



Up, down, and across the land: landscape terms, place names, and spatial language in Tzeltal

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Abstract

The Tzeltal language is spoken in a mountainous region of southern Mexico by some 280,000 Mayan corn farmers. This paper focuses on landscape and place vocabulary in the Tzeltal municipio of Tenejapa, where speakers use an absolute system of spatial reckoning based on the overall uphill (southward)/downhill (northward) slope of the land. The paper examines the formal and functional properties of the Tenejapa Tzeltal vocabulary labelling features of the local landscape and relates it to spatial vocabulary for describing locative relations, including the uphill/downhill axis for spatial reckoning as well as body part terms for specifying parts of locative grounds. I then examine the local place names, discuss their semantic and morphosyntactic properties, and relate them to the landscape vocabulary, to spatial vocabulary, and also to cultural narratives about events associated with particular places. I conclude with some observations on the determinants of landscape and place terminology in Tzeltal, and what this vocabulary and how it is used reveal about the conceptualization of landscape and places.

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1. Introduction

This paper addresses the conceptualization of a people's environment – natural and manmade features of the landscape – by looking at how these are coded in their language and expressed in language usage. The issue here is one of geographical ontology and its

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relation to spatial language and cognition – do these vary cross-linguistically, cross-culturally, even across ecologically similar environments? What kinds of categories do people pick out with landscape and place terminology? Is reference to places distinguished from reference to things (people, animal, objects) AT places? Are place names formally distinguished from other kinds of proper names and from common nouns – and if so, how? What places do they refer to? How are they semantically construed?

Two streams of interest converge in these questions. On the one hand, there is the issue of the ontological status of landscape terms across different languages – do they provide evidence for universal properties of human cognition (Smith and Mark, 1999, 2003)? On the other hand, among anthropologists and linguists concerned with spatial language and conceptualization across languages and cultures, landscape terms and place names offer a critical arena for understanding how members of a community conceptualize their spatial environment (e.g. Basso, 1984; Hirsch and O’Hanlon, 1995; Hunn, 1996; Hercus et al., 2002).

I address these questions with data from a Mayan community in southern Mexico.¹ The people in question are Tzeltal Mayans living in a precipitously mountainous region of the state of Chiapas; they are slash and burn agriculturalists leading a largely subsistence existence based on corn and beans cultivation, supplemented where ecology permits with a cash crop of coffee. There are 280,000 or more Tzeltal speakers spread across the state of Chiapas, from the high mountain plateau of San Cristóbal de las Casas and environs to the lowland jungle of southeastern Chiapas. I confine myself here to the rural highland community of Tenejapa,² focussing especially on the paraje (hamlet) of Majosik’, where I have worked for over 30 years.

The paper examines the formal and functional properties of the Tenejapa Tzeltal vocabulary used for labelling features of the local landscape and relates it to spatial vocabulary used for describing locative relations, including the uphill/downhill axis for spatial reckoning as well as body part terms for specifying parts of locative grounds. I then examine the local toponyms – place names that pick out individual landscape or other place features enabling their unique identification – particular rivers, mountains, valleys, settlements of different types, neighboring municipios, as well as more local features like trails, cliffs, lakes, ritually important places, and ad hoc meeting-places. Many of these place names incorporate landscape features as part of the name (e.g. ‘Red Cliffs’, ‘Lake’), while others refer to salient physical characteristics of the locality (e.g. ‘Place_of_many_small_(gravel)_stones’). I describe the semantic and morphosyntactic properties of these names, and again connect them to spatial vocabulary but also more generally to cultural narratives about events associated with particular places.

The argument I propose is this: Tzeltal landscape and place terminology and the use of these terms in locative expressions reflect a cognitive template, a conceptualization of the local environment as a ‘tilted world’, an inclined plane sloping down to the north. This template underlies locative expression in Tzeltal from the large scale (‘Veracruz is downhill from Tenejapa’) to the small scale (‘the machete is standing leaning downhill from the

¹ The data is based on my own fieldwork in this community since 1971. Intensive elicitation about landscape terms and place names was conducted by me with several Tenejapan consultants in field trips in 2001–2006, based on methods set out in the MPI Field Manuals (Bohnenmeyer, 2001; Bohnemeyer et al., 2004).

² The center of Tenejapa municipio is approximately at latitude 16°50’ North and longitude 92°50’ West (Hunn, 1977, p. 5).

doorway’). It also permeates the use of place names and landscape terms in speech about the environment, for example in route descriptions and narratives.

First we will need some background on the ecological context, and on two aspects of the linguistic context: the absolute spatial reckoning system, and spatial relators in Tzeltal vocabulary.

2. The ecological context

Tenejapa is a municipio – a corporate community with its own identity, clothing, and local government – of about 100 square kilometers, situated in a rugged, mountainous area of highland Chiapas. It lies at the western edge of Tzeltal-speaking territory, bordered by municipios of Tzotzil speakers from the northwest to the southeast (see Fig. 1). Elevations range between 900 m (2925 feet) in the northeast to 2800 m (9100 feet) in the south. Rainfall amounts to perhaps 1500 mm a year, which falls mostly in the rainy season between May and December (Hunn, 1977, p. 5).

Because of the dramatic variation in altitude, the municipio is split conceptually in half, into high *sikil k’inal*, ‘cold country’, characterized by pine and oak covered ridges, and low *k’ixin k’inal*, ‘hot country’, with more tropical vegetation, an opposition reflected in many aspects of religious ritual as well as in what crops can be grown. Drainage is to the northeast, with streams flowing often underground through limestone caves, into the Tanate’ River on the northern border of Tenejapa, which in turn dives underground for many miles and re-emerges as the Chacte’ River, flowing eventually into the Grijalva and thence into the Pacific Ocean (Hunn, 1977, p. 5; see Fig. 2).

The fragmented land tenure system of Tenejapa allows most families to exploit the different ecologies, with distinct crops in lowland fields and upland fields, reached by following the ridge or valley which runs down from the south to the north. Most travel was until very recently by foot, over an extensive set of trails, most of which run south/north following the prevailing ridges and valleys. Tenejapans travelled on foot quite widely outside the municipio to markets and to the town of San Cristóbal, acquiring an intimate knowledge of the local landscape. Roadbuilding, however, has been intensive in the last decade, so even the most remote communities now have a rough dirt road into them and travel by foot is correspondingly diminished.

The population of Tenejapa is about 37,000, and the land is densely used. Settlement is in dispersed hamlets (known as *parajes*), with household compounds spread out and surrounded with cultivated fields, fallow land, banana and other fruit trees, and, in hot country, coffee plantations.

The focus in this paper is on the *paraje* of Majosik’, a settlement located at the northern extreme of Tenejapa (see Fig. 2), and hence in ‘hot country’ from a Tenejapa-wide perspective. The *paraje* sits in a large high crescent-shaped basin in the south, sloping down into a wide valley and up to the western slopes of a long ridge running about four miles downhillwards from a high point in the south to the river Tanate’ in the north, which bounds the Tzeltal-speaking world (over the border in Chenalho’ they speak a related Mayan language, Tzotzil).³ The shift in altitude from the southern end of Majosik’ (c. 5300 feet, or

³ Tanate’ is one of the smaller tributaries of the Rio Grijalva (Berlin et al., 1974).

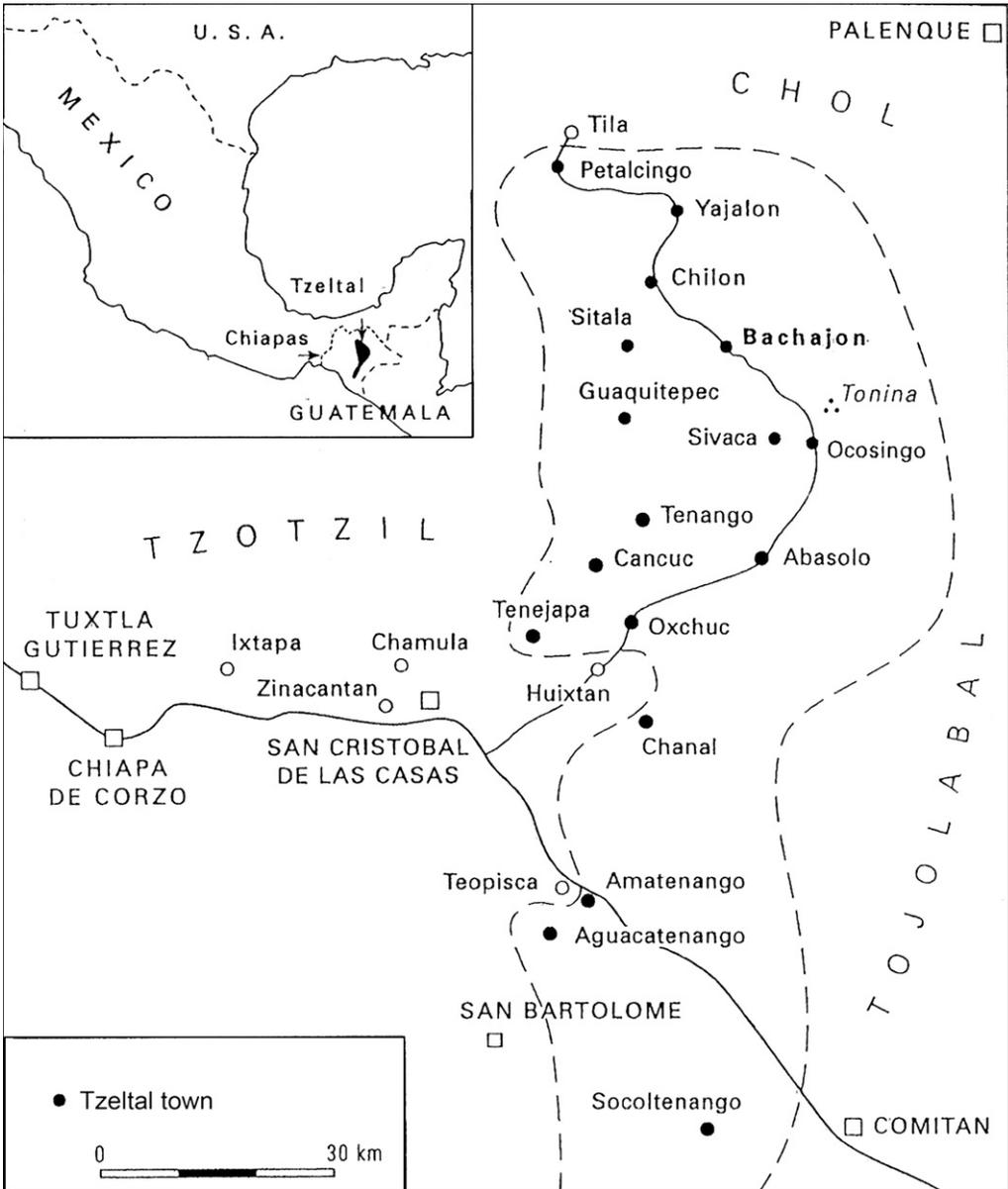


Fig. 1. Map of Tzeltal/Tzotzil area (adapted from Monad Becquelin, 1997 based on Breton, 1979, p. 16).

