Additional data of paper:

Michaud A. & Mazaudon M., 2006, « Pitch and voice quality characteristics of
the lexical word-tones of Tamang, as compared with level tones (Naxi data) and
pitch-plus-voice-quality tones (Vietnamese data) », Proceedings of Speech

This document presents figures and recordings related to the research reported in a conference
paper entitled "Pitch and Voice Quality Characteristics of the Lexical Word-Tones of
Tamang, as Compared with Level Tones (Naxi data) and Pitch-plus-Voice-Quality Tones
(Vietnamese data)“. (Authors: Alexis Michaud and Martine Mazaudon.)

The figures and recordings made available here were part of the originally published
communication: the organisers of the conference encouraged the authors to place additional
materials on a web page referenced inside the paper. Our materials are presented on the
following web page:


We thought we would take the opportunity of the HAL open-archive server to make these
documents available together with our research paper.

1) Figures: average curves of fundamental frequency and
glottal open quotient for the five speakers, M1 to M5

Note that these 10 figures are with HALVED standard deviation: the standard deviation is so
high that showing the full standard deviation would make the figures extremely difficult to read.

Figures are in .eps format; they can be opened with GhostView, as well as with other software
such as AdobePhotoshop.

<table>
<thead>
<tr>
<th>Monosyllables:</th>
<th>Disyllables:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker M1, Speaker M2, Speaker M3, Speaker M4, Speaker M5</td>
<td>Speaker M1, Speaker M2, Speaker M3, Speaker M4, Speaker M5</td>
</tr>
</tbody>
</table>
2) Sounds: the four tones in carrier sentence by speaker M2

Format: .wav, sampling rate: 44,100 Hz.

The example chosen is a 'minimal quadruplet': 1ku:-pa 'to wear [a hat]', 2ku:-pa 'to train [oxen]', 3ku:-pa 'to draw towards oneself', 4ku:-pa 'to lie in ambush'. The first word of the carrier sentence is 2cu-ri 'here'. (Tone is indicated as a superscript figure before the first syllable of the phonological word that carries it.)

Note the realisation of the initial stop of suffix /-pa/ as a voiced consonant or even an approximant.

<table>
<thead>
<tr>
<th>Audio signal:</th>
<th>Electroglottographic signal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tone 1 (audio), Tone 2 (audio), Tone 3 (audio), Tone 4 (audio).</td>
<td>Tone 1 (EGG signal), Tone 2 (EGG signal), Tone 3 (EGG signal), Tone 4 (EGG signal).</td>
</tr>
</tbody>
</table>

Additional links

Click here to see a Powerpoint presentation on the phonological modelling of the tones of Tamang, presented at the 14th Manchester Phonology Meeting (14mfm) in May 2006.

Click here to get to the page where our software for analysis of the EGG signal is available for download (with some documentation).