeal + vocalic sonant, with an appraisal of previous work). The idea of Tocharian as an 'Eastern' Indo-European language (Ringe 1991: 104, 115), corresponding to its geographical situation, is simplistic and based on insufficient evidence. One of the principal supposed proofs for this Eastern location is the absence of the initial occlusive in the word for 'tear', Toch. A *ākär*, pl. *ākrunt*, B pl. *akrūna*, as in Indo-Iranian (Ved. *áśru-*, Av. *asru-*) and Baltic (Lith. *ašaros*), in contrast with the Western languages: Greek δάκρυ, Latin *lacrima*, Old Irish *dér*, Gothic *tagr*, etc., to which Armenian may be added. I have tried to show that the type *$*h_2eḱru$-* 'tear' is an inherited archaism, which has no significance for the relationship between the languages concerned, and that the forms with initial **dr-* (Armenian) or **d-* display no unity, but rather depend on various modifications of an Indo-European expression, of which Hittite also retains a trace (1997: 226-9).

At a period subsequent to the formation of proto-Tocharian as a distinct dialectal branch of Indo-European, the 'Tocharians' came into contact with speakers of the Indo-Aryan and Iranian languages, which had become their neighbours. As a result of this contact, which varied in intensity at different times, the Tocharian vocabulary was penetrated by words of foreign origin. Several stages need to be distinguished according to the Tocharian form of the words borrowed, both from Iranian and from Indian.

Stages of Iranian loans: (1) Old Iranian (unidentified languages, differing from Avestan and perhaps attributable to the ancestors of the Ossetes); (2) Bactrian; (3) Sogdian and Khotanese. The first stage occurs at an indefinite period, some centuries prior to Common Tocharian. The period of common development of the Tocharian language-group cannot be precisely fixed. The two attested languages, conventionally called 'Tocharian A' and 'Tocharian B', differ as much as two Germanic or two Romance languages. Mutual comprehension was impossible and there was no immediate transposition from the one language to the other: translation was necessary. It is difficult to measure the speed of differentiation in languages, but the differences between the two languages (notably the advanced degree of phonetic and morphological evolution of Toch. A as compared with Toch. B) presupposes separate development during at least five centuries, which would take us back to approximately the beginning of our era for the Common Tocharian stage. What is more, it has long been noticed that the basic Buddhist vocabulary in Tocharian shows crucial differences between the two languages; this proves that the peoples speaking Toch. A and Toch. B were wholly separate at the time when the first Buddhist missionaries reached them, which once again puts us in the first centuries A.D. For the time being, one can hardly go beyond these rudimentary statements. For example, the frequent term Toch. B *perne*, A

parāṃ 'reputation, splendour, dignity' (*TEB* 2: 113, 212) derives from Common Toch. **pærnæ*, itself coming from a Middle Iranian language which cannot be specified, cf. Khot. *phārra-* (< **farnah-*), Sogd. *prn* (Buddh.), *frn* (Man.), etc. (Bailey 1979: 261). This old loan, at the Common Tocharian stage, involves a pre-Buddhist notion typical of Iranian modes of thought (cf. Bailey 1943: 1-77), a notion which was then adapted to Buddhist thinking, as in Khotanese and Sogdian, cf. Toch. A *puttiśparāṃ*, B *pañätkāññe perne* 'rank (state) of a Buddha'.

Stages of Indo-Aryan loans: (1) Gāndhārī, the language of the early Buddhist expansion into the Tarim basin, at the beginning of our era; close to Gāndhārī, the Prakrit which served as the administrative language of the Shanshan or Kroraina realm (3rd cent. A.D.), known from documents from Niya and other sites; (2) Buddhist Sanskrit (Buddhist Hybrid Sanskrit); (3) Sanskrit, which was taught in Buddhist monasteries where the libraries held Sanskrit and Tocharian texts.

On the whole the borrowings of Indian origin are more recent than those from Iranian. They are linked to the spread of Buddhism from NW India and from Bactria. The 'Indian' development is more linear, displaying increasing sanskritisation as time went on. In fact the majority of loanwords in Tocharian A and B are of Sanskrit origin. The chronology of Iranian borrowings is harder to trace.

1.3. In certain cases, Tocharian preserves a remarkably old linguistic stage. The Toch. B noun *waipecce* 'possession' was interpreted by Warren Cowgill (*apud* Winter 1971: 218) as a loan from an Iranian form close to the Av. adj. *xᵛaēpaiθiia-* 'one's own', OP *uvaipašiya-*. It is notable that the Toch. form presents the diphthong *-ai-*, which would push the loan back to Old Iranian, or the very beginnings of Middle Iranian, when the diphthong was still preserved (cf. Schmidt 1985: 758). The starting-point would be **hwaipatya-* (thus Schmidt), or more precisely Common Iranian **hwaipaϑya-*, whose **-ϑ-* would naturally have been turned back into **-t-* in a language such as Common Tocharian which did not possess fricatives such as **ϑ*. We must however bear in mind the fact that the sequence **-ϑy-/*-ty-* does not here give the same result as a **-ty-* cluster inherited from IE, namely *-ts(ts)-* (cf. Pinault 1989: 50). In fact the form represented by Common Toch. **waipæccæ* (> B *waipecce*) must rather have been **hwaipaϑᵊϑᵊa-*, belonging to an Iranian language where the intervocalic **-ϑy-* had already undergone palatalisation, but in a different way from Old Persian; cf. the assimilation and gemination (Emmerick 1989: 215) attested in Old Khot. *haṭhṭhā-*, later *hakṣā-* 'truth' < **haϑyā-* (Av. *haiθiia-*, Ved. *satyá-*). The treatment of the end of the word **hwaipaϑya-* seems therefore 'out of phase' with the treatment of the first syllable. Much the same applies in the case of the Toch. B adverb *waipte* 'for oneself, apart, separately', which K. T. Schmidt (1985: 758-61) rightly attaches to this group. Nevertheless, the phonetic detail is again problematic: the final vowel of Common Toch. **waiptæ* cannot derive from a diphthong in an inflected form of Old Iranian **hwai-pati-*, as Schmidt supposes: **hwai-patayai* or **hwai-pataiš*. It would be more realistic to derive *-pte* from a syncopated form of **-pati-*, such as is found in Middle Iranian, or even from the palatalised Bactrian form *-βιδο* (< **-pati-*, Davary 1982: 177, 257), which might in the first place give Common Toch. **-pātæ*, whence **wai-pātæ* > B *wai-pte* because of the position of the accent on the first element of the compound. When all is said and done, Toch. B *waipte* seems to represent, via a number of somewhat obscure intermediaries, the Old Iranian adj. **hwai-pati-* in the sense 'independent, oneself', transformed in the usual way into an adverb 'independently, separately'.

1.4. In the matter of loanwords, one must avoid making hasty generalisations or attaching too much weight to Iranian in cases where another solution is more likely. Led on by his discovery of the Iranian origin of the Toch. B adverb *waipte*, K. T. Schmidt (1985: 762) seeks a form of the Middle Persian type in *-uft* (by umlaut from *-ft-* < **-pt-*, a syncopated form of Iranian **pati-* 'master, chief', e.g. MP *hazāruft* 'chief of a thousand') among the Kuchean proper names in *-upte*. The relevant names, which are attested in the economic documents of the fonds Pelliot koutchéen [= PK] of the Bibliothèque Nationale, Paris [Cp = Comptabilité de monastère 'monastery accounts' and LC = Lettres commerciales 'commercial letters'], are as follows: *Cinaupte* (frequent: Cp 1,6; 14,12; 16,4; 24,6; 34,6; simplified (?) to *Cinaute* in 26,5; to be restored in 28,17), *Citraupte* (Cp 4,4), *Wiryaryaupte* (LC XXVII, 2). For the typology of these documents, I may refer my general presentation (1994, esp. pp. 88-94). The borrowing of the MP type in *-uft* in the form of Toch. *-upte* is chronologically and geographically unlikely. Equally implausible is Schmidt's interpretation of *cina-* as 'die Chinesen', hence *Cinaupte* 'chief of the Chinese'! This idea necessitates futile contortions to explain *Citraupte* and *Wiryaryaupte*, both of which evidently contain initial elements of Indian origin: Skt. *citra-* and *vīrya-*. The latter is nonetheless rejected by Schmidt in favour of a derivation of *wirya-*, via an intermediary **wriya-* (cf. Khot. *briya-*) from Old Iranian **friya-* (Ved. *priyá-*), giving 'lieber, edler Herr' as the meaning of **Wiryaupte*.

Such reconstructions betray a complete ignorance of the way in which an onomastic system works in the Indian world, drawing on a limited stock of terms with favourable or laudatory connotations, combined in compounds or used as a base for indigenous formations with hypocoristic suffixes. The Indian-style compounds favoured in a Buddhist culture often have a semi-learned form, being adapted to Tocharian phonology but with more or less successful attempts to return to the Sanskrit form. Secular documents in Toch. B offer a whole series of proper names with the first element *cina-*: *Cinatewe*, *Cinadewe*, *Cinatyuti*, *Cinamitre*, *Cinasene*, etc. It is very hard not to identify this term as a form of the Skt. *jina-* 'conqueror' with the devoicing characteristic of Tocharian. *Jina-* is a favourite Buddhist term, an epithet of the Buddha himself, in both Pāli and in Sanskrit (cf. *PTSD*, 284; *BHSD*, 242). We are therefore almost guaranteed the

derivation of the names just listed from Skt. *Jinadeva*, *Jinadyuti*, *Jinamitra*, *Jinasena*, several of which are in fact already attested (MW, 421). Common sense demands that the same initial element is the first candidate to be considered in the case of *Cinaupte* too. And if we stay with the Indian formation of names, a possible derivation for the second element presents itself immediately in the numerous compounds in °*gupta*-, from the adj. *gupta*- 'protected' (MW, 359). The weakening of intervocalic occlusives is a well-attested phenomenon in Middle Indian, which concluded in their total disappearance in late Prakrit (Pischel 1900: 137, §186; von Hinüber 1986: 94, §170); in our three compounds this treatment would be extended to the juncture between the two elements of a compound, hence *-au-* < **-a-gu-*. As for the rest of the word, we would also expect assimilation of the group **-pt-* to *-tt-* (cf. Pischel 1900: 187, §270). This would give °*autta*- < °*agupta*-, a form which seems to be reflected by the hapax *Cinaute*, with the gemination predictably not written. Forms in °*aupte*, the most frequent in the present state of our documentation, reflect a partial re-sanskritisation, which has not gone so far as to reinstate the initial of the second element. In the graffiti, which furnish many personal names, we also find both *-kupte* and *-gupte* (cf. Pinault 1987: 188-9), attesting more sustained efforts towards re-sanskritisation.

It would be perverse to separate *Citraupte* from the attested Sanskrit personal name *Citragupta* (MW, 396b). By the same token, **Wiryaupte* can be seen to represent a comprehensible (if unattested) proper name **Viryagupta* (cf. MW, 1006c-1007a for other compounds with this first element). In this last name we may note, besides the adaptation of Skt. *Vīrya*- to Tocharian pronunciation (cf. the names *Wiryadewe*, *Wiryamitre*, *Wäryaruci*, *Wäryasene*, etc. from the same source), the dittography of the second syllable, cf. *Jñānaṇaraksiteṃnmeṃ* in PK Cp 34,1-2, abl. sg. of a name which must clearly be restored as **Jñānaraksita*. In conclusion, therefore, the reconstruction **Jinagupta* 'protected by the Conqueror (= the Buddha)' seems to be the simplest reading of Toch. B *Cinaupte*; cf. also *Devagupta* (MW, 493a; *BHSD*, 270) and *Buddhagupta* (MW, 733b). This short discussion demonstrates, if a demonstration be needful, that Tocharian borrowed from various sources and that one must examine a number of possibilities before settling for a loan from Iranian.

2. 'Right' and 'left', in Tocharian and elsewhere

2.1. As regards the Tocharian terms for 'right' and 'left', the non-specialist nowadays finds himself in total confusion, as may be seen by consulting the available glossaries: Toch. B *saiwai* 'rechts' (*TEB* 2: 257) but 'left' (Adams 1999: 701); *śwālyai* 'links' (*TEB* 2: 248) but 'right' (Adams 1999: 645). The limited objective of this section is therefore to define precisely the terms in question on the basis of textual evidence. To some extent this is a continuation of a previous study in which I established the Tocharian terms for the four cardinal points (1998: 362-6). The interpretation of the Tocharian term for the left side, however, involves a recognition of contacts with the Iranian world, which is why this discussion finds its natural place in the present context.

The problematic words are the following: Toch. A adv. *āpat*, adj. *pāci* 'X', adv. *pāccās* (derived from the f. obl. pl. of the preceding word), against adj. *śālyi* 'Y', adv. *śālyās* (derived from the f. obl. pl. of the preceding word); Toch. B adv. *saiwai* 'X' against adv. *śwālyai* 'Y', which both have the form of a f. obl. sg. The identifications of X as 'right, on the right' and Y as 'left, on the left' recorded by the reference works (for Toch. A cf. again *TEB* 2: 113, 145) have been reversed by Werner Winter (1985), essentially by means of two arguments: (1) the notions of 'right' and 'left' are correlative, so that, in the absence of a fixed point of reference, a different point of view or a mirror image brings about the inversion of the two sides; (2) the terms in question have no established etymology, but it is formally possible to compare B *śwālyai* and (less directly) A *śālyi* (*śālyās*) with the root *śu-/śwā-* 'eat', which would allow its explanation as the 'right hand', lit. the 'eating hand', parallel to Khot. *hvarandaa-* 'right side, right hand' from the root *hvar-* 'eat' (see esp. Winter 1985: 590). However, Winter has no convincing etymologies for the opposing terms Toch. A *pāci* (*āpat*) and B *saiwai*, both of which supposedly refer to the left side.

2.2. As so often, these words occur in fragmentary texts, but certain passages might already justify the identification of X as 'right, on the right' and consequently of Y as 'left, on the left'. This conclusion is already implied in *TochGr*, 69, §107, to judge by the order in which the forms are mentioned. I shall restrict myself to citing A 358, an interesting fragment probably describing a painting (Sieg and Siegling 1921: 198). The Buddha is represented surrounded by divine creatures (Asuras, Nāgas, Gandharvas) and humans, in a sermon scene where, according to the usual iconographic scheme, he occupies the centre. In a2-3 we read: *pā[m]cyā(s) (käy)lytär-ci vajrapā(ṇ)i (wäl śā)lyäs pracar ānant ṣāmaṃ wsokoneyo lkeñcy akmlac* 'On the right of you stands (the king) Vajrapāṇi, on the left your brother Ānanda, the monk; with joy they look towards your face'. The stance of the assistants is characteristic: their eyes are turned upon the Buddha's countenance while they listen to his discourse. What counts in this description is the spectator's viewpoint. Now, in paintings from the region of Kucha (the Qyzyl caves), Vajrapāṇi, the divine genius armed with his mace, is usually placed, for the spectator, to the right of the Buddha (see MIK III 8846 and 8725a, reproduced and annotated in *Sérinde*, 308-10, Nos. 237-8; cf. also p. 288, No. 218, the painted fragment from Qumtura, Hermitage Museum, St. Petersburg, Ku 618). From the point of view of the central figure, the protective deity Vajrapāṇi indeed stands 'on his left', a position which is constant in Mahāyāna-inspired representations (cf. Schumann 1997: 135).

Further important, indeed decisive, evidence is to be found in an extract from the *avadāna* of the potter Bṛhaddyuti, after the body of the Buddha appeared to

the potter in its full splendour: A 24 a 6 *Brāhadyutis kapśañi āpat twantaṃ yatsi osāt* 'der Körper des Bṛhaddyuti begann nach rechts ihn Verehrung zu machen' (Sieg 1944: 28 with n. 10). Sieg's translation is almost contemporaneous with the comparison made by Konow (1945: 207-8) between Toch. A *āpat twantaṃ* and Khot. *hvaraṃcīñā tvaṃdanu*: this expression refers to the ritual practice of *pradakṣiṇā*, a circumambulation achieved while keeping the object of veneration on one's right (cf. Bareau 1968: 163): 'turning the right side towards, circumambulation from left to right of a person or object' (MW, 679b). It serves to translate Skt. *pradakṣiṇī-kṛ-tya* 'by circumambulating [someone] turning to the right, clockwise, by performing the right-hand perambulation', cf. *Saṅghātasūtra*, §§54.3, 62.2, 68.1 (Canevascini 1993: 25, 28, 30, with commentary on p. 128). The syntactical construction is still uncertain, and the derivation of *tvaṃdanu* is obscure. This word can be employed without being preceded by *hvaraṃcīñā* 'rightward (movement)'. Canevascini hesitantly translates Khot. *tvaṃdanu* as 'for reverence' (1993: 265), apparently following Bailey (1979: 145), who gives 'reverently' as an equivalent. Nevertheless, since A *twantaṃ* (with no known equivalent in Toch. B) can scarcely be interpreted except as a loan from Khot. *tvaṃdanu*, it is inevitable that we should understand A *āpat* as the equivalent of Khot. *hvaraṃcīñā*, which must be analysed as a derivative of *hvarandaa-* 'right side, right hand' (Bailey 1979: 504) even though the formation is not perfectly clear (Degener 1989: 132-3). In Tocharian the expression occurs again with the verb 'to do', *twantaṃ ya-/yäm-*, without the adverb *āpat*, in A 279 b 2 (end of Act IV of the *MSN*, with no parallel preserved in the Turkish text, cf. Pinault 1999: 197). In A 403 b2 one may restore *twantaṃyo ā(pat)*, but the sentence is incomplete. The new Yanqi (YQ) manuscript of the *MSN*, found in 1974 and since published, offers us two new occurrences of the expression for *pradakṣiṇā*:

> YQ 1.4 [II.2] b 1 *(āṣāni)kā(ṃ) metrakäṃ āpat twantaṃ yämurāṣ yneś puttiśparäṃṣi kapśañi oki anaprā kälytär* 'having performed the rightward circumambulation round the venerable Metrak, (it) stays before what was clearly the body of one who has the rank of a Buddha' (translation of Ji, Winter and Pinault 1998: 75).