1600 m) to the northern end (c. 3000 feet, or 900 m) has dramatic ecological effects – from pine forest to semi-tropical conditions (see Figs. 3–5).

Most ridges in the surrounding area run parallel. The high, cold, ceremonial centre of Tenejapa (locally referred to as Lum ‘town’, c. 6700 feet, 2000 m) lies clearly uphill and due south of Majosik’. Lum is a small town with some Spanish-speaking Mexican inhabitants (Ladinos, in local parlance) as well as Tzeltal ones, primarily political and religious leaders housed in town during their tenure (see Fig. 6). Beyond that, 30 km to

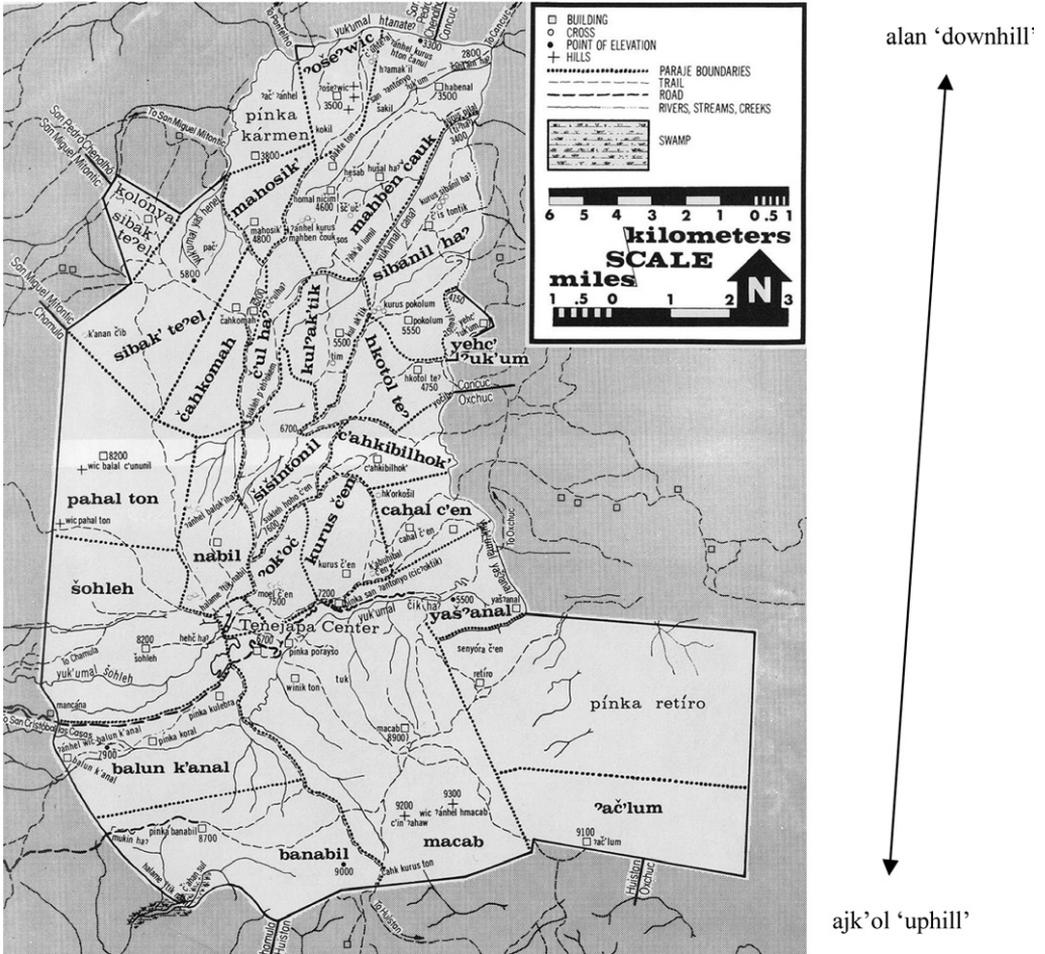


Fig. 2. Map of Tenejapa (from Berlin et al., 1974, p. 17).

the southwest and still in cold high country, lies the market town of San Cristóbal, the furthest limit of travel for most inhabitants of the remoter parajes because of the scarcity of roads and the precipitousness of the country.

3. Spatial language in Tzeltal

3.1. The 'uphill/downhill' system

Tzeltal spatial language is notable for the absence of any relative left/right/front/back system for describing spatial relations. Instead there is an absolute 'uphill/downhill' system based ultimately on the overall general slope of the land in this region (downward from high south to low north) (Brown and Levinson, 1993; Levinson, 2003; Brown, 2006). This has however been abstracted to yield an abstract cardinal direction axis, analogous to south/north although systematically skewed from the cartographic axis of standard maps. Together with an orthogonal axis, labelled 'across' at both ends, this provides



Fig. 3. Photograph of *ajk'ol* in Majosik', facing southeast where the road from Lum comes in.

a system of cardinal directions. The absolute terms are used routinely to describe the locations of things, either with respect to each other or with respect to protagonists or speakers, on both a large scale (locations in the landscape) and on a small scale (locations within, say, arm's reach). So of two bottles on either end of a north–south oriented table, one will be described quite naturally as 'to downhill' of the other, even though the table is horizontal. Here the overall lie of the territory provides a fixed angle (of orientation, in the horizontal plane) which can be used to describe the directional relation of things that are not actually inclined with respect to one another (see Fig. 7).

Because there is no relative system (with notions like 'to the left of', etc.),⁴ this absolute system plays a crucial role in linguistic descriptions of location. Thus in Tzeltal one describes static spatial relationships as in the following examples⁵:

⁴ There are terms for the 'left' (*xin*) and 'right' (*wa'el*) hands, but these terms are not used in a relative frame of reference to project egocentric axes for establishing spatial relations (Brown and Levinson, 1993).

⁵ Tzeltal transcription conventions are based on a practical orthography. Symbols correspond roughly to their English equivalents except that *j* = *h*, *x* = *sh*, and ' indicates a glottal stop or glottalization of the preceding consonant. This orthography postdates 1977, which is why place names in Figs. 2 and 10 are spelled slightly differently from those in my text, with *c* instead of *tz*, *č* instead of *ch*, *š* instead of *x*, and *h* instead of *j*. Abbreviations for glosses are as follows: 1,2,3 E indicates 1st, 2nd, 3rd person ergative prefixes (marking both subjects of transitive verbs and noun possession), 1,2,3 A indicates the corresponding absolutive suffixes, 1plex is 1st person plural exclusive, 1plin 1st person plural inclusive, PL 2nd or 3rd person plural, DIST distributive/plural, ASP neutral aspect, CMP completive aspect prefix, ICP incompletive aspect prefix, ADJ predicate adjective -VI suffix, ART article, AUX auxiliary verb, CL clitic, DIR directional, DIS dispositional stative derivation, EXIST existential predicate, NC numeral classifier, PERF perfective, PREP preposition, PT particle, QUO quotative particle, REDUP reduplication, RELN relational noun.



Fig. 4. Photograph from Oxeb Witz, facing north to *alan*.

- (1) a. *chot-ol-0 ta y-anil amak' te tz'amalte'-e.*
 stand-DIS-3A PREP 3E-below patio ART bench-CL
 'The bench is standing 'beneath' (downhillwards/north of) the patio.'
- b. *tzak-be-n tal machit tey xik-il-0 ta y-ajk'ol ti'nel.*
 grasp-DIT-1A DIRcome machete there lean-DIS-3A PREP 3E-uphill door
 'Bring me the machete standing_leaning there 'above' (uphillwards of) the door.'

Equally, spatial relations in motion are described with reference to this system, as in:

- (2) a. *ya x-mo-0 ta Jobel te winik-e.*
 ICP ASP-ascend-3A PREP San Cristóbal ART man-CL
 'The man is 'ascending' [i.e. going southwards] to San Cristóbal.'
- b. *jelaw-0 ta Colonia.*
 cross-3A PREP Colonia
 'He 'crossed' to Colonia.' (i.e. went across (orthogonal to) the south/north slope of the land).

There is a dedicated spatial vocabulary for this purpose, consisting of (i) intransitive verb roots ('ascend', 'descend', 'go across'), (ii) their transitivized counterparts ('cause it



Fig. 5. Photograph from Majosik', facing northwest to *jejch* toward Chenalho' territory and beyond.



Fig. 6. Photograph of Lum, facing southwest; the two peaks of Matzab visible top left are the highest points in Tenejapa.

to ascend/descend/go across'), (iii) directional adverbs ('ascending', 'descending', 'crossing') and (iv) nouns, which may be unpossessed and hence only implicitly relational ('uphill', 'downhill', 'side') or explicitly relational possessed nouns ('its above-or-uphill-side', 'its underneath-or-downhill-side'). These uphill/downhill nouns belong to the same form class as the body part terms discussed below in 3.2.

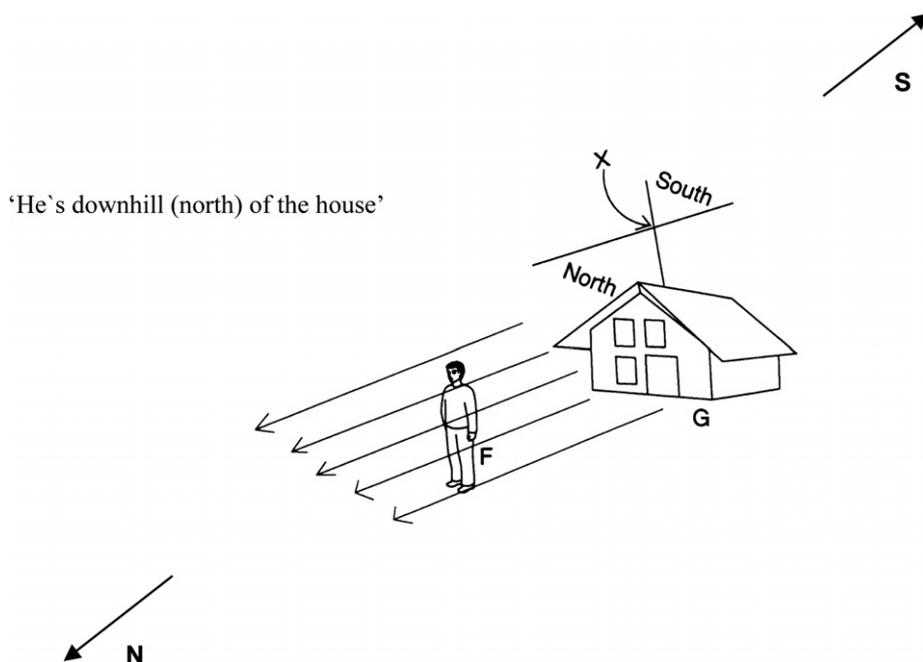


Fig. 7. The geometry of absolute coordinates (from Brown and Levinson, 2000).

