

Mapping Variation in Manang, Nepal



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Introduction

- This talk aims to:
- Provide some historical perspective on documentation activities and outputs, with a focus on Nepal
- Show how these activities, methods and outputs have changed with time
- Matisoff (1991: 498): “It is high time to “mainstream” S(ino-)T(ibetan) linguistics”
- It’s also time to mainstream methods and outputs within the context of 21st century digital & informatics scholarship
- Focus on one area of continued opportunity and need, including the challenges and potential rewards involved

Introduction

- Language Documentation in Nepal in a traditional perspective
- Harkens back to B.H. Hodgson and G. Grierson in late 19th/early 20th centuries
- Linguistic surveys of Nepal intensified around 1980's: Werner Winter, now LinSuN at Tribhuvan University (Regmi 2010)
- Ongoing documentation initiatives by Summer Institute of Linguistics
- Energies skewed particularly to eastern Nepal, but this is beginning to change
- In Manang and surrounds ('Tamangic'): Georg, Glover, Hildebrandt, Honda, Mazaudon, Noonan

Introduction

- Documentation outputs in Nepal:
- Growing number of grammars published in mainstream venues: Brill, Mouton, sketches through Routledge edited volumes, Lincom Europa
- Even greater amount of information as unpublished mimeos, handouts or else as limited-release publications
- Many outputs were concerned largely with issues of genealogical affiliation and shared lexico-grammatical correspondences
- So, content more focused on paradigmatic patterns, comparative glossary-building and contrastive (-emic) analysis

One-place patterns:

1. Intransitive = +

Sub	UM
A,X,P,	
N,F	

 +

Pred	itr VP
------	--------

 clause
2. Descriptive = +

Sub	UM
N,P	

 +

Pred	des VP
------	--------

 clause

Two-place patterns:

3. Transitive = +

Sub	ER	O	UM,
A,C,			DAT
AX			N,P,
			F

 +

Pred	tr VP
------	-------

 clause
4. Loc-Intrans = +

Sub	UM	Loc	CMT,
A,P		R,G	LOC

 +

Pred	li VP
------	-------

 clause
5. Existential = +

Sub	LOC,	O	UM
R,X	DAT	N	

 +

Pred	exl VP
------	--------

 clause

Three-place patterns:

6. Ditransitive = +

Sub	ER	IO	DAT	O	UM
A,C		G,GX		F,P,N	

 +

Pred	dtr VP
------	--------

 clause
7. Loc-Trans = +

Sub	ER	O	UM,DAT	Loc	LOC
A,C		P		G	

 +

Pred	ltr VP
------	--------

 clause

Table 4. Grammatical clause patterns.¹⁰

¹⁰ Abbreviations are listed starting page xv. Symbols in box 2 (such as UM,ER ...) refer to noun phrases with the indicated case marking, as listed in Table 3.

The two one-pl
 Descriptive, differ
 verb versus an esse
 may be an adjective
 phrase may serve in
 the subject or a cl
 examples illustrate
 the various slots
 patterns.

(1) Intransit
 (15), as Experience
 Neutral, in (18), d

15. mə'bá asq̄
 O_woman beft
 Sub_A:UM Ma:

The old woma

16. kwí mxi sae
 some men mit
 Sub_X:UM Pr

Some men (w

17. nq̄ cyu
 rain lit
 Sub_P:UM Ma:

The rain ea

18. mxwí gxr
 rupee one
 Sub_N:UM

One rupee f

¹¹ Essive verb
 which render the E

¹² Hope (1972:
 Essive, to accommo
 nominals. I have
 Gurung for the dis
 as roles.

¹³ The example
 such as Manner (Ma

Glover (1974: 74)

Ghacok Gurung

Outputs

- Newer initiatives have brought methods and outputs within this particular field into the 21st century:
- Archives: Digital Himalaya (University of Virginia, University of Cambridge), Tibetan Himalayan Library (U of Virginia), LACITO
- Documentation blogs and web pages: CPDP, Nar-Phu, etc.
- A-V companions to grammars: van Driem and Tshering's 1998 Dzhongkha practical grammar
- The online journal *Himalayan Linguistics* now has a “field reports” component
- But there is still room for more work and development

Digital Himalaya



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A project to develop digital collection, storage and distribution strategies for multimedia anthropological information from the Himalayan region

The Digital Himalaya project was designed by [Alan Macfarlane](#) and [Mark Turin](#) as a strategy for archiving and making available ethnographic materials from the Himalayan region. Based at the Department of Social Anthropology at the University of Cambridge, the project was established in December 2000. From 2002 to 2005, the project moved to the Department of Anthropology at Cornell University and began its collaboration with the University of Virginia. As of 2009, Digital Himalaya is back in Cambridge.

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News

BBC Human Planet (February 2011) The project is featured on the website of the BBC's new flagship series, [The Human Planet](#).

Carter Holton Collection (January 2011) of films from Gansu and Qinghai in China between 1930-1948 now [online](#).

Project receives 5 star rating (December 2010) from the [Asian Studies WWW Monitor](#), classified as an 'essential' online resource.

The Bhutan Review (October 2010). Published in Kathmandu by the Human Rights Organization of Bhutan, Digital Himalaya hosts 3 years of back issues of this important monthly publication.

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The DH Thangmi Archive

*Thangmi songs
(mp3 format) &
films (mp4 format)*

Home > Collections > Music > Reng Patangko Thangmi songs

Overview

Collections

- Census of Nepal 2001
- Fürer-Haimendorf Film Collection
- Films
- Journals
- Maps
- Music
- Naga Videodisc
- Rare Books & Manuscripts
- Thak Archive
- Thangmi Archive


Reng Patangko Thangmi songs

With support from the National Foundation for Development of Indigenous Nationalities (NFDIN), the Nepal Thami Society (NTS) has produced a cassette of eight Thangmi songs. Digital Himalaya is delighted to be the online home of this important audio collection. Recorded in 2007, the lyrics were composed by Singh Bahadur Thami, Devendra Thami and Lok Bahadur Thami. The musical coordinator was Balram Samal, the recordist was Subarna Shrestha and the songs were recorded at Nishad Digital Studio, Anamnagar, Kathmandu.