The situation is a sort of 'miracle', the manifestation of a light which emanates from the body of the Buddha Śākyamuni and then places itself before the Bodhisattva Maitreya. Here is the German translation of the parallel text in Old Turkish, *Maitrisimit nom bitig*, the part matching the Tocharian text being printed in bold, followed by the relevant extract from the Uighur text:

> *MaitrHami* II, 2 b 5-13 'Während er solche Worte sagte, ohne sie zu Ende zu führen, erstrahlte fünffarbiges Licht (Hend.) aus dem Körper des völlig weisen Göttergottes Buddha und kam glänzend (?) vom Reich Madhyadeśa und **umwandelte rechts herum den Körper des edlen Maitreya - wie auch vor dem göttlichen Buddha verweilend - und blieb unerschütterlich verweilend vor dem Bodhisattva Maitreya stehen**';

> cf. lines 10ff. *tüz-ün maitrinïng ät'öz-in* [11] *ongaru tägz-inip tngri burxan ödintā* [12] *turur täg maitri bodiswt üskintā* [13] *yašuyu täbränčsiz-in turdī* (*ZusTreff*, 122-3, my underlining).

Turkish *ongaru tägz-inip* is an exact translation of the Toch. A phrase *āpat twantaṃ yāmurāṣ*, with the absolutive of the verb *yäm-* 'to do'. The Turkish expression *ongaru tägzin-* 'nach rechts umwandeln' is made up of the verb *tägzin-* 'sich herumdrehen, umkreisen, herumwandeln, rollen' (von Gabain 1974: 369) and the adv. *ongaru* 'rechts', derived from *ong* (*oŋ*) 'right, on the right' as opposed to 'left', also 'right, correct' as opposed to 'false' (von Gabain 1974: 349; Clauson 1972: 166-7). It serves to render the Skt. expression *pradakṣiṇaṃ kṛ-* or *pradakṣiṇī-kṛ-* '"to turn towards persons or things so as to place them on one's right", "turn the right side towards" as a token of respect' (MW, 679). The reference to *pradakṣiṇā* is duly noted by the editors of the Hami version of the *Maitrisimit* in the various passages where this Turkish expression is attested (cf. *ZusTreff*, 123 n. 15, 141 n. 48, 209 n. 38). Here is a second passage in Tocharian from the same work, where the text is mutilated, but where the explicit reference to 'respect' permits the reconstruction *(āpat) twantaṃ* with the verb 'to do' (*ypär-äṃ*), in this case the 3 pl. impf. act. followed by a suffixed pronoun referring to the person honoured, Maitreya:

> YQ 1.5[II.7] a 5 *śuṇḍaṃ oplāsyo onkā*[6]*(lmāñ) ... (āpat) tw(a)ntaṃ ypär-äm śla poto* 'With lotus flowers around their trunk, the elephants ... accomplished the circumambulation to the right around him, with reverence';
>
> cf. *MaitrHami* II, 7 b 30 - 8 a 3 *yangalar tumšuq-*[1]*larïnta linxuua čāčāk yorgāp tüz-ün* [2] *maitri bodiswt utrusïnta kälip ong*[3]*aru tägz-inip ayar ayaŋ qïlurlar ärdi* **"Elefanten** wanden **Lotusblumen um den Rüssel**, kamen dem edlen Bodhisattva Maitreya entgegen (oder: hießen ihm willkommen), **umwandelten ihn rechts herum** und brachten **tiefe Verehrung** dar" (*ZusTreff*, 138-41).

2.3. The ritual of the *pradakṣiṇā* is the subject of a commentary by Winter, which deals with the very text A 24 a 6 discussed above. He challenges Sieg's proposed translation for *āpat* ('nach rechts') on the grounds that the prefixed adverbs have an adessive, not a directional value. In other words *āpat* does not mean 'towards the right', but more exactly '[placing] on his right', as the ritual prescribes. Winter oddly takes the adessive notion in its strict sense and proposes to understand *āpat* as '[being] on his left': 'The same act can be described equally adequately by saying that the person honoring another one does so by taking a place to this person's left' (1985: 587). It seems hardly likely that a Tocharian writer would have translated the Skt. expression *pradakṣiṇaṃ kṛ-* (or *pradakṣiṇī-kṛ-*) without retaining the reference to the 'right side', given that orientation to the right was so prominent both in Indian culture and in Buddhist symbolism. One can perfectly well take Toch. A *āpat twantaṃ ya-/yäm-* + acc. in the same sense as Skt. *pradakṣiṇaṃ kṛ-* + acc. 'to make a movement keeping someone on one's right, to circle around someone keeping him to the right'. Winter's argument

requires one to imagine that the same movement was described, by a kind of inversion, with reference to the left, the unlucky side. At all events any such effort is negated by the use of the adverb *āpat* without *twantaṃ*, in the expression *āpat spārtw-* 'to turn to the right, be turned to the right', with the verb *spārtw-* 'sich drehen, sich befinden' (*TEB* 2: 157). The meaning of this expression is assured once again by the Turkish translation of extracts from the *MSN*. First of all, the Bodhisattva Maitreya, who faces the crowd, is compared to the king of the elephants turning round towards the right:

> YQ 1.13 [II.6] a 7-8 *tmāṣ āṣānik klyo(m metrak)* ... [8] *pältsäkyo ypeṣinäs wrassac*^{ā} *oṅkälmäśśi wäl oki āpat skārā säspärtwuräṣ* 'Thereupon, the venerable, noble (Metrak), (having looked) in his thought upon the people of the land, having turned back toward the right like an elephant king, (says to the people)' (modification of the translation proposed in 1998: 97);
>
> cf. *MaitrHami* II, 7 a 1-8 'Als dann der verehrungswürdige Bodhisattva Maitreya gleich wie der gegenwärtige Brahmā-Gott jenes kummervolle (Hend.) Volk (Hend.) im Reiche Dakṣiṇāpatha sah, (4ff.) **wandte er sich um, wie ein Elefanten-König sich nach rechts dreht**, und sprach, liebend wie ein liebender Vater zu seinem einzigen zarten Sohn, zum Volk der Stadt folgendes', with the extract of the Uighur text corresponding to the part of the translation printed in bold, ll. 4 ff. *yangalar bägi* [5] *osuγluγ ongaru tägz-inü qadrïlu qayïp* (*ZusTreff*, 136-7).

In another example, we find the well-known motif of the orientation of the individual hairs and locks of hair on the body of the Buddha, all clearly turned to the right as a sign of perfection (cf. Bareau 1958: 158):

> A 213 a 3 + YQ 1.8 [II.4] b 8 *ṣom ṣom yokaṣi spartu tatämṣu āpat säṃ(spärtwu)* 'lock of each single hair grown [and] turned toward the right' (1998: 91).

In the list of the 32 'marks of the Great Man' (*mahāpuruṣa-lakṣaṇa*), which occurs in Act II of the *MSN*, this is the thirteenth, corresponding to Skt. *ekaikaromapradakṣiṇāvartaḥ*, *Mahāvyutpatti*, 256(21) = *Mahāprajñāpāramitā-Śāstra*, No. 13, cf. the commentary on the formulation *ekaikaromaḥ*:

> 'De chacun de ses pores naissent des poils uniques (*tasyaikaikaromakūpebhya ekaikāni romāṇi jātāni*); ces poils ne sont pas en désordre (*avikṣiptāni*); ils sont d'un bleu-noir (*nīlāni*), de la couleur du lapis-lazuli (*vaiḍūrya*), courbés vers la droite (*pradakṣiṇāvartāni*) et dressés en l'air (*ūrdhvāgrāṇi*)' (Lamotte 1944: 276).
>
> Cf. *MaitrHami* II, 5 a 27-28 (12th mark in the Uighur list) *birär awin tüüläri ongaru äwrilip* [28] *tägz-inčlänip tururlar* 'Seine (Körper)haare drehen sich (Hend.) je einzeln (Hend.) nach rechts (*pradakṣiṇāvartakeśa*)' (*ZusTreff*, 128-9, cf. also p. 307 for a comparison of the formulations of this mark of the body of a Buddha).

2.4. The Toch. A adv. *āpat* < **āpāt* (cf. *TEB* 1: 45, §11.2) can be explained by the addition of the locatival prefix **æn-* (with umlaut and the regular loss of the nasal) to a base **pāt*, which reappears as the base of the adjective *pāci*. The latter is formed with the palatalising suffix A *-i*, B *-iye*, so that A *pāci* < Common

Toch. **pāciyæ* relates to **pāt* just as A *ñäkci*, B *ñäkciye* 'divine' to A *ñkät*, B *ñakte* 'god' (*TEB* 1: 145-6, §216). The adjective *pāci* means 'right, on the right' and is used particularly to qualify the right hand, as is shown unambiguously by the following two examples, where it is translated by Turkish *ong*:

> YQ 1.4 [II.2] b 5 *(ma)narkäñ weyeṃ nāṃtsuṣ pācināṣ tsarāṃ orto cacluräṣ ālam (wcac träṅkiñc)* 'The brahmin youths, being stupefied, having raised their right hands, (say to) each other' (1998: 75);
>
> cf. *MaitrHami* II, 2 b 28-30 *anta ötrü ol qamay titsi urï*[29]*lar tanglap mungadïp braman törüsinčä* [30] *ong qollarïn örü kötürüp bir ikintiš* ... '**Dann staunten und wunderten sich alle jene Schüler, erhoben** nach Brahmanen-Sitte **den rechten Arm** und ... **miteinander** ...' (*ZusTreff*, 122-3).
>
> A 296 b 2 *(śmi)māṃ akmalyo bodhisattu pāciṃ tsaryo ñ(ä)ktes kunti tsitoräṣ* 'with a smiling face, the Bodhisattva, having touched the pot [full of milk] of the god with his right hand';
>
> cf. *MaitrHami* XIII, 8 b 23-5 *külčirä yüzin bodisvt ong iligi üzä balïq waxšikin(ï)ng sayïrïn bürtüp* 'Mit lächelndem Gesicht berührt der Bodhisattva **mit seiner rechten Hand** die Schale des Stadtgeistes' (Geng Shimin, Klimkeit and Laut 1991: 278, 290; see also Pinault 1993: 139).

In this last scene, a beneficent spirit offers the Bodhisattva Maitreya a pot of milk at the moment that he quits the town. As is to be expected, the Bodhisattva takes this offering with his right hand. In the Indic world the right hand is the one that takes food and drink and it is with the right hand that one eats, because this hand is considered to be pure, whereas the left hand remains inactive during the meal (cf. Bareau 1968: 158). This passage alone might therefore suffice to point us to the correct interpretation of Toch. A *pāci*, even without the Uighur version.

2.5. The meaning of Toch. A *pāci* thus established applies without difficulty to the other occurrences (cf. *Thesaurus*, 165: A 314 a 7, 328 a 2), including those of the f. obl. pl. *pācyās*, *pāccās*, which is first used to qualify the perlative pl. *poṣṣäs-ā* from *poṣi* 'side, flank' (see A 12 b 4, 320 a 3) and then as an adverb (see A 358 a 2, 378.2). In the following passage, we expect the illumination, since it is favourable, to fall on the right side:

> A 320 a 3 *//pāccās poṣṣäsā yaiwuṣ worpuṣ swā)ñcenyo* 'on the right side, being penetrated and surrounded by the solar ray' (cf. Sieg 1952: 31).

The correlative terms *śälyi* and *śälyās*, the latter used adverbially like *pāccās* (cf. *TEB* 1: 146, §216), consequently mean 'left, on the left', cf. A 132 b 4 *śälyiṃ tsaryo* 'with the left hand', A 158 a 1 *śälyiṃ peyā* 'on the left foot' (see the other occurrences in the *Thesaurus*, 319, 320). The opposing terms 'on the right' and 'on the left' occur together in A 378.2 and A 12 b 4, doubtless also in A 314 a 7. This last passage contains a description of the Buddha, probably seated in meditation:

A 314 a 7 *(śālyiṃ tsa)ṛaṃ pāciṃ tsar to ṣeṣ ciñcär* 'having placed his right hand on his left hand, he was gracious' (cf. Sieg 1952: 30).

According to the codified position of the hands in meditation (*dhyānamudrā*), the right hand is always placed on the left hand (cf. Schumann 1997: 38). Winter interprets this passage wrongly (1985: 589), since he only takes account of the order of the terms for 'right' and 'left'.

The Toch. B material does not provide such clear contextual evidence as Toch. A for the interpretation of these terms. Indeed no Toch. B passage supplies the basis for an immediate identification of the term for the right side according to a typically favourable or auspicious symbolism.

The Toch. B adverbs *śwālyai* and *saiwai* are fossilised f. obl. sg. forms of adjectives **śwāl(i)ye* and **saiwe*, doubtless originating in expressions in which they served as epithets for a f. noun such as B *kālymiye* 'direction' (equivalent to Skt. *diś-*), e.g. in the perlative *śwālyai kalymi-sa* 'in the direction X' (cf. Winter 1985: 589), a process parallel to the formation of the Toch. A adverbs *śālyās* and *pāccās*. The word for 'hand', Toch. B *ṣar* (A *tsar*), is excluded as it is masculine (*TEB* 2: 249).

All occurrences of *saiwai* and *śwālyai* are in mutilated contexts. Only one text seems capable of providing a pointer. In a praise poem (*stotra*) in the manuscript B 74 b 4-6, certain paired parts of the body of the Buddha are evoked, from high to low, in turn 'shoulder' (*āntse*), 'thigh' (*märkwac*), 'leg' (*ckäckai*), always in the order *śwālyai—saiwai*. Here one might suppose that there is a progression, and that in each pair the more highly valued limb, the right, comes second, following the normal order 'from left to right' (Skt. *vāmād dakṣiṇam*, with syllabic augmentation), since in the Indic world every auspicious action is done with a movement 'to the right'. But in any case, it has to be admitted that Toch. B *śwālyai* corresponds, *mutatis mutandis*, to Toch. A *śālyi*, so that the identification of all four terms (two in each language) follows automatically from the reliable identification of just one.

2.6. The correspondence between B *śwālyai* and A *śālyi* has long been recognised (*TochGr*, 17, §31 n. 1). Like *pāci*, Toch. A *śālyi* is a relational adjective in *-i*, a formation corresponding to Toch. B *-(i)ye*, a f. form of which occurs in B *śwālyai* from the adj. **śwāl(i)ye*. However, the root elements A *śā-* : B *śwā-* cannot be directly equated. Common Toch. **ś(u)w-* does not normally reduce to *ś-* in Toch. A, despite what Van Windekens assumes (1976: 473, where an unconvincing derivation from an *ad hoc* IE prototype is proposed and earlier etymologies are referred to). So far the best available solution to this difficulty is that of Winter (1985: 590). He derives Toch. A *śā-* (the base of the noun **śāl,* whence the adj. *śālyi*) from Common Toch. **śäwā-*, a parallel stem to **ś(u)wā-* (cf. *WTG*, 294: see for example the pres. part. *śawäñca*). This would give us two nouns in *-l*: on the one hand B *śwāl* 'bait', A *śwāl* 'meat' (*TEB* 2: 148, 248), the base of **śwāl(i)ye*, to the stem *śwā-*; and on the other hand **śāl*, the base of *śālyi*, to the stem **śäwā-* > A **śäwa-*, contracted to *śā-*.

This morphological analysis, which is wholly justified from within Tocharian, immediately implies a semantic hypothesis, since the root in question, Toch. AB *śu-/śwā-* (*TEB* 2: 146, 246), means 'to eat'. It is probable that the action noun in *-l* derived from this root meant at first the act of eating or feeding and then acquired the concrete sense of 'food', the meaning actually attested by *śwāl* in both languages. The derivation of the Toch. A adj. signifying 'left' from the parallel base **śäwa-*, which no longer appeared in the conjugation (cf. *TochGr*, 475), perhaps allowed it not to be placed in direct relationship with *śwāl* 'meat'. At all events the two adjectives B **śwāl(i)ye* and A *śālyi* would mean approximately 'connected with the act of eating'.

This solution suits Winter perfectly, since he regards the two terms as referring to the right hand, the right side; and in point of fact, in the Indian tradition it is only the right hand, the 'pure' one, which is used for eating (cf. Bareau 1968: 158): 'Pour manger, on se sert uniquement des doigts de la main droite, tandis que la main gauche pend, inerte, entre les cuisses car ce serait une inconvenance grave que de toucher, si peu que ce soit, à la nourriture avec la main gauche'. One may assume that Indian influence on the Tocharians, transmitted through the agency of Buddhism, would only have reinforced the preference for the right hand which was normal amongst IE-speaking peoples. Since the connection of Toch. B *śwālyai* and A *śālyi* to the root 'to eat' is structurally satisfying from the synchronic point of view, it would be a futile indulgence to assume a homophonous root, with an exactly parallel derivation, solely in order to explain these words. At this stage it seems to me more prudent to start from the root 'to eat', even if this seems to clash with the philological analysis, which assigns these adjectives to the left side rather than the right.

2.7. In the Indian world, the opposition between the right hand and the left forms part of a system of contrasting values: 'La primauté de la droite apparaît donc très nettement dans l'Inde, aussi bien dans l'Inde dravidienne que dans l'Inde aryenne. La droite s'oppose à la gauche comme l'adresse s'oppose à la gaucherie, le pur à l'impur, le droit au courbé, le noble au vil, la droiture à la bassesse, le bonheur au malheur, le bien au mal, la bonté à la cruauté, le normal à l'anormal, l'ordre au désordre, le sacré au profane' (Bareau 1968: 176-7). As opposed to (and complementing) the right hand, the left, which is 'impure, shameful, unlucky', is relegated to cleaning operations, more particularly those which involve touching the lower parts of the body, especially for ablutions after defecation (*ibid.*, 164). Anthropological findings are confirmed by those of lexicography. Emeneau (1987) has analysed in detail the terms for the right and the left hand in the Indian cultural sphere. It seems that in a number of languages, notably in central Dravidian and Munda, but also in Indo-Aryan (Nepali, Gujarati, Hindi, Oriya), the right hand is the 'hand for eating' or the 'eating hand', with an epithet

derived from the root 'to eat'. These designations are found alongside the more banal descriptions of the right hand as 'skilful, strong, just' etc. By way of contrast, in certain Dravidian languages (*ibid.*, 265), the left hand is literally called the 'excrement hand'. It is not at all necessary to project these conventions of India proper onto the primitive Tocharian civilisation. The Tocharians' contact with the Indian world followed the propagation of Buddhism in Central Asia, which started at the beginning of our era, and we need not attribute to them *a priori* a more marked opposition between 'right' and 'left' than was normal in the cultures of other IE-speaking peoples.