One of the central uses of the notions of ‘uphill/downhill’ has reference to the overall inclination of the whole territory from highland south to lowland north, so in Majosik’ one refers naturally to Lum (Tenejapa centre, which lies to the South of most of the parajes) as *ta ajk’ol*, ‘to uphill’, and the northern river (*Tanate*) marking the end of Tzeltal-speaking territory as *ta alan*, ‘to downhill’. Though there may be local deviations from the overall inclination (e.g. an intervening hill or ridge), the terms can still be utilized to pick out positions on that overall inclined plane running down to the North. This is the use applicable to landscape and place name terms (e.g. ‘Look, down there [i.e. northwards] is Blackman cave’).

East and west directions can be designated as *slok’ib k’aal*, lit. ‘the coming out of the sun’ and *smalib k’aal*, ‘the spilling of the sun’, but these terms are more like landmark terms (i.e. the landmarks are the specific mountains behind which the sun rises in the east, and sets in the west) and they are not understood to label an abstract axis orthogonal to the ‘uphill/downhill’ axis (Brown and Levinson, 1993).

The use of ‘uphill/downhill’ expressions to locate entities on an idealized south/north inclined plane constitutes an ‘absolute’ mode of spatial description, since these terms label angles, fixed without reference to the orientation of ego or of another human body or object, with which one can describe relative positions. To use such a system one needs to be absolutely oriented (to know where the ‘uphill’ and ‘downhill’ directions are), and, indeed, Tenejapan Tzeltal speakers display a keen sense of absolute orientation and direction in their speech and gestures.

We have described this system in detail in a number of publications (Brown and Levinson, 1993; Levinson and Brown, 1994; Levinson, 2003; Brown, 2006), considering it as

part of a Tzeltal-specific tendency to describe spatial relations without depending on an egocentric reference point. In this paper I consider it in relation to landscape terms and place names.

3.2. Spatial relators

A second aspect of spatial language in Tzeltal is the use of part terms as spatial relators. There is only one, generic, preposition in Tzeltal, so locative descriptions cannot rely on prepositions to distinguish spatial relations such as to, from, in, on, at, near, between, above, and below. Instead, like in many other Mesoamerican languages, locative expressions in Tzeltal make use of possessed body part terms (e.g. ‘its head’, ‘its nose’, ‘its lips’, ‘its face’, ‘its belly’, ‘its butt’, ‘its foot’),⁶ which are mapped onto parts of inanimate objects by a precise geometrical algorithm – largely on the basis of shape (Levinson, 1994). For example:

- (3) *waxal-0 ta jol mexa te limete.*
 standing-3A PREP head table ART bottle
 ‘The bottle is at the ‘head’ of the table.’ [head assigned to table on basis of long axis; both ends are ‘head’]

In addition to body part terms, other relational nouns with more abstract semantics can perform the same function – allowing precise specification of where the object is in relation to the overall ‘uphill/downhill’ lay of the land – as in:

- (4) *ya x-a'tej-on ta y-e'tal k'altik.*
 ICP ASP-work-1ABS PREP 3E-bottom cornfield
 ‘I’m working at the ‘bottom’ of the corn field.’ [‘bottom’, here applies to the downhillmost (north) edge of the cornfield]

Table 1 gives the body part and relational noun terms used in locative expressions in Tzeltal. As we shall see, some but not all of these terms apply to physical features of the landscape and appear in place names based in landforms.

In general, there is a division of labour between the subset of spatial nouns that are used in the absolute system (*ajk'ol*, *alan*, *-anil*), which tend to be used for describing spatial relations across any distance greater than a foot or two, and the body part terms which are applicable to spatial relations of contiguity (see Brown and Levinson, 1993).

4. Land form terms

4.1. Formal and functional properties

The Tzeltal landscape vocabulary, widely construed to include both natural and man-made features, is listed in Tables 2–4. These labels reflect the local ecology and preoccupations.

⁶ Possession marking (with the ergative prefix) is variable, sometimes omitted especially with geographic labels. In example (3) it is omitted on the noun *jol*, but in example (4) it is present on the noun *y-e'tal* ‘bottom’; in fact it is obligatory on most spatial nouns beginning with a vowel.

Table 1
Spatial nouns in Tzeltal locatives (from Brown, 2006)

Body part terms				
Root			Possessed form	
<i>jol</i>		'head'	<i>ta s-jol</i>	'at its head'
<i>pat</i>		'back'	<i>ta s-pat</i>	'at its back'
<i>ch'ujt</i>		'stomach'	<i>ta x-ch'ujt</i>	'at its belly'
<i>-akan</i>		'foot'	<i>ta y-akan</i>	'at its foot'
<i>k'ab</i>		'arm, hand, branch'	<i>ta s-k'ab</i>	'at its hand/branch'
<i>-it</i>		'butt, rump'	<i>ta y-it</i>	'at its rump'
<i>ni'</i>		'nose'	<i>ta s-ni'</i>	'at its nose'
<i>-elaw</i>		'face'	<i>ta y-elaw</i>	'at its face'
<i>sit</i>		'eyes, face'	<i>ta s-sit</i>	'at its eyes/face'
<i>ti'</i>		'mouth, lips'	<i>ta s-ti' (il)</i>	'at its mouth/edge'
<i>chikin</i>		'ear'	<i>ta x-chikin</i>	'at its ear/corner'
<i>nuk'</i>		'neck'	<i>ta s-nuk'</i>	'at its neck'
<i>xujk</i>		'side, corner'	<i>ta (s)-xujk</i>	'at its side'
<i>-ok</i>		'lower extremities, base, trunk'	<i>ta y-ok</i>	'at its base'
<i>ne</i>		'tail'	<i>ta s-ne</i>	'at its tail'
Relational nouns				
<i>ta y-util</i>		'at its inside; inside it'		
<i>ta y-anil</i>		'underneath it; in its enclosed underneath area; 'downhillwards' of it'		
<i>ta s-ba</i>		'at its top side or edge (vertically, e.g. of a table; or 'uphillwards', e.g. of a cornfield)'		
<i>ta y-e'tal</i>		'at its bottom edge (vertically, e.g. bottom of a stack of tortillas, or downhillwards edge, e.g. of a field or patio)'		
<i>ta y-ajk'ol</i>		'at its uphill side; above it'		
<i>ta y-alan</i>		'at its downhill side, below it' [more colloquially, <i>y-anil</i> is used for this]		
<i>ta s-tojol</i>		'straight ahead of it'		
<i>ta y-olil</i>		'at its half (= middle); 'between'		
<i>ta s-tz'eel</i>		'at its side' (of a road, school, doorway, etc.)		

Formally, Tzeltal landscape terms (widely construed) are almost all nouns, and display the variability in form that nouns in Tzeltal have. Many are monomorphemic (e.g. *witz* 'mountain/hill', *ch'en* 'cliff/cave', *uk'um* 'river/stream'). Some are compound (e.g. *be-ja'* 'rivulet, very small stream' [lit. 'path-water'], *belal-karo* 'road' [lit. 'path-car']). Some incorporate attributives (e.g. *jochol k'in'al* 'empty land', *unin k'in'al* 'young land', *yijil k'in'al* 'mature land', specifying types of land varying by use). A very few incorporate verbs (e.g. *xchakoj uk'um* 'river has split it' for a deep ditch carved by a stream).

The nominal landscape terms listed in Tables 2–4 – including natural landscape features, manmade features, and features of the soil and plant cover – seem to form a lexical category of their own, on the basis of one morphological peculiarity: they take a distinctive set of plural endings. The plural for most common nouns⁷ is *-etik* (e.g. *ach'ix-etik* 'girls', *wamal-etik* 'weeds'), an ending also applicable to some landscape terms (e.g. *ch'en-etik* 'caves', *uk'um-etik* 'rivers') and to some man-made features of the environment (e.g. *eskwela-etik* 'schools', *karetera-etik* 'roads'). This ending also forms words designating the people from a named place (e.g. *K'ankujk-etik* 'people of K'ankujk'). But landscape features

⁷ Plural is optionally marked, and rarely on inanimate nouns.

Table 2
Terms for natural features of the physical landscape

	Tzeltal word	-etik plural ^a	-Vltik plural ('region with many ...')	Distributive plural -tikil ('place of...')	Reduplicated plural ('multiple instances of...')
mountain, hill	<i>witz</i>	<i>witzetik</i>	–	<i>witztikil</i>	–
small hill	<i>t'olt'ol witz</i>				
volcano	<i>switzul tan</i> lit: 'its-ashes mountain'	<i>switzul tanetik</i>	–	–	–
ridge of a mountain	<i>stenlejal jol witz</i> 'its-flat-place head of mountain'	<i>stenlejal jolwitzetik</i>	–	–	<i>stenlejal joljolwitz</i>
ridges	<i>tzelel witz</i>	<i>tzelel witzetik</i>	–	–	–
pass, low place in ridge of mountains incl. its rising sides	<i>ya'tal</i>	<i>yat'ajtik witzetik</i>	–	–	–
cave/cliff	<i>ch'en</i>	<i>ch'enetik</i>	–	<i>ch'entikil</i>	–
limestone sinkhole	<i>xab</i>	<i>xabetik</i>	<i>xabiletik</i>	–	–
river/stream	<i>uk'um</i>	<i>uk'umetik</i>	<i>uk'umaltik</i>	–	–
small stream, rivulet	<i>beja'</i> [lit: 'trail-water']	<i>beja'etik</i>	<i>beja'iltik</i>	–	–
place where water enters ground	<i>yochib ja'</i>	<i>yochib ja'etik</i> [lit: 'its-entering-place water']	–	–	–
waterhole, spring	<i>uch'oj ja'il</i> [lit: 'drink-place water']	<i>uch'oj ja'etik</i>	<i>uch'oj ja'iltik</i>	–	–
marsh, wetland	<i>tz'ajel</i>	<i>tz'ajeletik</i>	<i>tz'ajelaltik</i>	–	–
deep ditch made by river	<i>xch'akoj uk'umlbeja'</i> [lit. 'river has split it'] OR <i>ch'akul</i>	<i>xch'akul uk'umetik/ beja'etik</i>	<i>xch'akoj beja'eltik</i> (lots)	–	–
lake with outlet	<i>uk'um nabil</i>	<i>nabiletik</i>	<i>nabiletik or nabilaltik</i>	–	–
puddle or lake without outlet	<i>pampam ja'</i> 'spread_out-spread_out water'	<i>pampamja'etik</i>	<i>pampamja'iltik</i>	–	–
waterfall	<i>ya xyal ja'</i> ['water falls'], or <i>yalib ja</i> ['waterfall place']	<i>yalib ja'etik</i>	<i>yalib ja'eltik</i>	–	–
valley	<i>omal</i>	<i>omaletik</i>	<i>omaletik</i>	–	–
canyon	<i>xatal witz</i> ['split mountain']	<i>xatal witzetik</i>	–	<i>xatal witztikil</i>	–
desert, dried up area	<i>takin balamilal l k'inalllum</i> 'dry land'	<i>takin balamilaletik</i>	–	–	–
plain, flat area	<i>stenlej</i>	<i>stenlejetik</i>	<i>stenlejal(tik)</i>	–	–
open vista (land drops away so can see far)	<i>elawal</i> 'face'	<i>elawaletik</i>	–	–	–
ocean	<i>muk'ul nabil, mar</i>	<i>muk'ul nabiletik</i>	<i>muk'ul nabilaltik</i>	–	–