Please send us a short email to say whether this service is of interest and utility to you.

Track #	Title	Time	Description
01	Introduction to the Recording	1.57	
02	Bharaina Bharaina	7.55	Devendra Dungsupere, Lok Bahadur Thami
03	Om Sewa Mumtole	6.14	Bakhan Singh Roimidati, Anurag Dungsupere, Lila Roimidati
04	Indra Kamal	8.55	Lila Roimidati, Devendra Dungsupere
05	Chinchingga Phin Phin	6.03	Lila Roimidati, Lok Bahadur Thami
06	Sewa Sewa	5.03	Devendra Dungsupere, Lok Bahadur Thami, Anurag Dungsupere, Lila Roimidati
07	Sailung Swariko	6.56	Prakash Thoro
08	Chatiwan Sengko	7.39	Devendra Dungsupere
09	Siusu Hangko	6.07	Devendra Dungsupere

http://himalaya.socanth.cam.ac.uk/collections/music/rengpatangko/downloads/Track_02.mp3



Thangmi Film Collection



(If the video does not display for you please [click here](#) to download the video)

please select a bandwidth for the film clip:

low high
8.9 MB 29.6 MB

Puma-Chhintang Nar-Phu

Blogs & Web Pages

The Chintang and Puma Documentation Project (CPDP)

छिन्ताङ र पुमा अभिलेखीकरण परियोजना

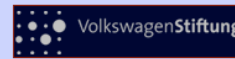
A **DOBES** project aiming at the linguistic and ethnographic documentation of two endangered Kiranti languages of Nepal

Carried out by:
**Institut für Linguistik
Universität Leipzig
Germany**

In conjunction with:
**Department of Linguistics
Tribhuvan University
Nepal**

Description of the project	Ethnography
Project structure and main goals	Language acquisition
Map	Pictures
Grammar and dictionary	Publications
Data	People
Code of Conduct	Access rights

Other fieldwork projects at the U. Leipzig Dept. of Linguistics



Nar and Phu (Tibeto-Burman, Nepal)

Field Research for an Audio-Visual Archive of Comparative Lexical Material

Phu_Tete.MP4
by [ksbtrekkobrandt](#)

Tete refers to a kind of spinach local to upper Manang. It does not grow well in Nar, but relatives and acquaintances regularly bring it with them when they go to Nar when it is in season. The speaker is Palma Tsering, age approximately 40, and also Pitar Lhakpa Lama, the male, age approximately 53.

This was recorded with Flip video camera and with the Marantz PMD 60 with stereo microphone (Audio-Technica) on 1 July 2010 in Nar village. The participants have given their permission for the recorded contents to be made publicly available. The Nar-Phu community wants viewers to learn about their beautiful language and culture.

I hope to include a sub-titled version of this video soon.

TUESDAY, MAY 10, 2011

[Nar-Phu Blog Reactivated!](#)

Namaste, Tashi Delek, supe moe (how are you?)

It has been too long from the time that I created this blog in 2010 until now in 2011, when I am finally getting around to adding some meaningful content to it. My excuses are not good ones: I had to put the bulk of my available time into working with the A-V material itself, preparing it for archiving with [YouTube](#) as per my CLDP obligations. I offer my sincere thanks to [Lutz Preuss](#) for their financial support of my studies of the [Luzhu](#) language.

I have more recently been re-learning the ins and outs of Blogspot. It does not do everything that I wish it would do, but it certainly does enough for a beginning!

All photos and audio-video material posted to this blog has already been cleared through with Human Subjects at my home institution ([Colorado State University, Fort Collins, CO](#)), meaning that

Field Reports

himalayan
linguistics

a free peer-reviewed web journal and archive devoted to the study of the languages of the
Himalayas

ISSN 1544-7502

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Linguistics @UCSB

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Cumulative list of field reports

Field reports are descriptive studies which provide a brief introduction to a language on which little previous literature exists, or which present a coherent analysis of a single linguistic subsystem (e.g., relative clauses or tense-aspect marking). The primary goal of field reports is to increase the descriptive resources available on Himalayan languages. This contrasts with the primary goal of articles, which is to advance our understanding of theoretical, typological, or historical issues. Field reports are peer reviewed.

(Field reports are listed in reverse chronological order)

Kopp, Kevin A. 2011. 'Plural marking in Dolpo Tibetan: A preliminary investigation.' *Himalayan Linguistics Journal* 10.1 [Special Issue in Memory of Michael Noonan and David Watters]. 291–298. [[PDF](#) (241 kB)]

