

Middle Chulym: Theoretical aspects, recent fieldwork and current state

K. David Harrison* and Gregory D.S. Anderson†

*Swarthmore College, †Max Planck Institute for Evolutionary Anthropology

0 Introduction

This article presents results of fieldwork conducted in July 2003. We present the current state of the Middle Chulym language and speech community, a newly collected annotated text, a report of a native orthography, and some thoughts on the future prospects for the language.

The Middle Chulym people speak one of the most critically endangered and least documented native Siberian languages. The Middle Chulym nation (native ethnonym [ø̥s] ~ [ø̥s]), currently numbers 426 registered members. They reside in villages in or near their ancestral territory along the upper reaches of the Chulym river (native hydronym [ø̥s] ~ [ø̥s]) in Tomsk and Krasnoyarsk districts. The Middle Chulym language belongs to the Turkic family and is a peripheral member of the Altai-Sayan areal grouping, though located geographically north and west of this mountain complex.

At the time of initial Russian incursion on Middle Chulym territory, the Lower Chulym speakers lived to the west and southwest, speakers of the Samoyedic language Sel'kup to the north and northeast, speakers of the Ob-Ugric language Khanty (Ostyak) to the northwest, speakers of Khakas (Turkic) to the southeast. Most significantly, the Middle Chulym shared the same general area with speakers of the now-extinct Yeniseic languages Arin and Pumpokol. An extensive presence of Yeniseic hydronyms in the area reflects this substrate (e.g., *Tegul'*det, *Chindat*, with the characteristic Pumpokol word *det* ~ *dat* for 'river' underlined).

It seems likely that the Middle Chulym people arose from the linguistic assimilation to Turkic of former Yeniseic language speakers, and to a lesser extent Ob-Ugric and Samoyedic speakers, who were riverine subsistence fishers and hunters. Interestingly, the Turkic component appears itself to have been heterogeneous, reflecting both a more dominant Altai-Sayan Turkic component (presumably Khakas-like), from the southeast, and a less pronounced, more Tatar-like element moving up from the southwest. This combination of substrate components and the mixing of two substantially different Turkic varieties formed the unique system of present-day Middle Chulym.

Today, the Middle Chulym people are living in grinding poverty in small villages. The population is primarily engaged in fishing, small-scale gardening (cabbage and potatoes), animal husbandry (cows and chickens), hunting (bears, squirrels, rabbits) and gathering (berries, nuts). The use of a few traditional technologies (building fur-covered wooden skis for hunting, making hand-chiseled wooden canoes, net and trap fishing) is still evident.

Chulym people were dropped from census statistics as a distinct ethnic group after 1959 and reclassified as ‘Khakas’. Some now accept this ethnonym despite acknowledging that they cannot understand the Khakas language. In the 1970’s, the Chulym were forcibly consolidated into larger (Russian-speaking) settlements, under the government’s village consolidation program, which was driven by in part by recurrent flooding of low-lying villages and in part by the perceived economic non-viability of small villages. In the process, the Chulym lost their concentrated population base and traditional language milieu, and became dispersed among dominant Russian populations in larger villages. However, in 1999 they regained separate ethnic status in Tomsk *oblast*’ and were registered with the authorities (to be precise, the Department of Justice of Tomsk oblast’) as an ethnic organization called ‘Chulymyets’ ([tʃultumjets], literally ‘Chulym man’). This organization, run by an elected seven-member council, belongs in turn to the state-sponsored umbrella organization “The Association of the small-numbering peoples of the North”. Some Chulym have expressed dissatisfaction with the representation provided them by this latter organization, which they perceive as being dominated by local ethnic Sel’kup and uninterested in improving the plight of the Chulym. Moreover, the change of legal status has to date yielded no tangible results in terms of cultural revitalization or improvement of their living conditions.

Table I outlines the ethnographic information about this poorly known Turkic-speaking people of central Siberia.