Table 2 (continued)

	Tzeltal word	-etik plural ^a	-Vltik plural ('region with many ...')	Distributive plural -tikil ('place of ...')	Reduplicated plural ('multiple instances of ...')
earth	<i>lum</i>	not possible (there is only one)	<i>lumil(tik)</i>	(<i>lumtikil</i>) 'many towns'	–
sky	<i>ch'ulchan</i>	(there is only one)	–	–	–
world	<i>balamilal</i>	(there is only one)	–	–	–

^a The plural -etik indicates many, not just two or three.

are pluralized distributively by one (or occasionally more than one) of three alternative endings, indicating a place or region characterised by many instances of the labelled landscape feature: (i) -tikil (e.g. *ch'en-tikil* 'place of many caves', *ton-tikil* 'place of many stones'), (ii) -Vltik (where the V is a vowel attuned to the first vowel in the word) (e.g. *xabil-eltik* 'place of limestone sinkholes', *beja'-iltik* 'place of many rivulets'), and (iii) reduplication (e.g. *lum-lum-tik* 'place of many towns close to each other', *na-na-tik* 'place of many houses').

Indeed, as Tables 2–4 show, the -Vltik distributive plural is a relatively productive way of producing terms designating features of the landscape and manmade physical environment, and it extends to nonpermanent environmental features due to human use – e.g. banana patches, cornfields, coffee plantations, fields of cows or horses, as shown in Table 4.⁸ The -tikil ending is more restricted, applying to some features of natural landscape, plant cover and soils (Tables 2 and 4) but apparently not to manmade ones (Table 3), suggesting that in this respect manmade features of the environment are distinguishable from natural ones.

Are landforms treated in their terminology as objects or as places? The distributive plural markers suggest that they are treated as objects, which need the distributive plural marker to be construed as areas or regions. Another suggestion of their object-like status is how they are counted; landforms are counted with numeral classifiers (which unitize them) in the same way as common nouns:

- (5) *ox-p'ej* *witz* *ta* *Oxeb* *Witz* [cf. *oxp'ej nalalxas*]
 'three-NCround_thing mountain PREP Oxeb Witz
 'There are three mountains in Oxeb Witz'. [cf. 'three-round_thing house/orange']
- (6) *balun-kaj* *laj* *te* *witz-e* *ta* *Balunk'anal*, *s-kajal-kaj*.
 nine-step QUO ART mountain-CL PREP Balunk'anal, 3E-on_top_of-REDUP
 'There are nine steps (levels stepping up) they say, (on) the mountain in Balunk'anal, it is in steps upwards.'

⁸ Note that Tenejapans do not raise sheep, but the neighboring Chamulas do and this is important as the source of wool for traditional Tenejapan clothes. Informants rejected the distributive plural **chijeltik* 'place of sheep', claiming that instead you would say something like *ila'wil balenta chij!* 'Look, lots of sheep!', suggesting that these distributive plural forms are semi-frozen expressions. Alternatively, perhaps you cannot say *ch'ijeltik* because, unlike Tenejapan horses and cows, sheep do not occupy a delimited place, but roam unfettered.

Table 3
Terms for manmade features of the landscape and physical environment

	Tzeltal word	-etik plural	-Vltik plural	Distributive plural -tikil (“place of...”)	Reduplicated plural (“multiple...”)
trail, pathway	<i>be</i>	<i>beetik</i>	–	–	<i>bebetik</i>
road	<i>belalkaro</i> [‘trail for cars’], <i>karetera</i> (<Sp.)	<i>belalkaroetik</i> , <i>kareteraetik</i>	<i>belalkaroiltik</i>	–	–
town	<i>lum</i> [cognate with ‘earth’]	<i>lumetik</i>	–	–	<i>lumlumtik</i>
land with trees on it	<i>k’inal</i>	<i>k’inaletik</i>	<i>k’inalettik</i>	–	–
empty land, e.g. pasture where you tie up a bull	<i>jochol k’inal</i> ‘empty land’	<i>jochol k’inaletik</i>	<i>jochol k’inalettik</i>	–	–
land resting, fallow for 5–6 years	<i>unin k’inal</i> ‘young land’	<i>unin k’inaletik</i>	<i>unin k’inalettik</i>	–	–
land with mature trees	<i>yijil k’inal</i> ‘mature land’	<i>yijil k’inaletik</i>	<i>yijil k’inalettik</i>	–	–
land with coffee trees planted	<i>kajpejal</i>	–	<i>kajpejaltik</i> or <i>kajpejalettik</i>	–	–
area planted with banana trees	<i>lo’bal</i>	<i>lob aletik</i> (banana fruit, not trees)	<i>lo’balettik</i> (banana trees area) –	–	–
land with bulls pastured on it	<i>wakax</i>	<i>wakaxetik</i> (multiple bulls)	<i>wakaxeltik</i>	–	–
land with horses pastured	<i>kawayu</i>	<i>kawayuetik</i> (multiple horses)	<i>kawayuiltik</i>	–	–
cornfield	<i>k’altik</i>	<i>k’altiketik</i>	–	–	<i>k’alk’altik</i> (preempts -tikil) <i>wank’alk’altik</i>
former garden, fallow for a year or two	<i>wank’altik</i>	–	–	–	–
smoke-place (where burning fields)	<i>ch’ail</i> ‘smoke’	–	<i>ch’ailettik</i> , <i>tojkalettik</i> (in the air in general)	–	–
house	<i>na</i>	<i>naetik</i>	–	–	<i>nanatik</i>
school	<i>eskwela</i>	<i>eskwelaetik</i>	<i>eskwelaittik</i>	–	–
land of PN (e.g. land of the pointy-assed people)	<i>(slum) sk’inal</i> <i>PN</i> , (e.g. <i>sk’inal tz’ukitetik</i>)	<i>slum sk’inaletik</i>	–	–	–

4.2. Terms for parts and regions of landscape

The landscape domain reflected in the terms in Table 2 relates to one other conceptual domain by virtue of entering into lexical relations with terms in the domain of body parts.

Table 4
Terms for features and attributes of the soil and plant covering

	Tzeltal word	-etik plural	-Vltik plural	Distributive plural -tikil ("place of...")
weeds	<i>wamal</i>	<i>wamaletik</i>	<i>wamalettik</i>	–
thorns	<i>ch'ix</i>	<i>ch'ixetik</i>	–	<i>ch'ixtikil</i>
grass	<i>ak'</i>	<i>ak'etik</i>	<i>ak'ilettik</i>	–
stone	<i>ton</i>	<i>tonetik</i>	–	<i>tontikil</i>
gravelly stones	<i>xixinton</i>	<i>xixintonetik</i>	<i>xixtoniltik</i>	<i>xixintontikil</i>
soft stone	<i>kex</i>	<i>kexetik</i>	–	<i>kextikil</i>
mud	<i>ajch'al</i>	–	<i>ajch'alettik</i>	–
flower	<i>nichim</i>	<i>nichimetik</i>	<i>nichimaltik</i>	–
wood (stuff)	<i>te'</i>	<i>te'etik</i> 'trees'	<i>te'ilaltik</i> 'tree area'	<i>te'tikil</i> 'forest, wilderness'
pine tree, <i>Pinus</i> spp.	<i>taj</i>	<i>tajetik</i>	<i>tajalettik</i>	–
kind of tree, <i>Acacia</i> spp.	<i>xaxib</i>	<i>xaxibetik</i>	<i>xaxibaltik</i>	–
Oak <i>Quercus</i> spp.	<i>jjite'</i>	<i>jjite'etik</i>	<i>jjite'altik</i>	–

They are a target of metaphor with body parts as the source domain.⁹ Whether this is metaphor or a looser form of analogy is a moot point: the body part system used with inanimate objects is based on geometry and shape. But with landforms the shapes are more amorphous and the analogy is perhaps looser.

For talking precisely about locations at particular parts or regions of the landform features designated by the landform terms, the body part/relational noun system described in Section 3.2 comes into play. Just as you can use body part terms as spatial relators to specify the location of an object in relation to some part of another physical object (e.g. *jol na* 'head house' [i.e. on top of the house], *pat na* 'back house' [at the back of the house], *yelaw na* 'its-face house' [at the door side, i.e. the face part of the house]), the same body part terms apply to landscape features: *y-elaw witz'* 'its-face mountain' [at the face (flat-side) of the mountain], *jol witz* 'head mountain' [on top of the mountain], *pat witz* 'back mountain' [at the back side or far side of the mountain] (see Fig. 8). Note that the word *pat* 'back' applied to houses can have any one of three meanings, referring to (1) the entire outside of the house, all four sides, (2) the side opposite to the front side where the door is, or (3) the back of the house calculated deictically from the perspective of a viewer at the front of the house (like English 'behind'). Applied to mountains, however, *pat* is restricted to deictic usage (3), with the 'back' calculated in relation to the location of speaker or other deictic origo. Other part terms also apply to mountains, for example *y-ok witz* 'its-base mountain' [where it rises out of the ground], by analogy to the base of a tree, which is also *y-ok*. These part terms refer both to places (e.g. There's a cow standing *ta yok witz* 'at the base of the mountain') and to types of landform (e.g. *jol witzetik* 'tops of mountains' tend to have trees on them).

⁹ Landscape terms do not, however, seem to be themselves a source of metaphor – at least I have not found any cases of, for example, the metaphorical use of *witz* 'mountain/hill' for large things, or *ch'en* 'cliff/cave' for hard faces or recesses in things. Flora and fauna are, however, sometimes sources of metaphor (e.g. *nichim* 'flower' is used in traditional prayers to refer to saints). And natural forces – lightning, fire, for example – can be attributed to shamans as the expression of their magical power.