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Updated July 14, 2011



Ongoing Need

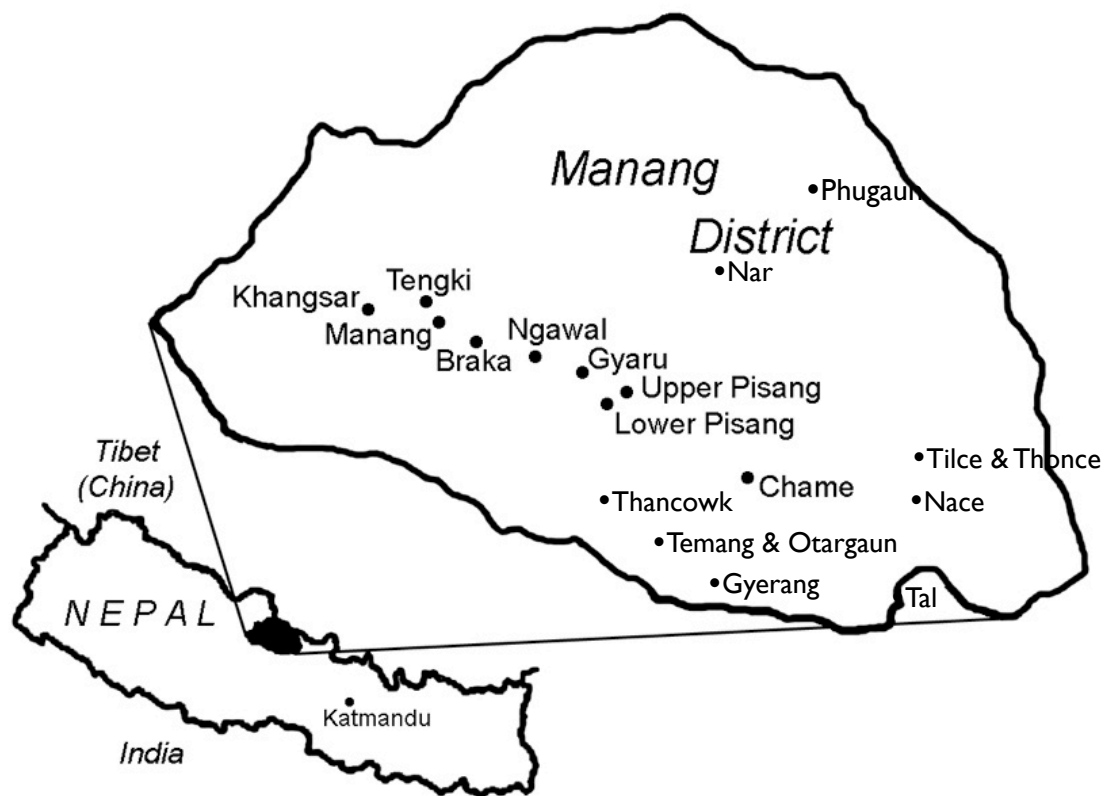
- The linguistic diversity across the geographically changeable and compact/bounded inhabitable regions of Nepal, combined with varying degrees of within-family and across-family contact, along with varying degrees of threat/maintenance to these languages should all shape the methods of documentation too
- Historically, this would be a tall order for any purely paper-bound output
- But existing grammars already hint at the possibilities of what a multi-variable approach to documentation on any given language/in any area might reveal (handout, appendix)

Introduction

- This kind of information is essential; not only does it contribute to/ challenge theories of natural human language
 - E.g. phonemic vs. sub-phonemic, conditioned vs. free variation, structure-preserving vs. structure altering; lexical vs. post-lexical; lexically general vs. specified (Kiparsky 1982; Mohanan 1986; Blevins 2004 ; Nespors and Vogel 2007)
- An added bonus is that the variation frequently appears to have sociolinguistic motivations
- These observations open up possibilities for revisiting and expanding methods and outputs of language documentation & description, enriching analysis by factoring in other variables

My own main documentation focus since 1998

Manang Languages



- Nar & Phu spoken to north-east
- Manange spoken in northern & central VDC's
- Manang-Gurung in southern & central VDC's
- Gyalsumdo around Tal & Chame

Manang Languages

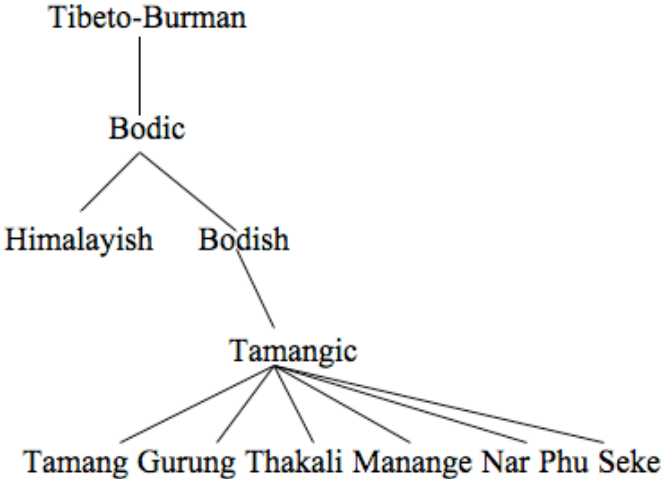
- Sino-Tibetan tonogenesis:
- Relatively “recent” diachronic phenomenon, and many S-T languages still incipiently tonal in terms of phonetic correlates, domains of contrast and perceptual functional load:

No tone	The languages are a-tonal	Dolakha Newar, Garo ^{a)} , Kinnauri, Limbu, Qiang
Amalgam	For at least half of the tones, the phonetic correlates include F_0 <i>and</i> phonation differences. The number of contrastive tones is often four or fewer	Burmese ^{b)} , Dege Tibetan, Kham, Kyirong Tibetan, Manange
Pure	Tone is (almost) entirely a function of F_0 distinctions. If there is an additional parameter, it applies to only one tone. The number of tones is often greater than four	Cantonese, Dulong, Kayah-Li, Lahu, Mandarin, Meithei, Wu

Tone Systems in 19 S-T languages

Tamangic Tonogenesis

PROTO	*p	*p ^h	*b	*m	MODERN
*HI	p	p ^h	--	m	/1/ modal
*p, *p ^h , *b, *m	p	p ^h	--	m	/2/ modal
*LOW	--	--	p	m	/3/ non-modal
*p, *p ^h , *b, *m	--	--	p ^(h)	m	/4/ non-modal



Resulting Systems

- In languages with adequate data

		Tamang	Gurung	Thakali	Manange
*HI	/1/	54 ± asp	33 ± asp	54	22 ± asp
	/2/	55 ± asp	54 ± asp	44	44 ± asp
*LOW	/3/	33/22 f̃i, + asp	11 f̃i, -asp	11 f̃i, -asp	52 -asp (only obs)
	/4/	211 f̃i, + asp, [b]?	12 f̃i, -asp, [b]?	121 f̃i, -asp, [b]	42 + asp (only obs)

(f̃i = 'breathy/murmur phonation; [b] = possible phonetic voicing effect of onset;

Chao numbering system where 5 = high, 1 = low)

- However: Mazaudon & Michaud (2006, 2008), Hildebrandt (2007), Mazaudon (2005)-- high degrees of idiolectal & dialectal variation, phonetic correlates differently weighted across languages, varied role of F0 (pitch) in defining the systems