Community: [Middle] Chulym
Native ethnonym: <i>bistiŋ kifiler</i> (‘our people’)
Exonyms: 1. <i>xakas</i> 2. <i>jasatʃnije</i> (Russian ‘tribute-payers’)
Language: Middle Chulym (Altaic, Turkic, South Siberian)
Native designations for language: 1. <i>os tili</i> ~ <i>os tili</i> , 2. <i>tadar dili</i>
Ethnologue code: CHU
Status: Critically endangered, moribund
Number of fluent speakers: probably as few as 40

Table I: Basic Information on Middle Chulym

1 New findings from Expedition to the Chulym, July 2003

1.1 New materials collected

In July, 2003, under the auspices of ASLEP, the Altai-Sayan Language and Ethnography Project,¹ the authors undertook a two-week pilot visit to four Middle-Chulym speaking villages in Tegul’detskij rajon of Tomsk oblast’, in the Russian Federation. There were no known audio or video recordings of the language before our pilot expedition in July 2003. During the pilot expedition, we made audio/video recordings of twelve fluent speakers, number about forty individual sessions, and representing approximately six hours total recorded materials. While the number of extant formal genres is quite small, we were able to collect the following: (i) greetings; (ii) songs, including a wool-spinning

¹ Generous funding of this research and fieldwork by Volkswagen-Stiftung is gratefully acknowledged.

song; (iii) aphorisms; (iv) bear and moose hunting stories. Of informal and elicited genres, we collected (v) personal and biographical narratives; (vi) narrated demonstrations of how to use fur-covered skis, fishing lures, dugout wooden canoes and other cultural objects; (vii) spontaneous conversation; (viii) verbal and nominal paradigms embedded within sentences; and (ix) word lists including toponyms, body parts, colors, fauna, flora, kin terms, numerals, and other lexemes

1.2 Current state of language use

We estimate there are about 40 native and fluent speakers of Middle Chulym, all now over the age of 50. We found just three households where Chulym is sometimes spoken as a language of casual communication among adults. Outside of households, we found Chulym spoken when any two or more fluent adults meet each other, whether outdoors or in a house, and in some cases despite the presence of Russian monolinguals. Clearly, the range of speaking situations and genres has constricted. For example, six speakers told us that they did indeed remember their parents or grandparents telling stories, tales, and singing songs, but none of them claimed to remember any of these. Three speakers were able to produce song couplets (Russian *chastushkis*) and one middle generation speaker produced a single aphorism. All speakers we interviewed could on request produce wordlists, verbal paradigms, and sentences. Nearly all were able to tell a brief narrative, e.g. their personal history, an event, etc. Four speakers demonstrated and described the use of traditional technologies (e.g. wool spinning, wooden skis, medicinal plants, hunting).

1.3 Speaker demographics

The twelve fluent speakers we recorded range in age from 51 (born 1952) to 94 (born 1908). Dialect diversity is somewhat surprisingly still evident despite the small number of total speakers. During the preliminary field visit, we stayed in four Middle Chulym-speaking communities. The villages that we visited, with numbers of fluent speakers counted by us include the following:

- (1) Belij Yar—3
Novoshumilovo—6
Ozornoe—4
Teguldet—8

There is exactly one household in Belij Yar where Chulym is the preferred language.

In addition, there are three villages that we have not yet visited, which are reported to have a small number of speakers as well. These villages, with the reported numbers of speakers that we hope to find there during the next field session are

- (2) Beregayevo—3 to 5
Pasechnoye—3 to 5
Tyukhtet—2 to 3

The first village is in Tomsk oblast' while the other two are found across the border in Krasnoyarsk Kray.

1.4 Prospects for revitalization

Middle Chulym is clearly moribund, with no reported fluent speakers under age 50. We found no passive or semi-speakers under the age of 30. We found four passive speakers (“I can understand when the old people speak, but I can’t speak the language”) in their early to mid 30s. Among the middle generations there is a strong sense of loss at the passing of the language and an active desire to see what measures can be taken to begin this. One step in this direction is discussed in section 3 below.

1.5 Overall assessment

Currently there are still enough fluent / competent speakers to produce a solid grammatical description and annotated video recordings. In our opinion, within five to eight years from now it will become extremely difficult if not impossible to adequately document this language. As in the case of many endangered languages, we feel a sense of urgency is warranted. We therefore plan to continue our field documentation at the earliest possible opportunity.

2 Some Linguistic findings

During a pilot field trip in July 2003, the authors verified a significant portion of published statements on the grammar of the language and collected new data.

2.1 Tense

There exists a large number of verb forms, some of which lack parallels in other Turkic languages of the region, or even any other known or documented Turkic language. We noted, for example, a rare present in *-ibil* (3) and an unusual future tense form in *-lik* (4, 5), and its corresponding negative future *-bik* (6). (Note that each datum given herein is followed by the initials of the consultant who provided it, as well as the date and page number from our field notebooks. A full list of consultants’ names, birth years and villages is given in 4).