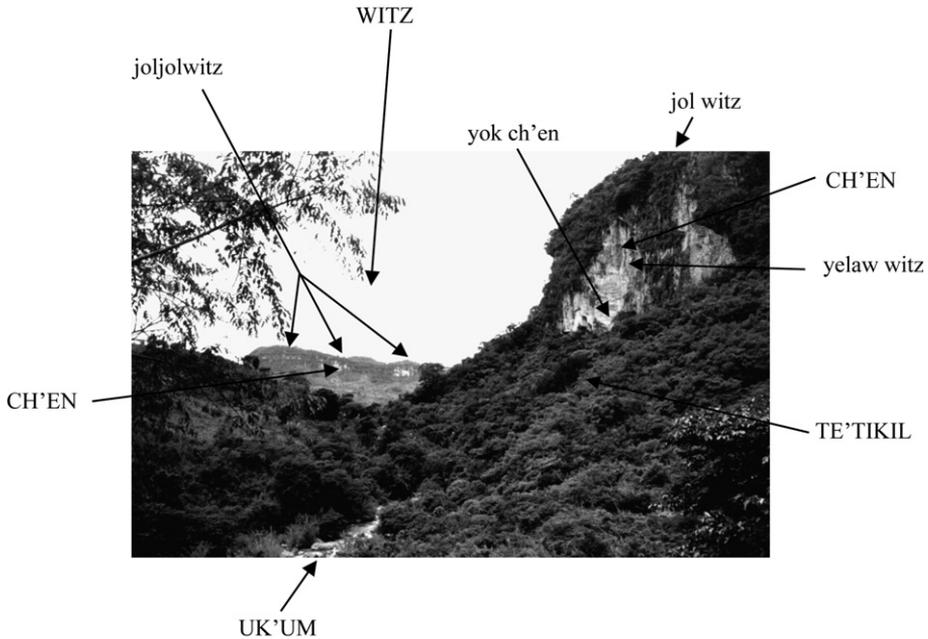


Fig. 8. Body parts of landscape features.

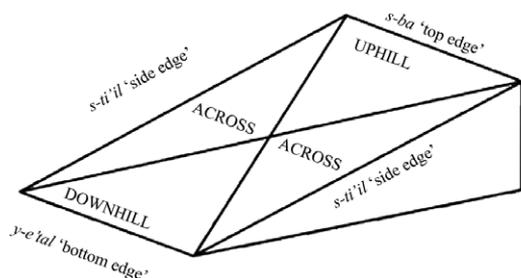
Two terms label regions of the landscape as a whole: the unpossessed bare nominals *ajk'ol* 'uphill' and *alan* 'downhill'. One talks routinely in terms of going to 'uphill' or 'downhill' in general (e.g. to some unspecified part of the region uphillwards), or in particular (e.g. in Majosik', people speak of going *ta alan* meaning specifically to their cornfields in hot country).

In addition, in some respects the landform terminology maps into the uphill/downhill system in the same way as inanimate objects can, with possessed relational nouns. For example, in a stack of tortillas, the topmost tortilla is said to be *ta s-ba* 'at its top periphery', with the bottom-most tortilla being *ta y-e'tal*, 'at its bottom periphery'; here the terms make reference to the vertical axis. This same terminology applies to the landscape in the designations of parts/regions of rainbows (again, the vertical axis), but it also can make reference to the absolute (south/north) axis and apply to agricultural fields, with the top (uphillwards) edge of the field being *ta s-ba*, the downhillwards edge being *ta y-e'tal*, as shown in Fig. 9.

But it is individual landform features, construed as objects with definable parts, to which these part- and region-terms apply. There is no sense that the landscape as a whole is construed in Tzeltal by analogy to a body, with the head being uphill for example and the feet downhill.¹⁰

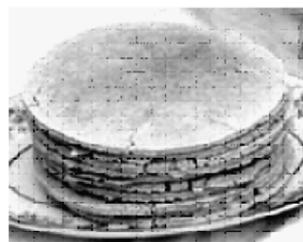
¹⁰ Although people do talk of the eastern direction – where the sun rises – as *y-e'tal balamilal* 'the bottom-edge of the world', this is not opposed to *s-ba balamilal* as the western direction; rather, *s-ba balamilal* refers to the earth's surface. Tenejapans do, however, say that you should not sleep with your head towards 'downhill' (i.e. south), nor can you be buried in that orientation.

cornfields



tortillas

s-ba 'top (of pile)'



y-e'tal 'bottom (of pile)'

rainbow

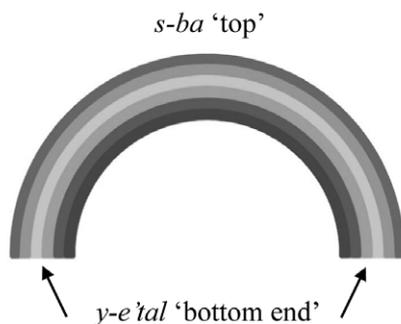


Fig. 9. Absolute edge terms for cornfields, pile of tortillas, rainbow.

4.3. Integrity of the 'landscape domain' as a categorial system

Is there an identifiable semantic domain of landscape in Tzeltal? Judging by the terms in Tables 2–4, I suggest that there is, but it is a category somewhat more general than the English term 'landscape' conveys. It is, rather, landscape construed as the physical environment – natural objects like mountains are not distinguished lexically from other, less permanent, physical features of the environment. For example, the special plurals apply not just to large-scale landscape features (*witztikil* 'mountain area') but to characteristics of the soil (*xixintontikil* 'small stones area') or plant cover (*ch'ixtikil* 'thorny area'), and even to features that are temporary due to land use (*ch'aileltik* 'smoky region') or weather conditions (*ajch'aleltik* 'muddy place').

Landform and manmade landscape terms appear to form a categorial system with semantic integrity: they refer to objects and regions characterized by particular object properties in the physical environment. But unlike terms in some other semantic domains – for example, life form terms, well documented for Tzeltal (Berlin et al., 1974, for plants, Hunn, 1977, for animals) – the names for landscape objects are not organised internally into relations of hierarchy through paronymy or taxonomy, or relations of opposition; these are labels for individual objects or areas identifiable in the landscape. As individual objects or areas they can be construed as having parts (e.g. edge, side, face), but these do

not all fit into an overarching taxonomy. In this respect, they are similar to terms for celestial objects (e.g. *k'aal* 'sun', *uj* 'moon', *ek* 'star') and for atmospheric conditions (e.g. *ik* 'wind', *ja'al* 'rain', *bat* 'hail', *tokal* 'cloud', *chawok* 'lightening, thunder', *sejk'ubit* 'rainbow'). The word for 'world', *balamilal*, is in no way construed as a unique beginner, with mountains, rivers, etc. seen as parts of the world.¹¹

As we have seen, partynomy comes in when referring to parts and regions of a given landscape object. The landscape domain is lexically and conceptually related to the semantic domain of body parts, and to the uphill/downhill frame of reference for spatial reckoning. But there is no relationship to less physical domains like kinship, except by association (clans are associated with particular parajes, for example). Similarly the relation to the spiritual world is one not of metaphor but of association. Caves, cliffs, and mountains are intimately associated with spiritual beings, and crosses are set up at particular caves, cliffs, waterholes, and paraje boundaries which receive regular ritual attention from a designated ritual specialist. The whole territory of Tenejapa is associated with the mythological culture-hero Kajkanantik, and specific places are associated with his travels throughout the land.

We now turn to consider the relationship between landscape terms, which label *types* of land form and environmental region, and place names, which label individual *tokens* of them. The categorization and labelling of landscape features, largely by means of common nouns, relates closely to place-naming, which in Tzeltal draws heavily on landscape features.

5. Place names (PN) as a form class

5.1. 'Place'

Is the primary denotation of place names a place, or an occupation site of a physical/cultural entity? Places or regions are conceptually distinct from objects, with the latter having definite boundaries (Mark and Turk, 2003; citing Gibson, 1979). What notion of 'place' can one identify in Tzeltal?

The linguistic evidence in Tzeltal is equivocal. Of course you can readily ask 'where' things are (*banti ay X?* 'Where is X?'), and these 'things' can be either objects (e.g. 'Where is the machete?') or named places (e.g. 'Where is San Cristóbal?'). Indeed, the 'where' word *banti* enters into *answers* to where-questions to indicate emphasis on 'the place where', both for events, as in:

- (7) *ja' te banti ochon ta eskwela*
'It was there at where I entered the school'

and for places named with PNs:

- (8) *ja' te banti Pokolum/Majosik'/Jobel*
'It's at where Pokolum/Majosik'/Jobel (is)'

¹¹ *Balamilal* 'world' is also used as an intensifier, as in *balamilal ik* 'lots of wind', or *balamilal jente* 'lots of people'.

Table 5
Place names for landscape entities in and around Majosik'

Name	gloss	Location, explanation for name	Alternate Spanish name?
Mountains			
<i>Matzab</i>		mountain the southernmost Tenejapan paraje is named for	
<i>Jojmut</i>	'Grackle' (bird sp.)	peak above Tenejapa Center	
<i>Kurusch'en</i>	'cross cliffs'	cliff face with cross the paraje is named for	
<i>Palech'en</i>	'priest cliffs'	in Lum, associated with story of priest	
<i>Oxebwitz</i>	'three mountains'	the three mountains the paraje is named for	Tres Cerros
<i>K'ayobil</i>		this and the next four mountains form the southern border of Majosik'	
<i>Turuwit</i>		<i>ala turul ala witz</i> , "the mountain is pointy-topped"	
<i>Majosik'</i>		<i>ya smajik sik'</i> "they hit swifts"	
<i>Jolom</i>			
<i>Sakipat</i>	'white back'		
<i>Mekantzuil</i>		in Chenalho' territory, visible from Majosik'	
<i>Majomut</i>	'hit bird'	in Chenalho' territory, visible from Majosik'	
<i>Kelenton</i>	'boy stone'	in Cancuc territory, visible from Majosik'	
<i>Tzonte'witz</i>	'treemoss mountain'	in Chamula territory, named for <i>tzonte'</i> [tree moss] on its top	
<i>Yaxjemel</i>	'green landslide'	in Chenalho'; if there is a landslide just green gravel comes falling down	
<i>Tz'ik</i>	untranslatable	very high mountain visible from upper Majosik', 30 km away in the land of Mrs. Money Mountain"	
Rivers and streams			
<i>Tanate'</i>	untranslatable	northern border of Tenejapa	
<i>yuk'umal xpayil ja'</i>	'boiling water river'	a <i>beja'</i> in paraje Majosik'	
<i>yuk'umal Trapicha</i>	'sugarcane press river'	big river at northern end of Tenejapa, associated with a place where sugar was made	
<i>yuk'umal tzajal ch'en</i>	'red cliffs river'	the river is below Red Cliffs, border of Chenalho'	
<i>yuk'umal nuxib kawayu</i>	'horse-washing-place river'	crossing place into Colonia, in Chenalho' territory	
<i>yuk'umal ch'en max</i>	'monkey cave river'	a <i>beja'</i> that runs into Nuxib Kawayu	
<i>yuk'umal ch'i'bal</i>	untranslatable	a <i>beja'</i> that runs into Nuxib Kawayu	
<i>yuk'umal yalbante' – sk'inal san pero</i>	'waterfall river'	in Chenalho'	
<i>yuk'umal chikja'</i>	'burn-water river'	river below (north of) Yochib, at the border of Oxchuc	
<i>yuk'umal Yochib</i>	'(water)-entering-place river'	enters earth above (south of) Yochib, borders Oxchuc and Tenejapa	
Cliffs and caves			
<i>Ti'ch'en</i>	'lips/door cave'	in paraje of Nabil; "when we come across the level land in front of it, our feet sound as if we were knocking on it's door."	
<i>Kurusch'en</i>	'cross cave'	caves the paraje Kurus Ch'en is named for	
<i>Ch'en na jojmut</i>	'cave house of grackle bird'	in Lum; grackles sleep there	
<i>Ch'en max</i>	'cave/cliff monkey'	in Pach'; associated with monkeys (in folklore)	