The material compiled by Emeneau contains however another interesting feature: the terms for 'left, left hand' are generally speaking less stable and more complicated, and can arise through imitation or borrowing (*ibid.*, 268): for the 'left (hand)' most Central Dravidian languages use loans from Indo-Aryan.

2.8. This observation is relevant to Tocharian too. The terms for 'right (hand)' must be basic, positive in connotation and independent of the terms for 'left (hand)'. The latter could have been replaced, perhaps with secondary formations, at a time when the terms for 'right (hand)' were already well established. We need only recall a few well-known facts mentioned in the standard works of reference (Buck 1949: 864-7; Gamkrelidze-Ivanov 1995: 686-7; *EIEC*, 349, 485), without repeating the whole contents of the relevant articles.

Terms for 'right' and 'left' were originally used to refer to the hands. The pre-eminence of the right hand is a very widespread fact, not restricted to speakers of IE languages: it comes under the remit of both physiology and culture (see the articles 'Hand' in *ERE*, 6: 492-9; 'Left and right' in *EoR*, 7: 495-7). In IE languages the terms for 'right, to the right' allow us to reconstruct an inherited type through different adjectives derived from the base **deḱsi-*: **deḱsi-no-* in Indo-Iranian (Skt. *dákṣiṇa-*, Av. *dašina-)*, Baltic and Slavic; **deḱsi-wo-* in Greek (δεξι(*F*)ός), Germanic (Gothic *taíhswa*) and Celtic (Gaulish *Dexsiva*, Welsh *deheu*, Breton *dehou*; for details cf. *LEIA*, D-62); **deḱsi-tero-* in Italic (Latin *dexter*). Apart from this widely-attested family, other terms were formed on notions such as 'straight' (as opposed to 'bent, twisted'), 'correct', 'just', 'good' or 'better'. Several languages have recourse to the notion of 'straight' in the sense of 'stretched, directed in a straight line', whence 'just, correct, regular': Latin *rēctus* borrowed by Germanic, English *right*, Dutch/German *recht*, but with the primary meaning ('straight, correct') still retained in OE *riht*, OHG *reht*, etc.; Latin *dīrēctus*, Romance **dērēctus* > French *droit*, Spanish *derecho*, Rumanian *drept*. See also Latvian *labs*, at once 'straight' and 'good', cf. Lith. *lābas*; Russian *pravyj*, Polish *prawy* compared with OCS *pravъ* 'straight'.

The two Toch. words, A **pāt* (base of the adj. *pāci* and the adverb *āpat*) and B *saiwai*, cannot be linked with any term so far recorded in another IE language. It is significant, and indeed predictable, that they do not belong to the **deḱsi-no-* type known from Indo-Iranian. We must therefore look for etymologies which might provide plausible epithets for the right hand. Van Windekens suggested (1973: 437; 1976: 351-2) a link with the root **ped-* 'to hold, contain' (*IEW*, 790) as in OHG *fazzôn*, German *fassen*, and as in OHG *fezzil*, German *Fessel*, OE *fetel*, Old Icelandic *fetill* (Germanic **fatilaz* < **pod-ilo-*) 'bond, belt', Lith. *pūodas* 'pot', etc. Although the semantic relationship is not impossible, the connection is impossible for phonetic and morphological reasons: the agent noun **pōd-o-* proposed by Van Windekens (p. 352) would not give **pāt* but rather **pātsæ* > B **pātse*, A **pāts*, the regular outcome of IE **d* being Common Toch. **ts* (> AB *ts*), palatalised **ś* (> AB *ś*), according to a development proposed by Winter (1962) and now widely accepted, cf. B *śak*, A *śāk* 'ten' < **śāk(ān)* < **déḱ-m*, AB *tsāk-* 'to pull' < **duk-* to the root **deuk-* (*IEW*, 220; *LIV*, 106). The same phonetic argument rules out a connection with the Germanic family represented by Gothic *batiza*, *batista*, German *besser*, *best*, English *better*, *best*, etc., Gothic *bôta* f. 'advantage', OE *bōt*, OHG *buoz* 'improvement'; cf. also the Ved. adj. *bhadrá-* 'good, happy, prosperous, favourable' etc. The root being **bhad-* 'good' (*IEW*, 106), it cannot explain a Common Toch. form in **-t-*.

No convincing cognate is found within Tocharian. The second element of the compound A *arämpāt*, B *erepate* 'form, beauty' (Skt. *rūpa-*) does in fact imply Common Toch. **pātæ*, but this noun is a complement or near-synonym of the first element B *ere* (A *aräṃ*) 'aspect, appearance' (*TEB* 2: 78, 173). Independently of the possible etymologies of the two terms thus associated (cf. Van Windekens 1976: 149), it is not at all clear what the semantic relationship might be between 'form, stature, height' *vel sim.* and 'right side'. The resemblance between A *-pāt* as the second element of this compound and **pāt* as the base of A *āpat* and *pāci* is in fact purely superficial, although the connection was accepted by Winter (1985: 591), who attributed the latter terms to the left side. This compound therefore cannot throw light on our problem.

If we posit that the dental of Toch. A **pāt* 'right side' belongs to a suffix, the formation of the verbal adjective in IE **-to-* suggests new possibilities: for example, A **pāt* < Common Toch. **pātæ* < **ph₂-to-* from the root **peh₂-* 'to protect, guard, watch over' (*IEW*, 787, 839; *LIV*, 415), cf. Ved. *pā-*, Av. *pā-*, with extension Hitt. *pahš-*, Latin *pāstor*, etc., Toch. A *pās-*, B *pāsk-* (by generalisation of the suffix from the present **pāskæ-* < **ph₂-ske/o-*, cf. Pinault 1989: 39). We would have to suppose that the sense evolved from 'protected, watched over' to 'sure, assured' or 'virtuous, correct'. The verbal root A *pās-*, B *pāsk-* and its derivatives belong to moral vocabulary and often refer to the idea of observing a rule of conduct or a precept of Buddhist discipline. Nevertheless this etymology is not altogether convincing, since no IE language retains this verbal adjective as a living form. I would like to suggest a different connection, with the root **peuH-* 'to purify' (*IEW*, 827; *LIV*, 432), cf. Ved. *pū-*, pres. mid. *pávate*, act. *punáti*, verbal adj. *pūtá-*, Av. *pūtika-* 'used for purification', Latin *pūrus*, etc. (see Mayrhofer, *EWAia* 2: 106). The existence of the verbal adj. **puH-to-* in IE is guaranteed by Uralic borrowings, cf. Finnish *puhdas/puhtaan* 'pure, clear' (references

in Mayrhofer, *loc. cit.*). Provided that the laryngeal was *h_2* or *h_3*, which nothing contradicts, this prototype would regularly give Common Toch. **pwātæ*, whence A **pāt* by two regular processes: loss of the final vowel and delabialisation of the initial group, as in Toch. A *kāc* 'skin' < **kwāc(ā)* < **kuh$_{2/3}$-ti-*; cf. Germanic **hūđiz* 'id.' (Old Icelandic *hūð*, OHG *hūt*, OE *hýd*) and, with secondary shortening, Latin *cutis* (Hilmarsson 1985). As a substantivised adjective, this Toch. form could have come to indicate the 'correct, pure' side, which would be an appropriate designation for the right side.

2.9. At first glance, Toch. B *saiwai* is equally isolated within Tocharian. The m. form of this adjective would have to be reconstructed as **saiwe*, representing a thematic stem. The 'solutions' so far proposed (cf. Van Windekens 1976: 410-11) may be briefly mentioned. Clearly we must set aside Couvreur's absurd comparison (1950: 128), still repeated by some, with one of the designations for 'the left' in IE languages: Ved. *savyá-*, Av. *haoiia-*, OCS *šujь* < **sewyo-* (*IEW*, 915, see also *EWAia* 2: 571). The formal problems are numerous. B **saiwe* presupposes Common Toch. **saiwæ*, which could go back to IE **saiwo-* or **soiwo-*, cf. B *ai-* (A *e-*) 'to give' < **(H)ai-* (Greek αἶνυμαι, Hitt. *pāi-*, etc.), B *alyaik* (A *ālyek*) nom. pl. m. 'other', with *alyai-* < **alyoi* (Greek ἄλλοι). In order to link Toch. B **saiwe* with **sewyo-*, we would be obliged to assume both an *ad hoc* variant **sowyo-* and a metathesis—not attested by any other example and contrary to the general tendencies of phonetic evolution—of **sowyo-* to **soywo-*. Before *yod*, as before palatal vowels (except short **i*), IE **w* must have been palatalised in Common Tocharian. This palatalisation continues in Toch. B, resulting in *yod*, cf. B *yente*, A *want* 'wind' < **wæntæ* < **wēnto-* etc. (Pinault 1989: 53). We would therefore expect **sowyo-* > **sæwyæ* > B **saiyye*. The same problem would arise if we attempted to derive **saiwe* as a loan from Indo-Aryan *savya-*: the metathesis (or epenthesis, as Couvreur has it) *-VwyV-* > *-VywV-* is unattested; all the examples given by Van Windekens (1976: 95, §280) are either mistaken (notably the case of Toch. A *śāyu*, indicating a fierce wild animal, which cannot possibly be the equivalent of B *śaiyye* 'unit of smaller livestock', sheep or goat) or can be otherwise explained. Above all, we must not forget that this proposal depends on deriving a word for 'right' from a word for 'left'. This is wholly contrary to what we should expect, given the facts of anthropology and symbolism: the asymmetry between the 'right' and the 'left', and the predominance of the right over the left side, exclude a term for 'left' becoming a term for 'right', even by way of a loan.

2.10. Clearly it would be better to derive Toch. B **saiwe* 'right, to the right' from a positive and propitious notion. Thus, Van Windekens proposed (1973: 437; 1976: 410) to compare this word with a supposed Indo-Iranian base **saiw-*, cf. the Iranian personal names analysed by Gershevitch as **hu-šaiwā-* f. 'providing good service', **upa-haiva-* 'the respectful' (1969: 240, 243); Ved. *sev-* (present *sévate*) 'to stay, cling to', *sevaka-* m. 'servant', etc. The analysis of the Vedic base is debated (cf. *EWAia* 2: 747), and it would be necessary to reconsider all its uses in order to identify a semantic core that might be compatible with that of the rare Iranian forms. In any case Van Windekens does not go beyond identifying a base **saiw-* or **soiw-*, and he gives no morphological analysis of this element, which does not constitute a root. In fact, whatever the ultimate derivation of these Indo-Iranian words, an 'internal' analysis of Toch. B **saiwe* is possible. In the first place, we may note that the final part of **saiwe* could reflect the suffix **-wo-* (or **-i-wo-*) as in **deḱsi-wo-*, the prototype of the terms for 'right, to the right' in Greek, Germanic and Celtic, i.e. the generally Western languages with which Tocharian shows an affinity. We might then consider the possibility that in the antecedent of Toch. B **saiwe* only a substitution of the root took place.

A possible root does in fact exist in Tocharian: the verb B *śai-n-*, A *śe-n-*, roughly translated as 'to lean on' ('sich stützen', cf. *WTG*, 300; *TEB* 2: 156, 257), really means 'to depend on, be dependent on', as Hilmarsson has shown in detail (1991; not taken into account by Adams 1999: 700). This meaning can easily be explained as the outcome of an initial sense 'to be bound by, be attached to', which allows a comparison with the IE root **seh$_2$-i-* 'to tie, attach' (Hilmarsson 1991: 83) cf. Ved. pf. *siṣāya*, Av. *ā-hišāiiā*, nominal derivatives such as Ved. *sétu-*, Av. *haētu-*, Ved. *setár-*, etc. (*EWAia* 2: 720-21; on related forms in Greek see García-Ramón 1994). This root results from suffixation with *yod* of a basic root **seh$_2$-* (cf. *IEW*, 891-2; *LIV*, 471). As a probable nominal derivative, Tocharian has the term for 'refuge, protection' (Skt. *śaraṇa-*): B *saim* (pl. *saimanma*), A *sem*. Like other nouns with this structure, it goes back to an old neuter in **-men-*, nom.-acc. sg. **séh$_2$-i-mn̥*. Although Hilmarsson does not detail the semantic shifts involved (1991: 84), this noun can be simply explained as the concretisation of the action noun meaning 'bond, attachment', whence 'place to which one cleaves' to escape worldly danger and pain. This symbolic notion is in harmony with Buddhist ideas. In almost all its forms (except the pret. part. A *sāseyu*), the verb generalised the nasal suffix, derived from an old pres. stem, but the noun retains the form without the nasal. The development of the sequence **seh$_2$i-* > **saHi-* > **sa.i-* > **sai-* presents no problem.

My proposal, then, is to identify this Common Toch. root *sai-* 'to bind, attach' in Toch. B **saiwe*, which can be analysed formally as deriving from **seh$_2$-i-wo-*. The general meaning would be connected with the action of binding, let us say 'having a binding force', whence, actively, 'that which binds'. It seems to me that this would provide a suitable epithet for the right hand, considered as the hand that acts most effectively and as the one which would be most fit to 'bind'. It is hardly necessary to stress the symbolic and magical importance of the 'bond', of the actions of tying, encircling with a band or string, making a knot, etc. in the practices and rituals of numerous cultures (cf. the articles 'Knots' in *ERE*, 7: 747-51, and 'Binding' in *EoR*, 2: 217-20). It seems probable enough that, in a civilisation where the 'bond' had a certain significance (as can be seen in the expression for 'refuge', B *saim*, A *sem*), the right hand was regarded as the 'binder'.

2.11. So far we have attempted to show that the Tocharian words for 'right, to the right' may plausibly be derived from positive terms appropriate to the right hand as the 'privileged' hand. To complete the discussion, we must now explain the terms for 'left, to the left', which at the formal level can readily be attached to the root 'to eat' (see §2.6).

Tocharian has no term comparable with those of other IE languages, but this is not surprising. Designations of the left side and the left hand are variable and unstable and, unlike the terms for the right side and right hand, none can be confidently attributed to common Indo-European (cf. *EIEC*, 349). Apart from **sewyo-* noted above (§2.9), two terms are known from more than one dialectal branch: **laiwo-* (< **lah₂iwo-*), cf. Greek λαι(*F*)ός, Latin *laeuos*, OCS *lěvъ*, and **sḱaiwo-* (< **sḱah₂iwo-*), cf. Greek σκαι(*F*)ός, Latin *scaeuos*. But none of these terms has become dominant in any of the traditions in which it occurs. The terms for the left are very often renewed, along two main lines: by reference to a negative or pejorative notion, because of the inferiority of the left hand, or by the use of a euphemism (cf. again Buck 1949: 865-7). For the second strategy, numerous examples can be cited: Av. *vairiiastāra-* 'left', opposed to *dašina-* 'right', a comparative with double suffix to *vairiia-* 'worthy of being chosen, preferred'; the usual term for 'left' in Latin, *sinister*, another doubly suffixed comparative, perhaps meaning 'more profitable', at all events remodelled on *dexter*, 'right'; and similarly Greek ἀριστερός, an artificial form built on ἄριστος 'better, excellent' after the model of δεξιτερός and with the same accentuation (Chantraine 1956: 63). Once the meaning of ἀριστερός had faded, it was itself replaced by εὐώνυμος 'of good name, well-named', which allowed the dangerous left side to be referred to by a clearly apotropaic term (*ibid.*, 64-9). Other languages offer euphemistic terms taken from diverse sources: Old Irish *túath*, adv. *túaith* 'to the left' (and 'to the North') related to the Gothic noun *þiuþ* 'the good', Old Icelandic *þýðr* 'friendly', Latin *tūtus* 'secure'; OE *winestra*, OHG *winistar*, Danish *venstre*, Swedish *vänster*, meaning originally 'more desirable, friendlier'; Ved. *vā́ma-*, which became the normal term in both Sanskrit and Pāli, with secondary accentuation for *vāmá-*, thus identical with *vāmá-* 'pleasing, dear, good, pretty' (see *EWAia* 2: 543, 544).

We may consequently suppose that Tocharian also had recourse to a euphemistic designation for the left hand to set against an already established word for the right. This designation was provided by Middle Iranian. Khot. *hvarandaa-* 'right side, right hand' (Bailey 1979: 504) is formed from a root *hvar-*, with the extended pres. part. act. suffix *-andaa-*. Other Iranian languages have analogous or identical formations, with the sense 'right' or 'correct, proper': Buddh. Sogd. *xw'r(')nt*, Chr. *xw'rnt* 'right (hand)'; Ormuri *xwarinca*, *xurēncↄ*, *xulencↄ* '*id.*'; Pers. *x*arand*, *x*arā* 'suitable'; Oss. Dig. *xūar*, Iron *xor* 'suitable for', employed as second element of a compound. Bailey at first identified the root of these forms with *hvar-* 'to eat' (1943: 73), but later he gave the root the meaning 'to be fit, to suit' (1979: 504). The direct link with the root 'eat' has recently been revived and justified by Canevascini (in *SVK* 3: 176-9), who relies on the conventions of Indian culture, referring in particular to Emeneau 1987 (already cited above, §2.7). The designation of the 'right (side)' in Khotanese and Sogdian is thus to be regarded as depending on that of the 'right hand' as the 'eating hand', the 'proper hand for eating'. The semantic development would be from 'eating with the right hand' to 'well, correctly, auspiciously, cleanly'. The link with the root 'to eat' would always have remained transparent.