Issues of Representation

- The different diachronic paths and currently varied systems of these languages have some significant consequences for representation of tone
- Featural approach: 2 tones + initial C [VOICE] feature (cf. Kjellin 1975 for Tibetan); but: in some lgs., voicing differences part of the consonant, part of the vowel, or else both (in particular, Tamang)
- Separate tone & phonation: /1, 2/ tone, /3, 4/ phonation/register (Maddieson 1984); but: across lgs., /3, 4/ don't show similar trajectories
- HI & LOW Register systems: in LOW (Yip 1995, Duanmu 1992) phonetic voicing of onsets dependent on tone category; but: voicing in Tamang tones acoustically/articulatorily unstable & now Manange /1/ & /4/ for some speakers → “low merger” (despite etymology)

Issues of Representation

- Mazaudon & Michaud (2008) suggest a ‘panchronic’ approach:
- It’s possible that Gurung, Tamang, Thakali → Manange-type system
- If so, we are currently observing tonogenesis still in-action, observing the gradual de-linking (and possibly re-linking) of non-F0 correlates
- In particular, re-linking may occur via contact with Indic languages (non-tonal, true register-based systems, dominant, lingua-franca presence in Nepal)
- And we are likely to witness a great deal of inter-speaker and regional variation

The Problem of Acoustic Correlates

- My own research on phonetic (acoustic) correlates reveals more ongoing questions than firm answers

	F0	Initial C VOT	Medial C VOT	Stem Amplitude	Spectral Tilt (modal v. non-modal)	V Duration
Manange (9 spkrs, 4 communities)	4 tones (rural) 2-3 (urban)	/4/ +asp /3/ -asp	allowable for all tones	n.s.	n.s.	n.s.
Nar(-Phu) (2 spkrs, one community)	2 tones “high” & “low”	male: /2/ vs. others	n.s.	n.s.	/3/ v. /4/ (female: vowel jitter)	female: /1, 3/ vs. /2, 4/
Manang-Gurung (7 spkrs, 2 communities)	some spkrs 3-way, others 2-way	for some spkrs: /1, 2/ v. /3, 4/	n.s. (most words monosyll.)	n.s.	n.s.	n.s.
Gyalsumdo (1 speaker)	3-way (2 high, 1 low)	n.s.	insufficient data	n.s.	n.s. but vowel jitter significant	n.s.

Electroglottographic Investigations

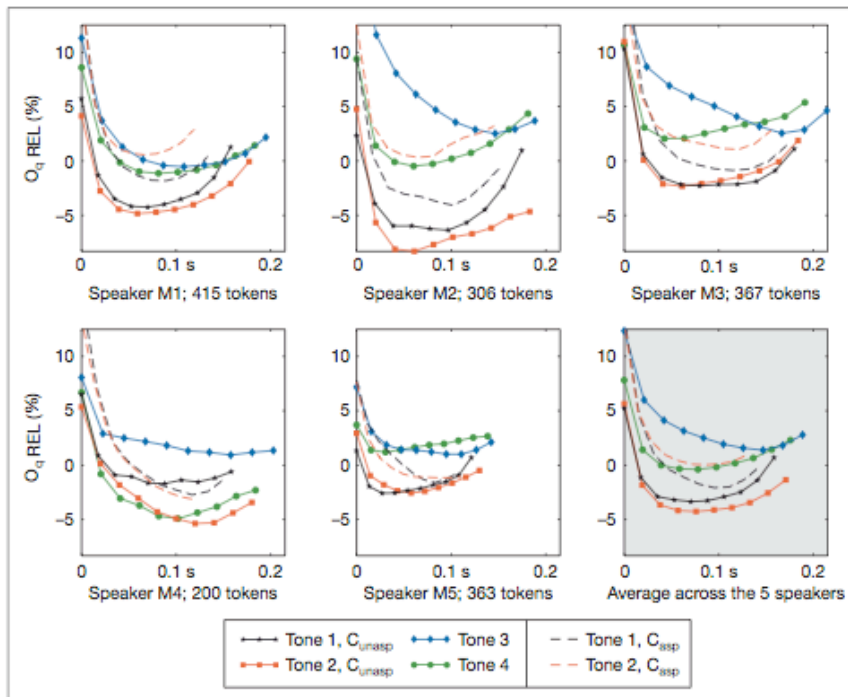


Fig. 4. Averaged curves of O_q (relative to the mean O_q value of each speaker), plotted against average duration.

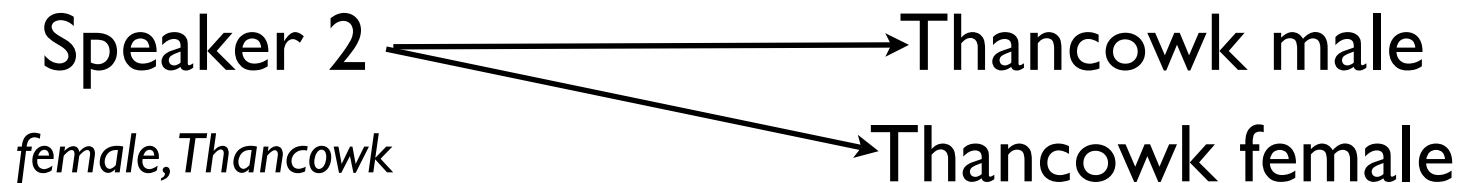
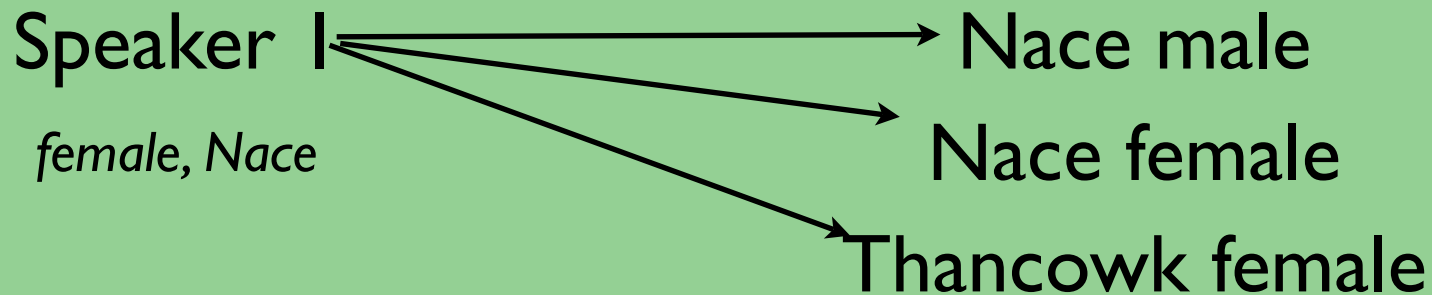
- Mazaudon and Michaud (2008: 240) observed for Tamang that the open-quotient (O_q) values were significantly higher, with a dipping and then rising pattern through time for the LOW tones vs. the HI tones.
- i.e., for the LOW tones, they observe an overall rise in airflow rate in the nucleus
- My future steps involve EGG analysis, but production must also be considered in tandem with perception