- (3) *po moyalak tur-ubul*
this bear stand-PRES
‘this bear is standing (there)’ [I.S. 7/17 p. 3]
- (4) *män al-lik-im palik*
I take-FUT-1 fish
‘I will take (some) fish’ [A.B. 7/16, p.2]
- (5) *iften-nik-im*
work-FUT-1
‘I will work’ [A.B. 7/16, p.2]
- (6) *kør-byk-ter*
see-NEG.FUT-PL
‘they won’t see’ [A.B. 7/16, p.1]

Both the present and the (positive and negative) future are commonly used, we found, by Middle Chulym speakers. One challenge we encountered in the tense/aspect/mood

system is that in addition to the present tense in *-ibil*, we noted at least four other forms that seem to function as present tense forms, as follows:

- (7) *-e[j]di / -adi* A present tense, also used in the narrative past (8).
 -iptir / -tir A progressive tense, also seems to have a non-progressive function (9).
 -tʃi / tʃadi A present tense, contrastive function not yet established.
 -ibila tʃadi A compound present tense, contrastive function not yet established (10).

- (8) *kajnaar bar-eydi-ŋ*
 to.where go-PRES.II-2
 ‘where are you going?’ [A.B. 7/17 p. 4]

- (9) *kajdin kee-ptir sän*
 from.where come-PRES.III 2
 ‘where do you come from’ [A.B. 7/17 p. 5]

- (10) *a juditʃ sedlo-zun dɨŋne-bil-ɪ tʃadi*
 well Yudich saddle-3.ACC hold.tight-PRES-CV AUX
 ‘well Yudich is holding for dear life onto his saddle’ [I.S. 7/17 p. 4]

Some of these additionally used as a narrative present in what are properly past tense contexts. Assuming these are not due solely to obsolescence and collapsing contrasts among verbal paradigms, the nuances of these multiple, overlapping present tense forms remain to be investigated in future fieldwork.

2.3 Discourse reference

A switch reference system—marking the introduction of new referents in contrast to previously introduced ones—operates at the discourse level but has no unique morphological marker. Instead, it uses the converb *-p* to denote that multiple verbs in a sequence have the same subject. Long sequences of verbs with *-p* followed by a single inflected verb is characteristic of same subject forms in the Middle Chulym narrative style.

- (11) *mæn pir kanza tartap*
 I one pipe pull-CV
 ‘I smoked one pipe (of tobacco),’
- (12) *anzondun putʃay ap anuu sojup*
 then knife take-CV 3.ACC skin-CV
 ‘Then I took out my knife, skinned it,
- (13) *eedin kæmezimge sap æpke tʃan payam*
 meat-3-ACC boat-3-1-DAT put-CV house-DAT return TLOC-PST-1
 ‘put its meat in my boat and returned home.’ [V.G. 7/19/03]

2.5 Encoding motion

Some evidence for the use of the translocative (Anderson 2003b) is found in our Middle Chulym notes.

- (14) *uz-ip bar-is-xan-nar*
fly-CV TLOC-PFV-PAST-PL
'they flew away' [A.B. 7/15/2003 p. 6]

- (15) *aalutŋ oydaŋ pa-yan*
moose fell.over TLOC-PST
'The moose fell over.' [V. G. 7/19/2003 p. 8]

2.6 Benefactive voice

Instances of self-benefactive/subject version (Anderson 2001) are attested in our field recordings.

- (16) *sän a: -p al-ir-di-ŋ*
you take-CV SUBJ.VERS-FUT-ASSRTV.PST-2
'you took, will have taken' [IS/AB 7/16/03 p. 4]
- (17) *tfakŋu-luŋ kōz-yp tuŋle-di-p-tŋa-p al-ya-m men*
good-ADV see-CV boom-VSF-CAUS-CV AUX-CV SBEN-PST-1 I
'... aimed well, then made it go boom!'

Based on other Turkic languages, we would have predicted the existence of such forms, but they had not been described as such in the literature.