I propose to consider the Tocharian terms for 'left' as calques on this adjective meaning 'correct, proper, fit', i.e. 'fit for eating': B **śwāl-(i)ye* (whence *śwālyai*) based on *śwāl* 'food', A *śāl-yi* (from a parallel form **śāl* < **śāwa-l*). The apparent paradox of this euphemistic designation lies in the fact that it refers to the right side in the language of origin but to the left in the borrowing language. This requires us to suppose that the Tocharians were ignorant of the taboo in Indian culture as to the contact of food with the left hand and that the crucial consideration, at the stage when these words were formed, was that the left hand should be provided with a favourable and auspicious designation. It is possible that the Tocharians preserved practices from the long period when they were not yet under Indian influence; or alternatively that they were influenced by neighbouring peoples. In the Chinese world the relationship between left and right is conceived of according to a different symbolism from the Indian one: it does not exclude alternation between directions which are regarded as correlative and complementary, although the Chinese are as right-handed as other peoples. The right was pre-eminent in ancient times, but in certain periods the left prevailed, in contact with 'barbarians', for instance from the 3rd cent. A.D. onwards, after the fall of the Han (see Demiéville 1968). Be that as it may, the solution of a Middle Iranian calque enables us to resolve a hitherto insoluble problem without introducing into Tocharian a supplementary root for the 'left'. Does the phenomenon go back to Common Tocharian? This is not impossible, although Toch. A would have renewed the formation of the term 'food' which is the base for the derivative meaning 'fit for eating', whence 'fit, proper, correct' in general. My solution consists in suggesting that Common Tocharian, in order to name the 'left', copied the term which, in a neighbouring language, meant the 'right'. The left hand is thus a sort of second right hand. This example illustrates a possible role for a neighbouring language within a cultural area: it can help to fill a 'void' in the receptor language, when its speakers feel the need to create an expressive term, in this case a word expressing the 'positive' value of the left hand.

3. Perspectives on Tocharian-Bactrian contacts

3.1. The discovery of a large number of new documents has spectacularly increased our knowledge of Bactrian, a Middle Iranian language for a long time known only from meagre material. These new sources will be important for Tocharian studies. Various Bactrian words which were borrowed by Tocharian

have already been made known by Nicholas Sims-Williams (1997: 23; 2000: 254), but we must await the full publication of the documents and the compilation of a glossary before we can evaluate precisely the contribution of Bactrian to the stock of Iranian loanwords in Tocharian.

The immediate question is: at what date did these loans take place? Were they borrowed by one of the Tocharian languages and then diffused, from Toch. A to Toch. B or vice versa? Or were they borrowed before the separation of Toch. A and Toch. B, in other words at the Common Toch. stage? It seems to me that a number of cases, including those to be discussed in the following pages, indicate a borrowing during the stage of Common Tocharian, that is, around the beginning of our era. It goes without saying that our hypotheses will need to be confirmed by further research, and that our growing knowledge of the internal evolution of Bactrian, now attested over a number of centuries, will enable us to define the stages of its phonetic and morphological evolution, thus making it possible to establish regular phonetic correspondences between Tocharian and Bactrian and to specify the periods at which they were in contact.

3.2. Among Tocharian loans from Bactrian, I would like to discuss in more detail a Common Toch. term for master or chief: A *kākmārtik*, B *kamart(t)ike* (*TEB* 2: 89, 179: 'Herrscher'). Both Toch. languages have in addition parallel abstracts derived from a base without the suffix B *-ike*, A *-ik*, namely B *kamart(t)añṣe* and A *kākmārt(t)une* 'mastery, power, command'. The presence or absence of the geminate has no particular significance. Toch. A also has the base of the abstract *kākmārt-une*, the noun *kākmart* (*Thesaurus*, 55), which Poucha translates too definitely as 'maiestas, summa potestas', following Sieg ('Herrschaft'), but which can in fact be understood as 'master, sovereign', as may be seen from the following examples:

> A 15 a 1-2 (from the *Puṇyavanta-Jātaka*) *was tṣaṃ pācri ṣñi kākropunt akāmtsuneyäntu wārpnāmāṃ mäśkitunesiṃ na(tyo)* [2] *śkaṃ poñcāṃ ypeyaṃ kākmart pällāmträ* 'We (i.e. the five princes) here are profiting from the possessions accumulated by our father and, because of the might associated with the status of a prince, in all the land we are celebrated as sovereign'; cf. 'Wir [sind] hier die von unserm Vater gesammelten Geldmittel genießend [und] werden durch die Macht des Prinzentums im ganzen Lande als Herrschaft gepriesen' (Sieg 1944: 18).
>
> A 71 b 4 *(tāṣ-äjm kākmart wlalune yäṅc*[a] *tmāṣ kᵘpāraṃ ñareyntwaṃ* '(If) death becomes their master, then they go into deep hell'; cf. '[Aber] ist der Tod ihr Herrscher (?), dann gehen sie in die tiefen Höllen' (Sieg 1952: 18).

In the same text, *kākmart lāñciṃ* (b 5) can be understood as 'the royal sovereign', which the prince does not wish to become. The noun *kākmart*, in the sense of 'master, sovereign', is also the base of the adj. *kākmartṣi* in A 71 b 3: *kākmartṣināṃ āmānyo ypantrā* 'Because of their pride of mastery, [the kings] commit (acts of cruelty)'; cf. 'In [ihrem] Herrscherstolz machen (die Könige Grausamkeit)' (with a query as to the end of the sentence, Sieg, *ibid.*). Moreover, this text uses the abstract *kākmārtune* in a distinctive way in the sentence A 71 b 3, beginning: *(ote tä)premṣ lāñcäśśi kākmārtuneṣiṃ trekeyis empelune* 'Alas, so great among kings is the cruelty of waywardness caused by power!'; cf. 'O über die Grausamkeit die Herrschaftsverblendung der Könige' (Sieg, *ibid.*). Consequently, Toch. A *kākmart* does indeed mean 'master, sovereign'.

The B equivalent of A *kākmart* could be either **kamarte* (< Common Toch. **kāmārtæ*) or **kamart*. The second solution is in fact preferable, since we would expect **kamartāñṣe* if the underlying stem ended in *-e*, cf. *ktsaitse* 'old, decrepit' : *ktsaitsāñṣe* 'old age'; *erkatte* 'hateful' : *erkattāñṣe* (*erkatñe*) 'vexation, displeasure'; *pañäkte* '(Lord) Buddha' : adj. *pañäktāñṣe* 'belonging to the Buddha'. (The abstract suffix in *-āñe* is in origin identical to the adj. suffix *-ñña* expressing belonging, cf. *TEB* 1: 146, §218.) The attested forms of our abstract are: *kamarttañṣe* (B 245 a 2), *kamarttāñṣe* (B 600 b 5, H.add. 149.91 a 3, PK AS 7K a 4), *kamartāmṣe* (H.149.41 a 3), *kamartañṣe* (B 92 b 2) and even *kamārtañṣe* (B 128 b 6), where the long vowel in the second syllable is a mistake; secondary adj. *kamarttāññeṣṣe*, PK AS 7I (=K9 Lévi) b 2. The suffix is *-āñṣe* or *-añṣe* with a linking vowel, as is expected in a form derived from a stem with final consonant; cf. *nauṣ* adv. 'before' : *nauṣañṣe* 'anterior'; *kwaṃts* 'solid' : *kwäntsañṣe* solidity'; *ṣek* adv. 'always' : *ṣekañṣe* 'permanence'. Consequently the abstract must have been formed in Toch. B on a base form **kamart*. Judging by the A form, which contains a very open vowel in the first syllable and a very closed vowel in the second, we would expect **kāmārt* in Toch. B. The form **kamart* presupposes an older B form with a final vowel which became silent prior to the formation of the abstract. In that case the native Toch. B accent, which falls on the second syllable in words of three or more syllables (and on the first syllable of words with two, cf. *WTG*, 10-12, §5; Pinault 1989: 43-4), was fixed at a time when the word still had three syllables, i.e. B **kāmārtV*, which would regularly develop to **kamártV* and ultimately, with loss of the final vowel, **kamart*.

3.3. These considerations are relevant to determining the origin of the word. In place of an improbable IE origin (Van Windekens 1976: 192-3), still defended by Adams (1999: 141), a loan from Bactrian was suggested by Schwartz (1974: 411): **kamarδa* 'head', related to Av. *kəmərəδa-* 'head (of a daēvic being)' but, like the corresponding terms in other languages (e.g. Khot. *kamala-*, cf. Bailey 1979: 52), without pejorative connotations. This hypothesis was confirmed when the new Bactrian documents provided the word καμιρδο in the sense of 'chief (god)' (Sims-Williams 1999; 2000: 197). Sims-Williams has very logically posited a suffixed form **καμιρδιγο as the source of Toch. B *kamart(t)ike* (1997: 23). A suffixed form of the same type readily explains the correlative term B *spaktanike*, A *spaktānik* 'providing service, servant' (*TEB* 2: 157, 259) from **σπαχτανιγο, a form reconstructed by Sims-Williams on the basis of the later σπαχγιιο 'obliged to serve'. Once again the base term is also attested in Tocharian: AB *spaktāṃ* 'service', for which a Bactrian origin had already been suggested by

Winter (*apud* Schwartz, *loc. cit.*; cf. also Isebaert 1980: 67-8). For these words too the idea of an IE inheritance in Tocharian (Van Windekens 1976: 436; Adams 1999: 714-15) has outlived its time.

The phonetic details of the Toch. representation of Bactrian καμιρδο remain to be considered. For the first two syllables, the Toch. equivalents *kā-* (with open /a/) for κα- and *-mär-* for *-μιρ-* are what we would expect. Bactrian *-ιρ-* (from Old Iranian **-r-*, cf. the Av. form) is represented by *-är-*, with *-ä-* from (short) *-i-* as from IE **-i-*, cf. A *wäs*, B *wase* 'poison' < Common Toch. **wäsæ* < **wiso-* (Pinault 1989: 42). As for the final *-o*, this vowel is the invariable ending of all words in later Bactrian, while older texts display a variety of vocalic timbres; final *-o* is more likely to correspond to a *shwa* than to a full vowel (cf. Sims-Williams 1989a: 348; 1989b: 234). In this particular case, the loan must go back to Common Tocharian. As I have tried to show above, B **kamart*, the base of the abstract *kamart(t)āñe*, results from **kāmārtV* (or **kāmārtə*), a trisyllabic form. The loss of the final vowel is regular in Toch. A, whence **kāmärt* (subsequently refashioned, cf. §3.5 below). This would tend to show that the Bactrian word still had three syllables at the time when it was borrowed, but that its final vowel was represented in Tocharian by a vowel of indistinct timbre which itself disappeared, but only after the separation of the two languages. At all events this vowel did not merge with the very frequent Toch. final **-æ* (> B *-e*), the normal outcome of IE endings such as **-os* and **-om*, and hence particularly characteristic of thematic inflexion.

3.4. The same phenomenon can be observed in other Toch. loans from Bactrian. Although this point has already been made by Schwartz (1974: 409-10), it is worth noting a few more examples. Another Bactrian loan suspected by Schwartz (1970: 303; 1974: 404) and now confirmed is that of Toch. AB *pärmaṅk* 'hope' (*TEB* 2: 115, 209; *Thesaurus*, 173). The source form is φρομυγγο (rather than the **φρομαγγο* reconstructed by Schwartz), which likewise means 'hope' < Old Iranian **fra-manyu-kā-*, cf. Parth. *frmnywg*, Sogd. *prmynwkh*, Chor. *šmn(y)k* (Sims-Williams 1999). Attempts at an IE etymology, in any case unconvincing (Van Windekens 1976: 364; Adams 1999: 374), must therefore be abandoned. In the first, unaccented syllable *φρο-* indicates [frə-] with a reduced vowel (Sims-Williams 1989b: 234), whence the Toch. representation by *prä-*/*pär-*, cf. AB *-tär*/*-trä* in the middle endings (*TEB* 1: 48, §13). In the second syllable, we expect the Bactrian vowel *-ι-* in a closed syllable to be represented by Toch. *-ä-*, as in the case of καμιρδο above. Thus the B form *pärmaṅk* requires an underlying trisyllabic form **pärmäṅkV*, with accent on the second syllable. As to A *pärmaṅk*, it must be a borrowing from Toch. B, in accordance with the predominant direction of loans between the two languages. If the form were inherited from Common Toch. in parallel with Toch. B *pärmaṅk*, we would expect A **pärmänk*. The opening of the vowel of the second syllable vowel is only explicable as an effect of the accent peculiar to Toch. B. Once again, we have to assume that the

Toch. word represents a Bactrian form in which the final vowel, written *-o* at the stage when it is attested, was still pronounced. In the case of *pärmaṅk*, unlike that of A **kākmärt*, B **kamart*, we cannot reconstruct a Common Toch. form from both languages, but it is likely that this loan too goes back to Common Tocharian.

It is noteworthy that the final vowel does not receive the same treatment in the case of the suffix *-ιγο*, as is exemplified by B *kamart(t)ike*, A *kākmärtik* and B *spaktanīke*, A *spaktānik*. The reasons are no doubt complex and not merely a matter of phonetics. Given that these words indicated persons, they retained the final vowel and, like words of the same kind borrowed from Indo-Aryan, they were aligned with genuine Tocharian words which continued the IE thematic type (cf. *TEB* 1: 93, §86 n. 1).

3.5. One peculiarity of the divergent Toch. A forms *kākmart* and *kākmärtik* remains to be explained. As usual, it is the Toch. B form *kamart(t)ike* which is closer to Common Tocharian. As it happens, it is also this form which most closely resembles Bactrian καμιρδο and **καμιρδιγο*. The first syllable *kāk-* of Toch. A cannot be explained from Bactrian, nor is it the result of a Toch. sound-change (a sort of spontaneous epenthesis of the voiceless dorsal stop before a labial nasal?). To account for it, we need to abandon a purely mechanical idea of borrowing according to which the forms of the source language should always be retained unchanged in the language which receives them. A borrowed word is assimilated to its adoptive language, a process which involves relating it to other words in the vocabulary. In other words, speakers like to associate words of foreign origin with words belonging to the core of their language. Given the chance, they assimilate some part of the loanword to a root or a suffix close to it in form. Gradually the borrowed word becomes indistinguishable from a 'native' word, a factor which ensures the success of the loan. Any loanword can be interpreted, indeed etymologised, in its host language. For example Toch. B *pärkā*$_u$, A *pärko* 'advantage, profit, interest' (*TEB* 2: 115, 209) could be spontaneously associated (*TochGr*, 449; Sieg and Siegling 1949: 138) with the root *pärk-* 'to rise, climb' (< IE **bhṛǵh-*, cf. *JEW*, 140; *LIV*, 63), since its semantic development appeared to men of letters to be parallel to that of Skt. *udaya-* 'success, advantage', from 'rising, reaching the goal' (*ud-i-*). In fact it is another Bactrian loanword: φρογαοο 'profit' < Old Iranian **fragāwa-*, cf. Sogd. *prγ'w*, *βrγ'w*, Parth. *frg'w* 'treasure' (Sims-Williams 1999; 2000: 230, anticipated by Schwartz 1974: 404-5). The forms of both languages arise from Common Toch. **pärkə̄wV*, still a trisyllabic form accentuated on the second syllable in Toch. B. At the stage where it is attested the word is integrated into the Toch. morphological system as an action noun, cf. the pl. B *pärkāwänta*, A *pärkowäntu*, and its foreign origin is all but effaced.

In the case of **kāmärtV*, the syllable **kā-* invited an association with a native Toch. base, that of the verb 'to call, invite', B *kwā-* in suppletion with *kāk-*, A

kāk- in suppletion with *ken-* (*TEB* 2: 96, 190; *WTG*, 243). In both languages the allomorph *kāk-* serves as the base for the formation of the subj. (B *kākatār*, inf. *kākatsi*, verbal noun *kākalñe*; A verbal noun *kāklune*), the imperative (B *pokkāka*, A *p*kakās*) and the pret. (B mid. *kakāte*, part. *kakākau*; A act. *kāk*, part. *kākku* < **kākāku* < **kākāku*). To form the pres. stem, Toch. A replaced the equivalent of B *kwā-* with an unrelated root. The allomorph *kāk-* is probably based on an extension of the root *kwā-*, namely **kwāk-*, with delabialisation of the initial. A **kā-* would in fact be the expected outcome of a Common Toch. **kwā-* equivalent to B *kwā-*. It seems therefore that the first syllable of Common Toch. **kāmārt* might have evoked the root 'to call' and that this semantic re-analysis led to the replacement of **kā-* by *kāk-*, the only allomorph of the root known to Toch. A. Even at the formal level the story does not quite end here, since the refashioned A **kākmärt* was subsequently influenced in its second syllable by Toch. B **kamart*, whence the form *kākmart* alongside *kākmärtik*, *kākmärt(t)une*.

At the semantic level, the connection between a term for 'master, chief' or 'sovereign' and a root meaning 'to call, invite, summon' can be ascribed to usage and phraseology. The action of calling or convoking people (disciples, servants, agents, monks) is characteristic of someone endowed with authority over others: a teacher, head of the house, king, prince, Buddha as head of the Community, etc. Examples abound, so I will confine myself to quoting a passage from the legend of Mahāprabhāsa: PK NS 398 a 2 *tumeṃ mahāprabhāse walo hastāṅkuśeṃ kāka weñā-neś* 'Thereupon king Mahāprabhāsa had Hastāṅkuśa [the mahout] come (and) said to him' (text previously known by the signature 'DA 1', ed. Pinault 1988a: 179). Comparison with the following passage shows that the idea is a commonplace: B 4 b 5 *eroṣ kamartiki r(amt)* 'hervorgerufen habende, (wie) Herrscher' (tr. Sieg and Siegling 1949: 9). The verb used here is *er-* (A *ar-*) 'to bring about, to call forth', which evokes the same idea. To conclude, at least in Toch. A, *kākmart* (as well as *kākmärtik*) 'master, chief' could be 'etymologised' and glossed as: 'he who has the power to summon his people'.