Production v. Perception

- How do these findings compare with perception of tonal contrasts across speakers (across communities)?
- List collected from two Manang-Gurung females
- Spkr 1 from Nace village; Spkr 2 from Thancowk village
- Recordings digitized, target words extracted, scrambled and formatted into four sound files per speaker:
 1. Nouns in isolation and in frame-medial ('I see that X')
 2. Verbs in isolation (w/nominalizer suffix -pa) & in frame-medial (w/deontic suffix -la)

Production v. Perception

- Four sound files played for 5 other Manang-Gurung speakers



- The perception test took place in Nepali with a brief training section, followed by the actual wordlists
- For each word played, the informants were provided a Nepali forced choice (example video clip, if time)

Production v. Perception

SPKR I	KAH	NACE MALE
mi 'person'	<i>naam</i> 'name' <i>maanचे</i> 'person' <i>aago</i> 'fire'	'person'
ɲjo 'lake' [ɲo] ~ [ɲjo]	<i>paaso</i> 'trap' <i>pokhari</i> 'lake' <i>nidhaar</i> 'forehead'	'lake'
kli 'snow'	<i>disab</i> 'feces' <i>hiũ</i> 'snow' <i>boso</i> 'lard'	'feces'
ku 'urine'	<i>nau</i> 'nine' <i>chaati</i> 'chest' <i>pisab</i> 'urine'	'urine'
kju 'sheep'	<i>paani</i> 'water' <i>kampa</i> 'beam' <i>bheda</i> 'sheep'	'sheep'
ɲo 'forehead' [ɲo] ~ [ɲjo]	<i>paaso</i> 'trap' <i>pokhari</i> 'lake' <i>nidhaar</i> 'forehead'	'trap'



Production v. Perception

Perception (Nace Informants)

MALE			FEMALE		
SET	ACCURACY	χ^2	SET	ACCURACY	χ^2
Niso	57%	0.002	Niso	60%	0.04
Nfr	91%		Nfr	82%	
Viso	83%	0.50	Viso	72%	0.31
Vfr	89%		Vfr	84%	

low χ^2 indicates that context of utterance correlates with perceptual accuracy for nouns

however: context-dependency is not the case for verbs

Mapping Tonal Variation

- Even in studies where the four-way tone system is more robust (e.g. Manange), cross-speaker variation is too compelling to ignore
- Even normalization of the “raw” data have not resulted in neatly significant results in multi-speaker studies
- I suspect that sociolinguistic factors, including the growing role and influence of a-tonal Nepali, are at play and can provide a more organized perspective on the seeming chaos
- This type of study is attractive to a geo-spatial perspective
- Currently, small-scale GIS (Geographic Information Systems) representation of Manang is impossible

GIS

- GIS is a system for storing and displaying geo-spatial information on the web or in other digital formats
- It integrates software, hardware & programming to answer questions involving geographically referenced data

Civil War Washington 8/28/11 4:50 PM

CIVIL WAR WASHINGTON

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The "Washington in Transformation Maps" offer a combination of temporal, geographical, and contextual data layers. The map layers display distinct shape files, or icons, on behalf of physical and geographic objects. The base map, below, displays locations by date ranges and can return simple search results. Alternate map views are coming soon.

Legend

- ▼ Fortification
- ▼ Hospital
- ▼ Theater

Query

Enter a date to see features present at that time.

Format: YYYY-MM-DD
Between 1860-01-11 and 1865-12-31

Date:

Identify

Click a map point to display its information here.

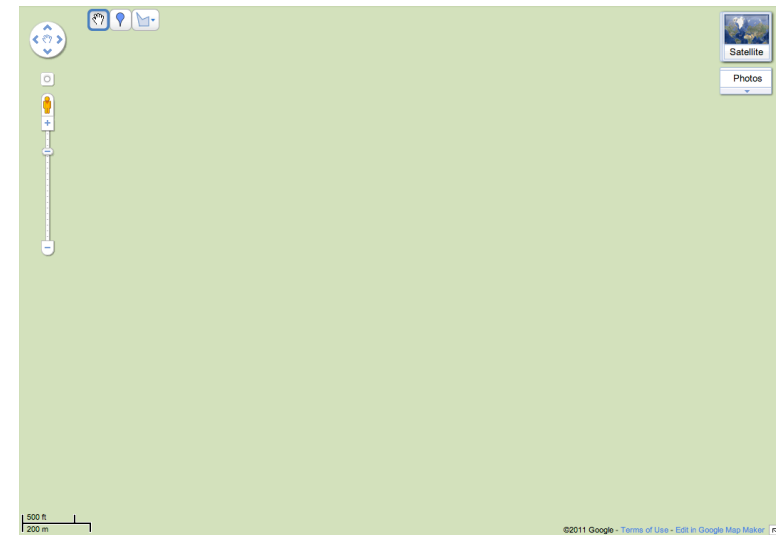
Drag the dark bar at the top to relocate this window.



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A GIS Perspective of Manang Languages?