3 Middle Chulym Literature

Middle Chulym is an unwritten language. Indeed, it is one of the few indigenous Siberian languages never to have been committed to writing, even during the quasi-enlightened period following the founding of the USSR in the 1920s and 1930s, when the state devised pedagogical materials for numerous, previously unwritten Native Siberian languages. Middle Chulym has thus become endangered in part as a result of neglect and open hostility from the state during the twentieth century. In the 1940s, with the establishment of the 'second mother tongue' policy, children were rounded up into boarding schools and forbidden to speak their mother tongue (Krivonogov 1998), even beaten if they did so. We collected from Chulym community members a number of first-hand reports about their experiences of ethnic and linguistic repression that led to the rapid abandonment of the language.

While lacking a standardized orthography, or indeed any recognized status at all, it is not the case, we discovered, that no one has ever attempted to write the Middle Chulym language. An important finding of our pilot survey of the language was the previously unknown existence of the prior invention and continuing use of a naive orthography by one speaker. Mr. Vasilij Mikhailovich Gabov, born 1952, the youngest fully fluent speaker we found and one of the better speakers overall, related to us how he had begun keeping a daily hunting journal written in Chulym. He began this project in the

late 1980's and continued for three successive years during winter hunting seasons while spending extended periods at his hunting lodge. In the process of writing, he developed his own orthography, ingeniously adapting the Russian alphabet to this end. Unfortunately, Gabov later discarded his own journal and stopped writing. He did so, he reports, after being ridiculed by a Russian acquaintance for attempting to write in his native tongue. However, he still remembers his writing system and readily produced a written version of a moose-hunting story (see below). We outline the writing system here and reproduce the moose story below.

3.1 A native orthography for Middle Chulym

Aside from Russian letters, Gabov's orthography employs the following orthographic conventions:

(18)	<u>Cyrillic character(s)</u>	<u>Phonetic value(s)</u>
	{я}, {а...ь}	[æ]
	{ё}, {о...ь}	[ø]
	{ю}	[ju], [y]
	{эе} (word initial)	[e:]
	{и}	[i], [ɯ] (after {ч} or {щ} only)
	{ы}	[ɯ], [i] (in declined forms only)
	{н}	[n], [ŋ]
	{г}	[g], [ɣ]

We propose one change to Gabov's orthography to recognize the important phoneme [ŋ] in Middle Chulym:

(19)	<u>Cyrillic character(s)</u>	<u>Phonetic value</u>
	{нг}	[ŋ]

The following comments should be made on the system evinced in Gabov's orthography. First, vowel length, though contrastive in Chulym, is only sporadically represented. This could be modified by simply using doubled vowel symbols (e.g. {aa}). The potential problem of representing Chulym front rounded vowels is adequately handled as follows. A single soft sign {ь} appearing after the coda of the initial syllable denotes that all vowels in the word are front vowels, e.g. {кёзюмь} = [køzym]. Similarly, the presence any Russian character representing a glide+vowel combination (e.g. {я}) indicates that any other vowels in the word are to be pronounced as front vowels. The frontness of all vowels in a word, may therefore be signaled by the presence of a single soft sign *or* a single palatalized vowel symbol anywhere in the word. This is a highly economical, simple solution that avoids the use of diacritics or extra letters.

Though we did not have the opportunity to test Gabov's orthography in the field, we assume it can be learned and read easily by other Chulym speakers, nearly all of whom are literate in Russian. Further, our research on Tofa (Anderson & Harrison, forthcoming), a similarly small and endangered Turkic language of Siberia, suggests that orthographies that make only minimal departures from known writing systems are more likely to win wide acceptance among speakers. Any departure from the familiar Russian system, even though it may encode greater phonetic/phonemic detail, is less likely to be accepted. In Tofa, for example, the introduction by Rassadin (1994) of seven new, non-Russian letters evoked negative attitudes from Tofa speakers and may well have been the cause of speakers' failure to embrace the proposed orthography. In the course of two year's fieldwork on Tofa, we found only two speakers actively using a version of Rassadin's orthography.

We propose that Gabov's orthography is the current best solution for writing Middle Chulym. It may well represent the only real chance for an orthographic system to gain acceptance while speakers remain. With this in mind, at the request of the Middle Chulym council, we have produced a Middle Chulym storybook that adopts Gabov's system with only very minor emendations to render it internally consistent, and without the introduction of any new letters. The storybook (Anderson and Harrison 2003) will be the first book to be published in Middle Chulym. Gabov's orthography will also serve as the basis for introducing literacy to the Middle Chulym via a planned elementary primer or ABC book requested by the Chulym council.