3.6. To conclude this section, I would like to discuss a passage which shows the term for 'chief' being used, side by side with words of various origins, in a 'multilingual' discourse typical of the Tocharian world, a world in which one language interprets another.

The following occurrence of the Toch. A form *kākmärtik* appears in a very entertaining passage from Act III of the *MSN*, where a female servant named Paṭṭinī explains to a lady how queen Māhaprajāpatī Gautamī, the aunt and adoptive mother of the Buddha, has had cotton grown and then extracted the fibres in order to obtain thread and finally to make a superb material (Toch. A *kanak*, Turkish *böz*), which she wishes to give to the Buddha. The relevant extract corresponds to the Uighur version in *MairhHami* III, 4 a 29-b 3, which runs as follows:

> 'Darauf sagte das Mädchen Paṭṭinī: Danach hat sie die Anführer der Bauern gerufen und so zu ihnen zu sprechen geruht: Dasjenige Land, das für Baumwolle geeignet ist

> und insgesamt achterlei Qualitäten aufweist, das bewässert, pflügt, beackert und bereitet, damit ich für den Göttergott Buddha Baumwolle pflanze!' (*ZusTreff*, 185).

In the fragments of the corresponding Tocharian passage, we read:

> YQ 1.23 [III.4] a 4 *paṭṭini trāṅkāṣ miṣisā kākmārtikāṃ ṣatrapai kāk weñā-ṃ* 'Paṭṭinī says: She called the overseer of the fields, the ṣetrapati, and told him ...' (Ji, Winter and Pinault 1998: 161);

> YQ 1.23 [III.4] a 5 *///k(a)knu miṣi tāṣ cam tu kāsu āneñci pleṣār* '(when) this field has become ..., then you work it well and carefully' (*ibid.*).

These two lines contain the noun *miṣi* (B *miṣe* (*miṣṣe*), pl. *miṣenta*), which means 'field' and corresponds to Skt. *ṣetra-*: here it refers to the field where the cotton is planted. The sense given by the Tocharian manual is wrong (*TEB* 2: 126: 'Gemeinde'). The word is borrowed from Khot. *māṣṣa-*, *miṣṣa-* 'field for seed' (Bailey 1979: 332-3), which corresponds to the same Sanskrit word. The meaning of the Toch. forms is established by several texts (cf. Pinault 1988b: 143, 164, where references to previous work can be found). In the first line quoted, the word appears in the perlative pl. (*miṣiṣ-ā*), the complement of the obl. (acc.) sg. *kākmärtikāṃ*. This is the normal construction used with Toch. A *kākmärtik* to express the area under someone's domination or control: cf. A 21 a 2 *ṣtwar dvipäntwā kākmärtik* 'der über die vier Kontinente herrschende' (Sieg 1944: 25); A 71 a 1 *jambudvipā kākmärtik* 'der Herrscher über Jambudvīpa' (Sieg 1952: 17); A 97 a 3 *sākāṣ riyā kākmärtik ambariṣe wāl* 'king Ambariṣa, sovereign of the city of Sāṃkāśyā'; similarly B 367 b 2 *(ka)marttika ñaktentsa* 'O master of the gods!' (literally 'over the gods'). In YQ 1.23 [III.4] a 4, the word which follows the phrase *miṣisā kākmārtikāṃ* is ultimately of Indian origin. Moreover the ending of *ṣatrapai* apparently consists of a sequence of two vowels, proving that this word is foreign to Toch. A, where the diphthongs of Common Toch. have become monophthongs, cf. A *sem*, B *ṣaim* 'refuge, protection', A *pekat*, B *paiykāte* 'he wrote', etc. (*TEB* 1: 50, §18). We must therefore read *ṣatrapaī*, in four syllables with a hiatus. The form *paī* is identifiable as a Prakrit form of Skt. *pati-* 'master' (Pischel 1900: 137, §186), cf. also *gahavaī* for *gṛhapati-* (*ibid.*, 135, §184), which represents the final stage in the evolution of intervocalic consonants in Middle Indian (see von Hinüber 1986: 93-9). The corresponding Buddhist Skt. form would be *ṣatrapati-*, with retention of the intervocalic *-t-*. The Prakrit from which the form *ṣatrapaī* derives is probably Gāndhārī, which was instrumental in the propagation of Buddhism in the Tarim basin during the Kushan period (see the bibliography in von Hinüber, *ibid.*, 33-4). Intervocalic dental stops tend to weaken completely in Gāndhārī. This form would belong to a stage significantly more recent than that of the Gāndhārī Dharmapada, where the intervocalic dentals *-t-* and *-d-* appear most often in the form *-d-*, weakened on occasion to a fricative, although there are already signs of reduction to a glide (cf. Brough 1962: 87).

3.7. The correct Sanskrit form of this compound is clearly *kṣetra-pati-* 'owner of a field, landowner, landlord, farmer' (MW, 332b). In our word one can observe the etymological confusion which occasioned the use in Buddhist Sanskrit (and doubtless elsewhere) of *kṣatra-* 'power, domination' in the sense of *kṣetra-* 'field' (*BHSD*, 198). The point of departure for this incontestable use of *kṣatra-* 'field' is a false etymology which identifies in *kṣetra-* the root of *kṣatriya-* 'man of power'. This paronomasia occurs already in the Dīghanikāya (III, 93.13), which affirms that men of the noble class are so called because they have power (*khatta-* = Skt. *kṣatra-*) over the fields (*khetta-* = Skt. *kṣetra-*). For this 'etymological' section of the Aggañña-Sutta, I may refer the reader to the studies of Schneider (1954, especially pp. 576-8) and von Simson (1988: 92-7). It is noteworthy that mutual contamination of the same two roots has occurred (independently) in Middle Iranian, where **xšaiθra-* appears as a variant of **xšaθra-* 'realm'; cf. Sims-Williams *apud* Boyce 1990: 8 and Emmerick, *SVK* 3: 45-6, on Khot. *kṣīra-* and Tumshuqese *xšera-* 'country, kingdom'. In our text, the *kṣetra-pati-* (alias *kṣatra-pai*) indicates an employee of the queen, a sort of overseer responsible for agricultural work and in charge of workers. In fact, Toch. A *miṣis-ā kākmärtik* is the literal translation of Skt. *kṣetra-pati-*, literally 'master of the fields'. The Toch. text thus contains the 'foreign' term *kṣatrapai* side by side with its gloss, though only one person is meant. Whereas *kṣatrapai* is uninflected, Toch. A *kākmärtikāṃ* is an obl. (acc.) sg. The fact that only one individual is meant is also apparent from the use of the suffixed 3 sg. pron. *-ṃ* (*TEB* 1: 162-3) after the verbal form (*weñā-ṃ* 'she said to him'). The form *kṣatrapai* could not have been 'invented' by the copyist of the text, and the adaptation of a Skt. word (*kṣetrapati-* or *kṣatrapati-*) to Toch. phonology cannot explain the form of *kṣatrapai*. The form must have been part of the source text. It follows that the Tocharian compiler found the form *kṣatrapai* in the Indian text which he was using as a model and retained it, perhaps because he considered it a technical term designating a specific function. At the same time, he prefaced it with an explanation in Tocharian: 'the master with authority over the fields, [bearing the title] *kṣatrapai*'.

3.8. In translating this text the Uighur editor committed an error. He interpreted the double designation *kākmärtikāṃ* and *kṣatrapai* as implying the presence of several employees of the queen, perhaps relying for this interpretation on the pl. *miṣis-ā* 'fields'. He left out of account the sg. pron. suffixed to the verb, a subtlety of Toch. morpho-syntax which had no Turkish equivalent. He therefore translated as if the Tocharian text mentioned 'masters of the fields'. This is in fact what we find in the Uighur text (see the translation given above, §3.6): the object of the verb *oqï-* 'to call, summon', corresponding to Toch. A *kāk-*, is in the plural, and is formulated in the following manner:

> *MaitrHami* III, 4 a 30 *tarïγ-čï todun-lar-ïγ* (*ZusTreff*, 184) 'captains in charge of the planting (or: plantings)'.

This is the literal translation. The translation given by the editors of the Hami version of the *Maitrisimit* ('die Anführer der Bauern', p. 185) is inexact, because it does not take the Toch. original into account. The form *tarïγ-čï*, derived from *tarïγ* 'Saat, Getreide' (von Gabain 1974: 367; *BT* IX/2: 120) means literally 'responsible for seed, for plantings' (for the suffix forming nouns of agent and profession, von Gabain 1974: 60, §47), but does not by itself designate an additional actor beside the 'governors'. In other words *tarïγ-čï* qualifies the *todun-lar* themselves ('Sachverständiger für die Saaten', *BT* IX/2: 120). The Uighur translator could not render the Toch. A perlative, inevitably losing the spatial notion of the complement of *kākmärtik*. From Toch. A *miṣi* he extracted the notion of 'seed' or 'grain' for planting. It is notable that later on the second occurrence of Toch. A *miṣi* (line a 5) is translated more simply as Turkish *yïr* (4 b 1) 'land' (von Gabain 1974: 386: 'Land, Erde'). As an equivalent for Toch. A *kākmärtik*, he chose a native Turkish title signifying 'chief, commander': *todun* 'headman', known also in transcription from Chinese sources on the Turks (cf. Clauson 1972: 457). The oddity of the resulting expression *tarïγ-čï todun-lar* results from the desire to stay close to the Tocharian text and to render the Toch. A *miṣisā kākmärtik* as literally as possible. The plural *todun-lar* is motivated by the Toch. A sequence *kākmärtikāṃ kṣatrapai*, which was understood to refer to several persons under the queen's command.

3.9. Reading this passage from *MSN* enlightens us on several points.

1 As in many Tocharian texts, we find in the same sentence words from various sources, in this case *miṣi*, borrowed from Khotanese; *kākmärtik*, borrowed from Bactrian; *kṣatrapai*, borrowed from Gāndhārī Prakrit. Not only are these words linked in the discourse, they can even be used to explain one another. The multiplicity of linguistic origins inevitably favours paronomasia, the interaction of multiple interpretations, a veritable high noon of wordplay.

2 The editor of the Buddhist drama, the *MSN*, had before him a text containing Prakrit forms. This work of some size (27 acts with a prologue), tracing the career of Maitreya, first as a Bodhisattva and then as a Buddha, was written after an enormous effort of compilation from diverse sources, from dramatic, narrative and doctrinal texts. The drama presents scenes of comedy, with lively dialogue, alternated with homiletic passages where Buddhist teaching is delivered in systematic and mechanical fashion. Its sources too must have been linguistically diverse. The Tocharian text contains numerous borrowings from Sanskrit, but they belong to Buddhist technical vocabulary and their presence does not imply that they were copied unchanged from the source text. Among the texts drawn upon by the 'compiler' of the *MSN*, the greater part must have been in Buddhist Sanskrit. But we must not rule out the possibility that certain texts, or at least certain parts of texts, were preserved only in Prakrit down to the time when the materials for the drafting of the *MSN* were assembled. The form *kṣatrapai* is one example among others which prove that the sources for the *MSN* were

not uniformly in pure Sanskrit: they bear witness to the persistence of Prakrit in certain types of literature, distinct from its use as an international language of commerce and administration in the region.

3 A close examination of one passage of the *MSN* has allowed us to see the Turkish translator at work. Since the decipherment of Tocharian, the colophons of the chapters of the Turkish *Maitrisimit nom bitig* have been turned to good account: they confirm that a certain Prajñārakṣita translated (*äwir-*) this work into Turkish (*türk tilinčä*) from a model in the *toxrï* language (written *twqry* or *twɣry*, see the references in *BT* IX/2: 124) and that this model had been composed (*yarat-*) in the *toxrï* language (*toxrï tilinčä*) by a Vaibhāṣika named Āryacandra, a native of the region of Agni (*Agnideśa*), on the basis of an original in an Indian language (*ānätkäk tilintin*). There are several copies of this text (see e.g. *ZusTreff*, 113, 216-17; *BT* IX/1: 61, 75, 99, 105, 112-13, 116, 177, 188, 198-9, 214, 215). In the colophons of the acts of the *MSN* the Toch. A verb *ritw-* 'to arrange, combine' (*TEB* 2: 133) corresponds to the Turkish verb *yarat-* (cf. von Gabain 1974: 383: 'bereiten, schaffen, organisieren, ausstatten, schmücken, zurechtmachen, (Text) bearbeiten'). The author of the Tocharian text is called Āryacandra in the colophons, likewise a Vaibhāṣika. The composition of the original text is thus clearly distinguished from its translation or transposition into Turkish, expressed by the verb *äwir-* (cf. *ibid*., 326: 'drehen, wenden, (einen Text) übersetzen'). The Toch. A text and the Turkish correspond precisely: they are parallel and sometimes mutually complementary. Divergencies can be attributed to differences in the linguistic structure of the two languages and to the stylistic habits characteristic of Uighur literature. However serious scholars have observed that the wording of the colophons and the general accord between the two texts do not provide decisive proof: the language which the Turks called *twqry* (or *twɣry*) might have been not Tocharian but some other intermediary language between Sanskrit and Turkish (cf. Konow 1945: 218-21; Winter 1991: 319), the most likely candidate being a Middle Iranian language. The text in Tocharian A (of which we possess fragments) would then be merely another version of the text in *twqry* (or *twɣry*), deriving independently from an Indic original.

This hypothesis cannot be ruled out *a priori*, although it arbitrarily supposes the existence of a text not documented in the manuscript sources. But the passage we have discussed contains an error by the Uighur translator which can only be explained by his interpretation of the Toch. text. It therefore answers perfectly to the criterion laid down by Winter (*loc. cit.*) for judging the dependence of the *Maitrisimit nom bitig* on a Tocharian model: 'One can easily agree to the principle that a feature of the Turkic text can be said to owe its existence to a Tocharian A antecedent if the Turkic feature can be explained through one or more features of the Tocharian A text and only through these. This principle also covers instances in which the Turkic text contains mistakes which can find their explanation only in properties of the Tocharian text.' This example, to which

others could be added, proves that the *twqry* (*twɣry*) language is indeed Toch. A, or more precisely that this is the name that the Turks gave to Toch. A. Thus Emil Sieg's reasoning, set out in his joint work with the Turkologist F. W. K. Müller (Müller and Sieg 1916), was justified. Nevertheless, although this result is confirmed by the discovery of new manuscripts and by a closer reading of the texts, it does not of itself demonstrate the validity of the name given to the language in German, 'Tocharisch' (whence English 'Tocharian' and French 'tokharien'), since the choice of this name rests on arguments independent of those to be found in the Buddhist drama about Maitreya. (For a recent survey cf. Adams 2000. The Skt.-Toch. B bilingual containing Skt. *tokharika*, on which see Pinault 2002, does not settle the question either.)

4. The effect of multiple linguistic contacts: Iranian, Sanskrit and Tocharian

4.1. As a result of the strong imprint of Indian culture on the Tocharian-speaking oases, it sometimes happens that loans from Iranian pass through a Sanskrit filter. We must therefore suppose that words originally borrowed from a Middle Iranian language may appear in the texts in an 'Indianised' form, Sanskrit being the language of culture for the monks who drafted and copied the Tocharian texts.

As an example of this phenomenon, I shall take the Toch. AB noun *kritāṃ* and its derivatives, the meaning of which has long remained uncertain. The word was known from two occurrences (A 62 b 2, A 68 a 5) in the Tocharian fragments of Berlin, together with one occurrence of an adj. *kritānik* (A 296 b 3). No translation was provided by Sieg. Only the relationship between A *kritāṃ* and the derivative *kritānik* is mentioned in connection with the suffix A *-ik* (B *-ike*), with a passing allusion to a Toch. B form *krätänike*, the equivalent of Toch. A *kritānik* (*TochGr*, 13, §22). We shall discuss below (§4.5) the text where the B form *krätänike* occurs. No translation is given by Poucha (*Thesaurus*, 92) and the term does not appear in the glossary of the Tocharian manual by Krause and Thomas. We may mention the hypothetical translation of Couvreur, perhaps inspired by an unpublished note of Sieg's: *kritāṃ* 'Wille' and *kritānik* 'willig, gefällig' (1955: 71). There is a Toch. B form identical to that of Toch. A, *kritāṃ*, a hapax attested in the perlative sg. (B 250 a 3). It is entered in the dictionary of Adams (1999, 216) with a hypothetical translation 'amusement, sport' based solely on an arbitrary interpretation as a loan from Skt. *krīḍana-* (Van Windekens 1978: 160). Isebaert (1980: 68-9) sums up the position, without choosing between an Iranian and an Indian origin. In any case these speculations were not based on a precise knowledge of the meaning of the word. All that could be said was that AB *kritāṃ* expressed a positive quality characteristic of a pious being, a Bodhisattva, as the word was associated with Toch. A *kāruṃ* 'pity, compassion' (a loan from Skt. *karuṇā-*) in A 68 a 5. But now the philological situation has altered, since the YQ manuscript of the *MSN* provides an attestation of Toch. A *akritānik*, the negative form of *kritānik*, in a passage preserved as a whole in the Old Turkish version.

4.2. The passage in question occurs in Act III of the *MSN*, in the middle of an enumeration of the peculiarly feminine vices. I first edited this fragment in 1991; it now appears with a new translation in the complete edition of 1998:

> YQ 1.44[III.3] a 1 *///(seni)k śont akritānikāñ*[a] *eṅkalsunt māskantrā* '... they are ... (without) conscience, ungrateful, [and] passionate ...' (translation of Ji, Winter and Pinault 1998: 157).

Here is the enumeration of the faults of women from the German translation:

> *MaitrHami* III, 3 a 7-13 'Ebenso sind auch die fünf Arten von Untugenden (Hend.) jeder Frau. (9f) Erstens: (Schnell) zornerfüllt und ängstlich sind sie. (10f) Zweitens: Eifersüchtig (sind sie). Drittens: **Unzuverlässig** sind sie. (11f) Viertens: **Undankbar** (Hend.) sind sie. (12f) Fünftens: **Ihre der Liebe hingegeben Herzen sind sehr stark**' (*ZusTreff*, 179).