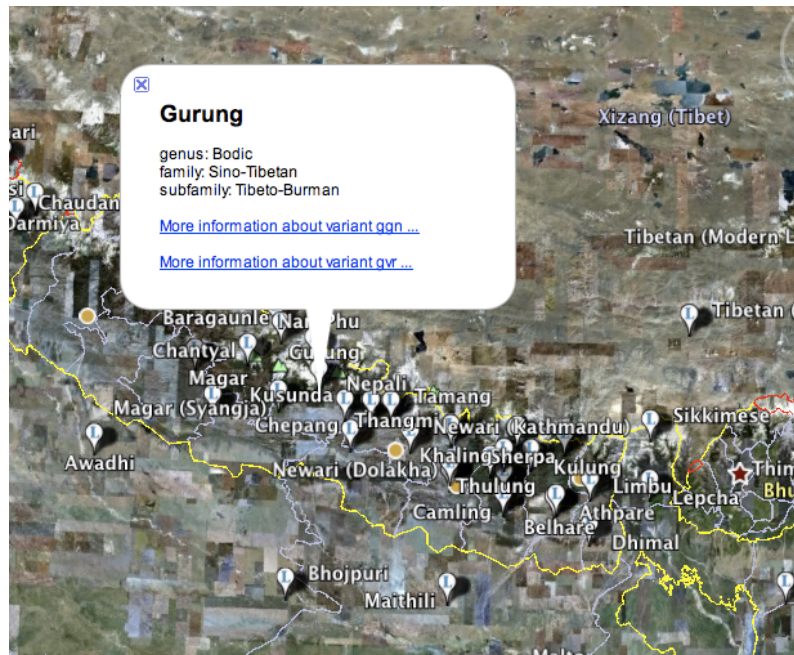
- With the maps currently available through Google Maps, extreme pixelation results with zooms beyond 1: 10,000



Chame @ 1:500 (satellite & map)

GIS and Documentation

- But, GIS-documentation link-ups are increasingly employed, with some interesting and compelling exemplars
- DELAMAN network (spatial representation of metadata from endangered language archives)



Virtual Language Observatory  

Explore the world of language resources and technology from different perspectives

VLO Home >> Faceted Browser Resources search

COLLECTION	LANGUAGE	Results
WALS RefDB (2) Ethnologue: Languages of the World (1) OLAC Metadata Providers (1) Rosetta Project 1000 Language Archive (1) WALS Online (1)	Eastern Gurung (6) English (3) Western Gurung (3) Amdo Tibetan (1) Eastern Gorkha Tamang (1) Eastern Tamang (1) Khams Tibetan (1) Tibetan (1)	Gurung, Eastern: a language of Nepal Language Overview: Eastern Gurung Semantic and Grammatical Structures in Gurung (Nepal) Sino-Tibetan Numeral Systems: Prefixes, Protoforms and Problems The Collections of the Tibetan and Himalayan Digital Library WALS Online Resources for Gurung
CONTINENT	GENRE	
	language description (1)	
COUNTRY	SUBJECT	
Nepal (1)	general linguistics (2) syntax (2) typology (2) morphology (1) semantics (1)	
ORGANISATION	RESOURCETYPE	
Australian National University (1) Longo Now Foundation (www.longnow.org) (1) Max Planck Digital Library (1) SIL International (www.sil.org) (1)	unknown type (6)	

GIS & Documentation

- Berkeley Linguistics Mapping Project (BeLMaP): Studies the role of space in the spread of linguistic features via diffusion/borrowing in areas of intense contact (Michael 2010)