3.2 Shooting a Moose

The following story was told and written down by Vasilij Mikhailovich Gabov (born 1952), at his home in Tegul'det village, Tomsk region, Russian Federation on 18 July 2003. It was recorded in digital video. The spoken and written versions differ slightly, in that the spoken version is prefaced by three lines, which translate as "Listen, boys, I will tell you a story. When I was young...". We reproduce the written version herein.

3.3 Full written text in native orthography

Артян туруп, кунгарагы шикпанча
мян мылтыгын ап чердюпскем кольге,
кольдя мен камям полган
камя олуруп, амьда парыдым,
анды корьзям алыч суудун шиктыр,
мян камезын кырга пурнуп, мылтыгын ап
чакшилын кёзюмь, тынледыбжабалгам мен,
алыч ойдашпаган мян пир канза тартап,
анзондын пичаг ап аны союп,
эедын камезимге сап апьке чанпаган.
мены апьта апьчим угланеры саганнар.

3.4 Interlinearized annotated text ²

Артян туруп, кун гарагы шикпанча ³

ærtæn tur-up kyn garag-u ʃuk-pa:ntʃa
morning stand-CV day eye-3 rise-NEG.CV
'I got up in the morning before the sun rose,'

мян мылтыгын ап чердюпскем кольге

mæn multuy-un a-p tʃerd-yps-ke-m kəl-ge
I gun-3.ACC take-CV go-PFV-PST-1 lake-DAT
'took my gun and set off to the lake.'

кольдя мен камям полган

kəl-dæ me:ŋ kæmæ-m pol-ɣan
lake-LOC I(-Gen) boat-1 be-PST
'My boat was at the lake.'

камя олуруп амьда парыдым

kæmæ olur-up æmdæ par-udui-m
boat sit-CV now go-PRES-1
'I sat in my boat and set off.'

анды корьзам, алыч суудун шиктыр,

andui kər-zæ-m aalutʃ su:-dun ʃuk-tur
now see-COND-1 moose water-ABL come.out-PROG
'Then I look: a moose is coming out of the water.'

мян камезын кырга пурнуп мылтыгын ап

mæn kæmææ-zin kur-ga purn-up multuy-un a-p
I boat-3-ACC bank-DAT land.boat-CV gun-3-ACC take-CV
'I landed the boat on the bank,'

чакшилын кёзюп тынледыбжабалгам мен

² The IPA transcription is based on audio recordings of V. Gabov reading the text, and on elicitation of word forms. Our transcription shows vowel length, word boundaries, and vowel qualities that are absent (or differ) from the native orthographic text.

³ {и} appears here because {ы} may not appear after {ш} in Russian. In Chulym, the word [ʃukpa:ntʃa] contains only back vowels, and thus obeys vowel harmony. Note also the use of the scope-less negative in this formation to mark 'before'. This kind of syntactic interference is found in Yeniseic languages (Anderson 2003a) and various Siberian Turkic languages as well, e.g. Khakas (Anderson 2004).

tʃakʃu-lun kəz-yp tuŋle-di-p-tʃa-p al-ya-m men
 good-ADV see-CV boom-VSF-CAUS-CV AUX-CV SBEN-PST-1 I
 took my gun and aimed well, then made it go boom!’

алыч ойдаш паган

aalutʃ oydaʃ pa-yan
 moose fell.over TLOC-PST
 ‘The moose fell over.’

мян пир канза тартап

mæn pir kanza tartap
 I one pipe pull-CV
 ‘I smoked one pipe (of tobacco).’

анзондын пичаг ап аны союп

anzonduun putʃay a-p anu soj-up
 then knife take-CV 3.ACC skin-CV
 ‘Then I took out my knife, skinned it,

эедын камезимге сап апьке чан пагам

eedin kæme-zi-m-ge sa-p æp-ke tʃan⁴ pa-ya-m
 meat-3-ACC boat-3-1-DAT put-CV house-DAT return TLOC-PST-1
 ‘put its meat in my boat and returned home.’

мены апьта апьчим угланеры сагынганнар

men-i æp-te æptʃi-m uglaneru sayun-yan-nar
 I-ACC house-LOC wife-1 children-PL-3 lie.in.wait.for-PST-PL
 ‘My wife and children were waiting for me at home.’