Table 5 (continued)

Name	gloss	Location, explanation for name	Alternate Spanish name?
<i>Ch'en j'ijk'al</i>	'cave/cliff blackman'	in Chorro, Chenalho'; associated with the Blackman of folklore	
<i>Tzajal ch'en</i>	'red cliff'	cliffs above Majosik', over the border in Chenalho'; color is reddish	
Water places			
<i>Banabil</i>		in Chamula municipio; lake where <i>jalame'tik</i> of Banabil puts her clothes	
<i>Yalbante'</i>		high waterfall visible from Majosik', but in Chenalho'	
<i>Yochib</i>	'its entering place'	market/place where river enters ground on the Oxchuk/Tenejapa border	
<i>X'och ja'</i>	'water enters'	place in Lum where water from several <i>beja'etik</i> enters ground, to reemerge in Chenalho'	

Chenalho', Sam Mikel for San Mikel Mitontik; see Table 6). Municipios have distinct identities, associated not only with their own saint, but with distinctive dress and particular products.

Traditionally, settlements in Tenejapa have Tzeltal names (see Table 7). In a few cases they also have a Spanish name that is used (e.g. Tres Cerros alternates with Oxeb Witz in local usage). In the case of large parajes, names of smaller barrios within them are the locally used Tzeltal names rather than the name identifying the overarching legal entity. Areas that were formerly ranches owned by Spanish-speaking Mexicans are known as *pinkas* (from Sp. *finca*); one of these, just north of Majosik', was owned by a Ladino in living memory (when it was known as Pinka Cármen) but has now been sold to the local Tzeltal inhabitants and is known as Portiyo. Recently created parajes tend to have Spanish names (for example Santa Rosa, Libertad, Tres Pozo).

More ad hoc places may also get labelled with place names or standardized descriptors on the basis of things or events associated with them; these are more variable in their usage according to locality. They are often useful for route descriptions or localizing particular people or events (e.g. along the trail to Lum, *Chonoj chilja'* 'they sold corn beer', is a place named for the spot where men traditionally set up and sold corn beer).

Note that trails and rivers are treated differently than other landscape features receiving place names: their names are descriptive, including the designation *belal* PN 'trail PN' (e.g. *belal K'ankujk*, *belal Pakte'ton*) and *yuk'umal* PN 'its river PN', respectively, as if their identity as labelled in the place name is not sufficient to identify them as a trail or river. As one consultant said, 'Roads, trails, do not get names, they are named for where they are.' The same applies to crosses marking places of religious significance, which are named for their corresponding mountain (*sakipat*, *jolom*, *turuwit*, *majosik'*, etc.) or water feature (e.g. *ch'i'bal*, *xpayil ja'*).

Tzeltal place names do not seem to have anything in common with other proper nouns, displaying no sign of morphological relationship to personal names and clan names, for example. Nor do they have morphosyntactic features distinguishing them sharply from common nouns. The normal conditions for identifying proper names in English – absence of definite descriptions, inability to occur with indefinite determiners, quantifiers, plurals,

Table 6

Names for large socio-political entities: municipios, towns

Name	Gloss?	Reason for name	Spanish name
Municipios (Tzeltal):			
<i>Yaxal lum</i>	'green land'	named this because very beautiful land	Yajalón
<i>Chi'lum</i>	'sweet land'		Chilón
<i>Xijtalja'</i>	'? + water'		Sitalá
<i>Bajch'ajom</i>			Bachajon
<i>slumal Jme'tik</i>	'land of madam money'	name is associated with tak'in (money) that the mountain gave out	Juaquitepec
<i>Tak'in Witz</i>	'mountain'		
<i>Sibakja'</i>	'? + water'		Sivacá
<i>Okosinko</i>			Ocosingo
<i>Tenam</i>			Tenango
<i>K'ankujk</i>			San Juan Cancuc
<i>Tenejapa</i>			Tenejapa
<i>Oxchujk</i>			Oxchuc
<i>Chanal</i>			Chanal
<i>Tzontajal</i>	<i>tzontajal</i> means something like <i>k'ib</i> [pot]-place		Amatenango
Municipios (Tzotzil):			
<i>Chenalho', San Pero</i>		water comes out of the cave in Chenalho' center	San Pablo Chenalhó
<i>Sam Mikel</i>			San Miguel Mitontic
<i>sk'in al Chamo</i>			San Juan Chamula
<i>K'ina</i>		borders Tenejapa to the south	San Miguel Huistán
<i>Sotz'leb</i>	'land of bats'		San Lorenzo Zinacantán
<i>San Andres</i>			San Andres Larráinzar
<i>Pantelho', Santa Katarina</i>			Santa Catarina Pantelhó
<i>Chachihuitan</i>			San Pablo Chalchihuitán
<i>Tzimajobel</i>			Simojovel
<i>Jimox Jol</i>	'? + head'		Teopisca
<i>Sam Bartol</i>			San Bartolome', also called Venustiano Carranza
Towns			
<i>Lum</i>			Tenejapa
<i>Jobel</i>			San Cristóbal
<i>Tuxta</i>			Tuxtla Gutierrez
<i>Komitan</i>			Comitan
<i>Mejiko</i>			México

or numbers – do not apply in the Tzeltal case: you can, in the right context, say things like *Jobel-etik*, 'San Cristóbal', *bayel Jobel-etik* 'lots of San Cristóbal', or *te Jobele*, 'the San Cristóbal'. For example:

(11) *ma'yuk cheb lum Tenejapaetik, pero cheb Pakte'tonetik.*

'There aren't two towns (called) Tenejapa, but there are two Pakte'tons.'

(12) *pero la stejkanik PAN te Zinacantan.*

'But the Zinacantán [a municipio] stood up PAN (a political party) (in the election).'

Table 7
Names for sociopolitical entities in Tenejapa^a

Name	Gloss	Status, reason for name	Spanish name
<i>Amak'il</i>		unanalyzable	no
<i>Oxebwitz</i>	'three mountains'	there are three prominent mountains there	Tres Cerros
<i>Portiyo</i>		formerly pinka Portillo	Portillo
<i>Majosik'</i>		named for mountain, <i>ya smajik sik</i> "they hit swifts"	no
<i>Pach'</i>		former barrio of Majosik', now a paraje in its own right	
<i>Kokiltik</i>		weekly market across the border in Mitontik	Chalam
(<i>Majben chauk</i>)		formerly a paraje, now split into several but still use this name for the larger area	no
<i>Pakte'ton</i>	'flattened stone'	barrio in Majben Chauk; maybe because there are flat stones there	no
<i>Joma nichim</i>	'pierced flower'	barrio in Majben Chauk; associated with a flower with a 'pierced' inside	no
<i>Ch'ixtontik</i>	'thorn'+ 'stone'	"place of thorns and stones"	no
<i>Ch'ixaltontik</i>	'thorn'+ 'stone'	"place of thorns and stones"	no
<i>Kurus pilal</i>	'cross pillar'?	barrio in Majben Chauk, where a cave seems to have pillars; maybe	no
<i>Jabenal</i>		barrio en Majben chauk	no
<i>Yetz'uk'um</i>	'river'?		no
<i>Poko lum</i>	'old town'	barrio in Sibanal ja'; site of old town (prior to current Lum) is there	
<i>Juxalja'</i>	? + 'water'		no
<i>Sibak' te'el</i>	'fireworks + stick'	they used to explode fireworks there	no
<i>Ch'ajkomaj</i>		unanalyzable	no
<i>P'olkem</i>		barrio in Ch'ajkomaj	no
<i>Ch'ul ja'</i>	'holy water'	barrio en Yax'anal; water exists there	no
<i>Kul ak'tik</i>	'place of kul'ak' vine'		no
<i>Kotol te'</i>		'standing_on_all_fours tree'?	no
<i>Yochib</i>	'entering place'	water enters ground there	plaza Yochib
<i>Pajal ton</i>	'equal stone'	lots of stones there	no
<i>Xojlej</i>	"entering place"	a valley, 'entered' into the mountainside	Kanyada
<i>Nabil</i>	'lake'	used to be a lake there	no
<i>Xixintonil</i>	'small stones'	lots of <i>xixinton</i> there	no
<i>Tz'ajkibil jok'</i>		<i>tz'ajkibil</i> is the name of the piled up stones for a dam	no
<i>Lum</i>	'town'	Tenejapa Center	Tenejapa
<i>Ok'och</i>		unanalyzable	no
<i>Kurus ch'en</i>	'cross cliff'	there is a cross at the cliff	no
<i>Tzajal ch'en</i>	'red cliffs'	there are 'red' cliffs there; cliffs in Chenalho' territory; where the sun sets in Majosik'	no
<i>Yax anal</i>			no
<i>Balun k'anal</i>	'blue/green' + ?	there's a little mountain, 9 levels, it steps up	no
<i>Banabil</i>	'top + lake'	top of the water on the lake that is there	no
<i>Chana'</i>		unanalyzable	no
<i>Matzab</i>		named after the mountain Matzab	no
<i>Winik ton</i>	'man + stone'	barrio in Matzab; maybe a man tripped over a stone there	no
<i>Ach' lum</i>	'new town'	a recent lum/paraje	no

^a These are listed roughly from north to south. This is not an exhaustive list, and those in brackets are names of former parajes that appear on the maps in Figs. 2 and 10, but which have now been split up into several smaller parajes. A number of new parajes (elevated to this status because they have acquired a school and local government representatives) are not listed here.