The Turkish text numbers the faults, a feature absent from the Toch. model. In this line of the Toch. text, constituting the end of the list of faults, the final verb *māskäntrā*, 3 pl. pres. mid. of *māsk-* 'to be found in, be', is preceded by three terms in the nom. pl. f., which we can place side by side with the corresponding Old Turkish expressions (see the text in *ZusTreff*, 178):

	Toch. A	Uighur
[3rd fault]	*(seni)k śont*	*uruṅčaqsz*
[4th fault]	*akritānikāñ*	*sāwinčsz utlïsz*
[5th fault]	*eṅkalsunt*	*amranmaq köngüllāri küčlüg*

The formulation of this last fault breaks the parallelism: to render the Toch. A possessive adj. *eṅkal-su* 'possessed of [amorous] passion, passionate', the Uighur translator drafted a significant sentence: 'their senses (*köngül-lär-i*) dedicated to love (*amran-maq*) are very powerful (*küčlüg*)'. For the two preceding faults he employed adjectives with the privative suffix *-sVz* (von Gabain 1974, 66, §82).

The interpretation of the Toch. A expression *(seni)k śont* could be the subject of a long digression, but I shall limit myself to a brief outline. The corresponding Turkish form is a negative adj. from *uruṅčaq* 'pledge, guarantee' ('Depositum', von Gabain 1974: 378; 'Pfand', *BT* IX/2: 34). The expression as a whole means 'without guarantee, untrustworthy', more exactly 'to whom nothing can be entrusted (in pledge or in trust)'. Toch. AB *senik* is borrowed from a Middle Iranian word, something like **zēnik* (< **zaini-kā-*), cf. Khot. *ysīnīta (ysīnīya, ysīnīyä, ysīnī)* 'entrusted', Sogd. *zynyh* 'deposit', Kroraina Prakrit *jheniga-, jheniya-* 'under the care of' (cf. Bailey 1979: 351, with the decisive details supplied by Skjærvø 1991). Toch. B uses the idiom *senik wärp-* (B 220 a 1) in the sense 'to take in charge, into one's keeping'. It seems that the expression A *senik śo*, B *senik śawa* (B 534 a 3), with an agent noun of the verb 'to eat' *śu-/śwā-*, perhaps in a compound, expresses the exact opposite, the act of failing to keep what is deposited with one in trust. K. T. Schmidt (1996: 277) recognised here the verb 'to eat' and compared an expression attested in Middle Iranian, cf. Sogd. *zynyh-xw'ry*, Pth. *zyn'yy xw'rg*. But he omits to mention that in my first edition of the fragment YQ 1.44 I had already restored Toch. A *(seni)k-śont* and equated it with Turkish *uruṅčaq-sz* 'unzuverlässig' (according to Schmidt 'treulos', which makes no great difference); see my commentary (1991: 169). He further fails to inform his colleagues that I had identified this particular Toch. text and discussed it in detail in parallel with the Uighur text. As for the Middle Iranian idiom mentioned by Henning (1946: 716), it would literally mean 'he who eats what is entrusted to him', whence 'truce-breaker'. This expression is probably a borrowing in Tocharian. It is tempting to see it as the outcome of an old Mesopotamian juridical formula, 'to eat an oath' meaning 'to break an engagement' (see Charpin 1996), transmitted somehow to the Iranian speaking world.

To return to our text, the next Turkish expression (*MaitrHami* III, 3 a 11) *sāwinčsz utlïsz* consists of two synonyms, negative adjectives from *sāwinč* 'Dank' and *utlï* 'Dank, Dankbarkeit' respectively (von Gabain 1974: 362, 378). Consequently the Toch. A adj. *akritānik*, which this expression translates, means 'without gratitude, without acknowledgement' and the underlying noun *kritāṃ* means 'gratitude, acknowledgement'.

4.3. This meaning can be applied without difficulty to all the passages so far recorded:

> A 68 a 5 *kāruṃ kritānyo* (beginning of an incomplete sentence) 'with compassion [and] gratitude';
>
> A 62 b 2 *(kusne) pikträ märkampal kritāṃ yaṣ säm ptāñäktes* 'He who writes the Law shows (literally: makes) his gratitude to the Lord Buddha' (cf. the translation of Schmidt 1974: 456, who follows Couvreur's interpretation of *kritāṃ* as 'will', itself tacitly based on an unpublished note of Sieg's, see §4.1 above: '(Wer) das Gesetz [auf]schreibt, der tut [nach] dem Willen des Buddha');
>
> B 250 a 3 (beginning of a *pāda*) *ce„ kritāntsa ñake ṣṣe(k) kārstā snai(-yärm läklenta)* 'By this gratitude, henceforth, he has destroyed forever (innumerable sorrows?)'. The restoration of the end is uncertain, but the action described is that of a Buddha or a Bodhisattva.

The positive adj. Toch. A *kritānik* appears in a mutilated passage, but the general context is clear enough from the Uighur version. The passage comes from Act XIII of the *MSN*:

> A 296 b 3 *///riyāṣ lanturāṣ kritānikāṃ pā(ltsäkyo)* 'after having left the town, with a grateful thought' (or: 'full of gratitude').

This fragment occurs at the point where the Bodhisattva Maitreya leaves the town of Ketumatī. He hears a compliment addressed to him by the guardian deity of the town. The latter gives him as a *viaticum* a silver bowl full of milk. After passing the gates, Maitreya addresses appropriate words of thanks to the inhabitants, divine and human, of Ketumatī (*MaitrHami* XIII, 8 b 25ff.). The Hami

version of the Turkish text is mutilated at just this point (end of folio 8 verso, cf. the translation of Geng, Klimkeit and Laut 1991: 290) but the course of the action is clear enough (see also Pinault 1993: 139). 'Gratitude' is exactly what one would expect to be in the Bodhisattva's thoughts at this moment.

4.4. For the sake of completeness, we may note that the pairing *kāruṃ kritāṃ* 'compassion [and] gratitude' attested in A 68 a 5 is also known from an additional passage, thanks to the Yanqi manuscript of the *MSN*:

> YQ 1.2[II.1] b 3 *säm tänne-wkänyo kāruṃ kritāṃ tsraṣṣune wärṣṣältsuneyo kaknu wrasomṣi wā(kām)* 'this so excellent being, provided with mercy, gratitude, energy and strength' (modification of the translation proposed in 1998: 69); cf. *MaitrHami* II, 1 b 17 ff.: *antaγ* [18] *türlüg alp ärdämlig qanamlay yuräklig* [19] *bäk qatay köngül(l)üg tïnlay bolur* 'daß es ein derartiges, heldenhaftes, furchtloses (Hend.), tapferes (wrtl.: mit festem Herzen versehenes) Wesen geben wird' (*ZusTreff*, 116-17); *MaitrTurfan*, Taf. 9, v. 16-18: 'daß es (einmal in der Zukunft) ein derartiges sehr tugendhaftes, mit einem befriedigten Herzen und mit einem festen Sinn versehenes Lebewesen geben werde' (*BT* IX/1: 46).

The four qualities ascribed to Maitreya in the Toch. text are grouped into two pairs, in accordance with a well-known rhetorical principle (cf. Thomas 1972). The pair *kāruṃ + kritāṃ* is followed by the pair *tsraṣṣune + wärṣṣältsune*, which both convey the notion of energy and courage, cf. the corresponding adjectival pair *tsraṣi wärṣälts* in A 16 b 4, both translated by 'energisch' (*TEB* 2: 141, 160). It is this second pair that receives more attention in the Uighur version, which does not attempt a word-for-word rendering of each single term in the Toch. text. In fact, as each pair of synonyms can be understood as a single concept, the translator felt free to render it more or less concisely or amply. As it happens, the first pair, expressing moral virtues concerned with personal relations, is rendered by Turkish *alp ärdäm-lig* 'possessed of the virtue of a hero', with *alp* 'hero, heroic' (*UigWb*, 105-7) and the possessive adj. derived from *ärdäm* 'Tugend, Vortrefflichkeit' (*BT* IX/2: 25, a meaning recorded in *UigWb*, 416, but not attributed to this passage: 'mit tugendhaftem Verhalten (aufgrund von früheren guten Taten), mit Tugend, mit (religiösem) Verdienst'). As we see, the translation of the *MSN* given by the *Maitrisimit nom bitig* is not consistently literal. This passage would not have enabled us to identify the exact meaning of Toch. A *kritāṃ* via its Old Turkish equivalent.

4.5. Toch. B possesses the exact equivalent of A *kritānik*, namely *krätanïke*, a form cited by various authorities but found in a text not yet published according to current norms. The text in question was the very first Tocharian text to become known: two folios acquired by N. F. Petrovskij, the Russian consul at Kashgar, and made public by Sergej F. Ol'denburg in 1892. The only full transliteration of these two folios is that of E. Leumann (1900, esp. pp. 16-17), which predates the decipherment of Tocharian and is now obsolete, even though Leumann identified

the metric character of the text and the words borrowed from Sanskrit. A transcription (partly inexact) of the first folio appears in *TEB* 2: 58-9, text XX.3. Thanks to the kindness of Margarita Vorob'éva-Desjatovskaja, I had an opportunity to consult the original manuscripts in February 1998, in the institute where they are kept as part of the Petrovskij Collection (St Petersburg Branch of the Institute of Oriental Studies of the Russian Academy of Sciences) and to prepare an edition of the text, a *Buddhastotra* ('Praise of the Buddha'). The two folios are currently numbered SI P/1 and SI P/2. I give here a transcription of the line that concerns us, which contains the last *pāda* of strophe 72 (21 syllables, rhythm 8/7/6) preceded by the last word of the previous *pāda*:

> SI P/2 a 4 *alältte • añmälaṣke tänwañneñca krätanïke twek nest auspa pontaṃts ṣañ śaumo* 'You are indeed indefatigable, compassionate, loving, devoted, assuredly a companion for all [beings]'.

Pāda 72e is quoted by Couvreur (1948: 567) and translated in the following way: 'Gij toch zijt voorwaar medelijdend, minnend, welwillend, aller verwante'. The same interpretation ('well-disposed, obliging') is echoed in his German translation 'Gefälliger' (1947: 345). It is not impossible in the context, but it is not based on any evidence.

The *Buddhastotra* from which these two successive folios survive contains many passages inspired by a very celebrated collection of praises, the *Varṇārhavarṇastotra* of Mātṛceṭa (4th century A.D. at the latest). One rarely finds literal translations of strophes of the *VAV*, but rather translations or paraphrases of *pādas* reassembled to make new strophes. Our strophe condenses the content of strophes 24 to 27 of Chapter VIII. Here it is enough to quote the two strophes which furnish the material for our passage (with the German translation of Hartmann 1987: 248):

> *mahākāruṇikaḥ śāstā dayāvān anukampakaḥ /*
> *tatparaś cākilāsī ca kas tvayāsti samo 'paraḥ //*
> 'der Lehrer, der das große Mitleid besitzt, mitfühlend, barmherzig, hingegeben und unermüdlich; welcher andere ist dir gleich?' (VIII.26);
>
> *nāthas tvaṃ sarvasatvānāṃ sāmānyo bhadrabāndhavaḥ /*
> *nopaiti nāthavattāṃ tu janas tenāvasīdati //*
> 'Beschützer bist du aller Wesen, ein (allen) gemeinsamer guter Freund; nicht aber begibt sich die Masse in die Zustand des Beschütztseins (und) deshalb sinkt sie herab' (VIII.27).

Clearly the content of *VAV* VIII.27ab is condensed into B *twek nest auspa pontaṃts ṣañ śaumo*, with *ponta* rendering Skt. *sarva-* and *ṣañ śaumo* 'relation, ally' (lit. 'man belonging to one's own group', from the reflexive stem) rendering Skt. *sāmānyo bhadrabāndhavaḥ*. In the preceding strophe, the epithets of the Buddha are apportioned differently: *alältte* 'indefatigable' translates Skt. *akilāsī*

(26c), perhaps qualifying a term for 'instructor' (Skt. *śāstā*, 26a). Consequently the three other adjectives (26b-c) should correspond one to one:

1 Skt. *dayāvān* 'compassionate, charitable' (cf. 'pitiful, taking pity on', MW, 470a): Toch. B *añmālaṣke* ('mitleidig', *TEB* 2: 162);

2 Skt. *anukampakaḥ* 'possessed of compassion' (cf. 'sympathising with, compassionating', MW, 31a): Toch. B *tänwañññeñca*, pres. part. act. of *tänkwañn-* 'to love' (*TEB* 2: 197);

3 Skt. *tatparaḥ* 'devoted, willing' (cf. 'totally devoted or addicted to, attending closely to', etc., MW, 433a): Toch. B *krätanīke*.

This passage allows us to define the meaning of Toch. B *krätanīke* more closely: it refers to the notion of 'service', of 'devotion' to a goal, which in a Buddhist context consists in the search for the salvation of the world and the happiness of beings. From a basic meaning 'devoted to the service (of others, of the world)' there could arise a sense of 'devoted to performing a service (in exchange for a service rendered)' and so 'thankful, full of gratitude'.

4.6. There is a slight difference of form between Toch. A *kritānik* and B *krätanīke*, over and above the normal interchange of the suffixes A *-ik* and B *-īke* and the different accentuation. The form *krä-* of the first syllable in Toch. B tends to associate the word with the root *kr-* 'to do', which would normally be written thus in the zero grade, and in particular with a Skt. loanword meaning 'grateful', namely *kṛtajña-*, lit. 'who acknowledges the [kindly] act done [by another]' (MW, 302a; *SWTF* 2: 115). This word was borrowed by Tocharian, where it retains a form fairly close to the Skt. original: B *krätaṃe* (B 555.5), *krätaññe* (B 600 b 4). The negative form *akṛtajña-* is attested as *akrätajñe* (B 255 a 3) and *akrätatñe* (B 230 b 2). A secondary derivative is also known, *krätäjñeṣṣe* (H: 149.240b 1), which must mean 'connected to the Grateful One', i.e. the Buddha: *Kṛtajña-* is also the name of one of the earlier incarnations of Śākyamuni (*BHSD*, 190). The adjectives *kṛtajña-* and *akṛtajña-* belong to the standard Buddhist vocabulary, cf. Pāli *kataññu* 'acknowledging past services, grateful, mindful' and *akataññu* 'ungrateful' (*CPD* 3: 93 and 1: 3 respectively). Śaurasenī, one of the stage Prakrits, attests the form *akitañña* in a drama of Aśvaghoṣa (cf. Lüders 1911: 48 and fragment 30, a 2, p. 79). The semantic proximity and the apparent connection with the root 'to do' inevitably tended to bring together Toch. AB *kritāṃ* (with its derived adjective) and Skt. *kṛtajña-*. The writing of B *krätanīke*, instead of **kritānike*, corresponding to A *kritānik*, bears witness to the influence of *krätajñe* or *krätaññe*, the representation of Skt. *kṛtajña-*. This calque effect can also be seen in A *akritānik*, with the Skt. privative prefix *a-* as in Toch. B *akrätajñe*, the representation of Skt. *akṛtajña-*. The spelling *kri-* corresponds to the actual pronunciation of Skt. /kṛ-/, whereas *krä-* is a scholarly writing indicative of the etymology attributed to this word by the compilers and copyists of the Tocharian texts.

4.7. This similarity and the connections thus established should not however be taken as a basis for equating Toch. AB *kritāṃ* with Skt. *kṛtajña-*. In view of the popularity of the suffix B *-ike*, A *-ik* (no doubt of Iranian origin), one could envisage a scenario whereby a Prakrit form of *kṛtajña-* might have been extended with the suffix to give **kritaññike* 'grateful'. On the model of pairs such as B *karuṇīke* (A *kāruṇik*) 'sympathetic' : *karuṃ* (A *kāruṃ*) 'compassion'; *spaktanīke* (A *spaktānik*) 'servant' : AB *spaktāṃ* 'service' etc., a noun **kritañ* 'gratitude' could have been back-formed from **kritaññike*. To reach *kritāṃ*, we would then need to posit a depalatalisation of the final nasal and a change of quality in the vowel of the second syllable. The second point could perhaps be obtained by special pleading. For the first point, there is no adequate analogy. Toch. B readily admits *-ñ* as absolute final. In Toch. A, depalatalisation after loss of the Common Toch. final vowel is indeed possible, but the phenomenon is accompanied by *-i-*affection of the preceding syllable: cf. for example Toch. A *oṅkälmeṃ* (*TEB* 1: 147, §219.1) with final *-eṃ* < **-aiṃ* < **-aiñ* < **-añmæ*, the equivalent of B *oṅkolmaññe* 'belonging to an elephant' (*oṅkolmo*). A hypothetical Common Toch. **kritañiñV* should therefore result in Toch. A **kritemṃ*.

In a variant of the same scenario, might not **kritañiñike* result in **kritanike* or **kritānike*, a form from which *kritāṃ* might have been derived directly? Impossible: there is no 'spontaneous' depalatalisation within the word. Above all we must not forget that the opposition between palatalised consonant and corresponding non-palatalised consonant is phonological in both Tocharian languages. If a form such as **kritañiñike* had existed, there would be nothing to prevent its survival. It would even have been supported by the existence of forms such as *krätaññe*, no doubt pronounced *kritaññe*.