Note, as mentioned above, that both in Chulym speech and in Gabov’s writing system, we find unsystematic and sporadic departures from expected patterns of vowel harmony, for example, in the form угланеры [uglaneru] children-PL-3.

3.5 The First Book in Chulym

The story rendered above is one of three short tales that are included in the first ever book in Chulym, entitled **Ось Чомактар** [øʂ tʃomaqtar] ‘Our (=Chulym) tales’. The stories found in this book include the following.

Hunting a Bear (as told by Ivan Skoblin)

⁴ Note the Xakas-like use of a zero allomorph of the *-p* converb before consonant-initial auxiliary verbs (Anderson 1998) in this text.

Shooting a Moose (as told by Vasilij Gabov)
The Shamaness (as told by Varvara Budeeva)

To produce this collaborative publication we first recorded the texts and translated them into Russian (and English). The third text was originally collected by R.M Biryukovich in the early 1970s. We copied it from her notebook and checked it with the same speaker who had originally provided it. We had the stories read in Russian to groups of children in Novoshumylovo village, Tegul'detskij rajon. These children then offered drawings that they felt appropriately went with the stories. We are now in the process of completing the editing and layout of this community-authored book. This is to be supplemented by a full primer for the language that is currently also in production.

4 Consultants

<u>Initials</u>	<u>Given name, surname</u>	<u>Birth year</u>	<u>Village</u>
AB	Anna Budeyeva	1932	Ozyornoe
VB	Varvara Budeeva	1908	Novoshumylovo
VG	Vasilij Gabov	1952	Tegul'det
IS	Ivan Skoblin	1930	Ozyornoe

5 References

- Anderson, Gregory D. S. 1998. *Xakas*. Languages of the World Materials 251. München: LINCOM EUROPA.
- _____. 2001. Subject Version and Object Version in Tofa Auxiliary Verb Constructions. In *Turkic Languages* 5 (2): 240-269.
- _____. 2003a. Yeniseic Languages from a Siberian Areal Perspective. In E. Vajda and G. D. S. Anderson [eds.] *Studia Yeniseica: Typological Studies on Yeniseic*. Special Issue of *Sprachtypologie und Universalienforschung*, pp. 12-39.
- _____. 2003b. *Auxiliary Verb Constructions in Altai-Sayan Turkic*. Wiesbaden: Harrassowitz Verlag.
- _____. 2004. *Language Contact in South Central Siberia*. Wiesbaden: Harrassowitz Verlag.
- Anderson Gregory D. S. and K. David Harrison 2001. [compilers] *Tòfa Üleger* [Tofa Tales]. As told by the Tofa community elders. Published by the Altai-Sayan Language and Ethnography Project and the Tofa Nation.
- Anderson, Gregory D. S. and K. David Harrison. 2003. *Ös Chomaktar: Middle Chulym Tales (As told by Ivan Skoblin, Vasilij Gabov and Varvara Budeeva)*. Leipzig: Altai-Sayan Language and Ethnography Project.
- Il'jashenko, Irina A., Aleksandra A. Kim, et al., compilers. 1998. *Katalog polevyx zapisej jazykov narodov Sibiri (fondy Laboratorii jazykov narodov Severa Tomskogo gosudarstvennogo pedagogicheskogo universiteta)*. [Catalog of field recordings of the languages of the peoples of Siberia (the archives of the Laboratory of peoples of the North, Tomsk State Pedagogical University)] Tomsk: TGPU.
- Kinkade, M. Dale. 1991. The decline of native languages in Canada. In Robert H. Robins and Eugenius M. Uhlenbeck [eds.]. *Endangered Languages*, pp. 157-76. Oxford: Berg.
- Krauss, Michael. 1992. The world's languages in crisis. *Language* 68: 4-10.
- Krivosnogov, V. P. 1998. *Etnicheskie protsessy u malochislennykh narodov sredney sibiri*. [Ethnic processes among the small-numbering peoples of central Siberia.] Krasnoyarsk.
- Menges, Karl. H. 1995. *The Turkic Languages and Peoples. An Introduction to Turkic Studies*. (Veröffentlichungen des Societas Uralo-Altaica 42.) Wiesbaden: Harrassowitz Verlag. 2nd edition.
- Wurm, Stephen A. 1998. Methods of language maintenance and revival, with selected cases of language endangerment in the world. In Kazuto Matsumara [ed.] *Studies in endangered languages*, pp. 191-211. Tokyo: Hituzi Syobo.