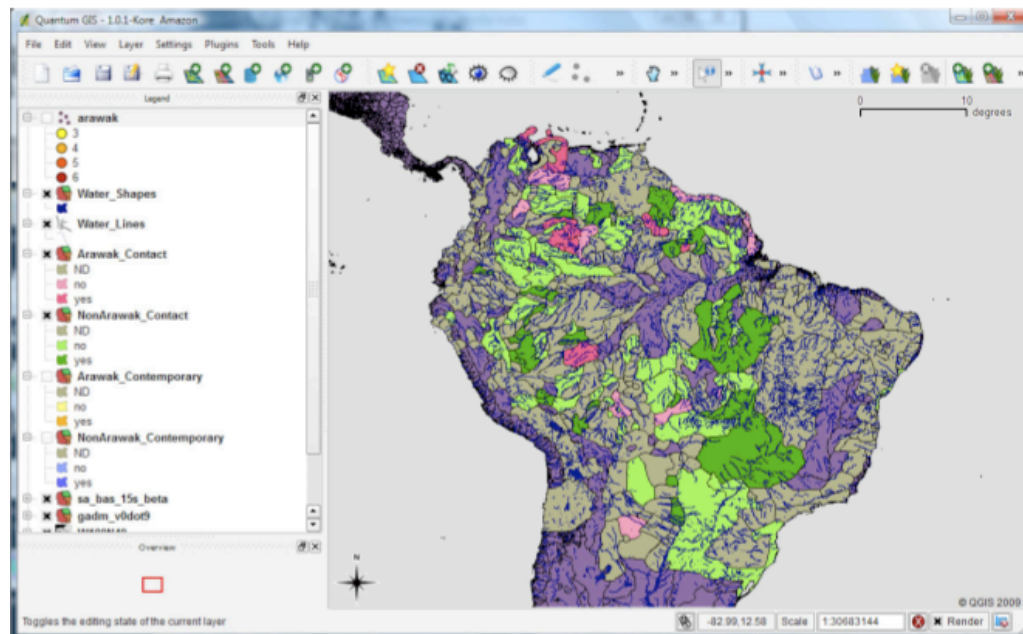
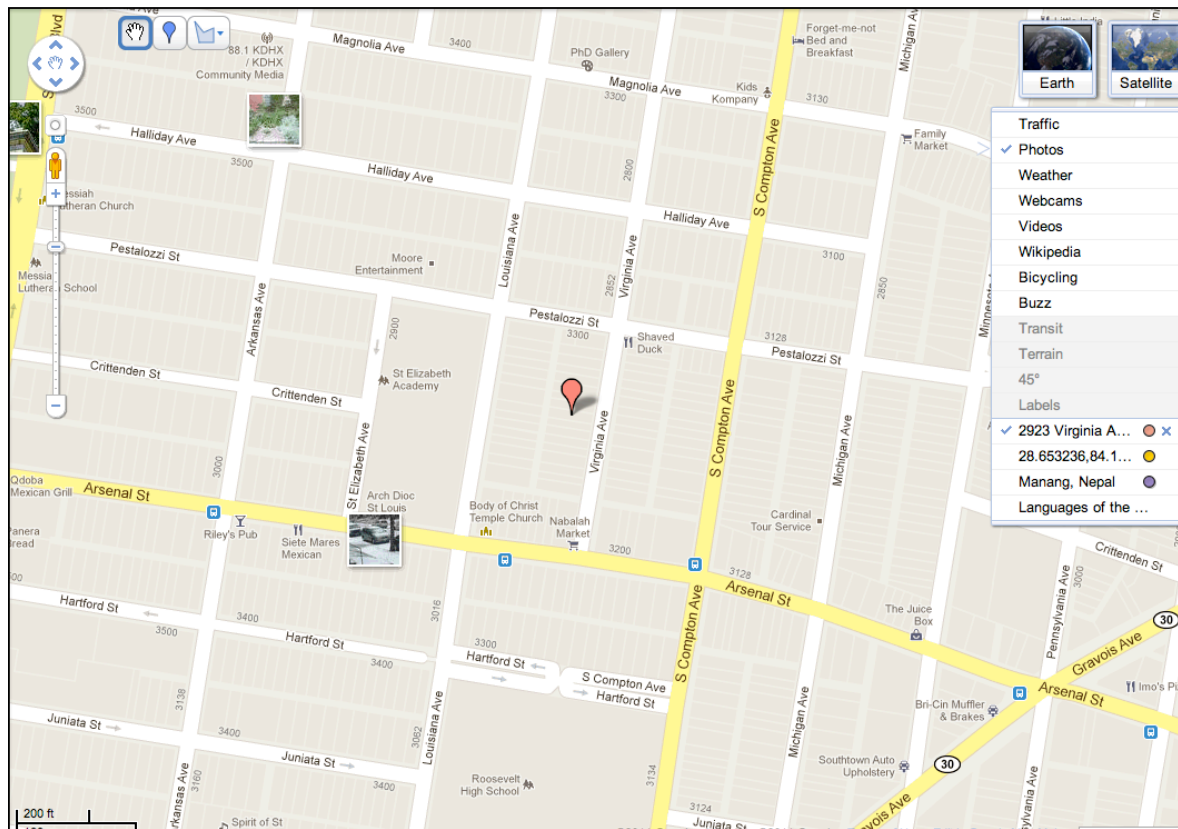


Figure 1: Map layers containing linguistic data are manipulated in QuantumGIS

Zooming In?

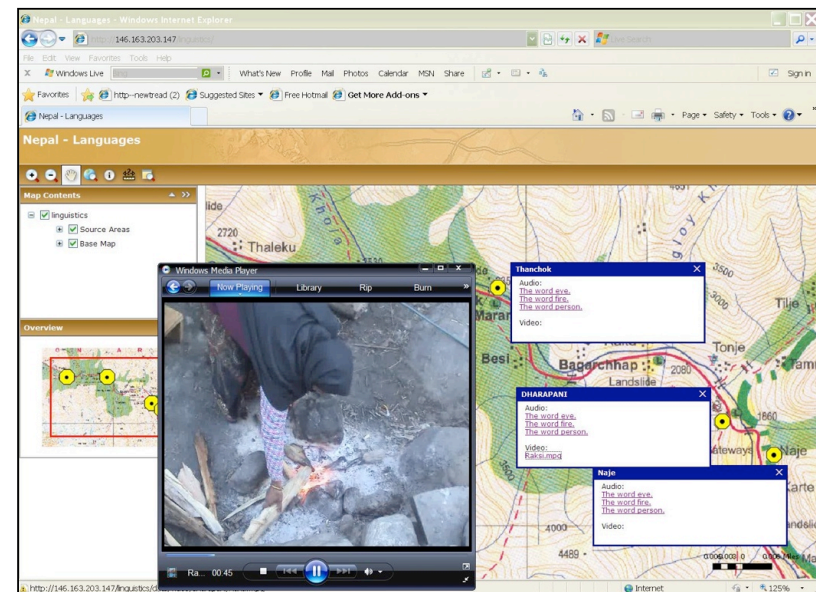
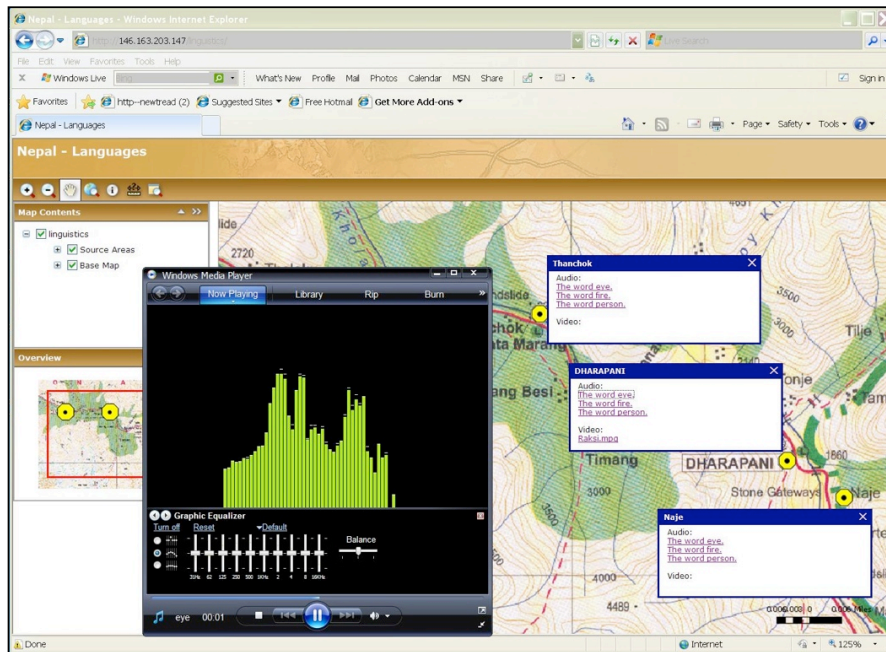
- What I am striving for is a way to visualize patterns and usage scenarios (beyond just tonal acoustics) in micro-level spatial perspectives (like what is available in Europe/North America)