4.8. The development sketched above is too complicated, and supposes too many unattested if perfectly acceptable intermediate forms. Moreover it runs into definite phonological problems. The only Skt. form from which Toch. AB *kritāṃ* could be derived directly would be *kṛtāni*, the neuter pl. of the verbal adj. *kṛta-* 'done, accomplished': there would be no formal problem, but the meaning would remain unexplained. Another point is worth mentioning. The distribution of the form AB *kritāṃ* and its derivatives on the one hand and B *krätajñe* and related forms on the other is quite clear. In Toch. B all occurrences of *krätajñe*, *akrätajñe* and their variants belong to manuscripts originating in the Kucha region to the west of the Tocharian area: they show the so-called 'Ming-öi Qyzyl' characteristics ('MQ-Schreibungen', cf. *WTG*, 1-4; *TEB* 1: 48, §14). Conversely, the only occurrence of Toch. B *krätanīke* belongs to a manuscript whose provenance is unknown, but which shows no form of the MQ type and can certainly be regarded as a production of the centre or east of the Tocharian area. Manuscripts in Toch. A invariably come from these two zones. The Toch. A form *akritānikāñ*[a] belongs to the Yanqi (= Agni) manuscript, found near the site of Šorčuq, whence comes also fragment A 296, in which the form *kritānikāṃ* appears. Without

attempting to fit this distribution into the hypothetical arrangement of the internal dialectology of Toch. B, to which Winter has devoted several works (see in particular 1984: 91-116), I am inclined to regard it as something more than fortuitous. I would attempt to put my impressions thus: B *krätanīke* belongs to the same literary 'school' and the same regional tradition as A *kritānik*. It is a 'hieratic', scholarly form, just like the AB noun *kritāṃ*, which is very rare in Toch. B as a whole but seems to be normal in Toch. A. By way of contrast, the B type *krätajñe* seems fully alive: occurrences are numerous and the form has even influenced the expected B form **kritānike* (or **kritanīke*). To express virtually the same idea, one literary school would have chosen the Skt. loanword *krätajñe*, whereas the other retained *krätanīke*, which was a trifle more obscure despite the fact (resulting from analogy) that the two first syllables were identical. It is clear that Toch. AB *kritāṃ* and A *kritānik*, B **kritānike* were subject to 'erudite' etymological efforts by Tocharian literati, who were necessarily familiar with Sanskrit.

4.9. There remains only one solution: to suppose that this etymological effort was applied to a form which was not originally Sanskrit. We have seen that Toch. AB *kritāṃ* cannot derive from any plausible Skt. form. If we entertain the hypothesis of a Middle Iranian loan, the candidates are numerous. The root 'to do' has derivatives which formally would more or less fit, but which refer simply to 'action' in general, e.g. Parth. *kyrʾn* 'to do'. Sogdian offers a possible source for a form /kṛtān/, but **krtʾnʾ* is not attested as an independent word but only in the compound *ʾkrtʾnkʾyy* 'sinner, evildoer' (Gharib 1995: 31, No. 811). The independent form is *ʾkrtʾnyh* < **kṛtāniyā-* (No. 812), which also means 'sin, evil deed' (cf. Latin *facinus*). This negative sense does not favour Sogdian as a source for Toch. AB *kritāṃ*. For both form and meaning, the best candidate seems to be Bactrian κιρδανο (obl. κιρδανε in the Rabatak inscription, line 9), which Sims-Williams hypothetically interprets as 'service', cf. MP *kerdagān* 'service (of the gods)' < **kṛtakāna-*, at the same time associating it formally with Sogd. *krtʾnyh* '(evil) deed, sin' < **kṛtāniyā-* (Sims-Williams and Cribb 1996: 84, 92). The primary meaning of the Bactrian derivative would be the exact opposite, '[good] action'. It is true that the sentence containing this word as object of the verb οοηλ- 'to conduct, to lead' (< **wādaya-*) is not perfectly clear (see *ibid.*, 85, and the translation, p. 79). At all events it occurs in the context of a religious service directed towards the gods. The sense 'service', admittedly hypothetical, would particularly suit Toch. AB *kritāṃ*, which would also refer to a 'service' undertaken for the sake of another, whence 'service (in acknowledgement of a boon received)' and finally 'thanksgiving, manifestation of gratitude'.

4.10. At the phonetic level, Bactrian κιρδανο would have been transposed into Common Toch. **kärtän*, if we apply the same phonetic scheme already seen with other words, e.g. καμιρδο > Common Toch. **kämärt*, the base of B *kamart(t)ike* etc. (see §3.3 above). By dint of the commonplace alternation *Cräi*/*Cär*, this form would have been reshaped into **krätän* and equated already with the Indo-Aryan root 'to do', both for the form and for the meaning. The fixing of the form as *kritāṃ* would result from the influence of /krita-/, the current pronunciation of the Skt. verbal adj. *kṛta-*. For learned Tocharians the scholarly language was Sanskrit. The tendency was therefore irresistible to interpret words in an Indian way.

In order to account for the Common Toch. adj. **kritānike* (< **krätänike*), it is not absolutely necessary to suppose the parallel loan of a Bactrian **κιρδανιγο*. The Common Toch. suffix **-īkæ* (> B *-ike*, A *-ik*), doubtless of Bactrian origin (cf. *-ιγο*), was already present in other adjectives such as Toch. B *karuṇīke*, etc.: the association between *kāruṃ* (B *karuṃ* < Skt. *karuṇā-*) and *kritāṃ*, retained in Toch. A, would have sufficed to ensure the employment of this suffix to form a parallel adj. from the noun *kritāṃ*.

In conclusion, the history of Toch. AB *kritāṃ* may serve to illustrate the persistence of the *interpretatio indica* in the treatment of loans from Iranian. In this case, a Bactrian word was integrated into the literary language of Tocharian Buddhism by means of a Sanskritic etymological analysis. If my hypothesis is plausible, and if it is confirmed by other analogous examples, it would indicate that there was a 'Bactrian phase' in the development of the Tocharian literary vocabulary. Such a phenomenon would in fact be in keeping with the historical data, indicating as they do several centuries of sustained contacts between the Kushan empire and the populations of the Tarim basin, including the speakers of Tocharian.

ANNEX: WORKS BY SIR HAROLD W. BAILEY (1899-1996) RELEVANT TO TOCHARIAN

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'Dvārā matīnām', *BSOAS*, 20, 1957: 41-59.
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ZusTreff = Geng and Klimkeit 1988.

Additional note. The written text of this paper, submitted in July 2000, does not contain significant changes of doctrine as compared with the version presented orally in December 1999. During the past years, I have often discussed aspects of the contacts between Bactrian and Tocharian. For instance, I first expressed the idea that Toch. A *kākmärtik* was influenced by the root *kāk-* (§3.5) in the discussion following a lecture by Nicholas Sims-Williams at the Collège de France in April 1999. Immediately after the publication of the Rabatak inscription, I explained Toch. AB *kritāṃ* as a loanword from Bactrian *κιρδανο (§4.9), a hypothesis which I brought to the attention of X. Tremblay in March 1997. It is regrettable that in Tremblay 2001: 25 this result is inaccurately quoted and wrongly attributed to K. T. Schmidt.

Professor Sir Harold Bailey: An appreciation*

ILYA GERSHEVITCH

ON 16 DECEMBER 1989 some thirty colleagues and friends assembled at Sir Harold's, invited by him to the tea-party which for many years it has been his custom to give on his birthday. Born in 1899, H. W. Bailey likes to say that he is as old as the century. Since 1981 the birthday celebrations have been held in a large villa in Cambridge, called 'Brooklands House', which will ultimately become the property of the Ancient India and Iran Trust founded in 1979.

Before Brooklands House became available for Sir Harold to reside in, thirteen of his birthday parties were given by him in one or another of the social rooms of Queens' College, Cambridge. This was in the thirteen years in which he, a lifelong bachelor, was living in a flat so full of books and work-files that he could not have seated more than three guests at any one time. To the flat, in a building situated in grounds of its own called 'Southacre', Bailey had moved with his belongings from Queens' College in 1968, upon the expiry of his tenure of the Cambridge University Chair of Sanskrit. By then he had lived for thirty-one years inside the College itself, in a residential set of rooms, a Fellow of the College since 1937, who in addition became in 1968 an honorary Fellow. In the flat Bailey's scholarly output was as vigorous as it had been in College, witness the appearance in 1979 of his massive *Dictionary of Khotan Saka*. After he left the flat for Brooklands House his output continued no less vigorously, witness, apart from additional writings on Khotanese and Central Asian matters, his long-awaited edition of the *Bundahišn*. To Bailey's life-style, however, the change from residence in College to dwelling in the flat gave a new dimension, which the subsequent move to Brooklands House has but enhanced. This new dimension, an outdoor variant of his indoor production of fruits of research, is the floricultural.

Like most Cambridge colleges, Queens' employs a garden staff to cultivate the extensive grounds in which its buildings stand. It was Bailey who until 1968

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was the Garden Steward, the Fellow in charge of liaison between the College's Governing Body and the Head Gardener. He would tell the latter what the Governing Body wished him to do, and discuss with him flowers and plants. For his part the Head Gardener allowed him to pick interesting specimens, but he would never hear of letting a professor touch a spade.

No such restriction was imposed on the professor in Southacre, even though its grounds, too, are kept in trim by gardeners. Here Bailey was allowed to grow his own flowers, in a border about 65 metres long, and to plant daffodils beyond the main lawn. He did both on the massive scale familiar to readers of his articles and books. Within a few autumn mornings he had planted beyond the lawn 4000 daffodil bulbs, from which in spring there emerged a vast spread of exhilarating yellow blooms. The long border, on the other hand, engaged him in gardening during part of most days of the year, packed as he kept it with an astonishing variety of flowers of different hues and properties. Always willing to give visitors the benefit of his immense range of learning, he would not only lavish on them in the flat information and suggestions on problems of history, language and texts, but also entertain them alongside the border with the names of dozens of botanical species, describing for each the treatment it required from him. Since moving to Brooklands House, Bailey has had in its garden an even larger area at his disposal in which to raise flowers and plants to his heart's content.

Topographically Southacre and Brooklands House each stand at about one mile from Queens' College. Hence every meal which since 1968 Bailey has taken in College, provided a welcome reason for walking two miles. In the twenty-two years the daily miles were four much more often than two, but the completion of age ninety has tended to leave him content with two miles on alternate days. The main incentive to frequently calling at the College is in any case not the consumption of meals, but the collection of mail arriving there for him from all parts of the world, and the contact he thus maintains with College life. Bailey's eating habits have always been moderate. A lifelong vegetarian, as well as a teetotaller, he in fact prefers to the elaborate College cuisine the simple meals he himself prepares in the kitchen of Brooklands House.

Of that kitchen Bailey was at first the only user. Since 1985, however, he has been sharing it with another Trustee, Dr Jan van Lohuizen, who joined him from Amsterdam after the sadly premature death of his wife, Professor Johanna van Lohuizen-de Leeuw, who also was a Trustee. The two gentlemen occupy each his own private rooms in Brooklands House. The other two Trustees have a study inside the House, but no private rooms are required by them. They are the archaeologists Raymond and Bridget Allchin, husband and wife, who live in their own house in a village near Cambridge.

This internal arrangement leaves free six rooms of Brooklands House for accommodation of the library. The van Lohuizen books on Indian art and archaeology fill one room, Professor Bailey's books the five other. The second largest of the five is Sir Harold's own study, while the largest, where visitors are

received, can be used also for occasional lectures. With extra chairs brought in, the room will hold a seated audience of thirty people. Both last year and the year before Iranological one-day seminars were held in it, convened by Sir Harold.

Bailey's aim in joining the Ancient India and Iran Trust was to secure a permanent home for his books, where they would serve no longer only himself as they had done in Southacre and in Queens' College, but also other scholars both during and after his lifetime. His is a library that eminently deserves preservation, since for the continuation of research on the lines evolved by him there is not to be found in the British Isles a compact study space more thoughtfully equipped. In an essay intended to give admirers of Bailey's work who have never met him an idea of his personality, in preference to repeating from *Who's Who* the book-titles and honours listed under his name, a general outline of the contents of his library may not be thought out of place.

Dating back longest is the acquisition of Iranological books and articles. These Bailey began to assemble when in 1929 he became at the London School of Oriental Studies (SOS, not yet SOAS) the first holder of its Lectureship in Iranian Studies. At that time the post, funded by the Parsee community of Bombay, was new to British university life, and it was to Professor Ralph Turner that the task fell of finding and appointing a suitable post-holder. In the seven years of his London career Bailey devoted himself at first to progress in the understanding of Zoroastrian Pahlavi texts, a field of studies which in England had fallen into neglect after the death of E. W. West. But when in the year 1934 Bailey learned that Sten Konow did not intend to publish any more Khotanese manuscripts, it was to Khotanese that he decided to turn his full attention. This switch of concentration from the westernmost Middle Iranian sources, with their Old Iranian background, to the easternmost sources with their very different cultural and historical ambience, brought with it a large expansion of his library. Inclusion became urgent of the steadily growing literature on the many peoples of pre-Islamic Central Asia, their languages and writings, their history and their religions, in particular the Buddhist religion which pervades the bulk of extant Khotanese literature. Sources began to enter the library written not only in Iranian and Indian languages, and in 'Tokharian', but also in Chinese, Tibetan and Turkish.

The need to pursue the complexities of Indian Buddhism soon found itself included in the challenge presented to Bailey by his election in 1936 to the Cambridge Chair of Sanskrit. Inevitably the passing of his teaching responsibilities from Iranian to Indian studies brought about an influx of Indological books also non-Buddhist, far exceeding in number and range the equipment that most Iranianists are in need of. The fresh Indological intake, however, was never allowed to impinge on the growth of Bailey's Iranological holdings, so that by now there can be few private libraries in existence that in both these vast fields provide so comprehensive a coverage.

If the Irano-Indian holdings are impressive, so is the library's equipment in respect of Indo-European language groups other than the Indo-Iranian. To scan at

frequent intervals their vocabulary helps, as Bailey has shown often enough in his writings, to identify possible candidates for Indo-European etymology from among the constantly growing number of Middle Iranian words reaching our ken. Bailey's library greatly encourages such scanning, there being no Indo-European language group for the study of which he has not acquired, and does not go on acquiring the necessary publications. These are by no means exclusively philological. Of no Indo-European branch has he neglected the literature, least of all any literature epic. Indeed where epic is concerned, this being his favourite genre, manifestations of it are to be found in his library couched also in non-Indo-European languages.

Richest among the ancillary Indo-European sections is the classical, both in texts and in philological works, with due attention paid also to Mycenean. Corresponding to the Homeric literature in the classical section, the Celtic section harbours many works on the Arthurian legends. Of Armenian books Bailey owns a choice collection, which includes several manuscripts. He reads the language fluently, and enjoys its being the largest single repository of Iranian loanwords. Of these quite a number were identified for the first time by him.

Although all the ancillary Indo-European sections are well-stocked, the 'Tokharian' comes nearest to self-sufficiency. On its shelves stand all or most of the publications which Bailey discussed in his important survey of 1948, no sequel to which he did not thereafter receive in homage or buy. The ancient Indo-European languages of Anatolia are also well-represented in Bailey's library, as he has always kept a keen eye on progress in their exploration. Yet still it is of 'Tokharian' problems, with so many of their threads passing through his hands as part of his involvement in Central Asian sources, that his pioneering grasp comes closest to that which he has of problems Indo-Iranian.

With all this it would not be adequate to describe Bailey's library simply as an Indo-European collection of which more than one half pertains to Indo-Iranian studies, because in addition there are represented in it a considerable number of languages that are not Indo-European. To the books already mentioned in Chinese, Tibetan and Turkish must be added those written in Semitic languages, Aramaic and Arabic for instance, in which sources are couched of importance to Old and Middle Iranian studies, as well as many books written in Georgian and other Caucasian languages.

Sir Harold learned Georgian for the pleasure of reading Rustaveli in the original. But all Caucasian languages appeal to him, on account of their remarkable structure, and as a hunting ground for Iranian loanwords. In some of them, moreover, the Nart epic has survived with details that interestingly differ from the Ossetic version. Epic, as said above, is Bailey's favourite genre, and his favourite among epics is probably the Nart Saga, since only of it has he committed to print a major study. Of it, too, it is to him that scholarship owes a convincing Iranian etymology of the collective name, *Nart*, of the heroes, by which one may regard it as settled that the origin of the saga lies in Iranian inventiveness.

Thus Bailey's interest in the Caucasus, apart from the linguistic appeal, falls in place within his pursuit of the cultural background of the Ossetes, a Scythian background, which it is reasonable to think the Saka ancestors of the Khotanese may to some extent have shared. Not surprisingly, therefore, the library comprises a great deal of what has been written about Scythians, Sarmatians and Alans. This includes writings in Hungarian, which language, like most of the present-day languages of Europe, Bailey reads with ease.

From the above outline Bailey's library will be seen to be in language contents both Orientalist and Indo-Europeanist. To me an appropriate collective term for it would seem to be 'Eurasian', in a sense widely embracing cultural manifestations in and across both continents, even though of course not in a manner territorially all-inclusive. Applied to Bailey's library the term cuts conveniently across linguistic definitions for the purpose of covering also the non-linguistic contents of many of the books, relating to history, geography, ethnology, religion, art and folklore.

Admittedly some of the libraries attached to major university centres or academic institutions may justly claim to cover 'Eurasia' more fully. What nevertheless renders remarkable Bailey's holdings when compared even with theirs, is that the whole of his library represents the informed interest of one single scholar, who personally chose, or received by way of compliment to his expertise, every book and article to be found on its shelves, has read or at least carefully inspected every one of them, knows what he has and finds it without the help of a catalogue. The compilation of a catalogue began only recently, to meet a need not of his, but of other users of the library. Therefore just as much as the printed contents of the library—beside which its owner has in any case consulted elsewhere, and made countless notes from, many works that are not in his possession—my use of the term 'Eurasian' envisages the immense erudition of Bailey himself, which in the wide circle of those who know him personally, has long earned him the nickname of a 'walking encyclopaedia'.

His possession of immense knowledge bears witness to unusual mnemonic retention, a gift of nature. His acquisition, on the other hand, of what he mnemonically retains, has been from boyhood a matter of relentless personal input through reading and rehearsing, which in due course came to alternate with a regular output of innovative writings for others to read and rehearse. Because the output is massive, the input was necessarily much more so. What then is it that motivated an input that has proved so productive, and after so many decades still continues unabated?