(13) *tup' ta k'aal te Nuxib Kawayu.*

'The Nuxib Kawayu [a river crossing place] dried up from the sun.'

Non-usability with determiners is usually taken as one diagnostic of proper nouns, and in Tzeltal determiners are obligatory with common nouns in cases where the referent has been already mentioned, but not with proper nouns and place names. In Tzeltal locative expressions, like in English ones, you do not normally use a determiner with a place name:

(14) I went to Jobel. (*the Jobel *this Jobel)

(15) I went through (*the) Nuxib Wakax.

But in Tzeltal you must use the definite determiner *te* with all nouns, including personal names and PNs, if the noun is preposed (and hence in focus):

(16) a. *in te Xune* 'as for Xun [girl's name], ...'

b. *in te eskwelae* 'as for the school, ...'

(17) *in te Jobele, muk'ul lum. in te Majosik', ja' muk'ul paraje, yan te Kulak'tik, ch'in stukel.*

'As for the San Cristóbal, (it's a) big town. As for the Majosik', it's a big paraje, but the Kulak'tik in contrast is a small one.'

In locative expressions, place names occur as adjuncts of place after a preposition (*baon ta Jobel* 'I went to San Cristóbal') just as do other ground-denoting nominals, including landscape terms (*baon ta yok witz* 'I went to the foot of the mountain'). But unlike in Yukatek Maya (Bohnenmeyer, 2001), PNs in Tzeltal are not the only nouns that head ground-denoting adjuncts without any spatial noun relators, just the preposition *ta*. So you can say *ay ta cN* 'it is located at common-noun' or *bajt ta cN* 'he went to common-noun', not only with just a few generic grounds: *ta Lum* 'to town', *ta ch'ulchan* 'to sky', but also with anything construable as a place (e.g. objects, regions):

(18) to physical object:

baon ta tza'niballeskwela/clinikalermital/ch'iwich/poste

'I went to toilet/school/clinic/church/market/electricity post'

(19) to geographical region:

baon ta pat k'inal, ta ajk'ol, ta alan

'I went to back-of-land [behind the mountain], to uphill, to downhill'

(20) to place name:

baon ta Jobel, ta Tzakibiljok

'I went to San Cristóbal, to Tzakibiljok'

These observations lead me to conclude that place names are not a distinct form class of nouns in Tzeltal. In this they differ from personal first names, which receive a unique prefix (*j*-for male names, *x*-for female names), marking them off as a word class.

However, there is one possible criterion distinguishing PNs from common nouns as a class: the range of part terms which they can incorporate. In part-term-incorporating PNs the same system as for locatives is employed, but only a subset of the set of topological relation terms shown in Table 1 in fact is used, prominently including *ti* 'lips, edge', *ba*

‘top’, but in one or two cases also *y-akan* ‘its-foot’, *y-ok* ‘its base’. If this is a genuine semantic restriction (and not simply an accident of local topography), it might provide the basis for a criterion for a form class of PNs distinct from common nouns in Tzeltal.

6. Place names, landscape terms, and spatial language

6.1. Spatial nouns collocating with landscape terms and place names

A rather larger set of spatial relational nouns can take landform terms and PNs as arguments, either of a generic landscape term (like *karetera* ‘road’ – cf. *ti’ karetera* ‘edge of road’) or of a PN (like *Ti’ch’en*). Examples of these are given in Table 8.

Other spatial descriptors drawn from numeral classifiers and positional verbs also collocate with landform terms and PNs. Some of these indicate 3-D conceptualization of the categories via shape classifiers and descriptors:

- (21) *s-p’ej-el* *balamilal*, *ta* *s-pisil* *s-wol-ejal*
 3E-round.thing-ADJ world, PREP 3E-all 3E-be.round-NOM
 ‘the whole world, in all of its roundness’
- (22) *laj* *ta* *toyiw* *s-p’ej-el* *Tenejapa*
 died PREP frost 3E-round.thing-ADJ Tenejapa
 ‘The whole of Tenejapa died from frost.’

Some of these spatial descriptors reveal a conception of the world based on ancient Mayan cosmological beliefs, relatively fragmented nowadays:

- (23) *ta olil ch’ulchan ya yok’esanik ok’es.*
 ‘In the middle [midst] of the sky they play pipes.’
- (24) *ta ye’tal balamilal: te mach’a bwen yajwal te ch’ulchan, balamilal, mach’a la spas, ja’ laj jtatik jwan lopez ta ye’tal balamilal. li’ ay ta alan, melel xlochoj laj ta sk’ab te balamilal.*
 ‘at the bottom of the world [i.e. the part underneath the earth, vertically below it]: the one who is the true owner of the sky, the world, the one who made it, they say it’s Mr. Juan Lopez at the bottom of the world. Here he is below, really he holds the world in his upturned hand.’

Fragments of these traditional beliefs are kept alive by religious rituals, and by stories of the travails of *jalame’tik* (‘holy mother’, the moon) and *jch’ultatik* (‘holy father’, the sun), as well as the *tz’ukitetik* (‘pointy-assed people’) said to live *ta ye’tal balamilal* ‘under the earth’, or *ta kaniltik* ‘underneath us’, where the sun goes after it sets. The sun passes so close to their heads they pack mud on their heads for protection. They have pointy butts, cannot sit down, and eat only smoke.

The constraints on what spatial nouns can collocate with PNs seem to derive from how the referents are physically construable in terms of shape (e.g. whether you can imagine that Tzajal Ch’en has a ‘mouth/edge’). The restrictions on spatial relators’ combinatorial abilities with PNs suggest that the places labelled with PNs are construed as 2D regions with centers (e.g. you can be *ta yolil Lum* ‘at the middle of Tenejapa Center’), peripheries (e.g. you can be *ta xujk ch’en* ‘at the cliff’s side’), and boundaries (e.g. you can be *ta yanil*

Table 8

Body part/relational nouns combined with landscape terms and place names (body part and relational noun terms are underlined)

	Gloss, interpretation
(s)-pat ‘back’	
<u>pat</u> witz ay, ta s- <u>pat</u> Turuwit.	‘It [the paraje of Pakte’ton] is behind the mountain, at Turuwit’s back.’ [from perspective of speaker in Majosik’]
ta s- <u>pat</u> Tzajalch’en/Majosik’	‘at the back of Tzajalch’en, Majosik’=beyond these mountains (the far side) from where speaker is
(s)-ba ‘top’	
s- <u>ba</u> Tzajalch’en	‘top of Tzajalch’en’=s-jol ‘its-head’
s- <u>ba</u> Jobel (=ti’ Jobel)	
ta s- <u>ba</u> *lum	‘top of Jobel’ not possible
<u>ba</u> ch’en, y- <u>an</u> ch’en, and place names Ba Ch’en, Yan Ch’en	‘top of cliff, below cliff’
(s)-jol ‘head’	
ta s- <u>jol</u> Tzajalch’en/Matzab/Majosik’ (usable in relation to mountains, e.g. where the road comes down into Majosik’). But not in relation to towns or parajes (*ta sjol Jobel)	‘at the head of Tzajalch’en/Matzab/Majosik’’. But not applicable to Jobel, as road doesn’t come down into it from head of mountain
(s)-ti ‘mouth, lips, edge’	
ta s- <u>ti</u> ’ Jobel/Lum	‘at the lips/mouth/edge of Jobel’ – this is where the town runs out, at its edge where the houses stop
but not ta s- <u>ti</u> ’ *Tzajalch’en	But not in relation to mountains
te <u>Ti</u> ’ch’ene, lom toyol koel	‘The Ti’ch’en [cliffs] are very high downwards’ [very high/tall]
(s)-chikin ‘ear, corner’	
ta x- <u>chikin</u> Matzab/Majosik’ (or ta s- <u>ti</u> ’il)	‘at the ear of Matzab/Majosik’ (but not Jobel)
But not *Jobel	
y-elaw ‘face’	
ta y- <u>elaw</u> Tzajalch’en/Lum/*Jobel	‘at the face of Tzajalch’en’ (the cliff), but not Jobel
(s)-ch’ujt	
jipil ta <u>ch’ujt</u> ch’en ay te kurus (at Kuruston)	‘hanging on the belly of the cliff/cave is the cross [at Kuruston]’
tey ay pale a, nap’al ta s- <u>ch’ujt</u> (at Palech’en)	‘there’s a priest there, he’s stuck to its (the cliff’s) belly
ta x- <u>ch’ujt</u> Tzajalch’en/Majosik’ (or ta y- <u>elaw</u>)	‘at the belly of Tzajalch’en/Majosik’ – these mountains have bellies, the flat parts. But not for Jobel, no mountain called Jobel there.
but not *Jobel	
y-olil ‘middle’	
ta y- <u>olil</u> Jobel/Lum	‘in the middle of San Cristobel/Tenejapa center’, but not Tzajalch’en
but not *Tzajalch’en	
ta y- <u>olil</u> Nabil (if lake, but not if paraje)	‘in the middle (underneath) the water of Nabil (lake)’
y-util ‘inside’	
ayotik ta y- <u>util</u> jobel	‘we are inside San Cristóbal’ i.e. in the middle of the town
ta y- <u>util lum</u> (or ta y- <u>olil</u>)	‘inside the earth’
y-ok ‘base, lower limbs’	
ta y- <u>ok</u> /y- <u>ok</u> -inab Tzajalch’en/Matzab	only high things like a mountain or cave have <i>yok</i> , not flat
but not *Jobel/*Lum (since they are flat)	towns.

Table 8 (continued)

	Gloss, interpretation
xujk 'side'	
ta <u>xujk</u> Tzajalch'en/Majosik'/Jobel	Both mountains and towns have <i>xujk</i> 'sides'
ta <u>xujk</u> Jobel= <u>ti</u> Jobel	e.g. Jobel – <i>bayel a lok'ix naetik ta xujkxujk Jobel</i> 'lots of houses sprang up at the sides of San Cristóbal'
ta y-anil 'below, northwards of'	applicable to any physical object, including mountains, rivers, sinkholes, etc.
ta y-ajk'ol 'above, southwards of'	
ay y- <u>ajk'ol</u> Jobel ay banti ya xyalik xulem	'The above-(side) of Jobel is where the airplanes land (i.e. at the airport); the downhill side of Jobel is where the Komitan road exits'
tak'in, y- <u>anil</u> bel Jobel ta banti ya xlok' bel carretera Komitan	
ta y- <u>anil</u> Lum, ta y- <u>ajk'ol</u> Lum [yanil Lum is the <i>alan</i> side, even if higher. y- <u>ajk'ol</u> lum is the San Cristóbal side, even if lower]	'The down-(side) of lum is the <i>alan</i> side, the above-side of lum is the <i>ajk'ol</i> side'

ch'en 'below/north of the cliff'). You can also be 'near' PN (with the adjective *nopol* 'near').