My neighborhood in the U.S.
1:200 zoom
Google Maps

Mapping Languages of Manang

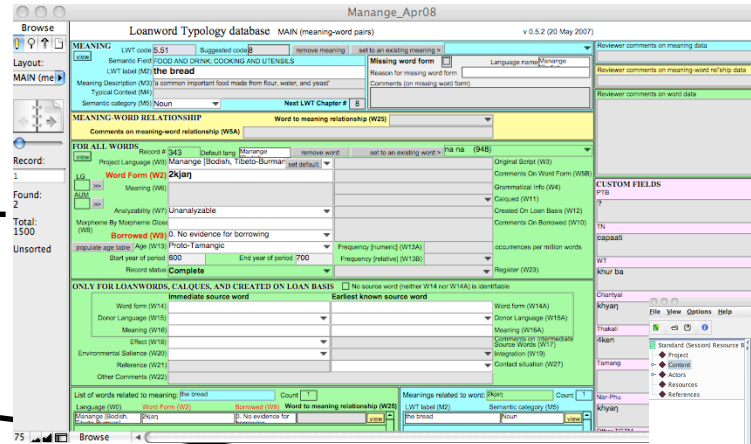
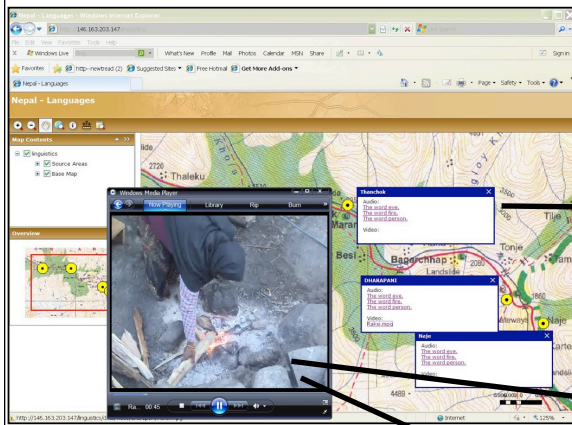
- I am working currently via collaboration with GIS/cartography faculty at SIUE to incorporate detailed trekking maps modified for Google



A-V options, Dhaarapaani
Village (Manang-Gurung)

Mapping Languages of Manang

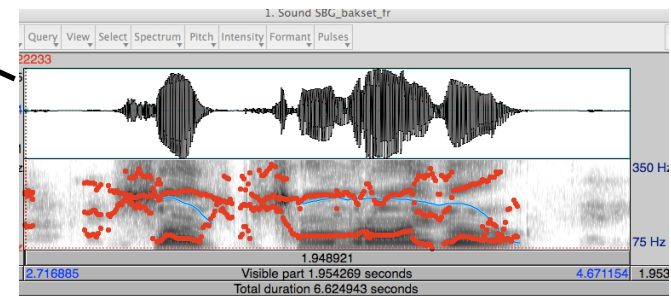
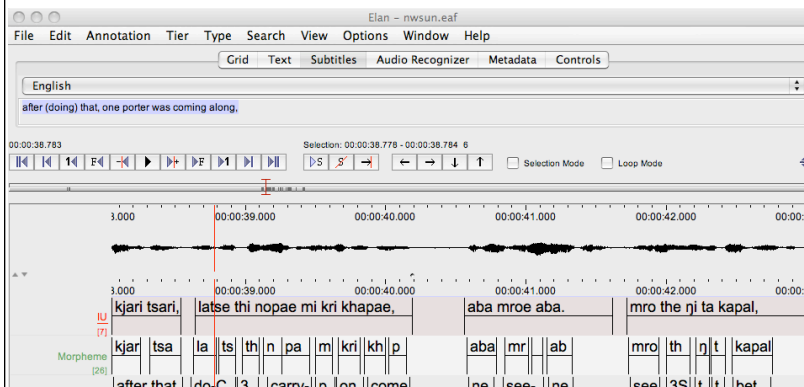
- The geo-points may themselves become “hotlinks” to downloadable data, or A-V files in formats amenable to acoustic research



lexeme info.

metadata (IMDI)

text transcripts (ELAN, Toolbox)



.wav soundfiles

For Consideration

- A spatial perspective is not a substitute for intensive, comprehensive documentation of systems as they are used in everyday settings, across genres; the methods of investigation must remain rigorous
- There is also the non-trivial matter of community permission and input in an endeavor that would result in a linguistic mapping at a micro-level
- In addition to community cooperation, such initiatives rely on intense cross-disciplinary (and even cross-institutional) collaboration with experts on hardware, software and programming needs, on larger budgets, and on longer timelines

For Consideration

- Following guidelines advocated by ELAR, by DoBeS and by Bird and Simons (2003), all of this collaboration and technical expertise must all ultimately be open-source (to the extent possible), transportable, cross-platform (non-proprietary), available to/learnable by a wide range of users, must find a long-term home for storage/access/archive, and must use mark-up languages available for long-term access

For Consideration

- However, spatial representations of structure and usage in such multi-lingual, heavy-contact, endangerment-prone areas provide an additional, more intuitive visual perspective of ‘what’s going on’
- Such representations are particularly illuminating in areas where multiple features are considered simultaneously, or where structural variables are paired with socio-cultural/attitude/usage-scenario ones
- They also open up linguistic documentation and analysis to wider audience numbers and types (van Uytvanck et al’s ‘curiosity factor’)