The motive of input was defined as 'curiosity' by Arnold Toynbee, who in *A Study of History* devoted nearly two pages (vol. X, 16 sq.) to Bailey's rise from 'an unpromising environment' to the pinnacle of philological renown. Toynbee believed that 'curiosity' had been the inspiration also of some other famous scholars, including himself, whose outstanding achievement in later life was in branches of knowledge remote from the surroundings in which they grew up.

There must indeed have been plenty of curiosity in the boy Harold as he read right through the eleven books presently to be mentioned. But this does not adequately explain why at age sixty the same Harold was knighted in recognition of the impact he was making on Irano-Indian studies and thus became 'Sir Harold'. Since the boy's curiosity happened to have as playground an encyclopaedia, the latter will soon have acquainted him with the existence not only of language study, but of the whole gamut of studies pursuable in the first decade of the twentieth century. If then it was languages he chose, and texts displaying their vocabulary in actual use, the reason will have lain in an early experience of his, by which was determined his response to an inner urge as yet latent, rather than in 'curiosity'. The experience will have been of the ease and delight with which he was learning languages. The inner urge will have been the characteristic one of born pioneers in any field of human endeavour, namely the urge to bring about an extension of existing knowledge, to discover facts unknown as yet not only to oneself—as would satisfy most people's 'curiosity'—but also to everybody else among one's contemporaries.

Bailey was ten years old when his parents decided to leave England in order to be farmers in Australia. Until then he had lived with them in his native town, Devizes in Wiltshire. From there it was into the West Australian bush, 200 miles east of Perth, that his parents took him and his two brothers, one older and one younger. The farm-to-be consisted of an area of one thousand acres, every one of which over the years had to be cleared of bushes and snakes before crops could be raised on it: wheat, barley and oats. The boys were kept busy all day clearing land, the task which Sir Harold says he minded least, when they were not needed to help with the harvest, take crops to the railway station eight miles away, or fetch the nearest water with horse and cart from a distance of five miles.

It was hard work every day, but every free moment was snatched by Harold for reading. The father had taken along from England eleven books, to wit, an encyclopaedia in seven volumes, which the boy read right through, and four volumes containing lessons in French, German, Italian, Spanish, Latin and Greek. One further book was bought in Perth, providing elementary introduction into some twenty languages, including Arabic, Persian, Tamil, Turkish, Hindustani, Japanese, Finnish and Old Swedish (translation of Bible passages). This was the literature that nourished Harold's mind for twelve years—on a farm where everybody's physical diet was vegetarian—except that in the last two years he was able to travel to a teacher in Perth 'in order to learn to matriculate'.

He matriculated, and in the autumn of 1921 entered the University of Perth, founded eight years earlier. There was no provision for what he wanted to read, 'something Asiatic', but he was allowed to take Classics with English and Logic. He liked best the teaching of the classicist George Woods, of whom he was the only student, because with his background of Aberdeen and Oxford he would talk not only on history and literature, but also on linguistics. Otherwise it was in concentration on books, keeping himself apart from university life, that Bailey spent

his student years in Perth, staying in the house of a friend and going home for vacations. By the end of five years he had written a Master's dissertation on the religious beliefs of Euripides and was awarded a scholarship to Oxford.

Arriving in Oxford in 1927, Bailey took courses in Sanskrit, 'Zend' and Comparative Indo-European Grammar. In October 1929 he was admitted as a research student for the DPhil. The dissertation which he chose to write was to consist of an edition, with translation and commentary, of a fundamental Zoroastrian Pahlavi text, the *Bundahišn*.

As said above, 1929 was also the year in which Bailey was appointed Lecturer in London. After commuting for two years from Oxford, he moved into lodgings in London itself, just in time to become Secretary in charge of publication of the lectures delivered at the first London exhibition of Persian Art. Thus he met Vladimir Minorsky who had come from Paris for the exhibition, surprised at receiving from the English Secretary a letter written in Russian. The two scholars soon became friends for the remainder of the older man's life.

The edition of the *Bundahišn* was submitted and approved for the Oxford doctorate in 1933. It took 'so long to complete', as Sir Harold puts it, because of his London duties and because in 1932 he spent several months in Iran, to acquaint himself with the country and hear Persian spoken by everybody around him. When in the following year the dissertation was to be assessed, there was no-one in Britain equipped to do so, wherefore Benveniste, three years younger than the candidate, was invited. He came from Paris for the oral examination which was held in Oxford.

This again was a meeting which led to a lifelong friendship, like the friendship which one year later began with Morgenstierne when Bailey visited the latter's father-in-law, Sten Konow, in Oslo. Bailey had arrived there on his return journey from a visit he had paid Nyberg in Sweden. During that Scandinavian tour Bailey began his friendship also with Kaj Barr, who had himself become engaged in preparing an edition of the *Bundahišn*. With characteristic generosity Bailey gave him a copy of his dissertation to use as he wished, abandoning his intention to publish it himself. As it happened, however, Barr did not complete his work on the *Bundahišn*. Hence the edition we shall have of this important text will after all still be young Bailey's masterpiece, published in his nineties, no doubt with inclusion of insights which fifty-five years ago he had not yet reached. Throughout the fifty-five years, however, a copy of the dissertation, consisting of eleven hundred typewritten pages, has been available in Bailey's rooms to students and colleagues wishing to consult it, as of course still is the unpublished original, deposited in the University of Oxford.

The first time I meet Bailey was in 1940, when he invited me to see him in Queens' College. He had learned of my existence from W. B. Henning, his successor at the London School of Oriental Studies, whose second-year research student I then was. In British academic circles Bailey was already by then a celebrity. It was therefore with trepidation that I knocked at the door of the famous

professor, expecting him to probe meticulously into my shaky knowledge. My fears soon melted before his utter freedom from airs and the visible pleasure he invariably takes in talking to anybody engaged in studies Iranian. He showed me a pile of books freshly arrived, and dwelled on their contents. He next made tea and cut up a cake, while telling me of his work. Over tea at his desk he wrote down one Khotanese word after the other, out of some of which he had recently identified the meaning 'after years of thinking about them', and he explained what had led him to their identification. The climax came when he picked up, and opened to show me, one of three bulky tall volumes standing upright on a stool by his desk. They were his hand-written Khotanese dictionary in the making, due for as yet thirty-six years of growth before preparation for publication, but already packed throughout the alphabet with interleaved entries, many of them flanked by equivalents he had established on the strength of Buddhist Sanskrit, Tibetan or Chinese parallel versions.

I listened and watched spellbound, marvelling at the range of his knowledge and relishing the glimpse I was being given of how from it he generates new knowledge. What disturbed me was only his use of the phrase 'as you know', by which he frequently introduced some fact or other relevant to what he was saying, as if he had no doubt that I would be familiar with it. The first time the phrase fell without my deserving it, qualms drove me to interrupt him and say so. He got up, fetched a book, showed me in print what he had just told me, and resumed from where I now felt apologetic for having stopped him. At the next undeserved incidence of the phrase I no longer demurred, having decided to take it for no more than a conversational variant of an impersonal 'as is well-known' or 'as few would doubt'. To this day I consider merely a joke the reputation which I later found the phrase has given him of believing most scholars to be as knowledgeable as he is. A shrewd observer of people, he cannot be unaware that in erudition he has few equals. The phrase will have grown on him as a mere safeguard against appearing to be patronising.

Later in the same year, since the School of Oriental Studies, and with it after some time also Henning, had moved to Cambridge as part of the war-time evacuation of the University of London, I too left London for a rented room in Cambridge. Studying in that city, although not as a student of its own university, I enjoyed the privilege of easy access not only, as before, to Henning, but also to Bailey. To Henning's house, at twenty-five minutes away from my street, I cycled once weekly for a ten-hour session. We were reading unpublished texts on which it took me six days to prepare for what he would ask me before giving me his own views. The matters in hand were invariably too absorbing for discussion to come up more than occasionally also of problems in other areas incidentally encountered by me in the six days. Any such problems I was soon made to feel free to take to Bailey piece-meal as they arose, reaching him on my bicycle in ten minutes and departing enlightened after twenty or thirty. The concurrent availability of two such luminaries in a city where I could freely call also on Professor Minorsky as well as, while his exile lasted, on Mr S. H. Taqizadeh, made Cambridge in those years an unusually high-powered place for introduction into Iranian studies.

Whenever the outer door of Bailey's set of rooms stood open, if I knocked at the inner door and he did not happen to be teaching, he would welcome me without minding the interruption. This was his forthcoming way with any caller academically inclined, be he a student or a colleague, a Cambridge resident or a visior from elsewhere, and if Bailey was with one visitor when a second or third happened to call, he would give each of his knowledgeable best in a way stimulating the interest also of the other. At regular intervals, moreover, he would himself invite to his rooms up to seven or eight people for an 'Orientalist tea', at which one of the guests might give a short paper and Bailey would pass round for inspection, apart from the latest books he had received, some of the Oriental coins and manuscripts of which he had begun to acquire a choice collection.

If Bailey was teaching when I knocked, he would tell me the times, of the same day or the next, when he would be free to see me. His teaching during the three university terms was onerous, especially in his first ten years in Cambridge, when he was doing it single-handed. In addition to seeing his students through the prescribed Sanskrit and Vedic texts, he regularly gave thirty lectures per year on the history of the Sanskrit language and spent much time on supervising the specialist work of research students.

I myself, however, was not to gain first-hand experience of Bailey's teaching until 1947, when Mark Dresden arrived from Holland to read with him in the summer months the Khotanese *Jātakastava*, of which Bailey had published the text untranslated. They suggested I join them, and I was happy to attend their daily meetings. These differed from what I had grown used to with Henning (who was by then moving back to London), in that Bailey did not expect of us any preliminary spadework, as indeed at least I did not even attempt. From the start and right through it was Bailey who translated and commented, dwelling at length on problem words and on the identification of *jātakas*, but not, unless we asked him, on anything he assumed was familiar to us. It was an exhilarating experience to be thus taken through this long and difficult poem, and get enriched without personal effort by the wealth of remarkable insights Bailey kept pouring out before us. We were the first recipients of these, and remained the only ones until 1955, when Dresden's monograph on the poem appeared, in which with due acknowledgement he published them all.

That publication was at the time, for enlightenment needed on the late Khotanese language by even highly experienced Iranologists at large, a landmark of which proleptically I had been given the measure already in 1946. That was the year in which I first met Benveniste, visiting him in Paris. He pointed to a shelf in his study on which stood the first volume—including the untranslated *Jātakastava*—of Bailey's *Khotanese Texts*. He had placed it there, he explained, as a precious book upon receiving it from the author and inspecting its contents with

awe. But, he added with a glint, he would not touch it again until the arrival of the editor's translation. When I saw Benveniste next, in Cambridge at the Orientalist Congress of 1954, I asked if he had kept to his resolution. He assured me that he had.

Meanwhile by 1948 Bailey and Henning had each succeeded in persuading his university to create a Lectureship in Iranian Studies. In London this was the second, additional to Henning's own. In Cambridge there had not been one before. Of the two new posts it was the latter which happened to fall to me, so that from being an outsider, as I had been until then, I became part of the Cambridge establishment. Within it, in the twenty years still remaining of Bailey's tenure, my contacts with him became more frequent than ever, since to the numerous private occasions there came to be added contexts previously closed to me, of administrative character. There I learned to appreciate on the one hand his unswerving commitment to safeguarding scholarly standards against encroachment by other considerations, and on the other his skill, whenever it was he who was chairing a meeting, in briskly steering it clear of fruitless discussion.

The existence of my lectureship provided justification, in the first three years, for the employment by the University of Mr Barasbi Baytugan as Ossetic Informant. His duty, fulfilled by him with a reassuring sense of responsibility, consisted in supplying Bailey and myself, usually at separate meetings, as well as interested students, with information on his mother tongue. This was Digoron, the rarer and more archaic of the two Ossetic languages. An educated man of roughly the same age as Bailey, he came to the latter's notice after the war in London, where he had arrived from Italy as a demobilised soldier of the Free Polish Army. Although he had left his homeland in 1920, and after studying in Brno had lived in Warsaw until the outbreak of war, his command of Digoron had remained intact, and therefore proved a great asset to us. Even fifteen years after he lost touch with Baytugan, Bailey was able, during his visit to the Caucasus for the Rustaveli celebrations in 1966, to put together short speeches of greeting in both the Ossetic languages.

In its turn our devotion to Ossetic studies was a constant source of pleasure to Baytugan. Whenever he spoke to me of Bailey, knowing him to be the world's sole master of the long-forgotten Saka cousin of his mother tongue, he affectionately referred to him as 'the father of the Ossetic people'. This is indeed what Bailey looks like in the portrait of him which hangs in the Combination Room of Queens' College. Commissioned by the college after Sir Harold's return from the Caucasus, and therefore never seen by Baytugan, the painting shows Bailey dressed, at the College's request, in the *cherkeska* presented to him in Tbilisi. The dress fits him to perfection, Professor Georgi Tsereteli having arranged for five tailors to go to the hotel to measure him for it.

Since gardening was mentioned above, Bailey's involvement in music should not be omitted. In the early forties he took to interposing violin practice in between book-work. When the room I had taken in Cambridge received a rented

piano, we sometimes met to play Mozart sonatas. When in 1947 Dresden arrived, the discovery that he was an experienced violinist induced Bailey to take up the viola, so that we might play string quartets; I had in adolescence given some time to the cello, and as fourth member Bailey invited one of the violin-players from among the students of his College. When Dresden returned to Cambridge for several months in 1948 and in 1949, we again met in Bailey's rooms not only to read more Khotanese texts, but also for quartet-playing.

Meanwhile Bailey had enlisted a fine amateur violinist, Sir Gilbert Wiles. Living in Cambridge in retirement from the Indian Civil Service he was available, like Bailey and myself, throughout the year. With him as leader, and a casual fourth volunteer never proving hard to find, we met in Bailey's rooms almost every Sunday night for twelve years, each of us having practiced the difficult passages during the week. By the time we gave up as a result of Sir Gilbert's having dropped out for health reasons, we had repeatedly made our way through all the quartets of Haydn, Mozart and Beethoven. Occasionally we ventured, with the help of additional volunteer players, into quintets and larger string and wind ensembles, expanding our repertoire to Schubert and Brahms, and a few works by other composers.

Music, like gardening, are hobbies congenial to Bailey because they leave no hangover impinging on his mind beyond the time physically spent on them. It is not so with chess, the only game that appeals to him. In the early years of his residence in Cambridge he sometimes spent hours at the chessboard with a retired professor of Chinese. He gave this up because the positions at each move would remain engraved in his iron memory for too long, inducing him at night, or even at work, to play out games in his head with alternative moves.

Chess would in any case have been as stationary a hobby as quartet-playing is, and in a sense also gardening. The fourth form of break, accordingly, from book-work, and the one which in the fifty years I have known Bailey he has always been taking, involves locomotion.

The daily four-mile walks, keeping him in touch with his College after retirement, were mentioned above. Before he retired it was from the College he took walks. He took them often, though perhaps not often for more than one hour or two. Once a year, however, he used to travel to Wales, to walk for ten days on the mountains with a friend, the late Alan Ross, Professor of Linguistics in Birmingham. They had known each other since they were students together in Oxford.

Bailey's pace has only recently slowed down to what my own has always been. He used to walk extremely fast. After London meetings of the Philological Society he would walk me out of breath to the station for the Cambridge train, in his seventies no less than in his forties; if I took the bus he would on foot reach the station before me. In the forties, however, in and around Cambridge, Bailey was more often to be seen outdoors on his bicycle than on foot. In those years, and earlier, he sometimes cycled long distances, for instance to his birth-place Devizes, some 120 miles from Cambridge, to visit two cousins. The fifty miles to

London he thought nothing of cycling. To an Oxford meeting of the Philological Society he and I once cycled together, taking no doubt at least one hour longer over the 80 miles than he would have done alone. His was a very light racing bicycle, easy to lift across stiles. When in the mid-fifties it fell into disrepair, he put it aside and never cycled again.

Bailey does not drive, but he likes being driven in a car. In its turn his company on journeys by car, train or aircraft is enjoyable for the wealth of reminiscences, from books and from life, by which conversation with him makes even long journeys seem short.

Overseas, Bailey has revisited Australia four times, in 1935, 1955-6, 1963-4 and 1970-71, never of course omitting the Perth region, of which what he likes best is the hot climate, 'never too hot for me'. In 1955 it was from there that he for the first time visited India, staying in Ceylon, Bombay and Poona. The Australian visit of 1963 was for the purpose of receiving an honorary doctorate from the University of Perth, whereafter in January 1964 he attended the International Congress of Orientalists in Delhi.

The next such Congress he attended was in Australia itself, in Canberra in January 1971. Bailey was its Honorary President, and to see it through from the preliminaries to the wind-up, he spent five months in Canberra. From there he proceeded to Sydney, Melbourne and Adelaide, and next to Perth, where he stayed for one month. Thereafter he spent six weeks in Japan, invited to lecture in Kyoto and Tokyo. He returned to England in May 1971 after nine months of absence, his longest ever from Cambridge. Since then he has been overseas only for brief stays, in Iran as President of the Congress of Mithraic Studies in 1975, and in New York to deliver in 1979 five lectures at Columbia University, which were published as a book in 1982.

The return from New York initiated Bailey's move from Southacre to Brooklands House. Thus we have come round full circle to the venue of the ninetieth birthday party with which we began, attended by colleagues and friends. Among the friends present, this profile should not end before singling out the least conspicuous, but all the more graceful, who regard Bailey's home as their own. In Brooklands House there has always been a cat in the last nine years, in fact most of the time two, who coming from outside decided to settle there and live under the care of the Eurasian pioneer. One of the two present cats bears the Digoron name *Comaq* which Bailey, connecting it etymologically with Khotanese *tcāmū* 'locust' (or similar), interprets as meaning 'the pouncer'. Already during the thirty-one years of Bailey's residence in College, the 'College cat' of any given time was invariably a special friend of his. When Sir Harold recently told me, as quoted above, that as a boy in Australia he did not mind clearing the ground of bushes and snakes, he added 'but I hated the animals'. — 'Which animals?' — 'Horses and cows'. — 'But you like cats'. — 'Ah, cats are different'.