6.2. Place names and the absolute system of spatial reckoning

How do Tzeltal speakers describe where named places are in relation to each other? Here the absolute system is called into play: the whole region construed as an inclined plane for these purposes. PNs with spatial relators utilizing the 'uphill/downhill/across' axes specify whether a place is 'above' [southwards], 'below' [northwards], 'side' [across-ways, i.e. in an east or west direction in relation to], 'corner' [diagonally placed in reference to], 'sunset' [westwards of] 'sunrise' [eastwards of] in relation to the ground place. Another spatial element is routinely introduced with adverbial directionals, indicating which direction ('awaywards', 'comingwards' [towards], or 'crossways') the referent lies in relation to the speech event. These are illustrated in the following examples (relational nouns are underlined; directionals are in roman); the spatial relationships described can be understood by reference to Fig. 10:

- (25) *Jobel, ajk'ol ay yu'un Majosik'*.
San Cristóbal is uphillwards of Majosik'.
- (26) *Banabil, ma ba meru y-ajk'ol Lum, ta s-xujk nax ay jtebuk*.
'Banabil is not truly uphill of Lum [Tenejapa Center], it's to its-side a bit.'
- (27) *Oxeb Witz, meru lok'ib k'aal, jich ta s-tz'eel ini*.
'Oxeb Witz is really at the sun's exit, like this to the side.' [gesturing eastwards, from Majosik']
- (28) *Tzajal Chen, y-anil Lum, ta s-tz'eel ay yu'un Majosik'*.
'Tzajal Chen is below town, to its-side in relation to Majosik'.
- (29) *Kokiltik, malib k'aal ay yu'un Tenejapa*.
'Kokiltik [a market in Mitontik] is to the setting sun in relation to Tenejapa'.
- (30) *Chilom, ta meru alan, ta jelawel te lumal jme'tik Takin Witz*.
'Chilom (is) to downhill, beyond ['crossways'] the land of Madam Money Mountain.'

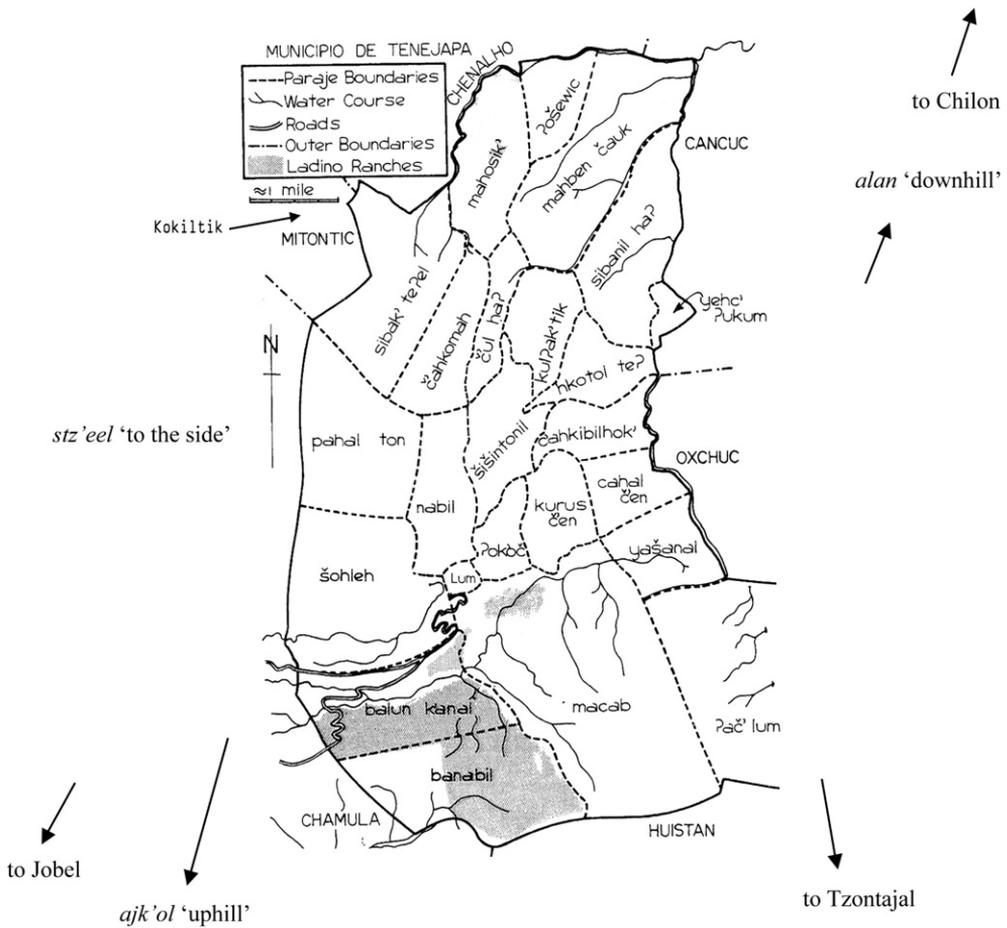


Fig. 10. Uphill/downhill/across places in relation to each other (map from Hunn, 1977, p. 8).

These absolute descriptions are equally applicable to mountains and other landscape features, e.g:

- (31) *K'ayobil, ta s-xujk Turuwit, ta y-anil Turuwit.*
 'K'ayobil is to the side of Turuwit, below (north of) it.'
- (32) *Jolom, y-ajk'ol s-na mamal j-antun tz'ujkin.*
 'Jolom is above [uphillwards/south of] old man Antun Tz'ujkin's house.'

Such spatial descriptions of landscape features in relation to each other, and to the movement of people and objects through them, are a pervasive aspect of everyday discourse in Tzeltal, essential for example to any narrative about a journey, or to any activity requiring moving objects around the land. (For a similar case in a radically different context, hunter-gatherers in Namibia, see Widlock, 2008).

6.3. Place names and their denotations

What kinds of things receive place names? Some are Spanish-culture influenced, names for settlements, markets, *parajes*, *municipios* required by government. Others are wholly indigenous, grounded in cultural beliefs and practices – e.g. regions (*alan/ajk'ol*, *k'ixin/sikil k'inal*), sacred places (springs, mountain and *paraje* crosses). Others are ad hoc – landmarks useful for route descriptions or specifying meeting points (e.g. *Pakal Na* ‘mud-brick house’, where there used to be a mud-brick house at a crucial trail intersection, or *Yakan Wakax* ‘foot of cow’, a saliently footshape-dented stone on the trail to Lum) or named because they are particularly salient (a large waterfall visible from far away, *Yalbanja*’, but not all waterfalls). Things that are not generally named include agricultural fields, hunting areas, woods, topographic areas (e.g. marsh, plains), institutions like churches, schools (these are named in the Spanish system but Tenejapans do not use the names except in bureaucratic interchanges with Mexican authorities).

Are there identifiable boundaries to the places that are named? There clearly are for settlements (a house is either in or out of a given *paraje*, not half-in), but not for mountains, rivers, lakes, caves, the names for which can identify a region around the physical landmark that is the focus of the name. There is not always the same denotation for a place name and its landform name; for example, *Oxebwitz* ‘Three mountains’ is the name of a *paraje* prominently characterized by three mountain peaks, but the *paraje* is much larger than the area covered by the mountains. Similarly, *Yochib* names the specific place where a river enters the ground in a cave, but the place name extends to a whole region where the borders of three *municipios* (*Tenejapa*, *K'ankujk*, *Oxchuk*) meet and where traditionally a market was held; here a large settlement called *Yochib* has sprung up. And *Tanate*’ now names the area across the northern boundary river where some Tenejapan families in search of cheap land have settled in *Chenalho*’ territory. *Tanate*’ was the name of the prior ranch of quite different extent (named after the river of that name), again distinct from *Colonia* (the *colonia Puebla*, in Spanish) which is now the corresponding political entity. Place names can thus be polysemous, referring to entities with different boundaries at different levels of scale.

7. Conclusions

The previous discussion makes it clear that there are at least three kinds of determinants of landscape terminology in Tzeltal, as in other languages (Bohnemeyer et al., 2004): (i) perceptual salience, (ii) interactional affordances, and (iii) cultural importance. These are of course intertwined, and all three are discernable in the Tenejapan case.

Perceptual salience is relevant in Tzeltal landscape terminology at least in picking out which kinds of landscape features get labelled, large, visually prominent ones like mountain peaks being good candidates. It is also relevant in determining the boundaries of some categories; caves and lakes, for example, are more clearly bounded by discontinuities in physical features than are mountains or rivers. Where boundaries are not provided by landscape features but are important – especially boundaries of cornfields and family land plots – they are artificially installed, *tim* or *ujkum tok'oy* trees and stones being the traditional boundary markers, now sometimes replaced by fences of wood or wire.

Interactional affordances (cf. Gibson, 1979) are clearly relevant in the Tenejapan context especially for water sources: in this permeable limestone landscape water is a precious

resource and rivers, rivulets, marshland, and springs welling up from the ground are all important for cultural exploitation. Similarly, *elawal* ‘place with a vista’ areas are highly prized as sites for houses. And the words for areas of manmade cultivation and for features of the terrain (different kinds of rockiness, for example) are finely distinguished on the basis of how these areas are exploited and what constraints they place on their human users.

These interactional affordances are not really distinct from the cultural framing and exploitation of them. Cultural determinants perhaps also motivate the inclusion of man-made features like cultivated areas in the same class of terms as those labelling features of the natural environment. And cultural determinants are surely the most important influence on place names in Tenejapa, where for example bumps in the long ridges get honored with a PN depending on cultural construals of their importance. There are many cultural narratives about events (ritual journeys, mythical events) associated with particular kinds of places (especially mountains, caves, sinkholes). As in many traditional societies, the landscape is richly imbued with religious and mythological associations. Myths are associated with particular local places and storytellers expounding the myth can point with consistent accuracy to the places where parts of the story occurred; these may well supply the corresponding place names.

Of all the cultural ideas, beliefs and practices associated with the landscape in Tenejapa, the most wide-reaching is the uphill/downhill system of spatial reckoning. The cognitive template of ‘uphill/downhill/across’ is a cultural construct, deriving from the Tzeltal language and how people routinely use it to refer to spatial relations. While it does not provide a metaphor for the lexical domain of landscape terms and place names in general, it permeates speech about these places. You cannot talk in Tzeltal about where things are or where they are moving through the landscape without reference to this template.

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